

# REPORT IV

# ANNEX CROSS-COUNTRY TABLES

Supply of services in monitoring regulatory and market developments for electronic communications and information society services in Enlargement Countries

December 2010

# Table of Contents

Α.	Electronic communications market overview	6
B.	National regulatory authorities	50
C.	Market access conditions in electronic communications	81
D.	Radio spectrum	93
E.	Regulatory framework for market analyses	106
F.	Competitive safeguards	124
G.	Universal service	146
Н.	Fixed retail telephony tariffs	165
l.	Minimum cost of a local call	172
J.	Mobile retail tariffs	189
K.	Special cross-border arrangements for retail fixed and mobile tariffs	194
L.	Leased lines retail tariffs	196
M.	Internet and broadband retail prices	204
N.	Wholesale tariffs	210
Ο.	Information society legislation and policy	
Ρ.	Fundamental rights and freedoms	245
Q.	Information society statistics	
R.	Network and information security	253
S.	Electronic commerce and electronic signatures	264
Τ.	Data protection and data retention	270
U.	Management of internet domains	278

# List of Tables

Table A.1 - Exchange rates	6
Table A.2 - Purchasing Power Parities (PPPs)	7
Table A.3 - Populations and households (millions)	g
Table A.4 - Gross domestic product (€ million)	10
Table A.5 - Electronic communications markets revenue in Euro	17
Table A.6 - Fixed network lines by technology and by user category	22
Table A.7 - Fixed network digitalisation rate (%)	24
Table A.8 - Multiple party lines in 2008	25
Table A.9 - Competition in fixed telephony - public network operators and service providers	25
Table A.10 - Competition in fixed telephony - Incumbent operator's market share (%)	27
Table A.11 - Competition in fixed telephony - numbers allocated by NRA	28
Table A.12 - Subscribers using alternative providers for voice telephony services	29
Table A.13 - Mobile subscribers in 2010	31
Table A.14 - Mobile subscribers - prepaid and postpaid	33
Table A.15 - Market shares of mobile operators	34
Table A.16 - Internet backbone infrastructure	36
Table A.17 - Total number of fixed internet connections	37
Table A.18 - Internet users and connections – ISPs	38
Table A.19 - Number of fixed broadband connections with breakdown by operator and technology	39
Table A.20 - Competition in retail xDSL	42
Table A.21 - Fastest advertised retail broadband connection	44
Table A.22 - Number of subscribers to 3G high-speed mobile networks	46
Table A.23 - Control of major undertakings by foreign investors	47
Table A.24 - Key financial ratios of the fixed incumbent operators	49
Table B.1 - State ownership and control of telecommunications operators	52
Table B.2 - The division of responsibilities between the Ministry and the NRA	59
Table B.3 - Appointment and dismissal of the directors of the NRA	62
Table B.4 - Operational budget of the NRA and its sources of financing	63
Table B.5 - Staffing and salary levels of NRAs	65
Table B.6 - Enforcement powers of the NRA	67
Table B.7 - Dispute resolution powers of the NRA	70
Table B.8 - NRA regulatory and financial reporting requirements and review procedures	73
Table B.9 - Appeal procedures against NRA decisions	76
Table B.10 - Transparency and participation in the NRA decision-making	77
Table B.11 - Regulatory treatment of broadcasting networks	79
Table B.12 - Cooperation between the NRA and the competition authority	80

Table C.1 - Liberalisation of public fixed voice telephony and data networks and services	83
Table C.2 - Authorisation regimes for public electronic communications networks and services	88
Table C.3 - Authorisation requirements for Cable TV networks and services	90
Table C.4 - Rights of way	93
Table D.1 - Frequency allocation and assignment	94
Table D.2 - Spectrum assignments issued to mobile operators, award procedures and fees	99
Table D.3 - Broadband wireless access (BWA) – licences	101
Table D.4 - Spectrum awards in progress	102
Table D.5 - Public Wireless Local Area Networks (WLAN/WiFi)	102
Table D.6 - Refarming of GSM spectrum in the 900 and 1800 MHz bands	103
Table D.7 - Analogue switch-off dates and the use of digital dividend	105
Table E.1 - Market analysis and the discretionary powers of NRAs	109
Table E.2 - Analyses of retail and wholesale markets	123
Table F.1 - Obligations to provide carrier selection	125
Table F.2 - Obligations to provide carrier pre-selection	125
Table F.3 - Implementation of carrier selection and pre-selection	126
Table F.4 - Availability of fixed number portability	129
Table F.5 - Availability of mobile number portability	131
Table F.6 - Availability of numbers and number portability for VoIP	132
Table F.7 - RIOs for fixed and mobile operators and number of agreements	133
Table F.8 - Status of the RUO and local loop unbundling charges	135
Table F.9 - Availability of wholesale fixed broadband access offers	138
Table F.10 - Availability of wholesale line rental	139
Table F.11 - Implementation of wholesale offers in practice	139
Table F.12 - Access to ducts	141
Table F.13 - National roaming, mobile access and call origination	143
Table F.14 - Price control and regulatory cost accounting obligations	145
Table G.1 - Universal service scope and provider designation mechanism	149
Table G.2 - Universal service funding	153
Table G.3 - Subscriber inclusion in directories	155
Table G.4 - Availability of comprehensive directories	157
Table G.5 - Availability of single European emergency number 112	159
Table G.6 - Itemised billing	161
Table G.7 - Application of Quality of Service requirements	163
Table G.8 - Quality of service measurements of fixed incumbent operators	164
Table H.1 - Tariff rebalancing and regulation of retail tariffs	
Table H.2 - Retail price caps	168
Table H.3 - Call charging systems of fixed incumbent operators	171
Table I.1 - Residential monthly line rental charges of fixed incumbent	173

Table I.2 - Business monthly line rental charges of the fixed incumbent (excluding VAT)	176
Table I.3 - One-off connection charges of the fixed incumbent	178
Table I.4 - Alternative operators chosen for comparison of retail tariffs	180
Table I.5 - Local calls for residential customers (including VAT)	180
Table I.6 - Long-distance calls for residential customers (including VAT)	182
Table I.7 - Long-distance calls for business customers (excluding VAT)	184
Table I.8 - Fixed-to-mobile calls for residential customers (including VAT)	185
Table I.9 - Fixed-to-mobile calls for business customers of the incumbent and alternative operator (excluding VAT)	186
Table I.10 - Ten-minute call to the UK	187
Table I.11 - Ten-minute call to the USA	187
Table J.1 - Composition of OECD 2006 mobile baskets	189
Table J.2 - OECD 2006 mobile tariff baskets, July 2010	190
Table K.1 - Special cross-border arrangements for retail fixed and mobile tariffs	195
Table M.1 - Dial-up Internet access cost - 40 hours at peak time including VAT	204
Table M.2 - Dial-up Internet access cost – 20 hours at off-peak time, in Euro	206
Table M.3 - Broadband Internet monthly subscription (including VAT)	207
Table N.1 - Call termination on the incumbent operator's fixed network	210
Table N.2 - Call termination on the largest alternative network	211
Table N.3 - Call termination on all mobile networks	214
Table O.1 - Information society legislation	237
Table O.2 - Ongoing legislative work	241
Table O.3 - Information society policy	244
Table P.1 - Constitutional rights	246
Table P.2 - Mechanisms to restrict the freedom of expression and information	248
Table Q.1 - Computer and internet usage by individuals	249
Table Q.2 - Computer and internet usage by enterprises	251
Table Q.3 - Body responsible for Information society statistics	252
Table R.1 - Network security obligations	255
Table R.2 - Security of processing personal data	258
Table R.3 - National measures to fight against cybercrime	261
Table R.4 - Bodies responsible for network and information security policy	264
Table S.1 - Market access and liability	265
Table S.2 - Legal recognition of electronic contracts and signatures	267
Table S.3 - Market access for providers of certification services	268
Table S.4 - Market data on electronic signatures	270
Table T.1 - Protection of confidentiality of communications	273
Table T.2 - Processing of traffic and location data	275
Table T.3 - Data retention obligations	277

Table T.4 - Legal provisions on spam	278
Гable U.1 - National domain name registry	280
Гable U.2 - Registrars of domain names	281
Fable U.3 - Policies against cybersquatting and dispute resolution mechanism	282
Гable U.4 - Domain market data	284
List of Figures	
Figure 1 - Rates of Value Added Tax	8
Figure 2 - Volume index of GDP per capita in PPPs	11
Figure 3 - GDP growth rates	12
Figure 4 - GDP growth in 2006-2008 and IMF forecasts for 2009-2011 and 2015	13
Figure 5 - Percentage of the population aged 15-64 in employment	14
Figure 6 - Unemployment rates (%)	15
Figure 7 - Breakdown of household expenditure (2008)	
Figure 8 - Electronic communications market in 2009	17
Figure 9 - Sector revenue growth by country in 2009	18
Figure 10 - Electronic communications as a percentage of GDP	19
Figure 11 - Electronic communications markets in 2009	20
Figure 12 - Composition of electronic communications markets in 2009	21
Figure 13 - Fixed lines per 100 population	23
Figure 14 - Fixed network digitalisation rate (%) – growth 2007-2010	24
Figure 15 - Public fixed telephone network operators	26
Figure 16 - Public fixed voice telephony service providers	26
Figure 17 - Incumbent operators' overall market share in fixed voice telephony	28
Figure 18 - Percentage of fixed numbers allocated to alternative operators	29
Figure 19 - Subscribers using alternative providers as percentage of total number of fixed lines	30
Figure 20 - Growth in mobile penetration (2005-2010)	32
Figure 21 - Mobile subscribers - prepaid and postpaid	33
Figure 22 - Mobile market concentration levels, HHI	35
Figure 23 - Number of fixed internet connections	37
Figure 24 - Incumbent ISP's market share	38
Figure 25 - Broadband penetration rate, 2009-2010	40
Figure 26 - Fixed retail broadband connections by incumbent and alternative operators	40
Figure 27 - Fixed retail broadband connections by technology	41
Figure 28 - Competition in retail xDSL	42
Figure 29 - Competition in retail xDSL in Croatia, FYROM, Serbia and Turkey	43
Figure 30 - Average and fastest broadband speeds in the OECD	45

Figure 31	State ownership of telecommunications operators	53
Figure 32 -	DSL interconnection	136
Figure 33 -	Minimum cost of a local call in eurocents, including VAT	172
Figure 34	Standard residential monthly rental (incl. VAT)	174
Figure 35	Standard residential monthly rental (incl. VAT) in PPP and nominal euro	175
Figure 36	Standard and low usage residential monthly rental including VAT	175
Figure 37	Monthly rental business users	177
Figure 38	Incumbent operator connection charges for residential customers including VAT	179
Figure 39	Cost of a three-minute local call (incumbent) in nominal value	181
Figure 40	Cost of a ten-minute local call (incumbent) in nominal value	181
Figure 41	Residential long distance charges for 3-minute calls (incumbent)	183
Figure 42	Residential long distance charges for 10-minute call (incumbent)	183
Figure 43	Residential charges for 3-minute fixed to mobile calls (incumbent)	185
Figure 44	10-minute call to UK by incumbent operator for residential users	188
Figure 45	10-minute call to USA by incumbent operator for residential users	188
Figure 46	Low usage OECD (2006) mobile basket	191
Figure 47	Medium usage OECD (2006) mobile basket	192
Figure 48	High usage OECD (2006) mobile basket	193
Figure 49	Annual prices for a 2 km 64 kbps leased line	197
Figure 50 -	Annual prices for a 2 km 2 Mbps leased line	197
Figure 51 -	Annual prices for a 2 km 34 Mbps leased line	198
Figure 52 -	Annual prices for international half circuits 64 kbps to near country (2007-2010)	200
Figure 53 -	Annual prices for a 64 kbps international half-circuit to the UK (2007-2010)	200
Figure 54	Annual prices for a 64 kbps international half-circuit, July 2010	201
Figure 55 ·	Annual prices for international half circuits 2 Mbps to near country (2007-2010)	202
Figure 56	Annual prices for a 2 Mbps international half-circuit to the UK (2007-2010)	202
Figure 57	Annual prices for a 2 Mbps international half-circuit, July 2010	203
Figure 58	40 hours peak time use of Internet (2007-2010), in euro	205
Figure 59	40 hours peak time use of Internet: PSTN/ISP charges, in euro	205
Figure 60 -	Broadband 512 kbps monthly subscription charges in euro, including VAT	208
Figure 61 -	Broadband 1 Mbps monthly subscription charges in euro, including VAT	208
Figure 62	Broadband 2 Mbps monthly subscription charges in euro, including VAT	209
Figure 63	Local call termination on the fixed incumbent and alternative network (peak hours)	212
Figure 64	Single transit call termination on the fixed incumbent and alternative network (peak hours).	212
Figure 65	Double transit call termination on the fixed incumbent and alternative network (peak hours)	213
Figure 66	Mobile termination rates, peak time	215
Figure 67	Connection prices for fully unbundled loop and shared access	216
Figure 68 -	Monthly rental prices for fully unbundled loop and shared access	217

#### A. Electronic communications market overview

#### 1. General economic background

Any assessment of telecommunications markets has to be seen against the general performance of the economy, its level compared to other economies and the relative growth rates. This requires data on the size and growth of the economy and of the population. Additionally, it helps to consider the distribution of income within an economy, together with (un)employment, poverty and literacy rates which might all be expected to be correlated with the adoption of ICT.

# 2. Currencies, inflation, exchange rates and VAT

In order to compare the economies, markets prices and other indicators between the eight entities and with the EU-27 it is necessary to make adjustments for the different exchange rates (see Table A.1).

				Average exchange rate			October 1,	August 1,
Country	Currency	Code	2006	2007	2008	2009	2009	2010
Croatia	Croatian Kuna	HRK	7.32	7.34	7.22	7.34	7.26	7.24
FYROM	Macedonian Denar	MKD	61.19	61.17	61.26	61.40	61.17	61.54
Turkey	New Turkish Lira	TRY	1.81	1.79	1.91	2.16	2.18	1.96
Albania	Albanian Leke	ALL	123.27	122.20	122.80	132.06	134.56	135.32
Bosnia & Herzegovina	Bosnian Marka	BAM	1.96	1.96	1.96	1.96	1.96	1.96
Montenegro	Euro	EUR	1.00	1.00	1.00	1.00	1.00	1.00
Serbia	Serbian Dinar	RSD	85.00	78.67	81.91	94.12	93.09	106.00
Kosovo (UNSCR 1244)	Euro	EUR	1.00	1.00	1.00	1.00	1.00	1.00

Table A.1 - Exchange rates<sup>1</sup>

Currency fluctuations can have significant effects when comparing prices, spending patterns and operator revenues. The economic crisis and recession of 2008-09 has caused significant and unanticipated variations in exchange rates. As noted in previous reports, these can cause the apparent decline in the value of specific telecommunications markets when expressed in Euros.

<sup>&</sup>lt;sup>1</sup> MB-Ch.8-Exchange rates at http://www.ecb.int/stats/services/downloads/html/index.en.html http://www.nbs.rs/export/internet/english/80/index.html http://www.bankofalbania.org/web/pub/kursi\_2008\_2349\_1.xls http://www.nbrm.gov.mk/default-en.asp?pmenu=kurslistENIKL

In addition to converting other currencies into Euros, in order to facilitate comparisons, it is helpful to adjust prices using Purchasing Power Parities (PPPs). These are an indicator of the differences in price levels between countries, measuring how many currency units a given quantity of goods and services will cost in different countries. It has been popularised by The Economist as the Big Mac Index, measuring the relative cost of a hamburger in a range of countries.<sup>2</sup>

The PPPs for candidate and potential candidates, except for Kosovo, are published by Eurostat (see Table A.2).

	2005	2006	2007	2008	2009
Croatia	4.67465	4.78554	4.72236	4.985	5.0476
FYROM	21.9554	21.9237	22.5135	23.8661	24.4722
Turkey	0.9917	1.0401	1.0804	1.1713	1.2198
Albania	52.1031	51.1998	52.6826	52.9578	57.46.34
Bosnia & Herzegovina	0.8574	0.8752	0.8981	0.9232	0.9981
Montenegro	0.419688	0.407542	0.428372	0.457401	0.47793
Serbia	31.7162	34.4107	37.6569	41.0517	45.0487
Kosovo (UNSCR 1244)					
EU-27	1.0000	1.0000	1.0000	1.0000	1.0000

Table A.2 - Purchasing Power Parities (PPPs)<sup>3</sup>

Prices can vary because of the different levels of taxation. It is therefore important to be able to identify, compare and, where appropriate, remove this element from any charges. Operators, service providers and business customers can usually reclaim VAT, so that this can be discounted from any charges.

The rates of Value Added Tax (VAT) in South-East Europe range from 16% to 23% (see Figure 1). These are close to the general range of the EU-27.

<sup>&</sup>lt;sup>2</sup> http://www.economist.com/markets/bigmac/index.cfm

<sup>&</sup>lt;sup>3</sup> European Commission > Eurostat home page > Economy and finance > Prices http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=prc\_ppp\_ind&lang=en

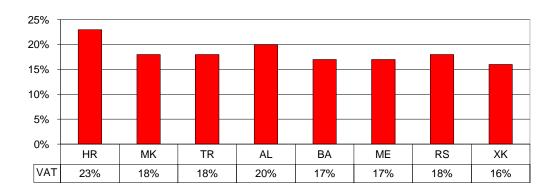


Figure 1 - Rates of Value Added Tax

There are some additional retail taxes, notably in Turkey the Special Communications Tax (SCT) of 25% on mobile network services, 15% on fixed voice telephony services and 5% on Internet services. These cannot be reclaimed by businesses and so must be included in charges. From June 1, 2009 a temporary additional 10% tax on mobile communications services was introduced by the Serbian government as part of emergency economic measures to address the consequences of the economic crisis and the growing budget deficit. On August 1, 2009 a set of anti-recession measures also took effect in Croatia that included the increase in VAT rate from 22% to 23% and the introduction of an additional 6% tax on mobile communications services.

# 3. Population and households

The three candidates and five potential candidates together represent 94 million people or almost 20% of the EU-27 population (see Table A.3). The greatest part of that population is represented by Turkey, nearly ten times the size of Serbia, the next largest. Montenegro has much the smallest population, only 35% larger than Luxembourg. Consequently, it is necessary to be careful when comparing the seven much smaller markets with Turkey. There was a substantial downward adjustment in the population of Turkey for 2006, based on new survey data.

	Population		Inhabitants per sq km		Percentage of EU-27 total	Households		Persons per	
	2006	2007	2008	2006	2007	2008	2006	2007	household
Croatia	4.443	4.441	4.436	78.5	78.5	0.89%	1.477		3.0
FYROM	2.039	2.042	2.045	79.3	79.4	0.41%	0.564		3.6
Turkey	72.520	69.689	70.586	89.9	90.1	14.19%	18.492		3.8
Albania	3.149	3.153	3.170	109.5	109.7	0.63%	0.753		4.2
Bosnia & Herzegovina	3.843	3.844	3.843	75.0	75.1	0.77%	1.034		3.7
Montenegro	0.624	0.625	0.627	45.1	45.2	0.12%	0.180	0.183	3.5
Serbia	7.425	7.382	7.366	95.8	95.3	1.48%	2.521	2.537	2.9
Kosovo (UNSCR 1244)	2.100	2.127	2.153	192.9	195.3	0.43%	0.311		6.6
Total	96.143	93.303	94.148	-	-	18.92%	25.343		3.7
EU-27	492.965	495.090	497.444	114.8	-	-	-		2.4

Table A.3 - Populations and households (millions)

Notes:

Source: Eurostat Pocketbook on candidate and potential candidate countries 2010 edition. KS-PF-10-001-EN (Table 1.1).

http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-PF-10-001/EN/KS-PF-10-001-EN.PDF

EU-27: Household composition is for the EU-25 in 2003.4

Montenegro: Population density is for 2005. Kosovo: Population density is for 2005.

The population in the EU-27, as well as Turkey, Montenegro and FYROM have been increasing since 1996 as, since 2000, has Albania. While the EU-27 population grew by almost 3.3%, the growth of Turkey was 16.3%. Montenegro and FYROM grew slightly faster than the EU-27, while Albania was slightly slower. However, Serbia has seen a reduction in its population.

There has been considerable migration in recent years both within and beyond the region. These movements may not be fully reflected in the figures and the patterns may not yet be fully documented and understood.

The household composition is quite different from the existing EU member states, which have an average of 2.4 members per household. In South-East Europe, households are significantly larger, notably in Turkey and Albania respectively 3.8 and 4.2. The figure for Kosovo is extremely high, being 2.8 times the EU average, a level normally associated with some of the least developed countries. According to Kosovo in figures in 2006 the average number of household

<sup>&</sup>lt;sup>4</sup> http://epp.eurostat.ec.europa.eu/tgm/printTable.do?tab=table&plugin=1&language=en&pcode=cdb10000&printPreview=true

members in rural areas was 7.8.5 Higher numbers of persons in a household would suggest that, cultural factors being equal, fixed telephone and broadband lines would be available to a larger number of people than in the EU-27.

#### Gross Domestic Product

The Gross Domestic Product (GDP) is defined as the total market value of all final goods and services produced within a country in a year.<sup>6</sup> There is long-standing evidence that GDP and GDP growth correlate with telecommunications and telecommunications network growth.<sup>7</sup>

There are problems of determining the value of GDP accurately in some economies, given the existence of "informal" sectors that must be estimated.

The values shown in Table A.4 indicate the very different sizes of the economies of the region.

	2001	2002	2003	2004	2005	2006	2007	2008
Croatia	25,538	28,112	30,011	32,759	35,725	39,102	42,833	47,370
FYROM	3,893	3,839	4,001	4,105	4,325	4,676	5,081	5,791
Turkey	219,816	243,570	269,322	314,304	387,655	419,013	472,879	501,133
Albania	3,945	4,541	4,705	5,048	5,881	6,561	7,168	7858
Bosnia & Herzegovina	5,977	6,424	7,067	7,416	8,757	9,843	11,126	12,637
Montenegro	1,295	1,360	1,510	1,670	1,815	2,149 <sup>p</sup>	2,808	2,808
Serbia	12,821	16,034	17,416	19,075	20,358	23,521	29,543	29,543
Kosovo (UNSCR 1244)	1,624	1,735 <sup>p</sup>	1,797 <sup>p</sup>	3,007 <sup>p</sup>	3,068 <sup>p</sup>	3,192 <sup>p</sup>	3,434	3,434
EU-27	9,580,843	9,942,614	10,110,180	10,607,864	11,061,969	11,683,833	12,362,879	12,512,071

Table A.4 - Gross domestic product (€ million)<sup>8</sup>

Notes: 2008 figures in EUR are mostly preliminary estimates (indicated as 'P') based on national statistics.

Source for 2008: Eurostat Pocketbook on candidate and potential candidate countries 2010 edition. KS-PF-10-001-EN (Table 5.1).

http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-PF-10-001/EN/KS-PF-10-001-EN.PDF

FYROM: State Statistical office, http://www.stat.gov.mk/english/glavna\_eng.asp

Bosnia & Herzegovina: Bulletin of Agency for statistics of BiH (Thematic Bulletin - TB 10, Gross Domestics Product 2005-2008, http://bhas.ba/new/tb.asp?Test=a324r5&Pripadnost=6)

Montenegro: Statistical Office of Montenegro, http://www.monstat.org/EngMeniGodisnjiPodaci.htm

Kosovo: Statistical Office of Kosovo (SOK), http://www.ks-gov.net/ESK/eng/dmdocuments/GROSS%20DOMESTIC%20PRODUCT%20IN%20KOSOVO%202004%20-

%202008.pdf

 $<sup>^{5}\</sup> http://www.ks-gov.net/ESK/esk/pdf/english/general/kosovo\_figures\_06.pdf$ 

<sup>&</sup>lt;sup>6</sup> http://circa.europa.eu/irc/dsis/nfaccount/info/data/ESA95/ESA95-new.htm

<sup>&</sup>lt;sup>7</sup> Lars-Hendrik Röller & Leonard Waverman (2001) "Telecommunications infrastructure and economic development: a simultaneous approach" *The American Economic Review 91* (4) 909-923.

<sup>&</sup>lt;sup>8</sup> http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tgs00028&plugin=0

Figure 2 shows the volume indices of GDP per capita in the monitored countries, expressed in relation to EU-27=100. With the exception of Croatia and Turkey that had a GDP per capita similar to that of some of the new EU member states, the remaining countries came out at a level substantially below the average level of the EU-27. Some are around one quarter of that level and making only modest rates of improvement.

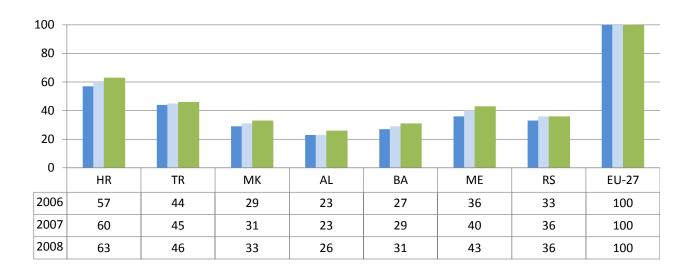


Figure 2 - Volume index of GDP per capita in PPPs<sup>9</sup>

In the period from 2000 to 2007 GDP growth in constant prices was considerably higher in most of the Enlargement countries than in the EU (see Figure 3). The average growth in the EU-27 was 2.2%, less than half that achieved by Croatia. Other economies managed 5% or even 6%.

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<sup>&</sup>lt;sup>9</sup> Table 1 in Eurostat, Large differences in GDP and consumption per inhabitant across Europe - Issue number 95/2009

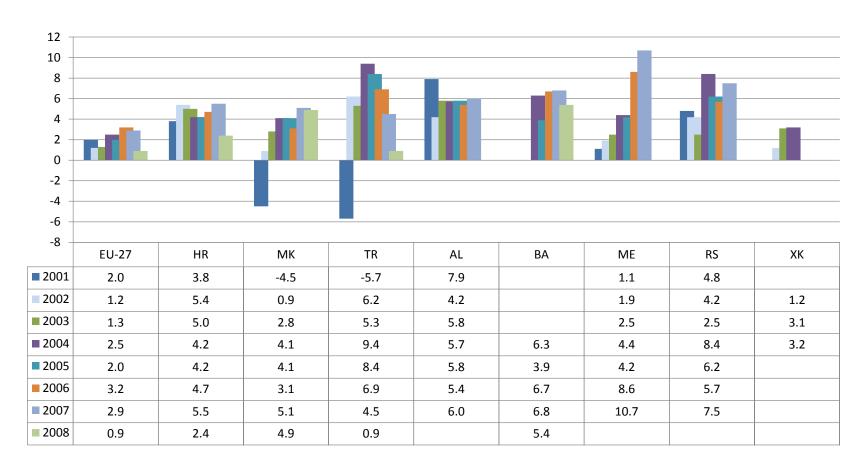


Figure 3 - GDP growth rates<sup>10</sup>

<sup>&</sup>lt;sup>10</sup> Source: Table 5.1 in Eurostat Pocketbook on candidate and potential candidate countries 2010 edition. KS-PF-10-001-EN http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-PF-10-001/EN/KS-PF-10-001-EN.PDF

The economic crisis of 2008-09 has caused the European Commission, the European Central Bank and the International Monetary Fund (IMF) to reduce their forecasts for growth of GDP, often by significant amounts. Indeed, they have made progressively more pessimistic forecasts for the global economy and especially for certain countries.

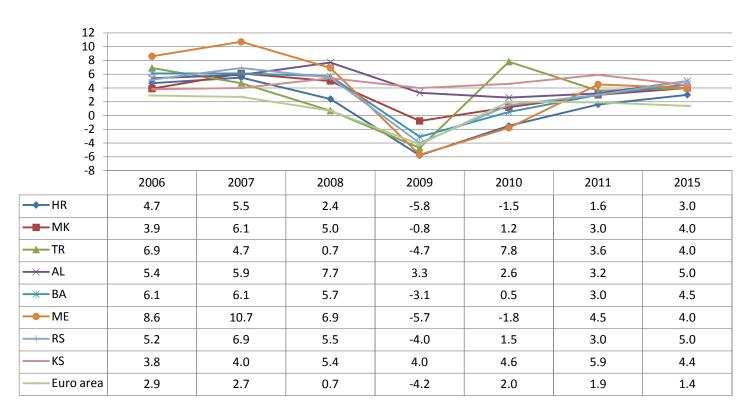


Figure 4 - GDP growth in 2006-2008 and IMF forecasts for 2009-2011 and 2015<sup>11</sup>

Euro area covers the following 16 EU Member States: Germany, France, Italy, Spain, Netherlands, Belgium, Greece, Austria, Portugal, Finland, Ireland, Slovak Republic, Slovenia, Luxembourg, Cyprus, and Malta.

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<sup>11</sup> http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf

The slowdown in economic growth in the Enlargement countries only began to be really noticeable in the fourth quarter of 2008. Since then forecasts for growth in 2009, initially suggesting that the region would avoid the most serious consequences of the crisis, continue to be revised downwards. Revised forecasts by the IMF, released in October 2010, suggest a shrinking in GDP for the most of the region. The only exceptions are Albania and Kosovo, whose economies are forecast to grow by 3.3% and 4.0%, respectively (see Figure 4).

Croatia is forecast to be worst hit in 2009 with a 5.8% fall in GDP, followed by Montenegro and Turkey with 5.7% and 4.7 decline in GDP, respectively. Nevertheless, according to the same forecast, the Turkish economy is expected to fully recover already in 2010.

The candidates and potential candidates all have significantly lower employment rates than the EU-27 (see Figure 5). Kosovo has consistently had the lowest level of employment, at less than half that of the EU-27, though it has shown some improvement. Part of the explanation for the low levels of employment is due to involvement with the 'grey' or 'unofficial' economy, which is expected to decline with the growth of the official economy and with the continuing fight against corruption.

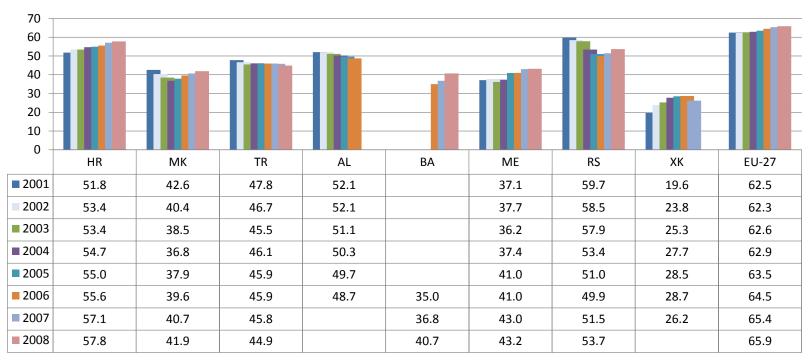


Figure 5 - Percentage of the population aged 15-64 in employment 12

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<sup>&</sup>lt;sup>12</sup> Source: Table 4.1 in Eurostat Pocketbook on candidate and potential candidate countries 2010 edition. KS-PF-10-001-EN.

The unemployment rate in the EU-27 in 2008 was 7%. In the candidates and potential candidates, unemployment rates were relatively high, with values of 45% in Kosovo, 36% in FYROM and 31% in Bosnia & Herzegovina in 2006, while in Croatia and Turkey the rates were closer to the EU at 11% and 10% respectively. In the EU-27, the youth unemployment rate was more than double the general unemployment rate, while a range of similar multipliers, from 1.7 in FYROM and Kosovo to 2.6 in Croatia, was observed in the region.

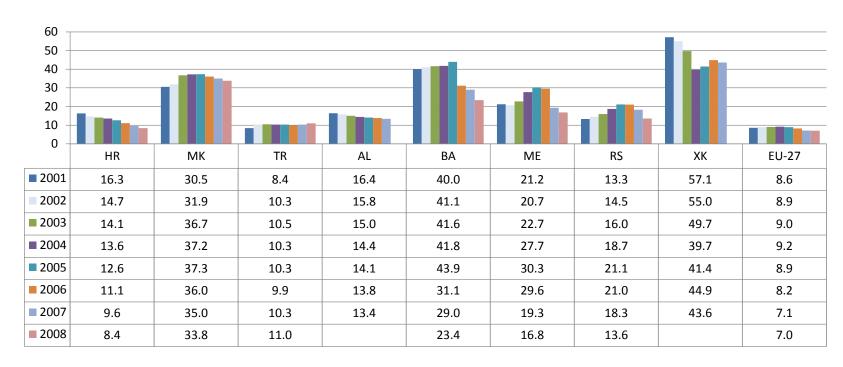


Figure 6 - Unemployment rates (%)<sup>13</sup>

Cultural and economic factors lead to considerable variations in household spending patterns (see Figure 7). Communications in 2006 (the topmost segment) accounted for anywhere from 2.3% of household spending in Kosovo to 5.7% in Montenegro.

15

<sup>&</sup>lt;sup>13</sup> Source: Table 4.5 in Eurostat Pocketbook on candidate and potential candidate countries 2010 edition. KS-PF-10-001-EN.

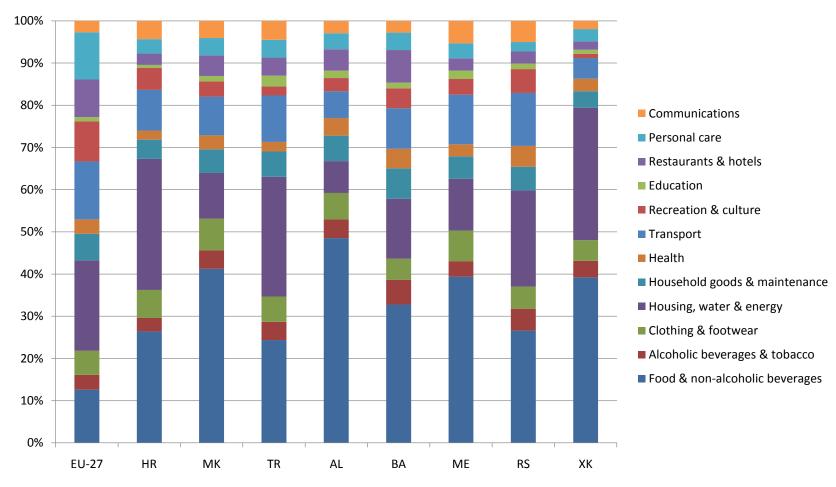


Figure 7 - Breakdown of household expenditure (2008)<sup>14</sup>

<sup>14</sup> Table 3.4 in Eurostat Pocketbook on candidate and potential candidate countries 2010 edition. KS-PF-10-001-EN.

#### 5. Electronic communications market value

The total value of the electronic communications market in the Enlargement countries was estimated at €15.28bn in 2009, an average 6.75% decrease from the previous year. An average 9.4% decline in revenue was demonstrated by the two largest segments of fixed and mobile telephony services. The table below shows the sector revenue in 2007 – 2009 for all countries (see Table A.5).

	2007	2008	2007-08 growth	2009	2008-09 growth
Fixed voice telephony	5,411,329,183	4,565,475,249	-15.63%	4,137,152,590	-9.38%
Internet services	965,443,338	1,272,911,860	31.85%	1,513,395,995	18.89%
Mobile telecommunications	9,013,465,423	9,964,334,200	10.55%	9,028,183,451	-9.40%
Data communications	384,632,703	440,934,537	14.64%	421,506,883	-4.41%
Cable TV (excl. Internet)	113,333,302	144,899,460	27.85%	181,364,880	25.17%
Total	15,888,203,949	16,388,555,306	3.15%	15,281,603,799	-6.75%

Table A.5 - Electronic communications markets revenue in Euro

The greatest share of the market is represented by mobile telecommunications (see Figure 8). The next largest part is fixed voice, with much smaller shares for the Internet, data communications and cable television. Internet and cable television services, however, were the fastest growing segments in 2009. Cable television revenue figures are not complete as no data was available for Albania and Montenegro at the time of data collection.

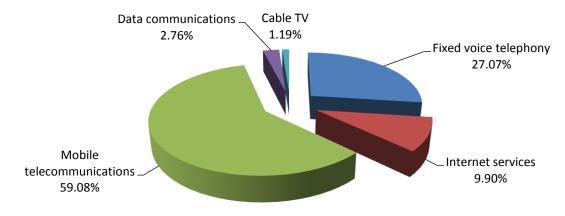


Figure 8 - Electronic communications market in 2009

Looking at the electronic communications revenue growth in 2009 by individual segments in each country (see Figure 9 - Sector revenue growth by country in 200) gives yet another view of the markets. Particularly strong growth was demonstrated by cable TV services in Kosovo and in Bosnia and Herzegovina and also internet services in Bosnia and Herzegovina. At the same time, fixed voice telephony revenues continued to decline at an ever increasing pace in all countries, with exception of Turkey.

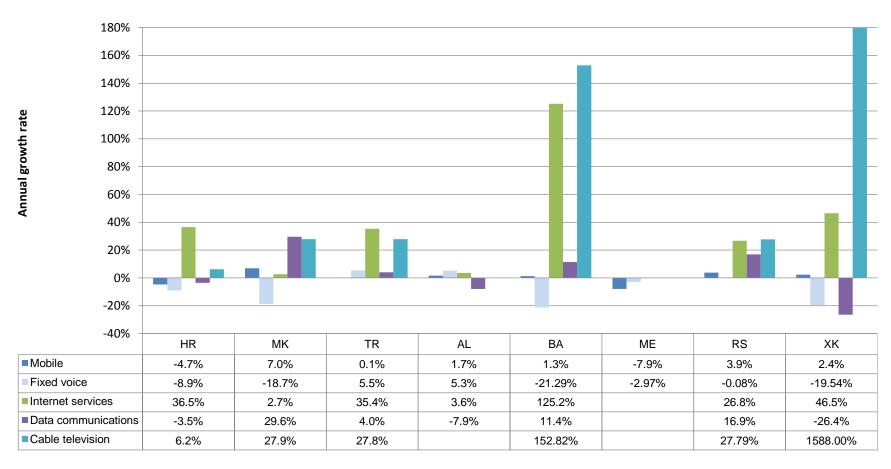


Figure 9 - Sector revenue growth by country in 2009

Electronic communications represents quite different proportions of the various economies (see Figure 10). While this reflects different levels and patterns of spending and of production and supply within an economy it may also be affected by the accuracy of the GDP measurements.

The high values for Montenegro may indicate underestimation of the GDP though it is does match the high household spending on communications in the country (see Figure 7). For comparison, electronic communications market constitutes around 3% of the EU-27 economy.

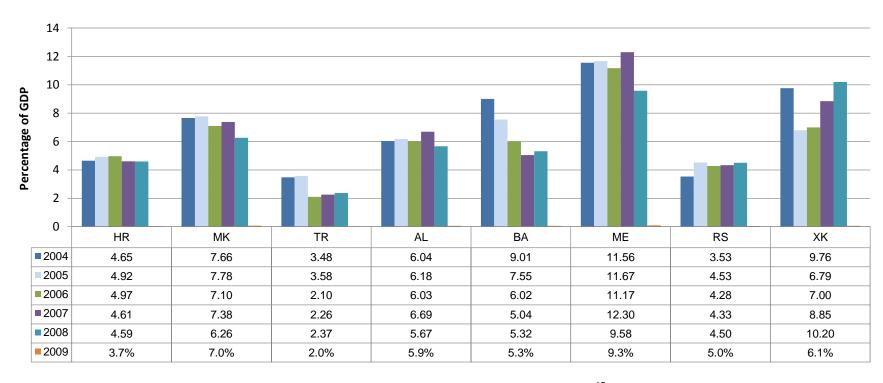


Figure 10 - Electronic communications as a percentage of GDP<sup>15</sup>

Breaking down the markets by economies and sectors, the patterns are inevitably dominated by the size of the Turkish markets (see Figure 11). To remove the effect of the different sizes, the same data are presented as percentages in Figure 12.

19

<sup>&</sup>lt;sup>15</sup> 2007 data refer to EU27 instead of EU25, taking into account the EU accession of Bulgaria and Romania.

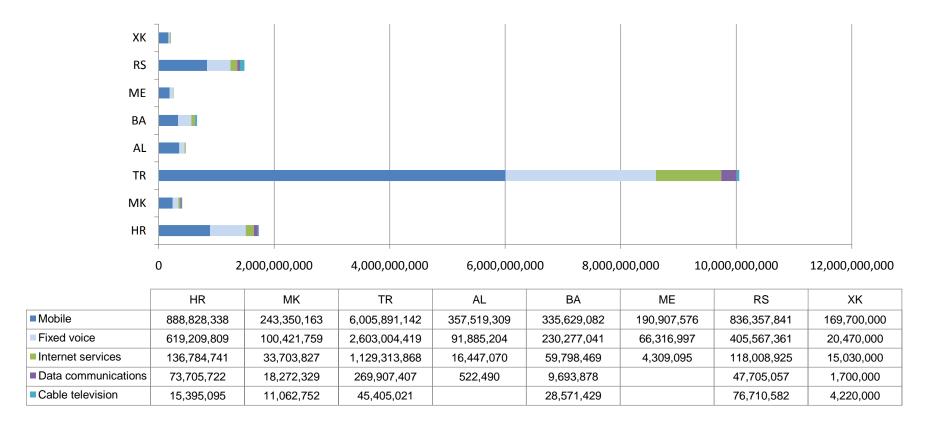


Figure 11 - Electronic communications markets in 2009

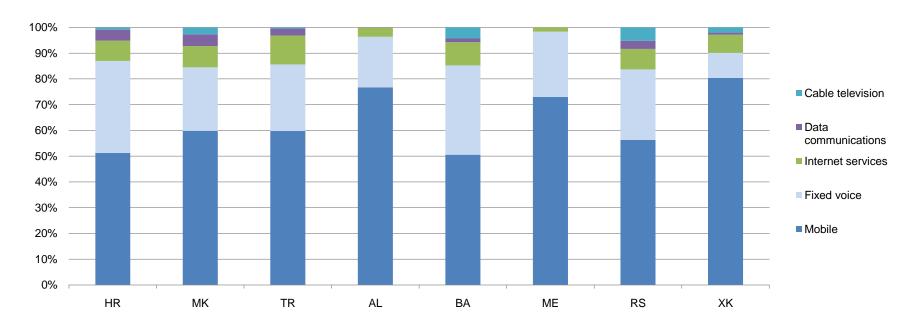


Figure 12 - Composition of electronic communications markets in 2009

## 6. Fixed telephony market

#### a) Fixed network penetration and digitalisation rate

The numbers of active subscriber fixed lines are given in Table A.6, by technology and by type of customer. These are shown as penetration rates, i.e., as lines per 100 population, in Figure 13. Several fixed networks have shown declines in penetration rate as customers express a preference for mobile services, which are more personal and offer more flexible use and payment schemes. There are considerable differences in the levels of penetration of the fixed network, with Albania and Kosovo at relatively low levels, while Croatia and Serbia have higher levels that are close to the EU-27 average.

Country	Total number of fixed lines	By tech	nology	By user category		
		PSTN	ISDN	Residential	Business	
Croatia	1,707,102	1,609,237	97,865	1,323,046	384,056	
FYROM	420,491	343,542	12,568	375,445	45,046	
Turkey	16,283,784	16,269,547	14,237	14,199,460	1,817,531	
Albania	360,000	359,071	929	335,000	25,000	
Bosnia & Herzegovina	947,626	914,002	33,624	836,642	110,984	
Montenegro	178,188	159,916	18,272	147,661	30,527	
Serbia	3,105,728	3,000,937	86,464	2,795,155	310,573	
Kosovo (UNSCR 1244)	90,000	N/A	N/A	80,000	10,000	
Total	23,085,003	-	-	-	-	

Table A.6 - Fixed network lines by technology and by user category

Note:

ISDN:

ISDN is offered in two forms: Basic Rate Access (BRA) and Primary Rate Access (PRA). BRA lines allow two telephone numbers and two simultaneous calls, being used by households and smaller organisations. PRA lines enable 30 simultaneous calls and are normally used for larger organisations. The number of ISDN lines is weighted for BRA and PRA.

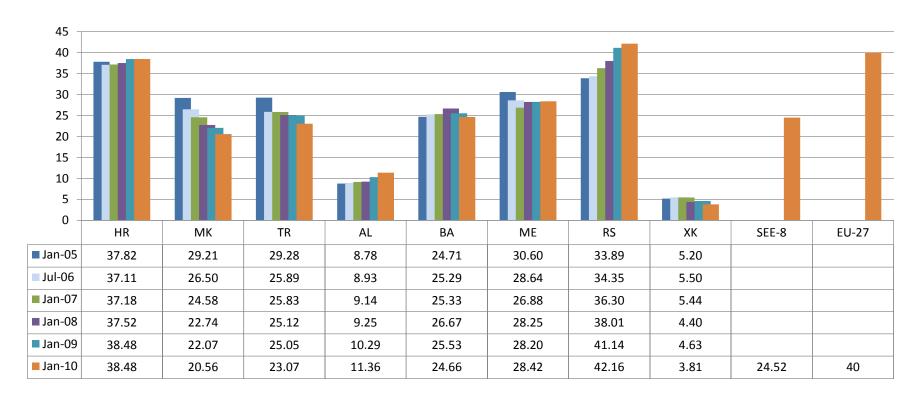


Figure 13 - Fixed lines per 100 population

The process of converting analogue networks to digital has been relatively slow, but should be completed within the period of the present monitoring project. Table A.7 shows the levels in 2006, 2007 and 2008. Albania, Croatia, Montenegro, FYROM, Kosovo and Turkey have achieved full digitalisation and Bosnia & Herzegovina has almost reached the target. Serbia, which had less than 70% in 2005, has made significant progress and should reach 100% by 2010.

Country	January 2007	January 2008	January 2009	January 2010
Croatia	100.00	100.00	100.00	100.00
FYROM	100.00	100.00	100.00	100.00
Turkey	98.30	99.00	100.00	100.00
Albania	99.86	99.87	99.92	100.00
Bosnia & Herzegovina	98.40	99.00	99.50	99.60
Montenegro	100.00	100.00	100.00	100.00
Serbia	88.60	93.30	95.50	96.95
Kosovo (UNSCR 1244)	49.00	100.00	100.00	100.00

Table A.7 - Fixed network digitalisation rate (%)

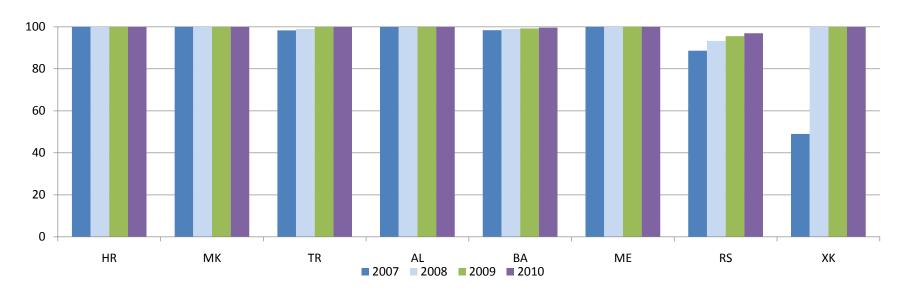


Figure 14 - Fixed network digitalisation rate (%) - growth 2007-2010

Party or group lines serve two or more subscribers and remain a significant factor in the region (see Table A.8). These lines are a potential barrier to any intensive use of the telephone service, such as dial-up Internet access and value added services. They are also an obstacle to local loop unbundling and thus to broadband Internet access. Croatia, FYROM, Kosovo and Turkey have no party lines. Small but significant percentages are still found in Albania, Bosnia & Herzegovina, Montenegro and Serbia.

Country	Multiple party lines		
	Total number	As percentage of total fixed lines	
Croatia	0	0%	
FYROM	0	0%	
Turkey	0	0%	
Albania	3,512	1.2%	
Bosnia & Herzegovina	23,472	2.5%	
Montenegro	1,976	1.1%	
Serbia	143,299	4.6%	
Kosovo (UNSCR 1244)	0	0%	

Table A.8 - Multiple party lines, January 2010

#### b) Competition

The development of competition in fixed networks and services in each country has been determined by individual liberalisation processes. In some cases, it has been gradual, with local and domestic long distance services being opened to competition at different times. Albania and Turkey are examples where competition at the local and the national level was not introduced at the same time.

Table A.9 shows authorised public network operators and public fixed voice telephony service providers and highlights those which are operational in the market. Public network operators are defined as those installing, managing and operating a telecommunications transmission network to provide public telephony services. Public fixed voice telephony service providers include cable operators providing public voice telephony as well as managed VoIP operators.

Country	Public fixed telephony network operators		Public fixed voice telephony service providers	
	Authorised operators	Operators active in the market	Authorised providers	Providers active in the market
Croatia	13	9	62	38
FYROM	38	9	34	34
Turkey	56	10	103	103
Albania	82	82	86	86
Bosnia & Herzegovina	12	11	12	11
Montenegro	2	2	10	7
Serbia	3	2	47	28
Kosovo (UNSCR 1244)	3	2	3	2

Table A.9 - Competition in fixed telephony - public network operators and service providers

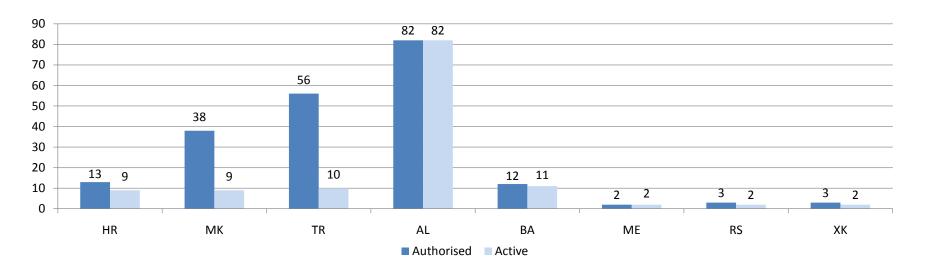


Figure 15 - Public fixed telephone network operators

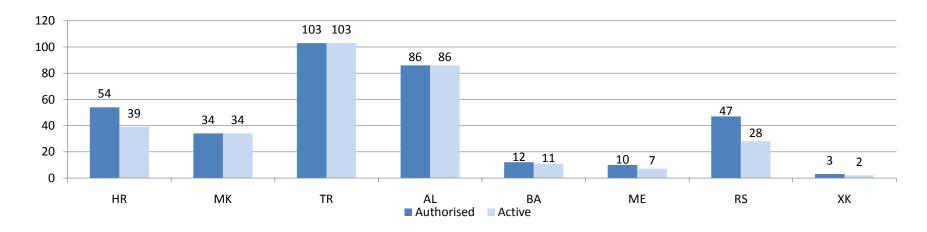


Figure 16 - Public fixed voice telephony service providers

Notes:

Montenegro: There are only two licensed fixed telephony network operators: T-Com Montenegro (formerly Telecom Montenegro), the incumbent, and M:Tel, a mobile operator that

also provides fixed wireless access using WiMAX. The number of authorised public voice telephony service provides includes eight licensed VoIP providers. The NRA

granted five licences for VoIP in September 2007 and a further three in February 2008. Five of VoIP providers are active on the market.

Serbia: Licence for second fixed telephony operator was granted in January 2010 to Telenor. Telenor is obliged to start providing fixed telephony services within 12 months.

Third public fixed telephony operator Orion is providing PATS over CDMA 2000 network in the 410-430 MHz band.

Kosovo: Ipko Telecommunications is the second authorised fixed telephony network operator. Konet is the third operator, licensed in January 2009, not yet operational.

Market shares can be measured in many different ways, by numbers of lines, customers, minutes of traffic and revenues. Table A.10 shows the market share of the respective incumbent operators by revenues and by minutes of traffic. It is given for both national calls and international calls, then as the overall figure, the sum of the two other markets.

The continued dominance of the incumbent operators is very clear in every case for which there are data. The high market shares for international traffic suggest that the basic measures to introduce competition, by opening international gateways have not always been effective. Alternative operators using carrier selection or VoIP ought to be able to claim significant market shares with limited investment.

Country	Overall market share		National calls		International calls	
	By retail revenue	By minutes of traffic	By retail revenue	By minutes of traffic	By retail revenue	By minutes of traffic
Croatia	79.50%	68.26%	69.09%	66.87%	64.02%	78.26%
FYROM	80.75%	77.53%	82%	77.68%	78.60%	71.56%
Turkey	86%	94.05%	NA	97%	NA	74%
Albania	83%	90.42%	N/A	80%	N/A	80%
Bosnia & Herzegovina	94.67%	95.75%	99%	99.82%	89.46%	84.60%
Montenegro	98.00%	99.80%	N/A	N/A	N/A	N/A
Serbia	100%	100%	100%	100%	100%	100%
Kosovo (UNSCR 1244)	98.02%	97.11%	N/A	97.64%	N/A	88.57%

Table A.10 - Competition in fixed telephony - Incumbent operator's market share (%)

Notes:

Bosnia & Herzegovina: The table shows combined market shares of the three incumbent operators.

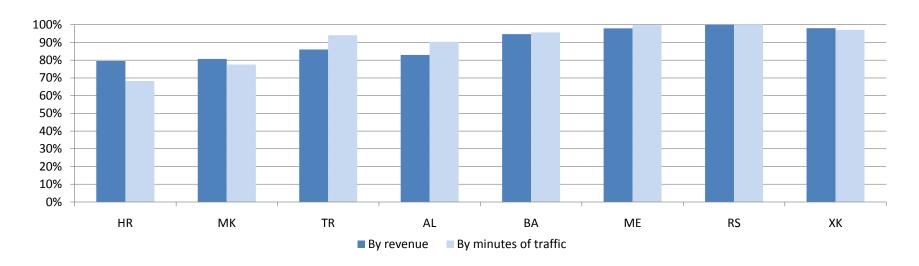


Figure 17 - Incumbent operators' overall market share in fixed voice telephony

Table A.11 shows the proportion of fixed subscriber numbers allocated to incumbent and alternative operators. It is an important indicator of the state of competition in the fixed market, though it is not to suggest that all of the allocated numbers are in immediate use.

Country Fixed incumbent operator (%)		Alternative operators (%)
Croatia	85.23%	14.77%
FYROM	75.70%	24.30%
Turkey	99.47%	0.53%
Albania	55.80%	44.20%
Bosnia & Herzegovina	98.92%	1.08%
Montenegro	96.10%	3.90%
Serbia	99.91%	0.09%
Kosovo (UNSCR 1244)	76.10%	23.9%

Table A.11 - Competition in fixed telephony - numbers allocated by NRA

Figure 18 shows the trends over time of the numbers allocated to alternative providers.

The overall percentage of numbers given to alternative operators is still very small. In Turkey, the assignment of subscriber numbers to alternative fixed network operators became possible only with the introduction of general authorisation regime and opening to competition of the local services. By contrast, Albania has assigned almost half of its fixed numbers, indicating a very strong basis for competition.

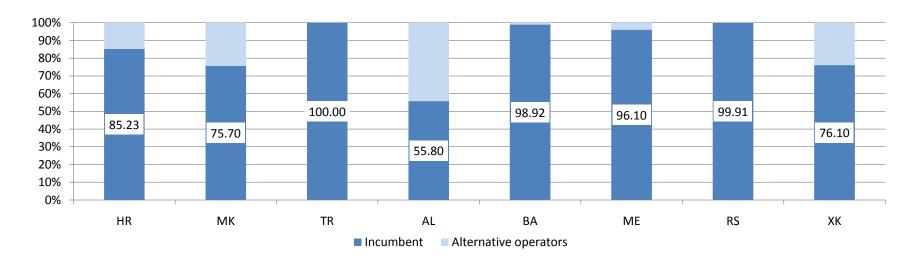


Figure 18 - Percentage of fixed numbers allocated to alternative operators

A cost-effective way for alternative carriers to take market share from incumbent operators is using carrier selection (CS) and carrier pre-selection (CPS). Table A.12 shows the total number of subscribers using alternative carriers for voice telephony services through CS/CPS, VoIP and direct access. Croatia and FYROM provided an update as of Q1 2010, while Turkey as of H1 2010. Turkey showed some decline in the subscriber numbers of alternative providers between 2009 and 2010. Particularly strong growth, by 83%, was observed in FYROM.

Country	January 2009	June 2009	January 2010
Croatia	445,190	468,320	511,520
FYROM	11,633	43,720	80,306
Turkey	1,096,414	906,749	616,319
Albania	49,690	N/A	47,000
Bosnia & Herzegovina	7,405	N/A	41,489
Montenegro	6,592	3,755	4,010
Serbia			
Kosovo (UNSCR 1244)	4,862	8,696	8,700

Table A.12 - Subscribers using alternative providers for voice telephony services

Notes:

Bosnia & Herzegovina: Direct subscribers 6,881; CS subscribers 34,608

Albania, Serbia and Kosovo: CS/CPS not available. In Albania, around 13% of Albtelecom's subscribers use VoIP services of alternative providers based on prepaid calling cards.

FYROM: The number includes 50,196 lines based on wireless access, 13,489 lines over cable TV networks, 12, 075 WLR lines, 4,337 CS subscribers and 209 CPS

subscribers (according to AEC report for 1Q 2010).

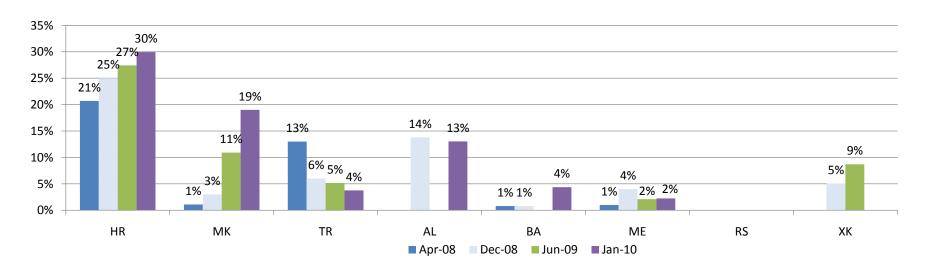


Figure 19 - Subscribers using alternative providers as percentage of total number of fixed lines

#### Mobile market

#### a) Mobile subscribers

In the beginning of 2010 there were over 91 million subscribers of mobile services (see Table A.13). The rise in the levels of mobile penetration rates has been rapid and sometimes dramatic (see Figure 20). Croatia and Montenegro have already reached mobile penetration rates above the EU-27 average and Serbia is very close.

However, these numbers are not to be taken to mean that everyone in South-East Europe has a mobile phone. There appear to be significant numbers of plastic roamers that is people with multiple SIM cards who switch to a local operator on moving between the entities or on moving into South-East Europe from the rest of the Europe. Some others may have multiple domestic SIM cards in order to exploit particularly attractive tariffs or to ensure network coverage. Discrepancies also arise from different practices in defining an 'active' pre-paid customer, ranging from three to 12 months, depending on the mobile operator. However, an increased number of regulators have been consistently applying a three-month definition of an active mobile subscriber.

Country	Total number of active subscribers	Penetration rate (%)
Croatia	6 ,031,780	136%
FYROM	1,947,274	95%
Turkey	61,536,121	86%
Albania	3,654,698	113%
Bosnia & Herzegovina	3,257,239	85%
Montenegro	1,294,167	209%
Serbia	9,912,339	132%
Kosovo (UNSCR 1244)	1,512,546	73%
SEE-8	89,146,164	94.69%

Table A.13 - Mobile subscribers in 2010

Notes:

Croatia: As of 1 Q 2010.

FYROM As of 1 Q 2010. AEC uses a definition of active subscriber, as follows: Active subscriber is a subscriber who had done any communication activity (send/receive SMS,

originate/receive a call) or any financial transaction (pay a bill, buy vouchers, etc) in the last 3 months

Turkey As of 1 H 2010

Albania: 4,413,083: total number of subscribers based on operators own definitions for active subscribers regarding use of prepaid SIM cards (to be credited at least once in

the last 12 months). 3,654,698: total number of subscribers based on AKEP definition of active subscribers as subscribers that have used the mobile services in the

last three months.

Bosnia & Herzegovina Active prepaid subscriber: who made or received a voice call, sent SMS or MMS or used data services in last 90 days.

Montenegro: As of January 1, 2010. Pre-paid card subscribers are dropped after 12 months of inactivity. The main tourist season is June to August when large numbers of pre-paid

cards are sold. The penetration is calculated using the most recent official data on population: 620,145 at the end of 2003.

Serbia: ITU definition is used for active subscribers: i.e. includes pre-paid SIM cards active during the past three months.

Kosovo: As of 1 Q 2010. 'Active' period is three months.

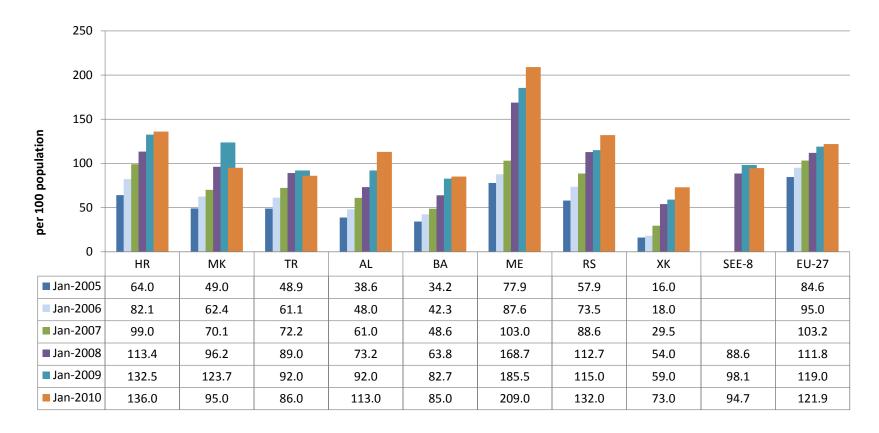


Figure 20 - Growth in mobile penetration (2005-2010)

Note: EU-27:

The values are for October of the previous year, as reported in the annual EC implementation reports.

The great majority of customers use the prepaid service, rather than the subscription or postpaid service (see Table A.14). In Kosovo nearly all the customers are prepaid, with the second operator only recently launching a postpaid option. Albania has a slightly lower level at almost 93 percent.

The very high levels of pre-paid customers raises questions about the move to broadband and mobile value added services, where a different business model may be necessary.

Country	Prepaid mobile subscribers (%)	Postpaid (monthly paid) mobile subscribers (%)	
Croatia	71.56%	28.44%	
FYROM	65.43%	34.57%	
Turkey	72%	28%	
Albania	93.32%	6.68%	
Bosnia & Herzegovina	88.34%	11.66%	
Montenegro	76.20%	23.80%	
Serbia	74%	26%	
Kosovo (UNSCR 1244)	96.50%	3.50%	

Table A.14 - Mobile subscribers - prepaid and postpaid

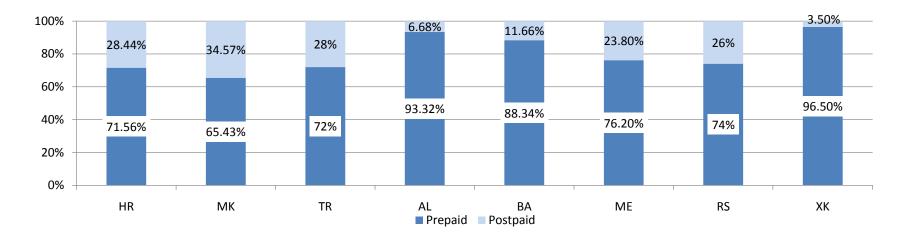


Figure 21 - Mobile subscribers - prepaid and postpaid

#### b) Market shares of mobile operators, by revenue and by subscribers

Table A.15 shows the market shares for mobile networks, based on the latest available subscriber numbers and on revenues. For most countries, the data refer to end 2009, with the exception of Croatia, FYROM, Turkey and Albania that have provided more recent figures from 2010.

Country	Operator	Mobile operators market shares (%)		
		Based on subscribers	Based on revenues	
Croatia	T-Mobile Hrvatska	47.37%	50.99%	
	VIPnet	42.72%	39.08%	
	Tele2	9.91%	9.94%	
FYROM	T-mobile	61.20%	71.54%	
	Cosmofon (ONE)	21.79%	19.49%	
	VIP	17.01%	8.97%	
Turkey	Turkcell	55.1%	58.8%	
	Vodafone	26.2%	22.6%	
	Avea	18.7%	18.6%	
Albania	Albanian Mobile Communications	46.17%	42%	
	Vodafone Albania	38.1%	49%	
	Eagle Mobile	15.73 %	9%	
Bosnia & Herzegovina	BH Telecom (BH Mobile)	39.21%	38.02%	
	Telekom Srpske (m:tel)	38.58%	39.41%	
	HT Mostar (HT Eronet)	22.21%	22.57%	
Montenegro	T-Mobile Montenegro	36.67%	30.07%	
	m:tel	26.17%	26.45%	
	ProMonte	37.16%	43.48%	
Serbia	mt:s - Mobilna Telefonija Srbija	59.7%	50.3%	
	Telenor	28.7%	40.1%	
	VIP mobile	11.6%	9.5%	
Kosovo (UNSCR 1244)	Vala	65.5%	67.09%	
	IPKO	32.7%	31.76%	
	D3 Mobile (MVNO)	0.07%	0.08%	
	Z mobile	1.12%	1.07%	

Table A.15 - Market shares of mobile operators

The level of concentration of a market can be measured in a number of different ways. The Herfindahl-Hirschmann Index (HHI), the sum of the squares of the market shares, is commonly used in assessing concentration in competition law. In any mobile market the value of the HHI will depend on the number of players licensed and operational, thereafter the value reflects to the degree of concentration or market power. In a market with three players with equal market shares the HHI would be  $33.33^2 + 33.33^2 + 33.33^2 = 3333$ , which is the lowest value possible for all the entities.

Figure 22 shows the HHIs for the South East Europe using the operator revenues, where these are available. Only Bosnia & Herzegovina and Montenegro come close to an even distribution of market shares. At the same time a particularly high degree of concentration is observed in FYROM.

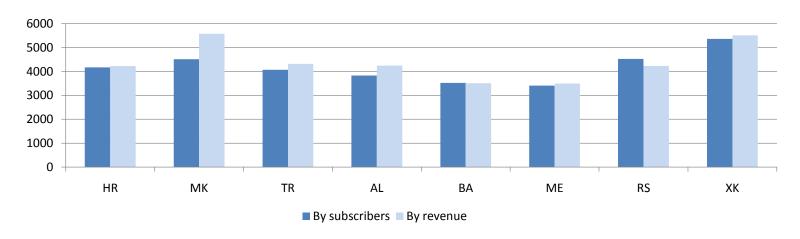


Figure 22 - Mobile market concentration levels, HHI

#### 8. Internet and broadband

#### a) Internet backbone infrastructure

Table A.16 - Internet backbone infrastructure provides data on the Internet backbone infrastructure in the monitored countries.

- An Internet exchange point (IXP) is a node where different Internet service providers (ISPs) exchange Internet traffic. An IXP typically consists of several network switches to which all participating ISPs connect. Often, the provider of the IXP is not an ISP itself, but a commercial data centre or a non-profit organisation like a university data centre. Many European IXPs are organised in the European Internet Exchange Association (Euro-IX). The table shows the IXPs in the monitored countries.
- The second column shows the total capacity of international Internet bandwidth in Mbps. If the capacity is asymmetric (more incoming than outgoing), the incoming capacity is provided.

Country	Internet exchange points (name, URL)	International Internet bandwidth (Gbps)
Croatia	CIX (Croatian Internet eXchange) http://www.cix.hr/	55.1 Gbps (June 2009)
FYROM	No Macedonian Academic Research Network (MARNet) is working on IXP development. Several local ISPs are connected to it. The intention is MARNet in the near future to become a Macedonian IXP. The NRA and Ministry of Transport	14.2 Gbps (October 2009)

Country	Internet exchange points (name, URL)	International Internet bandwidth (Gbps)
	and Communications have several meetings with .ISPs and participated in the idea of promotion of IXP.	
	http://anal.marnet.net.mk/mrtgwebcfg/index.php?gid=9&mode=view&page	
Turkey	TT AŞ (Türk Telekom Internet exchange)	367.5 Gbps (June 2010)
Albania	No	12 Gbps (June 2010)
Bosnia & Herzegovina	No	Not available
Montenegro	No	7 Gbps (June 2010)
Serbia	Private initiative operational as of September 1, 2010.	33.1 Gbps (October 2009)
	SOX (Serbian Open Exchange) www.sox.rs/	
Kosovo (UNSCR	No	4 Gbps (November 2009)
1244)	TRA is authorised to establish an IXP in Kosovo pursuant to mandate and provisions of Telecommunications Law and Telecom sector policies.	
	TRA has held a consultation to develop the mechanism, organisation, and related rules for the creation of an IXP. IXP is expected to become operational by the end of 2010.	

Table A.16 - Internet backbone infrastructure

#### b) Fixed broadband access

The division between broadband and narrowband fixed internet connections is shown in Table A.17. In line with EC practice in its Implementation Reports and statistics, broadband capacity is defined as equal to, or more than, 144 kbps.

Dial-up is still predominant in Croatia and Montenegro. Bosnia & Herzegovina and Serbia have a majority of broadband, but also retain significant numbers of dial-up lines. FYROM and Turkey have very few dial-up customers, possibly in areas where broadband is not accessible, while in Kosovo all reported internet connections are broadband.

Country	Total number of fixed Internet connections				
	Narrowband (dial-up) connections	Broadband connections (all technologies)			
Croatia	779,056	711,805			
FYROM	2,451	226,951			
Turkey	120,385	6,780,479			
Albania	2,030	111,000			
Bosnia & Herzegovina	107,216	292,113			

Country	Total number of fixed Internet connections					
	Narrowband (dial-up) connections	Broadband connections (all technologies)				
Montenegro	129,379	51,884				
Serbia	252,195	590,586				
Kosovo (UNSCR 1244)	-	134,358				

Table A.17 - Total number of fixed internet connections

Notes:

Croatia, FYROM, Albania: As of 1Q 2010 Turkey: As of 1H 2010

Bosnia & Herzegovina, Serbia, Kosovo: The reference date is January 1, 2010.

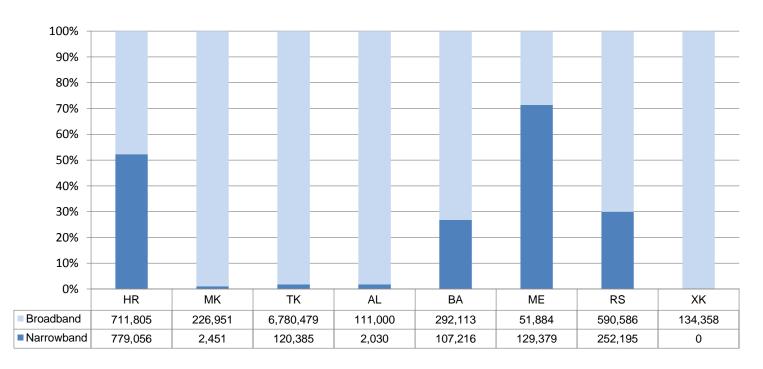


Figure 23 - Number of fixed internet connections

Table A.18 shows the number of ISPs active on the market. Although some of these numbers appear impressive, the market shares held by the incumbent operator, where available, suggest that these ISPs are not having an easy time, with the exception of Serbia and Kosovo, where the incumbents' market shares are below 30%.

Country	Total number of ISPs	Incumbent ISP's overall market share			
		By revenue	By number of connections		
Croatia	55	68.90%	80.99%		
FYROM	73	47.15%	51.70%		
Turkey	108	89.74%	77.8%		
Albania	92	54%	63.5%		
Bosnia & Herzegovina	77	53.94%	64.28%		
Montenegro	7	N/A	95.00%		
Serbia	199	29.4%	29.3%		
Kosovo (UNSCR 1244)	11	N/A	25.35%		

Table A.18 - Internet users and connections - ISPs

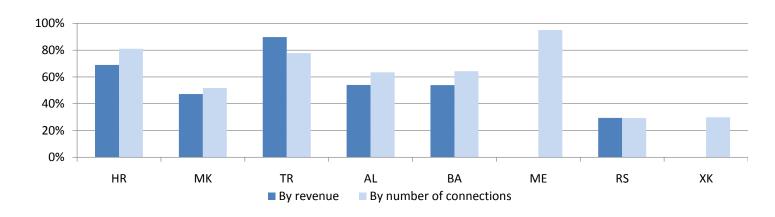


Figure 24 - Incumbent ISP's market share

The following section provides information on the deployment of fixed broadband access lines by incumbent operators and their subsidiaries or partners and by new entrants (alternative operators or ISPs) to end-users (see Table A.19). Mobile broadband connections, including UMTS and HSDPA cellular wireless data communications, are covered in a separate section.

Country	Operator	Total number of broadband connections (all technologies)	xDSL connections	Cable modem	Leased lines	FTTx	FWA	Other
Croatia	Incumbent	525,046	524,397	-	614	-	36	-
	Alternative operators	186,758	121,963	40,777	392	3,657	19,969	-
FYROM	Incumbent	117,289	116,314	-	265	-	-	710
	Alternative operators	109,662	24,565	61,256	20	-	6,278	17,543
Turkey	Incumbent	6,007,936	5,974,460	-	15,564	-	-	17,912
	Alternative operators	772,543	473,264	191,331	1,243	100,601	-	6,104
Albania	Incumbent	61,000	59,600	N/A	130	70	N/A	1,200
	Alternative operators	50,000	35,000	N/A	-	-	-	15,000
Bosnia &	Incumbent	170,212	169,539	-	673	-	-	-
Herzegovina	Alternative operators	121,901	2,103	62,834	235	235	55,961	533
Montenegro	Incumbent	44,606	44,606	-	-	-	-	-
	Alternative operators	7,278	-	70	-	-	7,208	-
Serbia	Incumbent	246,992	234,134	-	573	-	12,285	-
	Alternative operators	343,594	117,118	187,923	744	19	33,579	4,211
Kosovo	Incumbent	34,068	34,068	-	-	-	-	-
(UNSCR 1244)	Alternative operators	100,290	-	95,495	-	46	4,479	270

Table A.19 - Number of fixed broadband connections with breakdown by operator and technology

Note:

FTTx: This includes Fibre To The Curb (FTTC), Fibre To The Home (FTTH), Fibre To The Premises (FTTP), etc.

Croatia, FYROM: Reference data as of 1Q 2010

FYROM: FTTx figures are treated by operators as confidential. Cumulative subscriber numbers are shown under 'Other' category.

Turkey: Reference data as of 1H 2010

Albania, Bosnia & Herzegovina, Serbia, Kosovo: Reference data as of January 1, 2010

Broadband penetration rate, measured as the overall number of broadband lines divided by the national population, is significantly below the EU-27 average rate that in July 2009 was 23.90%. The weighted average broadband penetration rate for eight countries was 8.01%. The highest broadband penetration level was observed in Croatia (13.44%), above the level of Romania and Bulgaria that joined the EU in 2007.

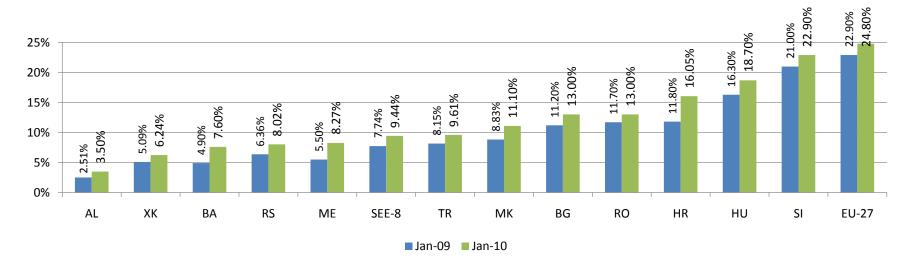


Figure 25 - Broadband penetration rate, 2009-2010

Note:

EU broadband data: EC 14<sup>th</sup> and 15<sup>th</sup> Implementation Reports

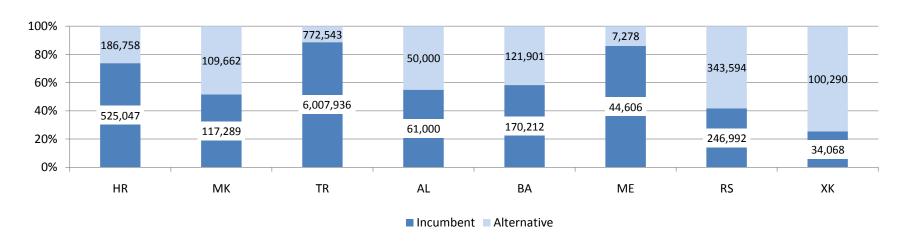


Figure 26 - Fixed retail broadband connections by incumbent and alternative operators

Broadband retail markets are dominated by fixed incumbent operators in most of the countries, where xDSL is the main access technology. An exception is Kosovo where broadband connections provided over cable infrastructures of alternative operators by far exceed the number of xDSL connections from the incumbent operator. Cable broadband also presents a strong competitive alternative in Bosnia & Herzegovina, FYROM and Serbia. Fixed wireless access has emerged as a competitive alternative in Bosnia & Herzegovina FWA providers rely on unlicensed WiFi spectrum in the 2.4 GHz and 5 GHz bands.

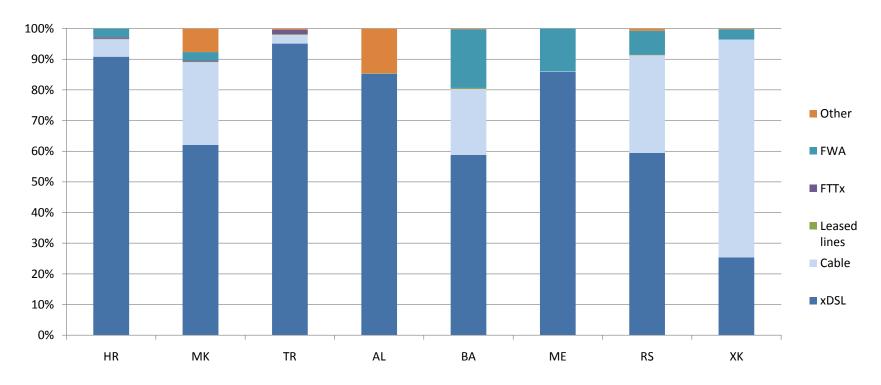


Figure 27 - Fixed retail broadband connections by technology

Table A.20 shows the retail DSL lines supplied by the incumbent operator and by alternative operators. The lines from alternative operators are broken down by those supplied using one of three types of wholesale offer from the incumbent operator and those delivered on their own networks.

In most of the countries, the position of the incumbent operator in the retail xDSL broadband is extremely strong, with alternative operators having less than 20% of the market. The position in Serbia is more equitable, with the incumbent having 67% of the retail market, but even then it supplies 100% of the bitstream access connections to alternative operators in the wholesale market. An exception is Albania, with alternative operators controlling 37% of the retail xDSL broadband connections supplied over their own infrastructures.

Country	Incumbent operator's	Retail xDSL lines by	Breakdown of alternative operators' xDSL lines by the type of access						
	retail xDSL lines	alternative operators	Full LLU access	Shared access	Bitstream access	Resale	Own network		
Croatia	524,397	121,963	99,357	1,709	19,354		1,543		
FYROM	116,314	24,565	4,647	-	-	19,918	-		
Turkey	5,974,460	473,264	305	10,351	449,018	13,590	-		
Albania	59,600	35,000	-	-	-	-	35,000		
Bosnia & Herzegovina	169,539	2,103	-	-	-	-	2,103		
Montenegro	44,606	-	-	-	-	-	-		
Serbia	234,134	117,118	-	-	117,118	-	-		
Kosovo (UNSCR 1244)	34,068	-	-	-	-	-	-		

Table A.20 - Competition in retail xDSL

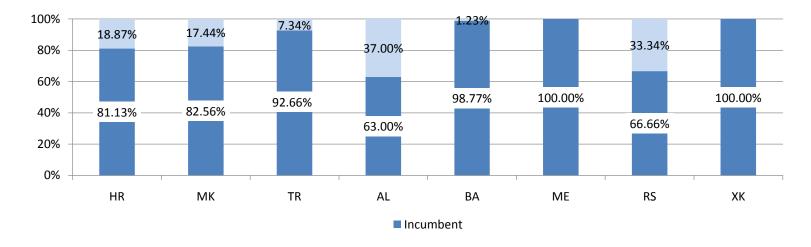
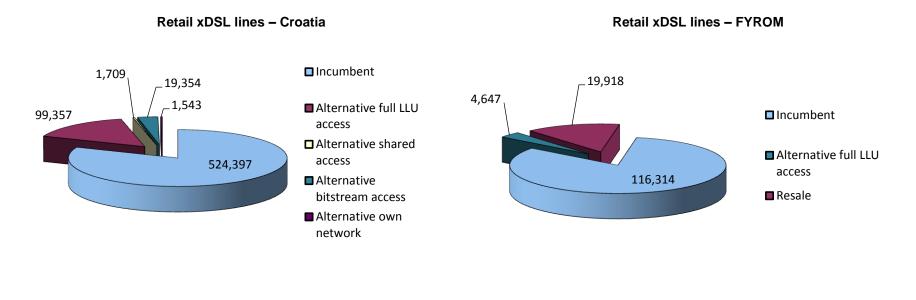


Figure 28 - Competition in retail xDSL

The figure below shows the level of competition in xDSL broadband in Croatia, FYROM, Serbia and Turkey with the type of wholesale access offers used by the alternative operators. These are the four countries where there is an emerging competition in the provision of retail xDSL services on the basis of wholesale offers from the incumbent operators.



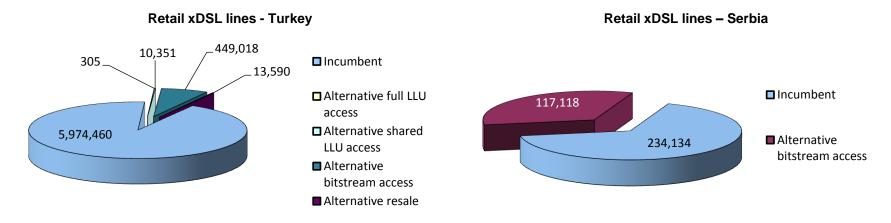


Figure 29 - Competition in retail xDSL in Croatia, FYROM, Serbia and Turkey

Table A.21 shows the lowest and highest download speeds available for broadband Internet access. The fastest broadband connection of up to 60 Mbps download speed is offered by a SBB, a cable TV operator in Serbia. The fastest DSL connection is offered by the incumbent operator in Turkey.

Country		Incumbent operator over DSL		Largest alternative operator over DSL		Cable operator		FWA operator		FTTH operator	
		downstream	upstream	Downstream	upstream	downstream	upstream	downstream	upstream	downstream	upstream
Croatia	Operator	HT- Hrvats	ki Telekom	OT-Optima	Telekom	B.net Hr	/atska	NOVI-	NET		
	max	20 Mbps	768 kbps	6 Mbps	640 kbps	16 Mbps	1 Mbps	3 Mbps	512 kbps	N/A	N/A
	min	4 Mbps	256 kbps	2 Mbps	256 kbps	2 Mbps	256 kbps	2 Mbps	256 kbps		
FYROM	Operator	Makedonsł	ki Telekom	ONI	Ē	Teleka	abel	Neot	tel		
	max	16 Mbps	1 Mbps	16 Mbps	1 Mbps	10 Mbps	1 Mbps	1.5 Mbps	384 kbps	N/A	N/A
	min	6 Mbps	768 kbps	6 Mbps	768 kbps	4 Mbps	512 kbps	2 Mbps	512 kbps		
Turkey	Operator	TTT	Vet	Doğan Te	elekom	Turks	sat	-		Supero	nline
	max	32 Mbps	1 Mbps	8 Mbps	1 Mbps	20 Mbps	1 Mbps	N/A	N/A	100 Mbps	5 Mbps
	min	512 kbps	128 kbps	512 kbps	128 kbps	512 kbps	256 kbps			10 Mbps	1 Mbps
Albania	Operator	Albtel	ecom	Abiss	net	-		-			
	max	12 Mbps	796 kbps	11 Mbps	512 kbps	N/A	N/A	N/A	N/A	N/A	N/A
	min	2 Mbps	128 kbps	1 Mbps	512 kbps						
Bosnia & Herzegovina	Operator	BH Telecom – E Srpske – Tec	•	Aneks		Europronet		Logosoft		-	
	max	8 Mbps	512 kbps	10 Mbps	512 kbps	4 Mbps	384 kbps	4 Mbps	384 kbps	N/A	N/A
	min	1 Mbps	128 kbps	2 Mbps	256 kbps	1 Mbps	128 kbps	1 Mbps	128 kbps		
Montenegro	Operator	Crnogorsk	i Telekom			M-Ka	ıbl	M:te	el		
	max	8 Mbps	512 kbps	N/A	N/A	2 Mbps	256 kbps	2 Mbps	512 kbps	N/A	N/A
	min	1 Mbps	256 kbps			512 kbps	64 kbps	256 kbps	256 kbps		
Serbia	Operator	Telekon	n Srbija	INT (	CS	SBE	3	Orio	n		
	max	16 Mbps	768 kbps	16 Mbps	768 kbps	60 Mbps	2 Mbps	2 Mbps	2 Mbps	N/A	N/A
	min	256 kbps	64 kbps	1 Mbps	128 kbps	1 Mbps	128 kbps	384 kbps	384 kbps		
Kosovo	Operator	PT	K			Kujte	sa				
(UNSCR 1244)	max	4 Mbps	256 kbps	N/A	N/A	5 Mbps	256 kbps	N/A	N/A	N/A	N/A
	min	256 kbps	256 kbps			256 kbps	256 kbps				

Table A.21 - Fastest advertised retail broadband connection

The OECD published data on speeds available from operators across its thirty members for October 2009 (see Figure 30). 16

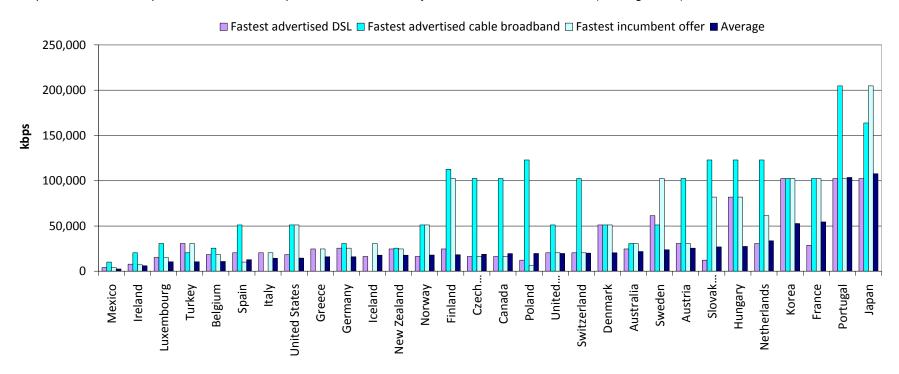


Figure 30 - Average and fastest broadband speeds in the OECD<sup>17</sup>

By comparison, Croatia, FYROM, Turkey, and Serbia would be in the middle of the OECD range for DSL, while other monitored countries would be at the bottom, alongside Ireland. However, the cable modem speeds are all at the slower end of the range, with 20-30 Mbps being typical top speeds.

#### c) Mobile broadband

In most of the monitored countries, with the exception of Albania and Kosovo, 3G mobile data services are available commercially. According to the reported data by 2010, the penetration of mobile broadband measured as the number of dedicated data card users had reached 6% in Croatia, 1.3% in Serbia, 1.2% in Turkey, 0.5% in FYROM and 0.1% in Bosnia and Herzegovina. Montenegro has reported 23% penetration of mobile broadband as of July 2010. This high figure could be explained by a large number of prepaid cards issued during summer season and by the fact that prepaid users are counted as active during 12-months period.

<sup>16</sup> http://www.oecd.org/sti/ict/broadbandIn

<sup>17</sup> http://www.oecd.org/document/54/0,3343,en\_2649\_34225\_38690102\_1\_1\_1\_1,00.html (Section 5)

Country	UMTS (W-CDMA) subscribers	Dedicated data cards users	Penetration (as % of population)
Croatia	2,003,977	269,091	6%
FYROM	315,707	9,932	0.5%
Turkey	11,433,031	832,321	1.2%
Albania	N/A	-	-
Bosnia & Herzegovina	65,175	3,961	0.1%
Montenegro	239,237	144,425	23%
Serbia	862,935	100,628	1.3%
Kosovo (UNSCR 1244)	N/A	-	-

Table A.22 - Number of subscribers to 3G high-speed mobile networks

Note:

Montenegro: Source of mobile broadband data: EKIP report on Internet and broadband (July 2010)

## 9. Control of major operators by foreign investors

This table shows which key foreign strategic investors have a controlling interest in fixed and mobile operators, and ISPs.

Country	Investor	Operators					
		Fixed	Mobile	ISP			
Croatia	Deutsche Telekom	T- Hrvatski Telekom – 51%	T-Mobile Hrvatska – 51% (100% owned by HT)	T- Hrvatski Telekom – 51% Iskon – 51% (100% owned by HT)			
	Tele2 Sweden	-	Tele2 – 100%	-			
	Telekom Austria/Mobilkom	VIPNet – 100%	VIPNet – 100%	VIPNet – 100%			
FYROM	Deutsche Telekom	Makedonski Telekom – 33.60% (56.67% owned by Magyar Telekom)	T-Mobile – 33.60% (100% owned by Makedonski Telekom)	Makedonski Telekom – 33.60%			
	Telekom Austria/Mobilkom		VIP – 100%				
	Telekom Slovenije	One – 100%	One – 100%	One – 100%			
Turkey	Oger Telecom	Türk Telekomünikasyon - 55%	Avea – 44.55% (81% owned by Türk Telekom)	TT Net - 55% (100% owned by Türk Telekom)			
	TeliaSonera		Türkcell – 13.07%				
	Vodafone Group		Vodafone – 100%				

Country	Investor		Operators					
		Fixed	Mobile	ISP				
Albania	Cosmote (OTE)		AMC – 95%					
	Vodafone Group		Vodafone Albania - 100%					
	Calik Enerji Telecommunications (consortium of Calik Enerji and Turk Telecom)	Albtelecom – 76%	Eagle Mobile - 76%					
	Telecom Slovenije	PRIMO – 75%		PRIMO – 75%				
	PTK (Kosovo)		Mobile 4 Al – 30%					
Bosnia & Herzegovina	Telekom Srbija	Telekom Srpske - 65%	m:tel – 65% (100% owned by Telekom Srpske)	Teol – 65% (100% owned by Telekom Srpske)				
	T- Hrvatski Telekom (Croatia)	HT Mostar - 39.1%	HT Eronet - 49% (51% owned by HT Mostar)	HT Net (100% owned by HT Mostar)				
	Telecom Slovenije			Aneks – 100%				
Montenegro	Deutsche Telekom	T-Com Montenegro – 45.53% (76.53% owned by Magyar Telecom)	T-Mobile Montenegro – 45.53% (76.53% owned by Magyar Telecom)	T-Com Montenegro – 45.53% (76.53% owned by Magyar Telecom)				
	Telenor		ProMonte - 100%					
	Telekom Srbija		m:tel - 51%					
Serbia	OTE	Telekom Srbija - 20%	m:ts - 20% (100% owned by Telekom Srbija)	Telekom Srbija - 20%				
	Telenor		Telenor - 100%					
	Telekom Austria/Mobilkom		VIPmobile - 100%					
Kosovo (UNSCR 1244)	Telekom Slovenije/Mobitel	IPKO – 93.11%	IPKO – 93.11%	IPKO – 93.11%				

Table A.23 - Control of major undertakings by foreign investors

### 10. Key financial ratios of the fixed incumbent operators

The most commonly used financial ratios in the assessment of the performance of telecommunications operators are:

- Return on Capital Employed (ROCE) the net profit before interest and taxes divided by the total capital employed;
- Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) margin EBITDA divided by operating revenues; and
- Earnings Before Interest and Taxes (EBIT) margin the EBIT divided by operating revenues.

Return on Capital Employed (ROCE) is a measure of the returns that an operator realises from the capital it uses. The ratio can represents the efficiency with which capital is being used to produce revenue. ROCE is used both to compare the performance of different businesses and to assess whether a business generates sufficient returns to pay for its cost of capital.

ROCE compares earnings with capital invested in the company, taking into account sources of financing. Net assets or capital employed are examined rather than total assets. Capital employed can have many definitions, though, in general, it is the capital investment necessary for a business to function. It is commonly represented as the total assets less the current liabilities or fixed assets plus working capital. The main drawback is that it measures return against the book value of assets. As these are depreciated, ROCE will increase even though cash flow has remained the same. Thus, older businesses with depreciated assets will tend to have higher ROCE than newer, possibly better businesses. In addition, while cash flow is affected by inflation, the book value of assets is not. Consequently, revenues increase with inflation while capital employed generally does not (as the book value of assets is not affected by inflation).

The net income of a company is affected by decisions that the company made in previous years. This is because of the differences between accrual accounting and cash-based accounting. Some purchases can be depreciated or amortized over 20 years or more, with a negative impact on the net income long after the actual financial effects of the purchases have ceased.

The use of Earnings Before Interest, Taxes, Depreciation, and Amortisation (EBITDA) does not suffer from this distortion, allowing investors a better understanding of the profitability of the company. Depreciation and amortisation are non-cash charges, so that EBITDA is seen as a better proxy than earnings from the cash that flows through a company. Essentially, EBITDA measures the core income that a company earns before it covers its debt payments and pays its income taxes. Investors can also use this measure to compare the profit growth of companies that operate in different tax regimes. EBITDA can also assist lenders when estimating the cash flows that a company will have available to service its debt as it measures the amount of cash that a company has available for interest payments. Finally, EBITDA can provide a more accurate cash flow picture in industries where substantial non-cash depreciation and amortisation expenses might otherwise distort earnings.

Earnings before interest and taxes (EBIT), also known as operating income and operating profit, is a term used to describe a company's earnings. To calculate EBIT, basic expenses (e.g., the cost of goods sold, selling and administrative expenses) are subtracted from revenues. Profit is later obtained by subtracting interest and taxes from the result.

Country	Fixed	Key financial ratios and performance indicators							
	incumbent operator	ROCE	EBITDA margin in %	EBIT margin in %	Average number of employees	Number of fixed lines per employee			
Croatia	T- Hrvatski Telekom	8.28%	37.74 %	17.60%	4,849	298			
FYROM	Makedonski Telekom	30.02%	44.6%	26.7%	1,285	296			
Turkey	Türk Telekom	36%	41%	26%	3,883	4,193			
Albania	Albtelecom	3.82%	53.95%	9.70%	1,950	146			
Bosnia & Herzegovina	BH Telecom	5.50%	39.06%	21.18%	1,100	490			
	Telekom Srpske	4.88%	32.66%	10.35%	1248	146			
	HT Mostar	-5.52%	0.49%	-22.05%	1,219	104			
Montenegro	T-Com Montenegro	9.67%	39.36%	25.85%	917	194			
Serbia	Telekom Srbija	12.7%	43.6%	24.3%	9,594	324			
Kosovo (UNSCR 1244)	PTK	17.93%	31.24	12%	531	164			

Table A.24 - Key financial ratios of the fixed incumbent operators

The number of fixed lines per employee has long been used as an indicator by the ITU and OECD, as a proxy for the efficiency of a telecommunications operator, on the assumption that the more fixed lines per employee the more efficient the operator. The problem of calculation and interpretation of these numbers has grown in recent years, where it is important to understand how employees are attributed across different parts of the business. Equally, with activities devolved to or purchased from manufacturers, business process outsourcers, call centres and the like, many of those performing roles for the operator may not be employees. Consequently, great care has to be taken in comparing operators or examining historical trends.

### B. National regulatory authorities

This section examines the effectiveness of the institutional framework and environment. The specific issues covered are not only concerned with the NRA, but also address other relevant institutional actors such as the legislative and policy-making bodies, national competition and broadcasting authorities (if different from the NRA) and the national appeal systems. In relation to the NRA, this section seeks to cover the issues associated with the standards of good governance such as independence, accountability, transparency, participation and effectiveness. Additionally, this section also addresses other relevant institutional actors such as the legislative and policy making bodies, national competition and broadcasting authorities.

### 1. NRA independence

The establishment of an independent regulatory authority is a cornerstone of the EU regulatory framework for electronic communications. Independence remains a critical issue in ensuring predictability and stability in the regulatory environment. Independence involves two elements:

- separation of the NRA from the regulated firms; and
- isolation of the NRA from political intervention.

The first aspect of independence (from industry) is generally less contentious and more straightforward to assess than the second (independence from political influence). Both issues are addressed in the three following tables.

Article 3 of the Framework Directive requires that regulatory tasks must be carried out by competent bodies that are legally distinct and functionally independent from any organisations providing electronic communications networks and services. Furthermore, where the state retains control of undertakings providing electronic communications networks and services, the activities associated with the state ownership and control must be structurally separate from regulatory functions.

Under the EU regulatory framework, there has been no requirement for privatisation and the rules on institutional separation are set out in recognition of the legitimacy of the state ownership. Nevertheless, in countries where the state is no longer the owner of any electronic communications undertakings, the subject of regulatory independence is usually a lesser concern.

### a) State ownership of telecommunications operators

Table B.1 provides information about state ownership and the control of fixed and mobile telecommunications operators. This includes any 'golden shares', i.e., special powers granted to the state by law or by the articles of association of a company that allow it to maintain a special influence in privatised companies. Figure 31 shows the state ownership for those operators present in the region, including parent firms such as the Austrian, German and Saudi incumbent operators.

In Croatia, following an IPO of 32% of the stock of T-Hrvatski Telekom (T-HT) in the autumn of 2007 and further sale of shares during 2008, the state's shareholding in the incumbent operator was reduced to 3.5%. In early December 2010, this remaining government holding was transferred to the Croatian War Veteran's Fund. Deutsche Telekom is the majority owner of T-HT with 51% which is acquired in two transhes in 1999 and 2001.

In FYROM, the government controls 34.81% in the incumbent Makedonski Telekom plus one "golden share". The majority 51% stake is held by Magyar Telekom, a subsidiary of Deutsche Telekom. The remaining is held by private investors.

In Turkey, following the sale of 55% of the stock of Türk Telecom to Saudi Oger in 2005, the government conducted an IPO of further 15% in April 2008, retaining 30% shareholding plus one golden share. (35% of Saudi Oger is controlled by Saudi Telecom Company (STC) which is 70% owned by the Kingdom of Saudi Arabia). The Turkish Treasury performs the ownership function of the state's shareholding in Türk Telekom, while the Ministry of Transport and Communications is responsible for its operational activities ('golden share' function). Indirectly, the Turkish government also holds 24.3% in Avea Telecommunications, a mobile operator that is 81% owned by Türk Telekom. Turksat Satellite Communication and Cable TV Operation AS (Turksat) is wholly owned by the government. In January 2010, the Ministry of Transport and Communications announced plans to sell part of its stake in Türk Telekom

In Albania, in June 2007, after a two-year period of negotiations Calik Enerji, a Turkish group, and the Albanian Ministry of Economy, Trade and Energy, signed an agreement for the sale of a 76% state's shareholding in the incumbent operator, Albtelecom. The deal also included Eagle Mobile, the third mobile telephony licensee that was not then operational. The purchaser is a joint venture owned by Calik Energi (80%) and Türk Telekom (20%). The agreement was ratified by the Albanian Parliament on July 19, 2007. In February 2009, the Albanian government agreed to sell its 12.6% stake in Albanian Mobile Communications (AMC), a major mobile operator, to Cosmote, a mobile subsidiary of the Greek incumbent operator, who following the transaction controls 95% of AMC.

In Bosnia & Herzegovina, there are incumbent operators in each of the three territories. The Federation government of Bosnia & Herzegovina retains 90% of BH Telecom (Sarajevo) and 50.10% of Hrvatske Telekomunikacije (Mostar), with the ownership functions performed by the Federal Ministry of Transport and Communications. The third incumbent operator, Telekom Srpske in the Republika Srbska is fully privatised. In December 2006, the Serbian incumbent operator, Telekom Srbija, won the tender for the privatisation of the 65% holding of Republika Srpska in Telekom Srpske. This was completed in July 2007, following the approval of the Competition Council of Bosnia & Herzegovina. Of the remaining shares, 20% float on the national stock exchange, 10% are held by a pension fund and 5% are held by a restitution fund.

In Montenegro, there is no longer state ownership of any operator. In March 2005, the government sold its 76.53% shareholding in Crnogorski Telekom to Magyar Telecom, a subsidiary of Deutsche Telekom. Private investors now hold 23.47% of the shares which are quoted on the stock exchange. In 2001, the former PTT of Montenegro (a state-owned enterprise) sold its 9% share in Promonte, a mobile operator, to the majority shareholders.

In Serbia, the government owns 80% of Telekom Srbija through the Public Enterprise of PTT Traffic "Srbija", where it also retains a 'golden share' that gives the veto power over all strategic decisions of the company. Since 2003, the Greek incumbent operator OTE controls the remaining 20% of the capital in Telekom Srbija itself partly owned by the Greek state (25%) and by Deutsche Telekom (25%). In October 2010, the Serbian government announced a tender procedure for the 51% stake in Telekom Srbija, inviting expressions of interest until November 26, 2010.

In Kosovo, UNMIK was responsible for the 100% state ownership of PTK, the incumbent operator, through the Kosovo Trust Agency (KTA), a provisional body established by UNMIK regulation 2002/12. Following the unilateral declaration of independence by Kosovo in February 2008 and entry into force of the Constitution of Kosovo on June 15, 2008, the Kosovo government took over the UNMIK roles. The government ownership and control functions in PTK are exercised by the Ministry of Transport and Communications. In November 2010 parliament adopted a strategy for privatisation of 75% stake in PTK.

Country	Name of operator	State shareholding	Golden share	Government unit responsible for ownership functions
Croatia	-	-	-	-
FYROM	Makedonski Telekom	34.81%	Yes	Ministry of Finance
Turkey	Türk Telekom	30.00%	Yes	Undersecretariat of Treasury
	Avea	24.30%	-	
	Turksat	100.00%	-	
Albania	Albtelecom	24.00%	-	Ministry of Economy, Trade and Energy
	Eagle Mobile	24.00%		
Bosnia &	BH Telecom d.d. Sarajevo	90.00%	-	Entity government in Federation of BiH
Herzegovina	Hrvatske Telekomunikacije d.o.o. Mostar	50.10%	-	Entity government in Federation of BiH
Montenegro	-	-	-	-
Serbia	Telekom Srbija a.d.	80.00%	Yes	Not defined
Kosovo (UNSCR 1244)	PTK (Post and Telecommunications Enterprise of Kosovo)	100.00%	-	Ministry of Transport and Communications

Table B.1 - State ownership and control of telecommunications operators

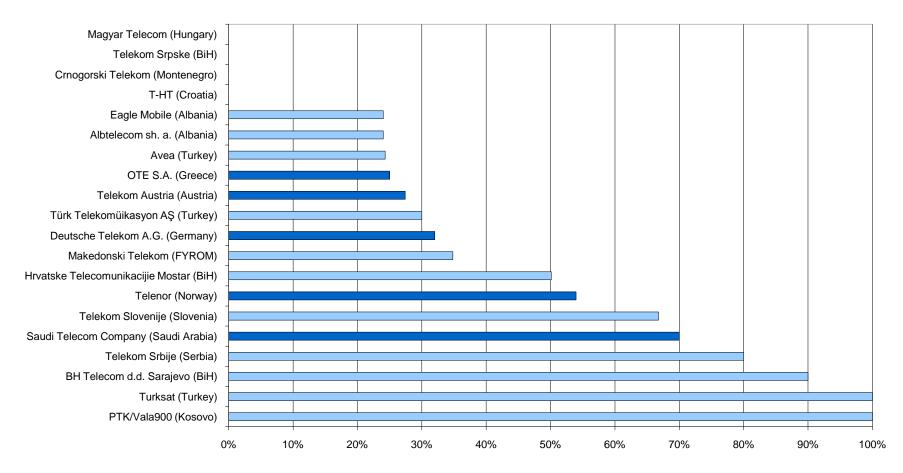


Figure 31 - State ownership of telecommunications operators

### b) Responsibilities of the NRA and policy-making bodies

Political influence is the most direct means of influencing the NRA. The mere possibility of political intervention may put the regulator under pressure. The importance of greater political independence has been explicitly addressed in the review of the EU regulatory framework for electronic communications. The new EU telecoms rules adopted in November 2009 reinforce national telecoms regulators' independence by eliminating political interference in their day-to-day duties and by adding protection against arbitrary dismissal for the heads of national regulators.

The issue of political independence can be assessed, *inter alia*, on the basis of: the extent to which the NRA discretion has been limited by law, the potential and actual extent of political intervention, the rules for appointment and dismissal of the NRA management and duration of its term of office.

### The table below addresses:

- the division of the key responsibilities between the NRA and the ministry (or other government body) responsible for the electronic communications policy;
- powers of the Ministry or the government to give binding directions to the NRA; and
- whether certain NRA decisions are subject to prior or subsequent approval by the ministry or by another governmental institution.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Croatia	<ul> <li>Article 12, Electronic Communications Act of June 19, 2008</li> <li>HAKOM responsibilities include: <ul> <li>Adoption of implementing legislation</li> </ul> </li> <li>Monitoring and regulation of prices and general business terms and conditions of operators</li> <li>Market analysis, designation of undertakings with SMP an imposition of regulatory obligations</li> <li>Designation of universal service providers</li> <li>Adoption of the Numbering Plan, Addressing Plan and drafting the Frequency Allocation Table</li> <li>Issuing individual spectrum licences</li> <li>Dispute resolution involving operators, service providers, end users</li> <li>Expert supervision over application of the Act and regulations adopted under the Act (performed by the NRA's supervisors)</li> </ul>	<ul> <li>Article 4, Electronic Communications Act of June 19, 2008</li> <li>Government:         <ul> <li>Adopts strategies, studies, guidelines and programmes establishing general principles and policy objectives for the development of electronic communications</li> </ul> </li> <li>Ministry of the Sea, Transport and Infrastructure:         <ul> <li>Drafts proposals for strategies, studies, guidelines and policy objectives</li> </ul> </li> <li>Coordinates and supervises the work of all authorities responsible for implementation of the policy objectives</li> <li>Prepares and adopts implementing legislation, including the ordinance on the allocation of spectrum and the Frequency Allocation Table</li> <li>Carries out <i>inspection</i> supervision in electronic communications (performed by the ministry inspectors)</li> </ul>	Article 4, Electronic Communications Act of June 19, 2008  The ministry  • may give guidelines and instructions to the NRA concerning the implementation of the established principles and policy objectives for the development of electronic communications;  • may not influence the adoption of the NRA decisions in individual cases  The administrative supervision of the NRA by the Ministry established under Article 3(6) of the previous Telecommunications Act of 2003 was removed from the new Electronic Communications Act of 2008.  Article 18(4) of the new Act states that final decisions and other administrative acts of the NRA may not be annulled or repealed on the basis of supervision rights, or repealed under emergency procedures, or be made null and void by a competent body.  The Ministry (MSTI) has recently requested HAKOM to reduce the number of its employees by 10%.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
FYROM	Article 9, Law on Electronic Communications of 2005 Agency for Electronic Communications (AEC) is responsible for:  • adoption and implementation of the secondary legislation • spectrum management, including allocation and assignment of frequencies • number management • market analysis; designation of undertakings with SMP and imposition of regulatory obligations • approval of reference interconnection and unbundling offers • regulation of wholesale and retail prices • universal service: designation of providers and management of the US fund • dispute resolution in commercial disputes • consumer complaints	Article 6, Law on Electronic Communications of 2005     The Ministry of Transport and Communications:         • prepares the National Strategy for development of electronic communications and information technology         • prepares legislation for electronic communications         In June 2010 Article 5 of the Law on Electronic Communications was amended to clarify the division of tasks between the ministry and the NRA (by removing the provision that defined the ministry as one of the bodies responsible for the regulations).	Article 7, Law on Electronic Communications of 2005 The NRA, "in its work and in taking the decisions within the scope of its competencies is independent and not subordinated to any state body or other public legal person or trade company engaged in operating in the field of electronic communications and is impartial towards them."  In June 2010 Article 6 of the Law on Electronic Communications was amended by adding a new responsibility of the ministry "to supervise the legality of the work of the AEC."  Under Article 63, Law on Electronic Communications of 2005, the government approves the minimum one-off fee for frequency authorisations issued subject to tender procedures.  Under Article 35, the ministry approves the universal service provider selected by the NRA in a public tender procedure.
Turkey	Electronic Communications Law No. 5809 of November 5, 2008 Information Technologies and Communications Authority (ICTA) is responsible for:  • ensuring competition through regulations aiming at the elimination of anti-competitive practices  • adopting regulations and performing supervisory activities to protect the rights of the end users  • conducting market analyses  • adopting regulations and performing supervisory activities in the field of authorisations, tariffs, access, rights of way, numbering, spectrum management and market surveillance by taking into consideration the strategies and policies of the ministry  • ensuring the implementation of the harmonized standards prepared by the national standards bodies  • market surveillance and supervision	Ministry of Transport and Communications is responsible for:  strategies and policies for electronic communications sector, promoting development of competitive environment and transition to information society  policies for the construction and development of electronic communications networks and services in accordance with the technical, economical and social needs, national security objectives and public interest.  contributing to the policies for the development of the electronic communications equipment industry  encouraging domestic design and production of electronic communications systems, promoting research and development activities by technical and financial means  taking measures to ensure the continuity of communication in the case of natural disasters and emergencies	ICTA has been established as a financially and administratively independent regulatory body which acts as public legal entity with a view to exercise the authority and to perform tasks assigned by the laws. According to Article 5 of Law on Establishment of Information Technologies and Communications Authority No. 2813 amended by Electronic Communications Law No. 5809, 'ICTA is independent in performing its tasks. Not any body, office, authority or person could direct or instruct the Authority.'  However, minimum values for individual rights of use are determined by the Council of Ministers.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Albania	Article 8, Law on Electronic Communications (Law No. 9918 of May 19, 2008) Authority of Electronic and Postal Communications (AKEP) is responsible for:  • regulation of access and interconnection • approval of reference offers for access and interconnection • market analysis, designation of undertakings with SMP and imposition of regulatory obligations • registration of notified undertakings • assignment of frequencies for electronic communications services • preparing the National Numbering Plan and assignment of numbers • price control of wholesale and retail tariffs • management of the universal service fund and carrying out of the designation procedures of the universal service providers • management of national top level domain names	<ul> <li>Article 5, Law No. 9918 of May 19, 2008</li> <li>The Minister in charge of the electronic communications sector is primarily responsible for:</li> <li>preparing and presenting for the approval by the Council of Ministers the proposal for the policy in the electronic communications field and following its implementation</li> <li>issues orders and instructions for completing the regulatory framework defined by the Law and government's policies</li> <li>drafting relevant primary and secondary legislation</li> <li>preparing the National Radio Frequency Plan</li> <li>approval of tender procedures for frequency assignment and the designation of universal service providers, based on proposals by AKEP</li> <li>On Sep. 30, 2009 the Prime Minister Decision No. 1057 transferred the competencies for electronic communications from the Ministry of Public Works, Transport and Telecommunications to the Ministry of State for Reform and Parliamentary Relations. In March 2010 renamed into Ministry for Innovation and Information Communication Technology.</li> </ul>	Article 6, Law No. 9918 of May 19, 2008  'AKEP is a public, independent, non-budgetary, legal entity, which exercises its activity in compliance with legislation in force. AKEP in its work and decision-making within its competencies is independent'.  However, according to Article 5, the Minister:  • can issue orders and instructions for completing the regulatory framework defined by the Law and government policies  • approves allocation of frequencies and respective tender procedures for their assignment  • approves US providers designation
Bosnia & Herzegovina	Article 3, Law on Communications of 2002 Regulatory Authority for Communications (RAK) is responsible for:  • regulating radio and TV broadcasting and public telecommunications networks and services  • licensing  • tariffs regulations  • interconnection  • defining the basic conditions for the provision of common national and international communications facilities  • planning, co-coordinating, allocating and assigning the use of the radio frequency spectrum  • management of the numbering plan and assignment of numbering resources to telecommunications operators.	The Council of Ministers is responsible for:  developing and adopting policy in line with the existing legislation  defining the scope of the universal service, designating the providers and establishing the funding mechanism, based on proposals of the NRA  determining the representation of BiH in international forums concerned with communications  RAK cooperates with the Ministry of Transport and Communications which practically performs the coordination of functions which are the Council of Ministers responsibility.	In order to carry out the constitutional provisions in respect of communications the Council of Ministers is responsible for policy-making, and RAK is responsible for the regulation.  As policy maker, the Council of Ministers issues obligatory political guidelines (sector policy). The sector policy defines the regulatory priorities and the action plan for the NRA, although it does not influence individual RAK decisions.  The Council of Ministers also decides on the scope of the universal service, designation of the providers and establishing the funding mechanism, based on proposals of the NRA.  The Council of Ministers also approves, based on proposals of the NRA applicable fees and terms and conditions for spectrum licences.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Montenegro	Article 8, Law on Electronic Communications of July 29, 2008  Agency for Electronic Communications and Postal services:  • prepares draft bylaws and regulations that are adopted by the Ministry  • adopts rules and procedures for the implementation of the Law and bylaws  • prepares draft national radio frequency bands allocation plan that is adopted by the Government  • adopts the national addressing and numbering plans  • organises tender procedures and issues authorisations to use frequencies, numbers and addresses  • presents for the government approval the amount of fees to be paid by authorised operators and service providers, calculated based on the methodology developed by the Ministry  • performs market analyses, designation of providers with SMP and imposition of regulatory obligations  • dispute settlement  • designation of the universal service provider and management of the universal service fund  • expert supervision of activities of registered operators	Article 4, Law on Electronic Communications of July 29, 2008 Government:      adopts development strategy on decade bases     adopts the national radio frequency bands allocation plan     adopts the NRA statute, approves its annual action plan and financial plan     adopts yearly activity report by the NRA, including the financial report     periodically determines the scope of universal service     determines conditions for utilizing networks for electronic communications in state of emergency.  Article 5, Law on Electronic Communications of July 29, 2008 Ministry of Maritime Affairs, Transport and Telecommunications:     develops legislation and adopts bylaws and regulations under the Law on Electronic Communications     drafts sector development strategy     approves QoS requirements for the universal service on the NRA proposal     determines methodology to be applied by the NRA when setting authorization fees and fees for use of limited resources     authorises institutions responsible for certification of R&TTE equipment     performs inspection of the implementation of the Law and secondary legislation adopted under the Law	Article 130, Law on Electronic Communications of July 29, 2008 authorises the Ministry to perform "supervision of legality and purposefulness" of the NRA activities. This supervisory function, however, should not be applied to the regulatory decisions and regulatory rules adopted by the NRA, where the NRA must be independent.  The Law on Electronic Communications provides for the separation of legislative functions of the Ministry from strictly regulatory activities performed by the NRA.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Serbia	Article 7-8, Law on Electronic Communications (Official gazette of RS, 44/10) Republic Agency for Electronic Communications (RATEL) is responsible for:  • implementation of the electronic communications policy;  • promoting competition of electronic communications networks and services;  • protecting interests of electronic communications users;  • adopting by-laws;  • deciding on the rights and obligations of operators and users;  • cooperating with agencies and organizations in charge of broadcasting, competition protection, consumer protection, personal data protection and other agencies and organisations on issues relevant for the electronic communications sector;  • cooperating with the relevant regulatory and expert bodies of the EU member states and other states;  • participating in the work of international organisations and institutions within the electronic communications sector in the capacity of the NRA;  • performing other activities in accordance with the Law on Electronic Communications.	<ul> <li>Article 5, Law on Electronic Communications, Government is responsible for:</li> <li>adoption of the electronic communications policy, strategy documents and implementation plans setting priorities for development of electronic communications.</li> <li>Article 6, Law on Electronic Communications, Ministry of Telecommunications and Information Society (MTIS) is responsible for:</li> <li>supervising the implementation of this Law and the regulations adopted pursuant to this Law;</li> <li>harmonising the national legislation in the electronic communications sector with the relevant regulations of the EU;</li> <li>representing the country in international organisations and institutions in the electronic communications sector and the implementation of international agreements in the electronic communications sector;</li> <li>promoting investments in the electronic communications sector and use of ICT;</li> <li>promoting research and development in the electronic communications sector, in cooperation with the ministry responsible for the development and promotion of scientific and research activities;</li> <li>inspection supervision in electronic communications performed by the ministry inspectors (article 132, Law on Electronic Communication).</li> </ul>	Article 7, Law on Electronic Communications states that the NRA is functionally and financially independent of government authorities, organisations and entities, as well as organisations performing electronic communications activities. Under the same article, the ministry supervises the lawfulness and appropriateness of functioning of the NRA in performing the entrusted duties.  Under Article 23, Law on Electronic Communications, the NRA is required, before publication of its proposed bylaws and secondary acts, to get a non-binding opinion from the ministry on the compliance of the proposed regulation with the constitution and relevant laws. The ministry shall present an argumented proposal on how to bring the regulation in compliance.  Decisions adopted by the ministry (or the government):  Under Article 55, Law on Electronic Communications on a proposal made by the NRA, the ministry determines universal service geographic scope, the number and the quality of services as well as the necessary requirements for the accessibility for disabled persons.  Under Article 83, Law on Electronic Communications, the government approves the Frequency Allocation Plan on a proposal made by the ministry that was prepared by NRA.  Under Article 84, Law on Electronic Communications, the ministry adopts the Frequency Assignment Plan on a proposal made by the NRA.  Under Article 104, Law on Electronic Communications, the ministry adopts the Act on a switchover from analogue to digital broadcasting of television programs on a proposal made by the NRA.

Country	NRA and its responsibilities	Ministry (government) and its responsibilities	Ministry (government) powers to give instructions to NRA? Government intervention required for adopting certain decisions?
Kosovo (UNSCR 1244)	<ul> <li>Under Telecommunications Law No. 2003/16, TRA is authorised to:</li> <li>issue licenses and authorizations for provision of telecommunications services</li> <li>implement the policies of the Ministry pursuant to the Law on Telecommunications, and other implementing legislation</li> <li>issue regulations and instruction for the implementation of the present Law</li> <li>assign rights to use spectrum resources and numbers</li> <li>issue price regulations</li> <li>adopt a numbering plan and assign numbers</li> <li>prepare a spectrum resource plan subject to Assembly review and approval</li> <li>perform market analysis and designate operators with SMP</li> <li>define the scope, requirements and funding mechanisms of the universal service on recommendation by the Ministry.</li> </ul>	Ministry of Transport and Communications  develops policies for the Telecommunication sector, including the development of legislation  supervises the work of PTK Assembly is responsible for:  review and approval of the spectrum resource plan  approval of the NRA budget.	The Law No. 03/L-085 of June 13, 2008 amending the Law on Telecommunications No 2003/16 establishes TRA as the sole authority to allocate radio frequency spectrum, subject to "Assembly review and approval in written" of the TRA spectrum resource plan.  The Law also deletes references to UNMIK, its Frequency Management Office (FMO) and SRSG (Special Representative of the Secretary General). The new law further ensures the NRA administrative independence by removing the provisions in the Telecommunications Law that enabled the Ministry to issue instructions to the NRA to amend a licence.

Table B.2 - The division of responsibilities between the Ministry and the NRA

### 2. Appointment and dismissal of the directors of the NRA

The rules and procedures for appointment and dismissal of the NRA management are covered in the table below, addressing:

- eligibility criteria for the NRA management (e.g. professional background, restrictions on interest in any of the market participants);
- government bodies involved in the appointment of the NRA management and specific procedures;
- duration in office of the NRA directors; and
- grounds and procedures for removal of the NRA management.

Country	Rules and procedures for appointment and dismissal	Eligibility criteria for appointment
Croatia	<ul> <li>The NRA is governed by the Council consisting of seven members, including a Chairman and a Deputy Chairman, who are full-time employees of the NRA during their term of office.</li> <li>The Council members are appointed and dismissed by Parliament upon proposal of the government.</li> <li>The appointment is for a period of five years with the possibility of reappointment.</li> <li>Parliament shall dismiss the Chairman, Deputy Chairman or a member of the NRA Council before the expiry of his term of office, upon proposal of the government in the cases of: resignation, provision of false information at the time of the appointment, serious professional misconduct, inability to perform professional duties for more than six months in a row, permanent loss of ability to perform professional duties, conviction of criminal offence, failure to fulfil objectives and tasks defined in the NRA annual work programme, conflict of interest.</li> <li>The NRA's administrative service performing expert, administrative and technical tasks is managed by the Director appointed by the NRA Council for a period of four years with the possibility of reappointment.</li> </ul>	<ul> <li>The members of the NRA Council must fulfil the following criteria:</li> <li>to be a Croatian citizen domiciled in the Republic of Croatia</li> <li>with university education or specialised university education in electronic communications, postal services, law or economics</li> <li>adequate work experience</li> <li>active knowledge of at least one foreign language (English, French or German)</li> <li>at least two members must have a completed an undergraduate course or a specialised undergraduate course in law, and two in economics</li> <li>five members must have at least five years of work experience in the electronic communications sector, and two members of must have at least five years of work experience in the postal services sector</li> <li>may not be state officials, persons on positions in bodies of political parties, units of local and regional self-government or unions or persons employed, having influence or performing other tasks in electronic communications and postal undertakings</li> <li>may not be owners, stockholders or shareholders in regulated entities or perform other tasks that may result in conflict of interest.</li> </ul>
FYROM	<ul> <li>The NRA is governed by a Commission that consists of five members, including the President and Vice President. The President and the members of the Commission are appointed and dismissed by Parliament.</li> <li>Dismissal of the Commission members prior to the expiration of the term of office in the cases of: own request, sentence of longer than six months for a criminal act, absence from three consecutive meetings or five meetings during any 12 months period during the term of office, failure to submit annual reports of the NRA to the Assembly.</li> <li>The NRA's day-to-day activities are managed by the Director, engaged as a professional full-time employee. The Director is appointed by the Commission following a public competition procedure.</li> <li>The Director can be dismissed by the Commission in the cases of: own request, inability to perform professional duties due to illness for more than 6 months, acceptance of an incompatible position or practice, sentence of longer than six months for a criminal act, violation of the law and abuse of the position.</li> <li>The term of office of the Commission members and its Director is five years, with a possible reappointment for an additional consecutive term of office.</li> </ul>	<ul> <li>The President and members of the NRA Commission may not be:         deputies of the Assembly, members of the Government, perform duties in         bodies of the political parties, members of managing and supervisory         bodies in public companies, or members of any other form of association         of legal and natural persons that might lead to a conflict of interests and         may not hold equity directly or indirectly in any undertaking performing         activities in electronic communications sector.</li> <li>The Director appointed through a public competition procedure must be: a         citizen of the Republic of Macedonia and a holder of university degree with         professional experience of more than five years. Professional and         managerial experience in electronic communications sector is taken into         account in the appointment procedure.</li> </ul>

Country	Rules and procedures for appointment and dismissal	Eligibility criteria for appointment
Turkey	<ul> <li>The decision making body of ICTA is the ICTA Board that consists of seven members, including a Chairman and a Vice Chairman. The Chairman is also responsible for the general management and representation of ICTA.</li> <li>Board members are appointed for a period of five years by the Council of Ministers. Two of them are nominated by operators having at least 10% market share, one member – by the Ministry of Industry, one – by Trade and the Union of Chambers and Industry, and three members – by the Ministry of Transport.</li> <li>Appointments require approval by the President of the Republic.</li> <li>The Board members can only be dismissed before expiration of a term by the Council of Ministers for inability to work due to serious illness, professional misconduct or criminal offences.</li> </ul>	University degree in relevant fields     Ten years of experience in public or private sector     Eligibility for public service     No connections to political parties     No conflict of interest
Albania	<ul> <li>The NRA is governed by the Governing Council composed of five members appointed for a 5 year office term, by the Assembly of the Republic of Albania, on the proposal of the Council of Ministers, with the right for no more than one re-appointment.</li> <li>The Assembly appoints one of the members of the Governing Council as the Chairman, who also acts as the Executive Director of the NRA.</li> <li>Dismissal in the case of physical or mental incapability, conviction for a criminal act, appointment as a Member of Parliament or a local government body, inability to exercise professional duties for more than 6 months.</li> <li>A dismissed Board member shall not have the right to be re-appointed in the Governing Council.</li> </ul>	<ul> <li>Member of the Governing Council shall be graduates and qualified experts, with a minimum of 7 years experience and shall represent the sector of the electronic communications, postal, economic, and juridical.</li> <li>Upon appointment shall resign from any official positions or functions, give up any for-profit activity, as well as to sell and liquidate any financial interest in undertakings active in electronic communications or postal sectors.</li> <li>May not have family ties to the Council of Ministers, have been convicted for a criminal act or excluded by law from holding public positions.</li> </ul>
Bosnia & Herzegovina	<ul> <li>Strategic and policy issues at the NRA are decided by the Council of seven (7) members nominated by the Council of Ministers and appointed by Parliament. Parliament shall accept or reject these nominations within thirty (30) days after submission of the nominations.</li> <li>The NRA is headed by the Director General, who is elected by the Council of the Agency and approved by the Council of Ministers. He is responsible for all regulatory and administrative functions and manages day to day operations.</li> <li>The Parliament has the sole authority to dismiss the members of the Council before completion of their mandate.</li> <li>The Council of Ministers has the sole authority to dismiss the Director General before completion of the mandate.</li> <li>Both, members of the RAK Council and the Director General have a term of 4 years and can be re-appointed only once.</li> <li>Dismissal before the end of the mandate due to serious illness, conviction of a serious crime, a conflict of interest, resignation, failure to participate in three or more consecutive meetings.</li> </ul>	Members of the Council of the NRA must demonstrate exceptional legal, economic, technical or other relevant expertise and experience for the fields of telecommunications and/or broadcasting.  The Director General must have relevant experience in the fields of telecommunications and/or broadcasting and proven management skills.  No conflict of interest.

Country	Rules and procedures for appointment and dismissal	Eligibility criteria for appointment		
Montenegro	<ul> <li>Under the Law on Electronic Communications of July 29, 2008 the NRA management structure consists of the Council and the Executive Director.</li> <li>The Council of the NRA shall have the President, engaged as professional employee of the NRA, and 4 members of the Council who could be part time or professionally engaged employees of the NRA.</li> <li>The Executive Director shall be engaged as professional full-time employee.</li> <li>President of the Council and members of the Council shall be appointed by the Government upon the Ministry proposal to a term of office of 5 years. The Executive Director shall be appointed by the Council, for a term of office of 4 years. They shall not hold office for more than two consecutive terms.</li> <li>Dismissal before the expiration of the term of office due to resignation, conviction of a crime, permanent loss of ability to perform duties, conduct damaging to the reputation of the independence of the NRA.</li> </ul>	<ul> <li>President of the Council, its members and the Executive Director shall hold Montenegrin citizenship and have permanent residence in Montenegro, and have higher education in telecommunications, electronics, economy or law, at least 5 years of experience, covering positions in the field of electronic communications.</li> <li>They may not hold equity nor have other interests in any organisation active in the field of electronic communications.</li> <li>They may not be Members of Parliament or Deputies, officials or members of political parties' bodies.</li> </ul>		
Serbia	<ul> <li>The NRA is managed by the Managing Board that consists of a Chairman and four Members who are appointed and relieved from office by Parliament, on the proposal of the government on the basis of the public call for appointment of Managing Board members.</li> <li>The term of office is five years with a possibility of a reappointment for one more consecutive term.</li> <li>The Managing Board on the basis of a public call appoints the Executive Director of the NRA who is responsible for the administration and operational issues.</li> <li>Dismissal before the expiration of the term of office due to: incorrect information provided at the time of the appointment procedure, violation of the rules on the conflict of interest, refusal or failure to perform professional duties without reasonable cause for a minimum of three consecutive months or for a minimum of six months with interruptions in the course of a year, causing hindrance to the activities of the NRA or major damage to the NRA, conviction for a criminal offence.</li> </ul>	<ul> <li>Managing Board members are appointed from among the ranks of reputable are highly respected experts holding academic degrees in the areas of relevance for the activities of the Agency, in particular within the field of electronic communications, economics and law, and shall have significant and recognised achievements or practice in the field of electronic communications.</li> <li>Three Managing Board members must be electronic communications experts.</li> <li>The Director is subject to the same eligibility criteria as Managing Board members and must have at least five years work experience in electronic communications.</li> </ul>		
Kosovo (UNSCR 1244)	<ul> <li>The NRA is managed by the Board that consists of five Members who are appointed and relieved from office by the National Assembly, at the proposal of the Government with the recommendation from the Minister of Transport and Communications.</li> <li>Their term of office is five years with a possibility of a reappointment for one more consecutive term. The Minister of Transport and Communications, acting in consultation with the Prime Minister designates one member of the Board to be the Chairman, who is also responsible for the administration and operational issues.</li> <li>Upon a two-third vote of the members, the Board shall remove a Member on the ground of professional incompetence, misconduct or a conflict of interest. Dismissal is subject to approval by the Assembly.</li> </ul>	<ul> <li>Members of the Board shall be university graduates with specialized knowledge in the area of politics, frequencies, interconnections, tariffs, law, economics, standardizations, or have at least ten (10) years experience in the telecommunications sector.</li> <li>A member shall, if applicable, resign from public or elected office or other employment and shall not engage in any other commercial activity regardless of whether the Member receives compensation for such activity. In addition, a Member shall be required to terminate any business activities and financial interests in enterprises that are under the jurisdiction of the Board, and otherwise comply with the provisions of the NRA's standards of conduct.</li> </ul>		

Table B.3 - Appointment and dismissal of the directors of the NRA

### 3. NRA budget and sources of financing

The NRA financial and operational means play an important role in ensuring a stable and predictable regulatory environment. Therefore, the financial resources available to the NRA, the number of employees and its ability to attract and retain suitably qualified staff are particularly important aspects in assessing the capacity of the NRA to operate effectively.

The EU regulatory framework requires that the NRAs are self-financing and that their fees only cover their administrative costs, except when allocating limited resources. Furthermore, under the current EU framework, the general authorisation regime applies to all activities in the electronic communications sector with the exception of those requiring the use of limited resources. Therefore, the NRA fees associated with authorisations, such as registration fees, are set a modest level.

Table B.4 presents information on the operational budgets of the NRAs in 2007 – 2009, as well as the sources of their financing. In this table, the term "authorisation fees" is used to describe one-off fees related to the issue of all types of authorisations, including individual licences.

Country	Operational budget € (000s)			Sources of financing (2010)					
	2007	2008	2009	2010	Annual revenue- based fees	One-off authorisation/ notification fees	Spectrum	Numbers	Other
Croatia	9,376	11,145	12,727	16,101	33%	-	38%	6%	23%
FYROM	7,420	7,213	7,764	8,897	9.50%	-	73.09%	8.40%	9.01%
Turkey	46,827	41,194	117,522	27,843	8.05%	-	85.50%	-	6.00%
Albania	1,219	1,620	1,486	1,699	-	-	98%	0.7	1.3%
Bosnia & Herzegovina	3,706	4,218	4,467	4,335	55%	-	5%	40%	-
Montenegro	2,800	3,500	5,182	5,182	50.85%	0.29%	36.36%	9.27%	3.23%
Serbia	9,020	15,102	19,230	16,363	40%	2%	38%	9%	11%
Kosovo (UNSCR 1244)	519	2,242	1,471.5	1,546	66.36%	24.76%	8.18	-	0.7%

Table B.4 - Operational budget of the NRA and its sources of financing

Notes:

Croatia: The total amount of EU funds intended for HAKOM's projects is approximately HRK 28m. EU provides 75% of that amount while HAKOM has to provide 25 %. Small

part of the project was already realized in 2009 and therefore is the amount of 25 million HRK, in HAKOM's Financial Plan for 2010, shown as the amount from pre-

accession EU funds.

FYROM: Operational budget figures for 2007, 2008 and 2009 refer to the actually realised budget in the stated years. The figure for 2010 refers to the planned budget of AEC

with the planned percentages for sources of financing.

Albania: Annual operator revenue-based fees were not applied in 2010 as revenues from spectrum were considered sufficient to cover AKEP expenses during 2010.

Kosovo: TRA Board on 01/12/2008 approved a decision on the charging of the use of numbering resources (Decision No. 240/08). In 2010 the TRA started implementing this

decision. Revenues are therefore expected to be generated by the collection of numbering fees as specified in above mentioned decision.

## 4. NRA staffing

Table B.5 below shows:

- the total NRA staff in 2009;
- sub-divided into the number of qualified employees dealing with
  - general regulatory issues;
  - frequency monitoring tasks; and
- legal or financial restrictions on the NRA's ability to set the level of remuneration of its staff (e.g., salaries tied to civil service rates).

Country	Total	Handling electronic communications regulatory tasks	Handling frequency monitoring tasks	Restrictions on the NRA's ability to set salary levels
Croatia	169	54	18	The annual financial plan and the annual financial statement of the NRA must be approved by the government.  The Ministry of Sea, Transport and Information has recently requested from HAKOM to reduce the number of its employees to 143 (10% decrease).
FYROM	113	28	20	No legal restriction
Turkey	654	340	20	The salary of the President of the ICTA Board may not exceed that of the Undersecretary of the Prime Minister cabinet. Salaries of the other Board members may not exceed that of the President. Total amount of the payments made to the ICTA personnel shall not exceed the total amount of payments made to Board members. Salary levels of the personnel are set according to an internal system of grades.
Albania	60	32	8	The structure and the level of salaries are stipulated as part of the Law No. 9584, dated July 17, 2006.
Bosnia & Herzegovina	113	32	26	The Law on Salaries and Allowances for Civil Servants of June 23, 2008 brings the salary level of the NRA staff within the pay scales for civil servants. The NRA has to follow the established scales for the basic salary levels and is only be able to increase salaries of its staff through an additional "regulatory" bonus scheme.
Montenegro	61	20	15	Amendments to the Budget Law modified the provisions of the Law on Electronic Communications (LEC) so that the EKIP Financial Plan instead of being submitted to the government now is to be submitted to the Parliament. In December 2009, the Parliament, by its decision on adopting the Financial Plan, reduced by 40% the salaries of the Council Members and of the Executive Director, and obliged the NRA to decrease subsequently their salaries, thus bringing them down to the pay level of government officials.

Country	Total	Handling electronic communications regulatory tasks	Handling frequency monitoring tasks	Restrictions on the NRA's ability to set salary levels
Serbia	100	28	25	The annual financial plan and the annual financial statement of the NRA must be approved by the government.
Kosovo (UNSCR 1244)	33	12	2	Salary levels are regulated subject to pay scales and a system of grades that applies to all civil servants in Kosovo and are set based on the TRA budget approved by Parliament.

Table B.5 - Staffing and salary levels of NRAs

Notes:

Albania: Electronic communications tasks include the following: market regulation, licensing, technical (excl. frequencies), legal department, inspection and decision-making,

the board of the NRA.

Bosnia & Herzegovina: There are 12 regulatory experts in the telecommunications sectors and 20 in the broadcasting sector, frequency monitoring tasks are handled by14 experts in the

frequency department and 12 in the monitoring department.

### 5. NRA enforcement powers

The NRA bears the primary responsibility of ensuring compliance with the obligations imposed on operators either directly by the law, or by the NRA after carrying out a market analysis procedure. To that effect, the NRA should have specific investigatory and sanctioning powers.

In order to ensure effective compliance with SMP-obligations, the NRA sanctioning powers should, in particular, allow it to impose fines with a sufficient deterrent effect and to order the suspension of non-compliant commercial offers. Sanctions should be sufficiently stringent, taking into account the substantial commercial benefits from the illegal practice. Moreover, the threat of sanctions should also be sufficiently real to ensure SMP operators conform to their regulatory obligations.

#### Table B.6 itemises the:

- powers of the NRA to impose fines, specific instances when a fine can be imposed and the level;
- powers of the NRA to suspend non-compliant commercial offers (in particular, this refers to the regulated offers of operators with SMP); and
- examples of fines imposed by NRAs.

Country	NRA powers to impose fines	NRA powers to suspend commercial offers	Applied in practice
Croatia	No power to impose fines directly.  The NRA has a power to start misdemeanour proceedings before the Misdemeanour Court.  The fine may be set in the range from 1% to 5% of the total annual gross income generated by the provision of electronic communications services and activities, in the fiscal year preceding the year in which the violation was committed.	Yes, in cases of especially material breaches of the law Article 118, Electronic Communications Act of June 19, 2008	From 2008 NRA has initiated 16 misdemeanour procedures before the Misdemeanour Court against the operators that have breached the provisions of the ECA and NRA decisions. Cases are still pending. Suspension of commercial offers has been regularly applied by the NRA:  On Nov. 27, 2006 the NRA requested the mobile operator VIPnet to modify the tariffs of its 'Option Fixed' prepaid package that according to the NRA constituted predatory pricing, suspending the launch of the offer.  On Feb. 12, 2007 the NRA requested T-Com, the incumbent operator, to modify its fixed tariff plan called 'Non stop'. According to the NRA, the incumbent operator had practiced a price squeeze by offering fixed voice services at retail tariffs set below its wholesale charges.
FYROM	No power to impose fines directly.  The NRA may initiate a procedure under the Law on Misdemeanours or the Law on Criminal Procedures.  According to the Law on Electronic Communications, the maximum fine may be up to 7 to 10% of the total annual revenues in the year preceding the year when the misdemeanour was committed or of the total revenue for a shorter period of the year preceding the misdemeanour, provided that the legal entity commenced its operations during that year.	Yes Under Article 49 of the Law on Electronic Communications, the NRA may suspend commercial offers of the operator that has been designated as having SMP in a specific retail market and imposed obligations relating to provision of retail services.	In April 2007, the NRA submitted an application for a misdemeanour procedure to the court against Makedonski Telekom for failure to implement an amended RUO.
Turkey	According to article 60 of the Law on Electronic Communications, ICTA may impose fines of up to 3% of the previous calendar year net sales.	Yes According to Bylaw on Tariffs, if the proposed retail tariff of the SMP operator is not approved by the NRA, the offer is suspended and the SMP operator must propose a new tariff in accordance with the NRA requirements.	During the approval process of TT's ADSL wholesale resale tariffs in spring 2008 the NRA had suspended the proposed TTNet's retail ADSL prices.
Albania	According to article 137 of the Law on Electronic Communications, maximum fine is 10% of annual turnover of the operator during the previous calendar year. The fine is imposed mostly in cases of non-compliance with SMP obligations. Chapter XVI of the law stipulates the inspection procedures and frequency monitoring. Article 135 elaborates on the cases where the NRA may impose fines and administrative measures if and electronic communications network service providers do not abide by the rules and regulations.	Under articles 55-57 of the Law on Electronic Communications, AKEP has powers to regulate retail tariffs of the SMP operators and universal service providers.  Based on article 52 of the Law, AKEP has powers to impose changes in the reference offers proposed by the operators with SMP. Reference offers must be approved by AKEP.	No financial penalty has been imposed in practice. Suspension of retail offers has not been applied in practice. On Feb. 10, 2009 AKEP imposed changes in the RIOs of three SMP operators in Albania.

Country	NRA powers to impose fines	NRA powers to suspend commercial offers	Applied in practice
Bosnia & Herzegovina	The maximum fine is BAM 150,000 (ca. €75,000) for the first violation, with a maximum of BAM 300,000 (ca. €150,000) for a repeated violation.	Yes Article 20 of the Law on Communications.	The NRA regularly uses its right to impose fines.
Montenegro	Amounts of fines are defined in articles 137-140 of the Law on Electronic Communications. Maximum fine is three hundred times the minimum salary in Montenegro (about €16,500).	Yes Under Article 134 of the Law on Electronic Communications, expert supervisors of the NRA have the powers to monitor the compliance with tariff regulations and to suspend non-compliant offers.	No
Serbia	No power to impose fines directly.  Managing Board of the NRA can initiate a court proceeding containing a proposal for fining the operators, but final decision is made by the Court.  Amounts of fines are defined in articles 137-140 of the Law on Electronic Communications. Maximum fine is 10% of the annual turnover for the violation of the regulations on SMP operators.	Yes The NRA has a power to suspend the commercial offer for the SMP operator if the offer is not compliant with retail price control obligations imposed under article 71, Law on Electronic Communications.	No financial penalty has been imposed in practice. Any proposal of an operator with SMP to modify regulated prices is subject to approval by RATEL. The NRA refused to accept the proposal of Telekom Srbija to raise the fixed telephone tariffs by its decision from April 17, 2006. The offer was suspended by the NRA.
Kosovo (UNSCR 1244)	The Ministry's Administrative Instruction No. 2004/3 on telecommunications fees and fines authorised the NRA to impose fines to a maximum of €250,000. It may also issue written orders requiring operators to correct defective actions within a specified time period (Law on Telecommunications, section 15 (5) a).	Yes PTK's fixed telephony licence contains provision stating that 'the Licensee may not increase the tariffs of any existing licensed Regulated Service or set a price for any new licensed Regulated Service in Kosovo without the prior written approval of the NRA'.	No

Table B.6 - Enforcement powers of the NRA

## 6. Dispute resolution

Article 20 of the Framework Directive establishes a requirement for the NRAs to be able to issue binding decisions to resolve commercial disputes between undertakings arising from obligations under the regulatory framework. The maximum timeframe for resolving a dispute may not exceed four months. Table B.7 shows whether the NRAs are authorised to resolve commercial disputes. It also describes the applicable procedures and the timeframe.

Country	Type of commercial disputes that can be resolved by NRAs	Dispute resolution procedures and deadlines	Publication of disputes by NRAs
Croatia	<ul> <li>Disputes between electronic communications network operators.</li> <li>Disputes between electronic communications network operators and providers of value added services.</li> <li>Disputes between providers and endusers concerning payment of debts and quality of services provided.</li> <li>(art. 20 and 51 Electronic Communications Act)</li> </ul>	<ul> <li>HAKOM intervention after 45 days of unsuccessful negotiations on request of the involved operators</li> <li>HAKOM issues binding decision within shortest time possible or maximum 120 days from receiving the request</li> <li>HAKOM decision must be implemented within 15 days from the day of its issue to the parties unless a different term is determined by decision.</li> </ul>	HAKOM decisions must be published in the Official Gazette and on its website, taking into account the confidentiality of business information.
FYROM	According to Article 122 of the Law on Electronic Communications, the NRA shall resolve disputes involving operators of communications networks and providers of communications services.  The Agency shall initiate a dispute resolution procedure ex officio or at the request by a party to the dispute.	<ul> <li>AEC shall apply the provisions of the Law on General Administrative Procedure to its dispute resolution procedures.</li> <li>AEC is obliged to resolve the dispute within 42 days from the date of receiving the proposal for initiation of a dispute resolution procedure. The deadline for resolution of the dispute may be extended if it is necessary due to the complexity of the procedure, by in no case shall exceed four months.</li> <li>Disputes can be settled applying mediation or arbitration procedure.</li> <li>Mediator chosen by the parties or by NRA within 7 days.</li> <li>Arbitrators appointed by NRA Commission, the Minister and other interested parties for 5 years.</li> <li>Result of arbitration is binding, final and enforceable.</li> <li>AEC, during resolution of disputes, is obliged to take into consideration the objectives of ensuring effective competition and protection of users' interests in the market.</li> </ul>	Article 122 of the Law on Electronic Communications requires the NRA to publish decisions, taking into account the confidentiality of the business secrets of the parties.
Turkey	Under Article 18 of Law on Electronic Communications No. 5809, ICTA may resolve on a request from the one of the parties, disputes involving providers of telecommunications services and network operators regarding network access and interconnection.	Article 18, Law on Electronic Communications No. 5809:     The parties can apply to ICTA after two months of failed negotiations (in the case of denial of access and negotiation request, the application can be submitted to ICTA earlier).     ICTA can issue a binding decision in order to resolve the interconnection/access disputes within two months, except for special circumstances.     ICTA can determine the fees and conditions that will apply to access/interconnection agreements, including temporary fees.	Published on the NRA website only if deemed necessary by the NRA. As a rule, only the relevant parties to the dispute are informed about the decision.

Country	Type of commercial disputes that can be resolved by NRAs	Dispute resolution procedures and deadlines	Publication of disputes by NRAs
Albania	According to Articles 22, 50, 60 and 120 of the Law on Electronic Communications:	Procedures and deadlines are based on Code of Administrative Procedures that allows a maximum of 3 months for dispute resolution.	All decisions of AKEP shall be published on its website.
	<ul> <li>AKEP shall resolve disputes between undertakings providing electronic communications networks and services.</li> <li>Dispute resolution procedures can be initiated by AKEP, at requests of either party if the undertakings fail to reach an agreement on access and interconnection or joint use of facilities and assets within 45 days from receipt of the request.</li> </ul>	For access and interconnection disputes, AKEP issues a binding order that has to be implemented by parties within 1 month of the date of the Order.  In cases where the undertakings cannot reach an agreement related to the payment/fee for the joint use of the infrastructure and equipments, AKEP, within 30 days from the date of request submission by any either concerned party, shall decide the amount of payment/fee in compliance with the respective regulation approved for this purpose.	
Bosnia & Herzegovina	Disputes between electronic communications network operators and/or providers of services.      Notwithstanding the jurisdiction of civil courts, users or interested parties may refer to the NRA complaints that have not been satisfactorily resolved with the telecommunications operator, in particular complaints about the quality of service. The NRA may further specify the types of complaints it will handle and the method used.	<ul> <li>Law on Communications, Article 16:</li> <li>NRA intervention after 6 weeks of failed negotiations on request of one of the parties</li> <li>NRA issues binding decision within 6 (in exceptional cases 10) weeks from receiving the request</li> <li>However, in practice the NRA tries to use mediation in order to avoid the direct imposition of contractual terms and conditions.</li> </ul>	No There is no obligation in Law on communications for publication of disputes by the NRA.
Montenegro	Under Article 8 (paragraph 15) of the Law on Electronic Communications, the NRA resolves, in cooperation with institutions in charge of protection of competition and users, disputes arising among the participants in the electronic communications market, i.e.:  • electronic communications network operators and/or service providers  • service providers and end users.	Articles 19 and 20 of the Law on Electronic Communications:     NRA may resolve disputes between electronic communications network operators and service providers applying either mediation or arbitration rules.     NRA shall resolve the disputes on access and interconnection and on joint use of infrastructure and facilities, upon the request from one of the parties.     NRA must decide on a dispute within 30 days from the day of receiving the request.	Article 19 (paragraph 5) of the Law on Electronic Communications requires the NRA to publish decisions, taking into account the confidentiality of the business secrets of the parties. Parties in the procedure shall be supplied with the full report on the reasons on which the decision is based.
Serbia	Law on Electronic Communications:     Disputes between electronic communications operators about interconnection, access and shared use of network elements, associated facilities and properties (articles 51, 53)     Disputes between operators and end users (article 113)	Law on Electronic Communications, article 53:     NRA intervention after 60 days of unsuccessful negotiations on request of the parties	All decisions of RATEL shall be published on its website.

Country	Type of commercial disputes that can be resolved by NRAs	Dispute resolution procedures and deadlines	Publication of disputes by NRAs
Kosovo (UNSCR 1244)	<ul> <li>Law on Telecommunications 2003/16, section 11(2):</li> <li>Disputes involving service providers, end users, owners of land and facilities.</li> <li>Failure to reach an interconnection agreement (Law on Telecommunications, section 56, paragraph 7).</li> </ul>	<ul> <li>Law on Telecommunications 2003/16, section 11(2):</li> <li>NRA may undertake dispute resolution procedure either on request of one of the parties or on its own motion.</li> <li>NRA issues binding decision within 6 weeks from receiving the request.</li> <li>Service providers must comply with the NRA decision within 30 days.</li> <li>NRA issued Regulation on Dispute Resolution in June 2007 (TRA Regulation No183/07 of June 11, 2007.</li> </ul>	No

Table B.7 - Dispute resolution powers of the NRA

## 7. NRA accountability

Independence needs to be reconciled with measures to ensure that the regulator is accountable for its actions. Such measures may include establishing procedures whereby the NRA performance is reviewed against specific objectives, ensuring that the regulator provides a report of its activities and its use of financial resources.

Table B.8 shows the requirements for:

- publication by the NRA of an action plan setting specific targets and deliverables;
- reporting by the NRA of its activities and the use of financial resources (e.g., annual report); and
- review of the NRA performance by an independent body.

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
Croatia	Yes According to Article 14 of the Electronic Communications Act, the NRA's annual work programme along with its annual activity report, annual financial plan and financial statement must be published on the NRA's website.	According to Article 7 of the Electronic Communications Act, the NRA is accountable to the Parliament for its work.  According to Article 13 of the Electronic Communications Act, the NRA is obliged to submit its annual activity report not later than April 30 in the current year on its work during the previous year to the Parliament and to the government. The annual report shall in particular contain:  information about fulfilment of objectives and tasks established in the NRA's annual work programme  information about the development of the electronic communications and postal services markets  financial reports	According to Article 16 of the Electronic Communications Act, the NRA's financial reports shall be subject to annual audit performed by an independent authorized auditor. The NRA shall decide on the selection of the auditor in accordance with special audit regulations.

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
FYROM	Yes The annual report of the NRA, after its approval by Parliament, shall be available to the public. The report also contains the annual work program for the coming period.	According to Article 10 of the Law on Electronic Communications, the NRA is responsible for its work before Parliament.  The annual report shall in particular contain:  Report on the NRA's work during the previous period  Annual work program for the coming period  Report on the status of assets in the universal service fund and  Report on executing the annual financial plan of the NRA.	The NRA Commission adopts an Annual Financial Plan and submits it to the Parliament for approval. The Annual Financial Plan contains information on the revenues and costs, as well as audits and financial reports for the previous year and the anticipated capital and operational costs for the coming year.  The audit is performed by an independent external auditor.
Turkey	Yes According to 'Bylaw on Organizational Structure, Duties and Working Rules and Procedures' and 'Rules and Procedures on Preparation of Work Plans' adopted by the NRA Board, annual work plan for 2009 has been prepared and published as of January 2009 by the NRA (ICTA). The NRA's annual report also sets out activities completed and plans for future activities.	According to Article 7 of Public Financial Management And Control Law No. 5018, in order to ensure supervision in the acquisition and utilization of all types of public resources, the public shall be informed timely. Accordingly, the following are compulsory:  • to clearly define the duties, authorities and responsibilities  • to prepare government policies, development plans, annual programs, strategic plans and budgets; to negotiate them with the authorized bodies; to carry out their implementation and to make the implementation results and the relevant reports available and accessible to the public  • to publicize the incentives and subsidies provided by the public administrations within the scope of general government, in periods not exceeding one year  • to establish public accounts in line with a standard accounting system and an accounting order in accordance with generally accepted accounting principles.	<ul> <li>There are three types of review imposed over the NRA:</li> <li>Judicial Review by Council of State and reporting to the Commission of Planning and Budget under the National Assembly of Turkey.</li> <li>Public (including public, consultations, annual work plans and annual reports)</li> <li>Auditing: Court of Accounts, Inspection Council of Prime Ministry and the State Inspection Council of Presidency of Turkish Republic</li> </ul>
Albania	Yes The NRA, AKEP, annual report that must be made available to the general public should contain a detailed work programme for the coming year.	Under Article 9 of the Law on Electronic Communications (Law No. 9918 of May 19, 2008) AKEP is accountable for its work before the Assembly. At the end of each year the NRA must submit to the Assembly a report on its activities during the year, its financial performance, a work programme for the coming year and implementation status of the universal service.  According to article 117, of the Law, not later than six months before a financial year starts, AKEP must prepare a forecast of its operational expenses and submit it to the Council of Ministers for approval. AKEP must keep full and accurate accounts of actual expenses, in compliance with the Albanian legislation on accounting. Any amount exceeding the expenses shall go to the state budget.	The use of funds by the NRA is subject to review by the State Audit (High State Control).

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
Bosnia & Herzegovina	The NRA, RAK, publishes the Telecommunications Sector Policy adopted by the Council of Ministers that contains a detailed action plan on its web site.  There are no requirements for publication of an action plan setting specific targets and deliverables for the NRA.	Law on Communications, Article 44 (4), (5): The NRA shall prepare an annual report of its finances and activities, and shall submit it to the Council of Ministers. The Council of Ministers shall consider the Agency's annual report and publish it not later than four months after the end of each financial year.	The use of funds by the NRA shall be subject to review by the Supreme Audit Institution and in addition audited by an independent auditor every year.
Montenegro	Yes Article 13 of the Law on Electronic Communications requires the NRA to submit for the government approval before November 1 of each year its financial plan and a work programme for the next calendar year. The financial plan must be also submitted for the Assembly approval before Dec. 1 of each year. The financial plan and the work programme must be made public.	Article 16 of the Law on Electronic Communications requires the NRA to prepare an annual report on its activities together with its financial report. The reports must be approved by the government and published on the NRA's website.	Annual audit procedure of the NRA financial statements by an independent authorised auditor, appointed by the government, is defined in Article 14 of the Law on Electronic Communications.
Serbia	Yes According to Article 24, Law on Electronic Communications the NRA's work has to be transparent and it has to make publicly available all adopted by-laws and other complete and updated information related to its activities including annual financial plan, annual and periodical work reports.	Article 27, Law on Electronic Communications requires the NRA to submit to the government its annual financial report audited by an independent authorised auditor. The financial reports shall be made publicly available of the NRA's website.  Article 28, Law on Electronic Communications requires the NRA to prepare and to submit to Parliament an annual report on its activities, and in particular:  • the development of the electronic communications market  • the fulfilment of objectives and tasks stipulated in the annual NRA's framework business plan and the implementation of goals set under the strategy for the development of electronic communications;  • the adopted financial plan and annual report and authorised auditor's reports.  The annual report on for the previous calendar year shall be submitted by the end of the second quarter of the current year at the latest.	The financial operations of the NRA are subject to auditing by an independent authorised auditor and to control by the State Audit Institution.

Country	Publication of an action plan	Financial and regulatory reporting requirements	Review of the NRA performance
Kosovo (UNSCR 1244)	Yes. Telecommunications Sector Policy, proposed by the Ministry of Transport and Communications and approved by the government. This document provides a provisional timetable for the implementation of the various telecommunications tasks.	Article 5 of the Law on Telecommunications requires the NRA, TRA, to submit its budget proposal for review and approval by the Assembly not less than two months prior to the commencement of each fiscal year.  Not later than six months after the close of each fiscal year, TRA shall prepare and deliver to the Assembly an annual report containing financial details pertaining to the activities of TRA for the preceding year. An electronic version of such report shall be posted on TRA's official website.  Under articles 16 and 17 of the Law on Telecommunications, TRA is required to submit on annual basis to the Assembly a report, covering the market entry barriers and competition conditions in the telecommunications sector and technical barriers to full conformity with the EU standards (mainly addressing spectrum and numbering aspects).	Review of the NRA accounts by the Supreme Audit Institution and in addition by an independent auditor, every year.

Table B.8 - NRA regulatory and financial reporting requirements and review procedures

Notes:

Serbia The financial plan for 2009 has been approved by the government in September 2010.

#### 8. Appeal procedures

Article 4 of the Framework Directive sets out a requirement for effective mechanisms enabling any party affected by an NRA decision to submit an appeal against the decision to a body that is independent of the parties involved. It sets out a similar requirement of independence for the appellate body as exists for the NRA itself. The Article also establishes requirements for the appeal mechanism:

- The appellate body may be a court or a non-judicial body. In the latter case, the second appeal instance must be a court or a tribunal.
- An appeal of the NRA decision shall not automatically suspend the application of the appealed decision.
- The appeal body must be able to consider the merits of the case and not only procedural matters.

The timeframe for an appeal is important given the uncertainty and potentially retroactive effects.

Table B.9 provides an overview of the national appeal mechanisms against NRA decisions.

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
Croatia	Administrative Court	No Administrative proceeding does not suspend the enforcement of the NRA decisions. (article 18 Electronic Communications Act)	Yes	Yes, if it can prove that it has a legal interest in the case	5 years  A party can appeal the NRA's decision within 30 days from the date of receipt of the decision.  There is no time limit for appeal procedure set by law.

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
FYROM	Administrative Court Following amendments to the Law on Electronic Communications of August 19, 2008, the Commission of the AEC is no longer the first instance appeal body for decisions of the Director of the AEC. The decisions of the Director are now final in the administrative procedure and can only be appealed to the Administrative Court.	No Upon complainant's request, AEC may suspend the appealed decision pending a court final decision, in particular, if irreparable harm could be caused to the complainant by its enforcement. Suspension must be issued not later than within 3 days from the receipt of the request.	No, the appeal body can only judge the correct application of the laws and applicable bylaws and the procedure.	Yes, if it can prove that it may be directly harmed by an annulment of the disputed decision.	According to article 20 of the Law on Administrative Disputes of May 19, 2006, a party can appeal the NRA decision within 30 days from the date of receipt of the decision.  There is no time limit for appeal procedure set by law.
Turkey	Council of State: According to Article 62of the Electronic Communications Law, appeals against ICTA decisions related to the sector can be brought to the Council of State within 60 days from the announcement of the decisions.  Administrative Court: According to Article 61 of the Electronic Communications Law, appeals against the decisions of ICTA on the administrative fines can be brought to the Administrative Court within 60 days from the announcement of decisions  Licence Coordination Board: Disputes on concession agreements could be brought before the Licence Coordination Board, which is established separately for each agreement and composed of the representatives of the NRA and the operator concerned. The decisions of the Licence Coordination Board are not binding but advisory.	No Only upon complainant's request, the court may suspend the appealed ICTA decision	Yes	Yes, if it can prove that it has a legal interest in the case.	According to article 7 of the Law on Administrative Justice Procedure, a party can appeal the NRA's decision within 60 days from the date of receipt of the decision.  There is no time limit for appeal procedure for decisions of Licence Coordination Board.

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
Albania	<ul> <li>Article 136 of the Law on Electronic Communications (Law No. 9918 of May 19, 2008):</li> <li>An administrative appeal, e.g. against the fine imposed by the NRA inspectors, may be filed to AKEP Governing Council within 10 days from the date of its imposition</li> <li>AKEP Governing Council decisions may be appealed to Albanian Court of First Instance (Tirana District Court)</li> </ul>	Yes – when an administrative appeal is made to AKEP Governing Council, the decision is suspended for 30 days within which AKEP must take a definitive decision  No – when the appeal is submitted to the Court	Yes	Yes	<ul> <li>AKEP Governing Council must decide on an appeal within 30 days from the appeal date.</li> <li>AKEP Governing Council decisions must be appealed to the Court within 30 days from the decision date. There is no deadline defined for the appeals to the First instance Albanian Courts. In practice, the procedures in the Court can take several years.</li> </ul>
Bosnia & Herzegovina	<ul> <li>Article 47 of the Law on Communications:</li> <li>An administrative appeal against decisions of the Director General may be filed to the Council of RAK</li> <li>Decisions of the Council of RAK may be appealed to the State Court of Bosnia &amp; Herzegovina</li> </ul>	Appeals against decisions of the Director General shall not suspend their effect.      RAK decision stands pending the Court's final decision unless suspension is granted by RAK upon complainant's request. If no suspension is issued by RAK, the complainant may appeal for suspension to the court.	Yes	Yes, if it can prove that it may be directly harmed by an annulment of the disputed decision.	<ul> <li>Council of RAK decides on an appeal within 30-60 days, depending on its scheduled sessions.</li> <li>According to article 19 of the Law on Administrative Disputes, RAK decisions must be appealed to the Court within 60 days from the decision date. There is no deadline defined for the appeals to the Court. In practice, the procedures in the Court can take several years.</li> </ul>
Montenegro	Article 19 of the Law on Electronic     Communications of July 29, 2008:     An administrative appeal against decisions of the NRA may be filed to the Ministry of maritime affairs, transportation and telecommunications     Decisions of the Ministry can be appealed to the Supreme Administrative Court	No Appeals against decisions of the NRA shall not suspend their effect.	Yes	Yes, if it can prove that it has a legal interest in the case.	According to the Law on General Administrative procedure, an appeal against the f the NRA decision may be filed with the Ministry not later than within 15 days from the date of receipt of the decision. The Ministry must decide on an appeal within 2 months from the appeal date.

Country	Appellate body	Automatic suspension of the NRA decision on appeal?	Can the appellate body rule on merits of a case?	Third party rights of appeal?	Average duration of an appeal procedure
					There is no deadline defined for the appeals to the Court. In practice, the procedures in the Court can take several years.
Serbia	Article 22 of the Law on Electronic     Communications:              Decisions of the Director of RATEL concerned with rights and obligations of operators and users are final.              Decision of the Director of RATEL may be appealed to the Administrative Court in the first instance and to the Supreme Court in a second instance.	No Upon complainant's request, a suspension can be granted either by RATEL or by the Court.	Yes	Yes, if it can prove that it has a legal interest in the case.	On average, more than one year.
Kosovo (UNSCR 1244)	Article 11 of the Law on Telecommunications:     An administrative appeal against the NRA decisions may be submitted to the Managing Board of TRA for reconsideration     Decision of the Managing Board of TRA may be appealed to the Administrative Court	Yes	Yes The appeals body can rule both on the merits of the case and on the correct application of the law.	Yes, if it can prove that it has a legal interest in the case.	More than one year.

Table B.9 - Appeal procedures against NRA decisions

### 9. NRA transparency and participation

Article 3 of the Framework Directive requires NRAs to exercise their powers impartially and transparently. Lack of transparency undermines legal certainty and increases the potential for political interference. Furthermore, according to the commitment to participation, regulatory processes should allow formal consultation of the stakeholders before decisions are made.

Table B.10 examines the transparency of the NRA decision-making process and the ability of all stakeholders to contribute to decision-making. The criteria for assessing the NRA transparency include:

- the existence of a consultation process and the scope of the covered decisions or issues of general interest;
- the time given for comments;
- the existence of a period for reply comments; and
- the obligation to publish adopted decisions with a reasoned opinion.

Country	NRA policies for public consultations on specific decisions	Time period for comments	Publication of decisions adopted by the NRA
Croatia	Article 22, Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008)  Public consultation procedure is foreseen before adopting implementing legislation, NRA decisions and other administrative acts with significant influence on the relevant market, as well as the NRA Statute, the annual financial plan and work programme.	Not less than 30 days	Yes, on the NRA website, and in the Official Gazette, and, where relevant, in another adequate manner (article 14 Electronic Communications Act)
FYROM	Article 105, Law for Electronic Communications requires the NRA prior to recommending regulations or adopting regulations to publish the proposed instrument and seek the submission in writing of opinions from all interested parties. These must be published prior to adoption of the measure.  AEC may also hold public hearings on proposed regulations, at which representatives of interested parties may be invited to present their views and opinions.	Not less than 30 days	Yes, on the NRA website
Turkey	During preparation of legislation, public consultation process is completed through publishing drafts on the web site of ICTA and arranging discussions with relevant parties.  The responses are published and taken into consideration by the NRA. Draft legislation is also published on the website.	Usually 30 days	In accordance with the Article 6(ç) of the Electronic Communications Law no: 5809, Information and Communications Board's decisions those concern the operators and consumers are publicly available on the website of ICTA
Albania	Article 35, Law on Electronic Communications (Law No. 9918 of May 19, 2008 requires AKEP to conduct the public consultation with the interested parties regarding the conclusions reached on market designation and market analysis.  Article 110 contains a general requirement for AKEP to consult on regulatory documents and decisions that will significantly influence electronic communications market. If necessary, AKEP may also hold a public hearing inviting representatives of the interested parties to present their opinions on the proposed regulatory documents. After the expiry of the consultation period, AKEP shall make publicly available the obtained opinions, keeping the confidentiality of information.	For market analysis public consultations the deadline is not shorter than 60 days. For all other public consultations the minimum deadline is 30 days.	All decisions of AKEP shall be published on AKEP website. Currently only AKEP decisions related to internal issues/procedures of AKEP are not published.
Bosnia & Herzegovina	Article 38, Law on Communications requires RAK to publish its draft regulations (rules) for consultation.	At least 14 days	Official Gazette and the NRA's website
Montenegro	Article 8, Law on Electronic Communications requires the NRA to carry out open consultative procedures allowing all interested parties to comment on the initiatives, measures, decisions and the acts prepared, proposed or adopted.	Usually 3 months	Yes, on the NRA website
Serbia	Article 34, Law on Electronic Communications requires the ministry and the NRA to conduct public consultations in the process of preparing by-laws and decisions falling within their competencies.	30 days (10 days in specific cases)	Yes, on NRA website and, for certain acts, in the Official Gazette.
Kosovo (UNSCR 1244)	The NRA may initiate public consultation on all substantive telecommunications matters, either on its own initiative or upon the written request from the Ministry (Law on Telecommunications, section 10(1)).	30 days	Yes, on the NRA website

Table B.10 - Transparency and participation in the NRA decision-making

#### 10. Regulatory framework for broadcasting networks

The EU 2002 acquis communautaire brought all forms of electronic communications networks under the same regulatory framework. This was driven by the convergence of new digital technologies so that all forms of networks, including broadcasting networks, can compete for the delivery of voice, data, and Internet services, as well as radio, and television broadcasting content. While the EU framework does not rule out that regulatory tasks can be shared among two or more authorities in a well-defined manner, the thrust of this legislation is to bring all forms of electronic communications networks, including broadcasting networks, under a common regulatory framework.

Table B.11 shows whether the spectrum assignments for broadcasting networks are covered by the same regulatory framework as electronic communications, listing:

- the authorities involved in regulating broadcasting content;
- the legal basis for broadcasting regulations; and
- whether frequency assignments for broadcasting are carried out by the same authority as for electronic communications.

Country	Broadcasting authority responsible for content issues	Legal basis	Authority responsible for frequency assignments to broadcasting	Cooperation agreement between NRA and broadcasting authority? (e.g. on spectrum issues, licensing, etc.)	
Croatia	Council for Electronic Media	Law on Electronic Media, Official Gazette No. 122, July 30, 2003	HAKOM, the NRA	No	
FYROM	National Broadcasting Council	Law on broadcasting activity of November 29, 2005 Law amending and supplementing the Law on broadcasting activity of February 12, 2007	AEC, the NRA	Yes Memorandum for cooperation signed in Oct. 2007	
Turkey	Radio and Television Supreme Council (RTUK)	Law on the Establishment of Radio and Television Enterprises and Their Broadcasts No.3984 of April 20, 1994 (with amendments)	ICTA, the NRA, allocates frequency blocks for broadcasting to RTUK. RTUK assigns spectrum to individual broadcasters	Yes Protocol on determination of the areas of competencies, responsibilities and cooperation signed on March 24, 2006	
Albania	National Radio and Television Council (KKRT)	Law on Radio and Television No. 8410 of September 30, 1998 (with amendments)	AKEP, the NRA allocates the block of broadcasting frequencies to National Radio and Television Council (KKRT). KKRT assigns broadcasting spectrum to individual broadcasters, although they must apply to AKEP for spectrum for transmission links between sites.	No	
Bosnia & Herzegovina	Communications Regulatory Agency (RAK)	Law on Communications (Official Gazette No. 33/02, November 12, 2002)	RAK, the NRA	RAK is a converged regulator, responsible for telecommunications and broadcasting	

Country	Broadcasting authority responsible for content issues	Legal basis	Authority responsible for frequency assignments to broadcasting	Cooperation agreement between NRA and broadcasting authority? (e.g. on spectrum issues, licensing, etc.)
Montenegro	Broadcasting Agency (ARD)	Broadcasting Law of April 2004	Under the Law on Electronic Communications of July 29, 2008, the Agency for electronic communications and postal services, the NRA is the sole authority responsible for spectrum assignment.	Yes
Serbia	Republic Broadcasting Agency (RRA)	Broadcasting Law of July 2002 (with amendments)	RATEL, the NRA	There is a protocol between the two agencies which defines the process of issuing the permits for broadcasters, and the process for their subsequent control.
Kosovo (UNSCR 1244)	Independent Media Commission (IMC)	Law on Independent Media Commission and Broadcasting of July 8, 2005	The Law on Independent Media Commission and Broadcasting foresees that the IMC shall coordinate the assignment of broadcasting spectrum with TRA. The practical aspects of this coordination have not been defined yet.	No

Table B.11 - Regulatory treatment of broadcasting networks

Notes:

FYROM: The Broadcasting Council grants a licence to broadcast on the basis of a public competition. The licence is an authorization providing the right to transmit and to distribute a radio or television programme service intended for public reception, regardless of the technical means of transmission. The NRA, on the basis of the

decision to grant a broadcasting licence issues a licence for the use of the radio frequency.

### 11. Cooperation between NRA and the national competition authority

The EU 2002 acquis communautaire for electronic communications was intended to apply during the transition from a regulated monopoly to normal competition, governed only by general competition law. Sector specific ex ante regulation and competition law serve as complementary instruments to achieve their respective policy objectives in the electronic communications sector and to address the lack of effective competition. At the same time, a principle underlying the regulatory framework is that ex ante regulation should only be imposed where competition law remedies would be insufficient and rolled back when they are no longer required.

Furthermore, the use of sector specific regulation, when it is found to be justified, relies extensively on the competition law principles in defining relevant markets that are susceptible to ex ante regulation, in assessing market dominance and in formulating remedies to address anticipated competition law breaches.

NRAs are advised to consult with their national competition authorities (NCAs) when deciding whether the use of both complementary regulatory tools is suitable to deal with a specific topic, or whether competition law instruments are sufficient. NRAs are also required to carry out analysis of the relevant markets in close collaboration with NCAs. In a practical application, it is considered advisable for both authorities to conclude an agreement covering the scope of their cooperation in the electronic communications sector and the division of specific responsibilities.

Table B.12 examines the degree of cooperation established between NRAs and NCAs.

Country	Competition authority	Formal agreement between NRA and Competition Authority
Croatia	Croatian Competition Agency (CCA)	Yes On July 14, 2006 CCA and the NRA concluded an agreement on co-operation in the area of competition law in telecommunications markets. Under the 2003 Telecommunications Law, certain activities were excluded from the jurisdiction of the CCA. Determining the existence of a dominant position and any abuse of dominance in telecommunications markets is the exclusive responsibility of the NRA. However, CCA remains responsible for anti-competitive agreements between undertakings and merger control in telecommunications markets. In order to eliminate any possible conflict of jurisdiction, the agreement specifies the methods of communication and coordination between the two authorities. According to the Electronic Communications Act of 2008, HAKOM and CCA cooperate in the assessment of mergers and anti-competitive agreements between operators under article 68 and in the market analysis procedure under article 52.
FYROM	Commission for Protection of Competition	Yes  The NRA and the Commission for Protection of Competition signed a Memorandum of Cooperation in February 2007.  The Commission for Protection of Competition is responsible for enforcing the Law on Protection of Competition (Official Gazette No. 04/05) in general, including the electronic communications sector. Makedonski Telekom, however, expressed concerns over the lack of coordination between ex ante measures imposed by the NRA and ex post regulation of the same wholesale products by the NCA, in particular regarding its reference wholesale offer for leased lines.
Turkey	Competition Authority	There is no formal agreement, but article 6 of the Electronic Communications Law of November 5, 2008 contains provisions clarifying the cooperation between the two authorities. In particular, ICTA, the NRA is required to take the opinion of the Competition Authority on the issues regarding the breach of competition in electronic communications sector. Besides, the law also states that the Board of the Competition Authority while performing examinations and studies and making any decisions on electronic communications sector, including decisions about mergers and takeovers, must take into consideration the ICTA's view and the regulatory procedures of the ICTA.
Albania	Competition Authority (established in February 2004, under the Law No. 9121 of July 28, 2003 on Protection of Competition)	No Memorandum of Understanding was signed between the NRA and the Competition Authority under the previous Telecommunications Law. Cooperation is also foreseen under the provisions of Articles 12 and 38 of the new Electronic Communications Law.
Bosnia & Herzegovina	Competition Council of Bosnia & Herzegovina	No The Council of Competition was established in May 1, 2004 as an independent public body mandated to ensure consistent implementation of the Competition Act of 2001.
Montenegro	Department for the Protection of Competition (established in November 2007)	No Cooperation between the NRA and the Competition Authority is foreseen under article 8 (15) of the Law on Electronic Communications.
Serbia	Competition Commission	No
Kosovo (UNSCR 1244)	Kosovo Competition Commission (established on November 7, 2008)	No

Table B.12 - Cooperation between the NRA and the competition authority

### C. Market access conditions in electronic communications

This section provides information on the status of liberalisation and on the frameworks for authorisations for:

- public fixed telecommunications networks;
- voice telephony services;
- data services.

It also provides an overview of competition in the fixed and mobile markets.

### 1. Liberalisation of public fixed telecommunications networks and services

Table C.1 summarises the legal framework for the liberalisation of public fixed voice telephony and data networks and services.

Country	Lib	eralisation of public	fixed voice tele	phony networks and services	Liberalis	ation of public data	networks and services
	Local	Domestic long distance	International	Legal basis/comment	National	International	Legal basis/comment
Croatia	Liberalised from January 2003			Telecommunications Act of 2003 Electronic Communications Act of June 19, 2008 introduced general authorisation regime for all types of networks and services.	Liberalised from 1999		Law on Telecommunications of 1999
FYROM	Liberalised from March 2005		Law for Electronic Communications of March 2005 introduced full liberalisation and general authorisation regime for all types of networks and services.	Liberalised from February 1998	Services – Liberalised from February 1998 Networks – from April 2000	Articles 23, 24 and 25 of the Telecommunications Law of 1996 Until April 2000 there was a requirement to use international leased lines from the incumbent operator.	
Turkey	Liberalised from May 2009	Liberalised from January 2004	Liberalised from January 2004	Article 2/c, Telegram and Telephone Law No. 406 of February 4, 1924, abolished and replaced by the Electronic Communications Law No 5809 of November 10, 2008. Provisions on general authorisation regime with full liberalisation of local services entered into force on May 10, 2009.	Services – Liberalised from June 1994 Networks – Liberalised from January 2004	Services – Liberalised from June 1994 Networks – Liberalised from January 2004	Additional Article 18, Telegram and Telephone Law No. 406 of February 4, 1924, abolished and replaced by the Electronic Communications Law No 5809 of November 10, 2008

Country	Lib	eralisation of public	fixed voice tele	phony networks and services	Liberalisa	tion of public data	networks and services
	Local	Domestic long distance	International	Legal basis/comment	National	International	Legal basis/comment
Albania	Rural areas: liberalised from February 1998 Urban areas: liberalised from April 2007, through regional licences	Liberalised from July 2003	Liberalised from January 2005	Law No. 8287 of February 18, 1998 liberalised rural local network provision. This was replaced by Law No. 8618 of June 14, 2000.  Council of Ministers Decision No. 464 of July 3, 2003 liberalised domestic long-distance and international services.  Law No. 9637 of November 6, 2006 introduced the concept of regional licensing for rural and urban areas, for both local and domestic long-distance services. The NRA adopted the implementing rules on April 2, 2007.  Law No. 9918 of May 19, 2008 on Electronic Communications introduced general authorisation regime for all types of networks and services.	Liberalised from 199	8	Article 4, Law No. 8287 of February 18, 1998 liberalised data networks and services
Bosnia & Herzegovina	Liberalised from July 1, 2002	Liberalised from July 1, 2002	Liberalised from January 1, 2006	Telecommunications Sector Policy approved by Council of Ministers in March 2002.	Liberalised from July	1, 2002	Telecommunications Sector Policy approved by Council of Ministers in March 2002.
Montenegro	Liberalised fro	om January 1, 2004		Telecommunications Law of 2000 Law on Electronic Communications of July 29, 2008 introduced general authorisation regime for all types of networks and services.	Liberalised from Jan	uary 1, 2004	Telecommunications Law of 2000

Country	Lik	eralisation of public	fixed voice tele	phony networks and services	Liberalis	ation of public data	networks and services
	Local	Domestic long distance	International	Legal basis/comment	National	International	Legal basis/comment
Serbia	_	alised from June 9, 2 tion foreseen from Jai		Articles 32 and 109 of Telecommunication Law of April 2003 granted Telekom Srbija exclusive rights for all fixed services until June 9, 2005. In practice, only two licences enabling provision of public fixed voice telephony networks and services issued to alternative operators: in June 2009 to Orion (Media Works) – for FWA/CDMA services and in February 2010 to Telenor for public fixed networks and services. The new Law on Electronic Communications of June 29, 2010 foresees full liberalisation and introduction of general authorisation regime for public fixed telephony networks and services from January 2012.	Services – April 2003 Networks – June 2005	June 2005	Articles 32 and 109 of Telecommunication Law of April 2003 granted Telekom Srbija exclusive rights for all fixed services until June 9, 2005, except for Internet and Cable TV services. Until June 9, 2005 there was a requirement to use international leased lines from the incumbent operator.
Kosovo (UNSCR 1244)	Liberalised from May 2003	Liberalised from May 2003	Liberalised from January 2008	Liberalisation formally introduced by Law on Telecommunications of May 2003.  The licensing framework was implemented in 2006, following the approval of Regulation on Licensing and Authorisations by TRA Board decision of September 7, 2005.  PTK maintained monopoly over international gateway facilities until January 2008.	Liberalised from May 2003	Services - May 2003 Networks – January 2008	First ISP authorisations issued to Dardanet (PTK subsidiary), IPKOnet and Kujtesa on May 18, 2005 at one-off fees of €150,000.  The present authorisation framework (with a €5,000 one-off licence fee) implemented in 2006 following the approval of Regulation on Licensing and Authorisations by a TRA Board decision of September 7, 2005.  PTK maintained monopoly over international gateway facilities until January 2008.

Table C.1 - Liberalisation of public fixed voice telephony and data networks and services

#### 2. Authorisation regime for electronic communications services

Article 3 of the Authorisation Directive establishes a general authorisation regime for the provision of electronic communications networks and services. Undertakings may only be required to notify the intention to commence the provision of electronic communication networks or services and to submit information required to allow the NRA to keep a register or list of providers. There is no requirement to obtain an explicit decision by the NRA before starting activities. Individual rights of use may be required, however, for the use of radio frequencies and numbers. Article 5 of the Authorisation Directive establishes that EC member states should grant such rights upon request, also ensuring an efficient use of those resources.

The provision of electronic communications networks and services, under either a general authorisation or an individual licence, may be subject to authorisation fees. In many countries, such fees were often quite high in the period immediately after the ending of monopoly rights. This level of fees may have been triggered by the perception that the telecommunications sector represented an easy source of revenues for the state, as much as protection of the state-owned incumbent operator. Regardless of the purpose, high authorisation fees are a barrier to market entry and send a signal that the market is not yet fully liberalised.

The EU regulatory framework requires authorisation fees to be limited to a level necessary to cover the administrative costs of the regulatory authority. Only those fees that are paid for access to limited resources may deviate from this criterion. In practice, the exceptions are for:

- radio frequencies, where demand exceeds supply;
- numbers. Normally, the national numbering plan must be managed so that there are enough numbers for all operators. Since the potential numbering space
  available is unlimited, the only limited resource in the longer term is special short numbers represented by a limited number of digits. The other constraint is
  the disruption caused by the need to change existing numbers;
- rights of way. In theory, these can be a limited resource under certain circumstances but normally, the availability of land and rights of way does not represent a limited resource.

Table C.2 describes the authorisation regimes for provision of public electronic communications networks and services, including:

- authorisation types defined in the national legislation: individual authorisation/licence; class licence, general authorisation with/without notification to the NRA;
- networks and services covered by the specific authorisation type;
- authorisation charges or other administrative fees paid by authorised undertakings (one-off and annual fees);
- authorisations to use limited resources such as spectrum and numbers are not covered in this table. However, where mobile networks are subject to specific authorisation requirements (e.g., spectrum licence plus individual authorisation to offer public services), they are listed as a separate authorisation type.

Five countries, including Croatia, FYROM, Montenegro, Albania, and Turkey have adopted a general authorisation regime for provision of public electronic communications networks and services with a notification to the NRA, and only issue individual rights of use for limited resources, such as frequencies and numbers. In Turkey, the adoption of the new Electronic Communications Law introduced a new framework, based on a general authorisation regime, which entered into force on May 10, 2009. However the concession and authorisation agreements awarded before the adoption of the new Law will be valid until their expiration or termination.

The remaining countries still require the granting of individual or class licences for the provision of most types of electronic communications services and networks. In Serbia, under the new Law on Electronic Communications of June 29, 2010 the introduction of general authorisation regime for public fixed telephony networks and services is foreseen only from January 2012.

Country	Authorisation type:	Networks/services	Authorisation charges	and administrative fees
			One-off fees	Annual fees
Croatia	General authorisation with notification to the NRA	All electronic communications services and networks, including public telecommunications services in fixed and mobile networks, leased lines, cable TV services and PMR services, Internet access, VoIP, value added services and wireless access.	None	0.29% of annual revenue
FYROM	General authorisation with notification to the NRA	Public electronic communications services without use of spectrum	None	Annual market supervision fees are up to 0.5% of annual gross revenues earned from the provision of public electronic communications networks and services. However, the fee may not exceed €250,000. Based on the total annual revenue, providers are divided into 5 categories:  Up to MKD 1m (€16,348) - 0.07%  MKD 1m - MKD 10m (€16,348-€163,477) - 0.14%  MKD 10m - MKD 100m (€163,477-€1.63m) - 0.21%  MKD 100m - MKD 500m (€1.63m - €8.17m) - 0.28%  Above MKD 500m (€8.17m) - 0.35%
Turkey	General authorisation with notification to the NRA	All electronic communications services and networks, including satellite communications and satellite platform services, infrastructure operating services, internet service provision, fixed telephony services, wired broadcasting services, GMPCS mobile telephony services, MVNO services, GSM 1800 services for air vehicles, PMR/PAMR services, directory information services, GSM and IMT-2000/UMTS services, broadband wireless access services.	None	Administrative fee: 0.35% of annual net sales

Country	Authorisation type:	Networks/services	Authorisation charges and administrative fees			
•			One-off fees	Annual fees		
	However, authorisation ar until 2029), annulment or • One authorisation ag	one dutiendation agreement interest (admine operator)				
Albania	General authorisation with notification to the NRA	All electronic communications networks and services, including internet access, VoIP and value added services.	None	Annual fees may not exceed 0.5% of annual gross revenue of the previous year.  Regulation has been approved but will not be applied in 2010 as revenues from frequency fees cover all expenses for year 2010.		
Bosnia & Herzegovina	Individual licence	Fixed and mobile public telephone networks and services (licences issued to the three incumbent operators)	BAM 1,000 (€511)	Public fixed telephony network and services: BAM 450,000 (€230,080) Public mobile GSM networks and services: BAM 550,000 (€281,200) Public mobile UMTS networks and services: BAM 100,000 (€51,129)		
		Public fixed telephony services	BAM 1,000 (€511)	BAM 55,000 (€28,121)		
		Public fixed telecommunication networks	BAM 1,000 (€511)	<ul> <li>local: BAM 5,000 (€2,600)</li> <li>regional: BAM 10,000 (€5,200)</li> <li>national: BAM 50,000 (€26,000)</li> </ul>		
		Provision of internet services	BAM 500 (€255)	BAM 4,000 (€2,100)		
Montenegro	General authorisation, with notification to the NRA	All publicly available electronic communications and services	€1,000	Less than 1% of annual revenue both for 2009 and 2010. To be approved after the NRA receives financial statements from the registered operators for 2008.  Under Article 32 of the Law on Electronic Communications (Official Gazette of Montenegro, No.50/2008) annual fees may not exceed 1.5% of annual gross revenue of the previous year		

Country	Authorisation type:	Networks/services	Authorisation charges and administrative fees		
			One-off fees	Annual fees	
Serbia		ic Communications of June 29, 2010 foresees the introc y from January 2012. The implementing secondary acts			
	Individual licence (issued for services that require use of numbers or frequency resources)	Public mobile telecommunications network services using spectrum	RSD 25,000 (€268) licence application processing fee One-off fee determined through a public tender procedure Minimum fee is set subject to government	<ul> <li>RSD 70,000,000 (€752,000) in the first year of operations</li> <li>0.9% of annual revenues thereafter</li> </ul>	
		Public voice services offered on a commercial basis as real time voice transfer between network termination points	approval  RSD 25,000 (€268) licence application processing fee  One-off fee determined through a public tender procedure  Minimum fee is set subject to government	<ul> <li>RSD 20,000 (€215) for every 1000 subscribers in the first year</li> <li>0.1% of annual revenues thereafter</li> </ul>	
		Public data transmission services provided through a public data transmission network	approval  RSD 25,000 (€268) licence application processing fee  One-off fee determined through a public tender procedure  Minimum fee is set subject to government approval	<ul> <li>RSD 25,000 (€268) for every 100 subscribers in the first year</li> <li>0.5% of annual revenues thereafter</li> </ul>	
ſ		Cable distribution network services for distribution of radio and television programs, or any other telecommunications services, based on wireless access	RSD 25,000 (€268) licence application processing fee One-off fee determined through a public tender procedure Minimum fee is set subject to government approval	<ul> <li>RSD 30,000 (€322) for every 500 subscribers in the first year</li> <li>0.2% of annual revenues thereafter</li> </ul>	
ſ		Paging services	RSD 25,000 (€268) licence application processing fee One-off fee determined through a public tender procedure Minimum fee is set subject to government approval	<ul> <li>RSD 10,000 (€107) for every 1000 subscribers in the first year</li> <li>0.1% of annual revenues thereafter</li> </ul>	
		Internet services based on own fixed wireless access infrastructure	RSD 25,000 (€268) licence application processing fee One-off fee determined through a public tender procedure Minimum fee is set subject to government approval	<ul> <li>RSD 50,000 (€537) for every 1000 subscribers in the first year</li> <li>0.1% of annual revenues thereafter</li> </ul>	

Country	Authorisation type:	Networks/services	Authorisation charges	and administrative fees
			One-off fees	Annual fees
		Other services using numbers from the National Numbering Plan	RSD 25,000 (€268) licence application processing fee One-off fee determined through a public tender procedure Minimum fee is set subject to government approval	<ul> <li>RSD 50,000 (€537) in the first year</li> <li>0.1% of annual revenues thereafter</li> </ul>
	Authorisation (class licence) issued on the application to the NRA	Access and transport networks for which an individual licence is not required, provision of Internet services; value added services; closed user group services, call back services, cable TV network services, VoIP services without use of numbers	RSD 10,000 (€107) notification processing fee	0.1% of annual revenues and not less than RSD 50,000 (€537)
Kosovo (UNSCR 1244)	Individual licence	Public telecommunications services using fixed network, VoIP	National fixed telephone services licence: €87,500 International telecommunications facilities licence: €50,000 International telecommunications services	0.3% of gross annual turnover attributable to the licensed activity
			licence: €35,000 Internet services: €5,000	

Table C.2 - Authorisation regimes for public electronic communications networks and services

Notes:

Turkey: Mobile communications are subject to a further set of taxes, which include the Special Communication Tax, a Handset License Fee and a Handset Usage Fee (paid by the end user) and the Treasury Share Premium (paid by the operator) – a total of over 60% of end user annual revenue.

Authorisation for cable television networks and services are sometimes more complex than for other electronic communications services as they can involve two regulatory authorities: the NRA and the broadcasting regulator. Table C.3 summarises the authorisation requirements for cable television networks in South-East Europe.

In Albania and Serbia an authorisation from both national authorities is required: one each from the national broadcasting authority for the provision of content over the cable TV network, and one from the NRA for the construction of cable infrastructure. The latter in Albania is now subject to a general authorisation with a notification to the NRA).

In Kosovo, cable TV networks are outside the scope of the telecommunications legislation. They are subject to an individual licence issued by the broadcasting authority. In Montenegro, under the new Law on Electronic Communications, the previous regime with the broadcasting authority solely responsible for licensing of cable operators has been replaced with the general authorisation framework with notification to the NRA, similar to any other electronic communications networks.

In Turkey, with the enforcement of the new authorisation regime under the new Electronic Communications Law, in force since May 2009, authorisation requirements consist of a general authorisation with notification to the NRA.

Country	Authorisation requirements for Cable TV networks	Additional authorisation required to offer other electronic communications services (e.g. Internet access)
Croatia	General authorisation with notification to the NRA	General authorisation with notification to NRA for additional services
FYROM	General authorisation with notification to the NRA for provision of cable network and programming permission from the Broadcasting Council, according to the Broadcasting Law (Official Gazette No. 100/2005)	General authorisation with notification to NRA for additional services such as data communications and telephony
Turkey	General authorisation with notification to the NRA	Additional notification is required for internet and telephony services
Albania	According to Law On Private and Public Radio and Television No. 8410 of August 30, 1998, Articles 123 and 127:  License for broadcasting cable radio-television programs is issued by the	General authorisation with notification to the NRA for provision of internet services
	<ul> <li>National Council of Radio-Television</li> <li>A permission to build and operate a cable network for radio-television broadcasting is issued by the NRA in two stages: <ol> <li>A preliminary permission issued by the NRA within 15 days from the date of application, based on a broadcast license issued by the National Council of Radio-Television, as well as on the plan for the broadcasting cable network. The preliminary permission specifies the deadline for completing the network.</li> <li>Final permission issued by the NRA within 30 days from the date the network is completed and after the implementation of the technical project and equipment installed has been checked by the NRA.</li> </ol> </li> <li>According to article 13 of the new law on Electronic Communications that entered into force on June 26, 2008, permission from the NRA is now replaced by general authorisation with notification.</li> </ul>	
Bosnia & Herzegovina	Individual licences:      General licence for public network operator (network licence)      Licence for provision of services of cable distribution of radio and TV programmes (service licence).	Additional individual service licences:  • for provision of fixed public telephone services or  • for provision of Internet services.
Montenegro	General authorisation with notification to the NRA	General authorization with notification to the NRA for additional services
Serbia	General authorisation with notification to the NRA for services and networks <i>plus</i> an individual licence from the Republic Broadcasting Agency (RRA) for content.	<ul> <li>General authorisation with notification from the NRA for internet services</li> <li>Individual licence for public fixed telephony networks and services (until January 2012, general authorisation foreseen thereafter)</li> </ul>

Country	Authorisation requirements for Cable TV networks	Additional authorisation required to offer other electronic communications services (e.g. Internet access)
Kosovo (UNSCR	Individual licence from the Independent Media Commission (IMC) under the	Additional individual service licences from the NRA:
1244)	Regulation on Cable Distribution of Radio and TV in Kosovo (CIMC 2007/04) of	for provision of fixed public telephone services or
	July 6, 2007.	for provision of Internet services.

Table C.3 - Authorisation requirements for Cable TV networks and services

### 3. Rights of way

Rights of way are necessary to establish electronic communications infrastructure, in particular, for new fixed network infrastructure access to install cables and ducts, across public and private land. Construction permits for mobile network infrastructure can also present a problem. Article 11 of the Framework Directive requires that applications for the development of infrastructure shall be handled by the relevant authorities in a transparent, non-discriminatory manner and without delay. The Framework Directive also requires that the authorities issuing building permits must be structurally separated from the network operators that apply for them. Expropriation procedures must be available – justified as a safeguard mechanism for access to private as well as to public land.

There are steps that can be taken to streamline application procedures, for example, in defining the maximum time periods for dealing with applications and making rules for the free use of or easy access to public domains.

Table C.4 below sets outs the regime for rights of way. It shows:

- the legal basis for granting rights of way and construction permits;
- procedures for access to public land, including responsible authorities dealing with applications; and
- timescales for granting permits.

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
Croatia	Electronic Communications Act (2008), Article 27, 28 Building and physical planning Act (2007)	Depending on the administration of property for which right of way is requested: HAKOM (the NRA), Municipality, Ministry of environmental protection, physical planning and construction, Institution for protection of historical monuments, Institution for protection of natural resources.  As regards private property, the operator must have permission from the land owner.  A request for approval can be made under article 27 of the Electronic Communications Law, or an expropriation procedure under the General Expropriation Law, according to article 21(2).  In accordance with the provisions of the General Expropriation Law, operators can acquire ownership or usufruct (right of use), when it is of interest of the Republic of Croatia.	Article 27(4) of the Electronic Communications Act of 2008 prescribes 30 days time limit for issuing building permits by the manager of the public property or the private property owner, and 30 days time limit for issuing location permits by planning authorities.

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
FYROM	Electronic Communications Law, articles 29, 88-93 Other relevant legislation:  • Law on Expropriation (Official Gazette No.33/95, 20/98, 40/99, 31/03, 46/05and 10/08)  • Law on Ownership and other Rail Rights (Official Gazette No.18/2001)  • Law on Construction (Official Gazette No.51/05 and 82/08)  • Law on urban land (Official Gazette No.82/08 μ 143/08)  • Law on Spatial and Urban Planning (Official Gazette No.24/88)	<ul> <li>Prior to executing works on the real estate in private property, operators of the public communication networks shall submit a proposal to the Property And Legal Affairs Department within the Ministry of Finance for the purpose of implementing the expropriation or for establishing the right of use or servitude</li> <li>The Ministry of Transport and Communications issues an approval for construction of an object on a land which is owned by a third party</li> <li>The prepared urban project and competent revision shall be submitted to the Ministry of Transport and Communications and it shall send it for an opinion to the Agency for Electronic Communications if the urban project refers to construction of electronic communication networks and facilities</li> </ul>	<ul> <li>The following deadlines are defined in the law:</li> <li>The approval for construction of an object on a land owned by a third party shall be issued by Ministry of Transport and Communications within seven days of the date of collection of the complete documentation</li> <li>The opinion on the urban project for construction of electronic communications networks has to be issued within ten days of receipt and if there is no response in determined period, the Ministry of Transport and Communications shall continue the procedure as a positive opinion has been given</li> <li>As regards private property, if the owner of the real estate fails to agree within ten (10) days of receipt of the proposed contract to sign it, the interested operator may request that the administrative body responsible for decisions concerning expropriation of real estate establish the right of use and easement of the real estate.</li> </ul>
Turkey	Articles 22 to 30 of the Electronic Communications Law of 2008 state that all infrastructure operators have a right for public and private proprietary areas and the use of such properties for the purpose of installation, altering, disassembling, controlling, maintaining, repairing etc. with a view to provide electronic communications services.	Depending on the public property for which right of way is requested: metropolitan municipalities and municipalities, Infrastructure Coordination Centre, Ministry of Finance-General Directorate of the National Real Estate, General Directorate of Railways, General Directorate of Highways, Turkish Electricity Transmission Corporation, Undersecretariat for Maritime Affairs, Ministry of Culture and Tourism, Ministry of Defence, Petroleum Pipeline Corporation etc.  As regards private property, the operator must have permission from the land owner.	Article 23/2 of the Electronic Communications Law of 2008 prescribes 60 days time limit for public corporations and institutions to evaluate the references for the demand of rights of way by giving priority and without any delays and conclude such procedure.
Albania	Article 93 of Law No. 9918 of 2008 on Electronic Communications (right of using public and private properties)	Depending on the areas under the public property, notifications have to be submitted to the respective Council of Territorial Regulation (KRRT) regional/local authorities:  • for cities: municipal KRRT  • for communes: district KRRT	According to the Law No. 8405 of September 17, 1998 on Urban Planning, as amended, article 50, the deadline for approval or refusal of construction permit is 45 days from the date of the request.  In practice, considerable delays are still reported (up to 12 months for digging permits)

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
Bosnia & Herzegovina	Articles 9, 14, 22, 34, 36 and 49 of the Law on Country Planning and Use of Land in Federation of Bosnia & Herzegovina (Official gazettes FBiH No. 52/02).  Law on Country Planning in Republic Srpska (Official gazettes RS No. 84/02)  Law on City Construction Land (Official Gazettes FBiH No. 67/05)  Law on City Construction Land (Official Gazettes RS No. 86/03).	Municipal authorities are relevant authorities where the applicant will be advised on further procedure.	The general timeframe is 30 to 60 days, but usually the applicant needs more time to collect the requested documentation and obtain approval.
Montenegro	Law on Electronic Communications, article 23: Construction, maintenance, development and utilization of electronic communications networks, and equipment with associated infrastructure, as well as provision of electronic communication services and management and use of radio frequency spectrum, numeration and addresses shall be the activities of public interest for Montenegro.	Public land may be used by public operators upon application to an appropriate state or municipality administration. Government of Montenegro only has the authority to determine public interest, by passing relevant act (decision).  Disputes (if any) between a public operator and relevant authorities are resolved at courts.  A public telecommunications operator, may, in conformity with the legislation in force, enter into agreements with private people to use their land and facilities for the installation and maintenance of any telecommunication equipment. If such agreement fails, operator has right to start the expropriation procedure, according to the Expropriation Law.	All authorities in process should respond within 15 days period after submitting the application (for each separate request), but usually it is much longer than that.  Typical timescale for complete process is about 6 months.
Serbia	Law on Electronic Communications (article 50) regulates non-discriminatory rights of way.  Law on Country planning and Construction (Official Gazette No.47/03) – articles 88-89.  Law on spatial planning and construction prepared by the Ministry of Environment and Spatial Planning was adopted on August 31, 2009. The new law simplifies the construction procedures.	Relevant authorities include: Ministry of Environment and Spatial Planning, municipalities, RATEL	The new Law on spatial planning and construction sets deadlines for authorities to issue permits.  These deadlines are between 8 and 15 days from the day when complete documentations is submitted. If the required documents are not submitted, the authority in 8 days has to answer to the applicant and require clarification, which should be submitted in due time (usually in 30 days).  For simpler installations like new antennas on tower, new container or new base station it is not required to have any permit.

Country	Legal basis for granting rights of way and construction permits	Relevant authorities and their role	Timescales for granting permits
Kosovo (UNSCR 1244)	Article 27 of the Law on Telecommunications All licensed operators have non- discriminatory rights of way	Public land may be used by public operators upon application to municipal authorities.  Under Article 27 of the Law on Telecommunications, TRA may establish rules for the use of publicly and privately controlled property for telecommunications services and service providers.	A licensed telecommunications operator, may, in conformity with the legislation in force, enter into agreements with private persons to use their land and facilities for the installation and maintenance of telecommunication networks and equipment. Expropriation procedures may be used. The Kosovo Assembly adopted a Law on Expropriation (No 02/L-97) on February 8, 2007. However, it has never been promulgated by the SRSG and therefore has not entered into force.

Table C.4 - Rights of way

## D. Radio spectrum

### 1. Frequency management

Table D.1 provides information on the bodies which are responsible for:

- frequency allocation, including the decision on the national frequency plan; and
- frequency assignments, covering individual authorisations to use frequencies in the national frequency plan. Frequencies for the military sector are normally decided outside this framework.

Country	Frequency allocation	Frequency assignment	Legal basis	
Croatia	Ministry of the Sea, Transport and Infrastructure (on the basis of a proposal by the NRA)	Croatian Post and Electronic Communications Agency (HAKOM, the NRA)	Articles 81-82, Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008)	
FYROM	Agency for Electronic Communications (AEC, the NRA) prepares and adopts the national plan of radio frequency bands allocation, subject to approval by the government	Based on the national frequency plan, AEC prepares the plan of radio frequency assignments and utilisation for frequencies allocated for civil users	Law on electronic communications (Official Gazette No. 13/05, 17/07, 55/07, 98/08 and 83/10), Chapter 6 - Radio frequency spectrum	

Country	Frequency allocation	Frequency assignment	Legal basis		
Turkey	Information Technologies and Communications Authority (ICTA, the NRA)	Information Technologies and Communications Authority (ICTA) assigns spectrum for telecommunications.     ICTA allocates frequency blocks for broadcasting to the Radio and Television Supreme Council (RTUK) in accordance with the national frequency allocation plan defined by ICTA     RTUK assigns spectrum to individual broadcasters	Law on Electronic Communications No. 5809 of November 5, 2008, Chapter 3. Bylaw on Spectrum Management dated July 2, 2009.		
Albania	National frequency plan is adopted by the Council of Ministers, upon the proposal of the Minister in charge for the sector. Development of the national frequency plan is done by the Minister in charge for the sector in cooperation with other institutions stipulated in Article 62(3) of the law.	<ul> <li>Albanian Authority of Electronic and Postal Communications (AKEP, the NRA) – for frequencies allocated to civil purposes, with the exception of broadcasting.</li> <li>AKEP develops the frequencies utilization plan, for the frequencies under its administration, prepared in compliance with the National frequency plan.</li> <li>National Radio and Television Council (KKRT) – for frequencies allocated to broadcasting.</li> </ul>	Article 62-64 of Law on Electronic Communications (Law No. 9918 of May 19, 2008)		
Bosnia & Herzegovina	Communications Regulatory Agency (the NRA)	Communications Regulatory Agency (the NRA)	Articles 30-32of Law on Communications, Official Gazette of Bosnia & Herzegovina No 31/03 of October 21, 2003,		
Montenegro	The government decides on the frequency allocation plan (on the basis of a proposal of the NRA to the Ministry)	Under the Law on Electronic Communications of July 29, 2008 the Agency for electronic communications and postal services, the NRA was made the sole authority responsible for spectrum assignment, including electronic communications and broadcasting.	Articles 4 and 8 of Law on Electronic Communications of July 29, 2008 (Official Gazette No. 50/2008)		
Serbia	The government decides on the frequency allocation plan (on the basis of a proposal of the NRA to the Ministry).  The frequency assignment plan is decided by the Ministry on a proposal of the NRA.	Republic Telecommunications Agency (RATEL, the NRA)	Articles 81, 83 and 84 of Law on Electronic Communications of June 29, 2010 (Official Gazette No. 44/2010)		
Kosovo (UNSCR 1244)	TRA, subject to review and approval by Kosovo Assembly	TRA for telecommunications TRA in coordination with Independent Media Commission (IMC) for broadcasting	Articles 22 and 36 of Law on Telecommunications Law No. 03/L-085 of June 13, 2008 amending UNMIK Regulation No 2003/16 on the promulgation of the Law on Telecommunications deletes references to UNMIK and its Frequency Management Office (FMO) and SRSG (Special Representative of the Secretary General).		

Table D.1 - Frequency allocation and assignment

2. Spectrum licences issued to mobile operators – award procedures and fees

#### Award methods

- Auction (A): licence awarded to highest bidder.
- **Beauty contest** (BC) (or comparative selection): the applicant with the most points according to published criteria (and fee, if any) wins. No financial bidding involved. The applicant may be required to pay one-off and annual fees for the licence.
- **Hybrid** (H): a combination of beauty contest and auction. Those applicants passing the beauty contest proceed to the auction.
- **Granted** (G): includes licences granted on a first-come-first-served basis, awarded via a lottery, direct offer, or without tender.

Country	Operator	Spectrum	System	How much	Award	How	much paid?	Licence	Expiry year
		band (MHz)		spectrum assigned?	method	One- off/auction	Annual	awarded	
Croatia	Hrvatski Telekom (T-Mobile)	900	GSM & UMTS	2 x 14.4 MHz	G	HRK 105m (€14m) one-off fee for GSM – paid in 1999 HRK 50m (€6.85m) – paid for renewal in 2009	0.5% annual revenue     €110k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Sep. 16, 1999 (commercially available since mid-1995 without formal licence), renewed in 2009	2024
		1800	GSM & UMTS	2 x 8.4 MHz	G	See above	0.5% annual revenue     €55k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Dec. 2007, renewed in 2009	2024
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	G	HRK 132m (€18.2m) one- off fee for UMTS	0.5% annual revenue     €55k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Oct. 2004	2024

Country	Operator	Spectrum	System	How much	Award	How	much paid?	Licence	Expiry year
		band (MHz)		spectrum assigned?	method	One- off/auction	Annual	awarded	
	VIPnet	900	GSM & UMTS	2 x 14.4 MHz	G	HRK 105m (€14m) one-off fee for GSM – paid in 1999 HRK 50m (€6.85m) – paid for renewal in 2009	0.5% annual revenue     €110k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Oct. 1998 (commercially available since July 1, 1999), renewed in 2009	2024
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	G	HRK 132m (€18.2m) one- off fee for UMTS	0.5% annual revenue     €55k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Oct. 2004	2024
	Tele2	900	GSM & UMTS	2 x 5 MHz	BC	HRK 172m (€23.7m) joint one-off fee for GSM&UMTS	0.5% annual revenue     €110k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Dec. 2007, renewed in 2009	2024
		1800	GSM & UMTS	2 x 12 MHz	BC	See above	0.5% annual revenue     €55k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Dec. 2004 (commercially available since Oct. 2005), renewed in 2009	2024
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	BC	See above	0.5% annual revenue     €55k per 1 MHz to state budget     €33k per 1 MHz to HAKOM	Dec. 2004	2024

Country	Operator	Spectrum	System	How much	Award	How	much paid?	Licence	Expiry year
		band (MHz)		spectrum assigned?	method	One- off/auction	Annual	- awarded	
FYROM	T-Mobile	900	GSM	2 x 12.5 MHz	G	€2.545m	€28,700 per MHz (+18% VAT)	June 2001	2018
		1800	GSM	2 x 10 MHz	Н	€2m	€21,000 per MHz (+18% VAT)	June 2009	2019
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	Н	€10m	€21,000 per MHz (+18% VAT)	Dec. 2008	2018
	One (Cosmofon)	900	GSM	2 x 12.5 MHz	Н	US\$ 25m	€28,700 per MHz (+18% VAT)	Nov. 2001	2023
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	Н	€10m	€21,000 per MHz (+18% VAT)	Feb. 2008	2018
	VIP operator         900         GSM         2 x 10 MHz         H         €10m for combine 900/1800 M spectrum           1800         GSM         2 x 25 MHz         H         For combine 900/1800 M spectrum	for combined	€28,700 per MHz (+18% VAT)	March 2007	2017				
		1800	GSM	2 x 25 MHz			€21,000 per MHz (+18% VAT)	March 2007	2017
Turkey	Turkcell	900	GSM	2 x 11.2 MHz	A	US\$ 500.00m (+15% VAT) plus TRL 21.075 m +(18% VAT)	No annual fee, but 15% of monthly gross sales paid as "Treasury Share"	1998	2023
		2100	UMTS	2 x 20 MHz FDD	А	€358m (+18% VAT)		2008	2028
	Vodafone         900         GSM         2 x 11.2 MHz         A         US\$ 500.00m (+15% VAT) plus TRL 9.75m		(+15% VAT) plus	No annual fee, but 15% of monthly gross sales paid as "Treasury Share"		2023			
		2100	UMTS	2 x 15 MHz FDD plus 5 MHz TDD	А	€250.00m (+18% VAT)		2008	2028
	Avea (Aria and	900	GSM	2 x 2.4 MHz	Α	TRL 11.968 m	No annual fee, but	2000	2025
	Aycell merged into TT&TIM, later renamed to Avea Iletisim Hizmetleri)	1800	GSM	2 x 15 MHz		+(18% VAT) plus US\$2.525 bn. Each for Aria and Aycell +(17% VAT)	15% of monthly gross sales paid as "Treasury Share"	2000	2025

Country	Operator	Spectrum	System	How much	Award	How	much paid?	Licence	Expiry year
		band (MHz)		spectrum assigned?	method	One- off/auction	Annual	awarded	
		2100	UMTS	2 x 15 MHz	A	€214m (+18% VAT)		2008	2028
Albania	Albanian Mobile	900	GSM	2 x 8 MHz	Н	US\$ 80m (see	ALL 9.9m (€72k)	Aug.19, 1999	2014
	Communications	1800	GSM	2 x 9 MHz	Н	note)	ALL 8.9m (€65k)		
	Vodafone	900	GSM	2 x 8 MHz	Н	US\$ 38m	ALL 9.9m (€72k)	June 9, 2001	2016
	Albania	1800	GSM	2 x 9 MHz	Н		ALL 8.9m (€65k)		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	Н	€31.4m	No information available	Nov. 2010	2025
	Eagle Mobile	900	GSM	2 x 8 MHz	Н	No separate	ALL 9.9m (€72k)	March 1, 2004	2019
		1800	GSM	2 x 9 MHz	Н	fee (see note)	ALL 8.9m (€65k)		
	Mobile 4 Al	900	GSM	2 x 8 MHz	Н	€7.2m	ALL 4.6m (€33k)	June 26, 2009	2024
		1800	GSM	2 x 9 MHz	Н	7	ALL 4.2m (€30k)		
Bosnia &	BH Telecom         900         GSM         2 x 8 MHz         G         BAM 140m		BAM 2.650m	Oct. 12, 2004	2019				
Herzegovina	(BH Mobile)	1800	GSM	2 x 12 MHz		(€70m) paid over 9 years	(€1.325m)		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	G	€15m paid over 7 years with 2 years grace period	BAM 1.100m (€5.05m)	April 1, 2009	2024
	Telekom Srpske	900	GSM	2 x 8 MHz	G	BAM 140m	BAM 2.650m	Oct. 12, 2004	2019
	(m:tel)	1800	GSM	2 x 12 MHz		(€70m) paid over 9 years	(€1.325m)		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	G	€15m paid over 7 years with 2 years grace period	BAM 1.100m (€5.05m)	April 1, 2009	2024
	HT Mostar	900	GSM	2 x 8 MHz	G	BAM 140m	BAM 2.650m	Oct. 12, 2004	2019
	(HT Eronet)	1800	GSM	2 x 12 MHz		(€70m) paid over 9 years	(€1.325m)		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	G	€15m paid over 7 years with 2 years grace period	BAM 1.100m (€5.05m)	April 1, 2009	2024

Country	Operator	Spectrum	System	How much	Award	How	much paid?	Licence	Expiry year
		band (MHz)		spectrum assigned?	method	One- off/auction	Annual	awarded	
Montenegro	T-Mobile Montenegro	900	GSM	2 x 9.6 MHz	G	€4.25m	€44160	Jan. 1, 2002	2017
		1800	GSM	2 x 20 MHz			€36800		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	Н	€2.4m	€20125	April 11, 2007	2022
	m:tel	900	GSM	2 x 9.6 MHz	Н	€16m	€44160	April 21, 2007	2022
		1800	GSM	2 x 20 MHz			€36800		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)			€20125		
	Promonte	900	GSM	2 x 9.6 MHz	G	€4.25m	€44160	Jan. 1, 2002	2017
		1800	GSM	2 x 20 MHz			€36800		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)	Н	€4.01m	€20125	April 13, 2007	2022
Serbia	Telekom Srbija	900	GSM	2 x 9.6 MHz	G	0	0.9% of annual	Aug. 15, 2006	2016
	(mt:s)	1800	GSM	2 x 9.8 MHz		(replacement of previous	revenue		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)		licence)			
	Telenor	900	GSM	2 x 9.6 MHz	А	€320m	0.9% of annual	Aug. 31, 2006	2016
		1800	GSM	2 x 10 MHz		(see note)	revenue		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)					
	VIP mobile	900	GSM	2 x 4.2 MHz	Α	€320m	0.9% of annual	Dec. 1, 2006	2016
		1800	GSM	2 x 20 MHz			revenue		
		2100	UMTS	2 x 15 MHz (FDD) 5 MHz (TDD)					
Kosovo (UNSCR 1244)	Vala	900	GSM	2 x 6.8 MHz	G	€6.5m	0.03% of annual revenue	July 30, 2004	2019
	lpko 900 GSM 2 x 5 MHz H €75		€75m	0.03% of annual	March 7, 2007	2022			
		1800	GSM	2 x 5 MHz			revenue		

Table D.2 - Spectrum assignments issued to mobile operators, award procedures and fees

Notes:

Albania: AMC was launched as a state owned company in 1996 until September 2000, when 85% of its shares were privatised. One-off fee refers to selling of 85% of state owned

shares in AMC. Eagle Mobile licence was issued as part of Albtelecom (fixed incumbent) privatisation package, so there was no separate one-off fee EM licence. Mobile 4 licence was issued based on a special parliament law, after the tender procedure failed. Mobile 4 Al paid the amount offered in the bidding process. Annual fees are calculated based on a formula and is dependent on the number of BTS built and population coverage. Mobile 4 Al has lower amounts because of these two factors and not

reached yet the population coverage and number of BTS threshold of the other MNOs.

Bosnia & Herzegovina: GSM licence annual fees include BAM 550k licence fee plus BAM 1.2m frequency fee for 900 MHz (BAM 30k per channel) and BAM 900k for 1800 MHz (BAM 15k per

channel). UMTS licence annual fees include BAM 100k licence fee plus BAM 1m frequency fee

Montenegro: The NRA proposes monetary value of the point used for the calculation of annual spectrum fees, based on estimation of total annual regulatory costs on the above

mentioned basis, by which the level of fees will be calculated and incorporated in the Financial Plan for the following calendar year and the level of fee is determined by the

government, by adoption of Financial Plan of the Agency. For 2010 the monetary value of the point is €2.3.

Serbia: Mobtel (Mobi63) and Telekom Srbija were the first licenced mobile operators for GSM 900/1800 spectrum. On August 31, 2006 Mobi63 (ex Mobtel) operations together with

additional 3G spectrum licence were sold on auction to Telenor ASA, Norway, for €1.5bn, valid from August 31, 2006 for 10 years (with a possible extension of another 10 years). On November 10, 2006 Mobilkom Austria AG (now VIP mobile) won a combined GSM 900/1800 and UMTS licence valid from December 1, 2006 for 10 years (with

a possible extension of another 10 years).

#### 3. Broadband wireless access – spectrum licences

Table D.3 shows the status of BWA spectrum licensing (also referred to as wireless local loop). The table does not include Wi-Fi networks operated in the 2.4 GHz and 5 GHz frequency bands.

Country	Frequency bands	Status and number of licences National/Regional	Size of the spectrum block	Licence duration period	Restrictions on operators applying for BWA licences
Croatia	3.4-3.6 GHz	As of November 2010, there are 30 valid licences covering 20 Croatia counties and the District of Zagreb. Part of operators returned their licences (initially there were 56 licences)	2x14 MHz or 2x21 MHz per each licence	2010-2016	No
FYROM	3.4-3.6 GHz	6 regional authorisations covering the whole national territory issued to one licensee (Neotel) Initially 20 frequency authorisations for BWA spectrum were issued: 2 national and 18 regional (3 authorisations per each of 6 regions). Most of them have been revoked: either because of the failure to meet coverage obligations or on request of the licensees.	2 x 14 MHz per each frequency authorisation	10 years	Restricted to fixed services (FWA)
Turkey	-	No FWA license issued.	-	-	-
Albania	-	No FWA license issued.	-	-	-
Bosnia & Herzegovina	-	No FWA license issued.	-	-	-
Montenegro	3.4-3.8 GHz	3 national licences in the 3.4-3.6 GHz issued in April 2007 and one licence for two blocks of 2 x 14 MHz issued in Dec. 2009.  1 national licence in the 3.6-3.8 GHz issued in Oct. 2007.	2 blocks of 2 x 21 MHz and 3 blocks of 2 x 14 MHz (in the 3.4-3.6 GHz) 2 x 21 MHz (in the 3.6-3.8 GHz)	5 years	No

Country	Frequency bands	Status and number of licences National/Regional	Size of the spectrum block	Licence duration period	Restrictions on operators applying for BWA licences
Serbia	3.4-3.6 GHz	Licensing process has been postponed until the adoption of new Allocation plan that is expected to be adopted in Q1 2011. Available spectrum blocks are defined in Official Gazette No. 17 of Feb. 13, 2008.  A number of radio stations permits for specific locations mostly within Belgrade and Novi Sad were issued under the previous law.	Varies, depending on location	-	-
	410 - 430 MHz	In May 2009 RATEL issued two national FWA licences in the 411.875-418.125/421.875-428.125 MHz band to Telekom Srbija and Orion Telecom (Media Works) following a tender procedure announced in March 2009. Both winners offered to pay €540,000 per licence.	2 x 3.5 MHz per each frequency authorisation	10 years	Restricted to fixed services (FWA) including voice and data transmission
Kosovo (UNSCR 1244)	-	No FWA license issued.	-	-	-

Table D.3 - Broadband wireless access (BWA) - licences

## 4. Spectrum awards in progress

The table below shows the spectrum award procedures that have been completed recently or will be launched shortly.

Country	Frequency bands	Spectrum use of licence (technology and service restrictions)	Status/deadline to apply	Number of licences National/Regional	Size of the spectrum block per licence	Validity of licence	Price (fixed price or minimum reserved price)	Procedure (auction/comparative selection, any restrictions to bidders)	
Croatia	No spectrum awards in progress								
FYROM	3.4-3.6 MHz	Technology neutral	Tender procedure expected to be launched by end 2010	2 national authorisations	31.5 MHz continuous bandwidth per authorisation	10 years	€50,000 min reserve price	Comparative selection, where the bid price is one of the criteria	
Turkey	No spectrum	awards in progress				•			
Albania	2100 MHz	UMTS (IMT-2000/UMTS)	Tender procedure launched on Sep. 20, 2010. Deadline for submitting bids was Nov. 8. On Nov. 10, 2010 Vodafone was announced the winner.	1 national	2 x 15 MHz (FDD) 5 MHz (TDD)	15 years	€12.5m min reserve price Vodafone offered €31.4m	Comparative selection, where the bid price and network coverage are the main criteria	

Country	Frequency bands	Spectrum use of licence (technology and service restrictions)	Status/deadline to apply	Number of licences National/Regional	Size of the spectrum block per licence	Validity of licence	Price (fixed price or minimum reserved price)	Procedure (auction/comparative selection, any restrictions to bidders)
Bosnia & Herzegovina	No spectrum	No spectrum awards in progress						
Montenegro	No spectrum	lo spectrum awards in progress						
Serbia	No spectrum	lo spectrum awards in progress						
Kosovo	No spectrum	awards in progress						

Table D.4 - Spectrum awards in progress

## 5. Public Wireless Local Area Networks (WLAN)

Country	Full frequency	bands available	Licensing requirements for provision of access to public network
	2.4 GHz	5 GHz	
Croatia	Yes	Yes	General authorisation with notification to the NRA
FYROM	Yes	Yes	General authorisation with notification to the NRA
Turkey	Yes	Yes	General authorisation with notification to the NRA
Albania	Yes	Yes	General authorisation with notification to the NRA
Bosnia & Herzegovina	Yes	No	General licence for provision of internet services
Montenegro	Yes	Yes	General authorisation without notification
Serbia	Yes	Yes	General authorisation with notification
Kosovo (UNSCR 1244)	Yes	No	Individual licence

Table D.5 - Public Wireless Local Area Networks (WLAN/WiFi)

### 6. Refarming of GSM spectrum - 3G/4G services in 900 MHz and 1800 MHz bands

The table below shows whether the refarming of the GSM spectrum in the 900 MHz and the 1800 MHz bands has been decided at the national level. It addresses the allowed change of the spectrum use ranging from enabling deployment of UMTS and LTE services in the GSM bands to their liberalisation on technology neutral basis

Country	Decision on spectrum refarming in 900 and 1800 MHz bands?	Technologies permitted in 900 and 1800 MHz bands	Redistribution of existing spectrum assignments in 900 and 1800 MHz bands
Croatia	900 and 1800 MHz – Yes	GSM and UMTS	No
	Following the adoption of the by-law on the use of radio frequency spectrum in Nov. 2008, the spectrum assignment plan for the 900 MHz and 1800 MHz bands was amended to allow the use of both GSM and UMTS technologies in these bands.		
	HAKOM amended the existing spectrum licences in 900 MHz, 1800 MHz and 2100 MHz extending them until 2024 on a technology neutral basis: on June 19, 2009 for VIPnet and Tele2, and on Aug. 31, 2009 for T-Mobile.		
FYROM	900 and 1800 MHz - Yes	GSM and UMTS	No
	National frequency plan was amended from Dec. 29, 2009		
Turkey	900 and 1800 MHz – No The 2010 Work Plan of ICTA states that a study will be undertaken to examine the use of 900/1800 MHz bands for 3G services.	GSM	No
Albania	900 and 1800 MHz - No	GSM	No
Bosnia & Herzegovina	900 and 1800 MHz – Yes National frequency plan was amended from Sep. 1, 2010	GSM and UMTS	No
Montenegro	900 and 1800 MHz - No	GSM	No
Serbia	900 and 1800 MHz – No Trial tests of UMTS 900 have been performed by RATEL together with Telenor to assess its compatibility with GSM and possibilities for provision of wireless broadband in rural areas.	GSM	No
Kosovo (UNSCR 1244)	900 and 1800 MHz – No	GSM	No

Table D.6 - Refarming of GSM spectrum in the 900 and 1800 MHz bands

# 7. Analogue switch-off dates and use of the digital dividend

Country	Analogue switch-off date	Decision making process	Technical platforms for digital TV	Size of digital dividend at UHF spectrum band	Digital dividend at UHF spectrum band available for mobile/wireless communications (actual or planned)	
					Total amount of MHz	Band
Croatia	Oct. 31, 2010	Analogue to Digital Television Broadcasting Switchover Strategy adopted by the government in July 2008. Decision on spectrum assignment depends on the use of digital dividend in neighbouring countries.	DVB-T	To be decided	To be decided	To be decided
FYROM	June 1, 2013	On Nov. 27, 2007 the Broadcasting Council adopted the strategy for the development of the broadcasting in the Republic of Macedonia for the period 2007- 2012. Analogue switch off date is set out in the Action Plan of the government.	To be decided	To be decided	To be decided	To be decided
Turkey	2014	In March 2005, the Radio and Television Supreme Council adopted the strategy and application schedule for switchover from analogue to digital TV broadcasting.  The 2010 Work Plan of ICTA includes assessing the use of frequency bands assigned for broadcasting services for future needs. The work plan states that RTUK (Radio and Television Supreme Council) should start necessary preparations for using at least the 790-862 MHz part of 470-862 MHz band for new services.	DVB-T	72 MHz	72 MHz	790-862 MHz

Country	Analogue switch-off date	Decision making process	Technical platforms for digital TV	Size of digital dividend at UHF spectrum band	Digital dividend at UHF spectrum band available for mobile/wireless communications (actual or planned)	
					Total amount of MHz	Band
Albania	To be decided	Two dates are currently considered:  Dec. 31, 2012 (foreseen by Law No. Nr.9742, date 05.28.2007 "On digital broadcasting in the Republic of Albania") or June 17, 2015 (agreement GE 06) ratified by the Albanian Parliament.  The final decision is to be adopted by the ad hoc committee responsible for the implementation of the strategy, for passing from analogue to digital transmission.	DVB-T2 MPEG-4	72 MHz	72 MHz	790-862 MHz
Bosnia & Herzegovina	Dec. 1, 2011	On June 17, 2009 the Council of Ministers of Bosnia and Herzegovina adopted the Strategy on the digital switch-over within the frequency bands of 174-230 MHz and 470-862 MHz in Bosnia and Herzegovina.	H.264/MPEG-4	To be decided	To be decided	To be decided
Montenegro	Dec. 31, 2012	On April 10, 2008 Council of Broadcasting Agency adopted Strategy for switchover from analogue to digital broadcasting systems in Montenegro	DVB-T	To be decided	To be decided	To be decided
Serbia	April 4, 2012	The Strategy for Switchover from Analogue to Digital Broadcasting of Radio and Television Programs in the Republic of Serbia, with the Action Plan was adopted by the government on July 2, 2009 (Official Gazette No 52/2009)	DVB-T2 MPEG-4	To be decided	To be decided	To be decided
Kosovo (UNSCR 1244)	2012	No	Most likely DVB-T, mobile DVB-H and interactive services	No information has been released. It is under discussion at the Parliamentary Commission on Media in association with the new draft law on Digital Transmission.	To be decided	To be decided

Table D.7 - Analogue switch-off dates and the use of digital dividend

## E. Regulatory framework for market analyses

1. Market analysis procedures and regulations

The concept of significant market power (SMP) is one of the central elements of the EU regulatory framework for electronic communications. Following a market analysis, the NRA may designate an operator as having SMP in a specific electronic communications market and impose on it a set of regulatory obligations (remedies).

Table E.1 below examines the national regulatory frameworks for market analyses carried out by NRAs. It specifies the discretion an NRA has in exercising the functions foreseen under the EU 2003 regulatory framework, including the powers to:

- collect relevant information and any restrictions to this power;
- define relevant markets applying competition law principles;
- designate operators with SMP;
- impose regulatory obligations on operators with SMP, including
  - whether the remedies are pre-defined by law; or
  - the NRA discretion in imposing remedies according to the identified competition problems; and
- the frequency of market analysis procedures defined by law.

Following the recent adoption of the legislation based on the current EU regulatory framework for electronic communications, most of the Enlargement countries have introduced competition law principles for the designation of operators with SMP. Serbia introduced the regulatory framework for market analyses based on competition law principles following the adoption of the new law on electronic communications in June 2010. The Serbian NRA has to complete its first round analysis according to this new framework within one year, i.e. by July 2011. Only Bosnia and Herzegovina and Kosovo still continue applying the 25% market share threshold for the designation of operators with SMP.

Country	Restrictions on NRA powers to collect information	Definition of relevant markets: by law or by NRA	Basis for SMP designation: Competition law or 25% market share threshold?	Imposition of remedies: Pre-defined or by NRA discretion	Timeframe for market analysis
Croatia	No restrictions (Articles 53 (3), 54(2) of the Electronic Communications Act)	The NRA has discretion to define relevant markets taking into account the European commission recommendation on relevant markets and applying the three criteria test (Article 53 of the Electronic Communications Act of 2008).  The NRA may also identify any relevant market which is not part of EC Recommendation on relevant markets, but the three criteria test firstly has to be applied (Article 53 (2) (3) of the Electronic Communications Act).	Competition law principles, taking into account market shares and other relevant criteria, and EC guidelines (Article 55 of the Electronic Communications Act)	Discretionary remedies can be imposed by the NRA (listed in Articles 58 to 65 of the Electronic Communications Act).	At least once every three years (Article 52 of the Electronic Communications Act)
FYROM	No restrictions Operators of electronic communications networks and service providers are required to submit at the request of the NRA information related to their activities, including financial data. The request has to be justified, based on reasonable grounds and proportionate to its purpose Confidential information received from another regulatory body can only be used for the purposes for which it was requested. (Article 23 of Law on Electronic Communications).	Under Article 41 of the Law on Electronic Communications, the NRA defines relevant product, service and geographic markets in accordance with the Law on Protection of Competition and in cooperation with the NCA.  In Aug. 2005, the NRA adopted a Decision on the determination of relevant markets that sets out 18 relevant product markets according to the EC Recommendation of 2003; all are national in their geographic scope. On Sep. 23, 2010, the NRA adopted a new Decision on the determination of relevant markets where it identifies 13 relevant markets subject to ex ante regulation.	The NRA in its assessment of SMP in a relevant market takes into account the provisions of the Law on Protection of Competition, combined with other criteria defined in Article 40 of Law on Electronic Communications.  According to the provisions of the Law on Protection of Competition, a company has a dominant position on a relevant market if it has market share of over 40%.	Discretionary remedies can be imposed by the NRA, as listed in articles 44 – 52 of the Law on Electronic Communications.	The NRA may decide on the periodicity of market analysis in consultation with the NCA (Article 42 of Law on Electronic Communications).  Amendments to the Law on Electronic Communications adopted in June 2010 removed the requirement to review markets on a yearly basis.

Country	Restrictions on NRA powers to collect information	Definition of relevant markets: by law or by NRA	Basis for SMP designation: Competition law or 25% market share threshold?	Imposition of remedies: Pre-defined or by NRA discretion	Timeframe for market analysis
Turkey	According to the Bylaw on Principles and Procedures in the Electronic Communications Sector for the Determination of the Undertakings with Significant Market Power and the Remedies which is to be Imposed for Those Undertakings (SMP bylaw), the NRA can demand any information without restrictions during the market analysis. NRA can use public surveys, studies by third parties and international benchmarks.	The NRA has discretion to define relevant markets applying competition law principles. According to article 8 (1) of the SMP bylaw, for all markets to be analysed the NRA is required to carry out the three criteria test.	Market shares of the operators are considered as the primary criterion.  The determination of the market shares of the operators can be made based on revenue, subscriber or user numbers, traffic volume, transmission capacity and transmission line number, as long as they are appropriate and available.  In addition to market shares, SMP assessment can be based on a number of other criteria defined in Article 9 of the SMP bylaw.	Under Article 11 of the SMP bylaw, the NRA may impose on operators with SMP the following remedies:  • transparency  • publication of reference access and interconnection offers  • non discrimination  • accounting separation  • tariff regulation  • cost accounting. Under article 7 (3) of the Law on Electronic Communications, the NRA may impose discretionary remedies, allowing differentiation among operators with SMP on the same market and among different markets.	At least once every three years (Article 6 (1) of the SMP bylaw)
Albania	No restrictions. Under article 16 of the Law on Electronic Communications, undertakings are obliged to provide data and any other information as requested by the NRA.	The NRA has discretion to define relevant markets applying competition law principles (Article 32 of the Law on Electronic Communications)  AKEP approved the market analysis regulation on July 17, 2009, where it defined relevant markets subject to regulation. The list comprises 16 markets of EC recommendation 2003 (all except for broadcasting and international roaming services)	Competition law principles, taking into account market shares and other relevant criteria (Article 33 of the Law on Electronic Communications)  AKEP market analysis regulation also makes reference to the EC guidelines on market analysis	Remedies are discretionary imposed by the NRA (listed in Articles 39-45, 56 of the Law on Electronic Communications).	On regular basis, but no less than once every two years (Article 34 of the Law on Electronic Communications,)
Bosnia & Herzegovina	Licence conditions of all licensed operators and service providers contain an obligation to provide to the NRA any requested information in a timely fashion.	Discretionary definition by the NRA (Article 14 of the Law on Communications)	25% market share as threshold in a relevant market combined with an assessment of other criteria	Basic regulatory obligations are defined in the law and licenses of the three incumbent operators. Further discretionary remedies can be imposed by the NRA (Article 14 of the Law on Communications).	Once every year (Article 14 of the Law on Communications)

Country	Restrictions on NRA powers to collect information	Definition of relevant markets: by law or by NRA	Basis for SMP designation: Competition law or 25% market share threshold?	Imposition of remedies: Pre-defined or by NRA discretion	Timeframe for market analysis
Montenegro	No restrictions (Article 18 of the Law on Electronic Communications) The information request, however, must be justified and proportionate.	Discretionary definition by the NRA, in cooperation with the NCA and taking into account the EU practices (Article 41 of the Law on Electronic Communications)	Competition law principles, taking into account market shares and other relevant criteria (Article 47 of the Law on Electronic Communications)	Remedies are discretionary imposed by the NRA (listed in Articles 48-51, 56 of the Law on Electronic Communications).	Not defined Under Article 143, Transitional provisions of the Law on Electronic Communications, the NRA was to complete its first market analysis within one year from the entry into force of the law, i.e. by August 27, 2009. The deadline was not met in practice.
Serbia	No restrictions Licence conditions of all licensed operators and service providers contain an obligation to provide to the NRA any requested information in a timely manner. Operators are required to submit at the request by the NRA all information that is necessary for its activities (Article 41 of the new Law on electronic communications).	Under the previous Telecommunications Law, in April 2008 RATEL adopted a decision identifying six markets relevant for ex ante regulation, comprising the four markets defined under the ONP framework and two additional markets: fixed telephony, mobile telephony, leased lines, interconnection, Internet services and provision of cable distribution systems. Article 59 of the new Law on electronic communications provides for discretionary definition by the NRA, taking into account relevant recommendations of the European Commission.	Competition law principles, taking into account market shares and other criteria for assessment of individual or collective dominance (Articles 61-62 of the Law on Electronic Communications)	Remedies are discretionary imposed by the NRA (listed in Articles 63-71 of the Law on Electronic Communications).	At least once every three years (Article 60 of the Law on Electronic Communications) Under Article 145, Transitional provisions of the Law on Electronic Communications, the NRA is to complete its first market analysis of the seven relevant markets according to the 2007 EC recommendation, within one year from the entry into force of the law, i.e. by July 2011.
Kosovo (UNSCR 1244)	The NRA has the authority to collect and maintain information, including but not limited to statistics, financial, employment and network performance reports or other reports that it requires in order to fulfil its responsibilities (Telecommunications Act, Section 12).	Discretionary definition by the NRA	25% market share in a relevant market, combined with an assessment of other criteria (Telecommunications Act, Section 44)	Basic access and interconnection obligations are set out in Telecommunications Act and operators' licences. Further discretionary remedies can be imposed by the NRA.	Subject to NRA discretion or upon request of any service provider

Table E.1 - Market analysis and the discretionary powers of NRAs

# 2. Analysis of relevant markets by NRAs

Table E.2 shows the analyses of relevant retail and wholesale markets conducted by the NRAs.

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
Croatia	Wholesale voice call termination on individual mobile networks (M7/2007)	National	<ul><li>T-Mobile</li><li>VIPNet</li><li>Tele2</li></ul>	T-Mobile and VIPNet     Access and interconnection     Non discrimination     Transparency (RIO)     Price control and cost orientation  Tele 2     Access and interconnection     Non discrimination     Transparency (minimal offer)     Price control	HAKOM Decision July 17, 2009
	Wholesale access and call origination on the public mobile telephone network (M15/2003)	-	No SMP Three criteria test is not met	Deregulated	HAKOM Decision July 17, 2009
	Retail public mobile services	-	No SMP Three criteria test is not met	Deregulated	HAKOM Decision July 17, 2009
	Wholesale SMS termination on individual mobile networks	-	No SMP Three criteria test is not met	Deregulated	HAKOM Decision July 17, 2009
	Wholesale call termination on individual public telephone networks provided at a fixed location (M3/2007)	National	T-Hrvatski Telekom Eight alternative operators	<ul> <li>HT</li> <li>Access and interconnection</li> <li>Non-discrimination</li> <li>Transparency (RIO)</li> <li>Price control and cost orientation</li> <li>Accounting separation</li> <li>Other operators</li> <li>Access and interconnection</li> <li>Non-discrimination</li> <li>Transparency (minimal offer)</li> <li>Price control</li> </ul>	HAKOM Decision July 17, 2009

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale call origination on the public telephone network provided at a fixed location (M2/2007)	National	T-Hrvatski Telekom	<ul> <li>Access and interconnection</li> <li>Non-discrimination</li> <li>Transparency (RIO)</li> <li>Price control and cost orientation</li> <li>Accounting separation</li> <li>CS/CPS obligation</li> </ul>	HAKOM Decision July 17, 2009
	Wholesale transit services in the public telephone networks (M10/2003)	-	No SMP Three criteria test is not met	Deregulated	HAKOM Decision July 17, 2009
	Wholesale network infrastructure access (including shared and full access) at a fixed location (M4/2007)	National	T-Hrvatski Telekom	<ul> <li>Access and interconnection</li> <li>Non-discrimination</li> <li>Transparency (RUO)</li> <li>Price control and cost orientation</li> <li>Accounting separation</li> </ul>	HAKOM Decision July 17, 2009
	Wholesale broadband access (M5/2007)	National	T-Hrvatski Telekom	<ul> <li>Access and interconnection</li> <li>Non-discrimination</li> <li>Transparency (RO)</li> <li>Price control and cost orientation</li> <li>Accounting separation</li> </ul>	HAKOM Decision July 17, 2009

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
FYROM	Retail access to the public telephone network from fixed location (M1-2/2003)	National	Makedonski Telekom	<ul> <li>CS/CPS</li> <li>Wholesale line rental, based on retail minus</li> <li>Non-discrimination</li> <li>Ex ante price control</li> <li>Transparency obligation (publication of charges, terms and conditions)</li> <li>Accounting separation</li> <li>Prohibition of anticompetitive behaviour</li> <li>Prohibition of unreasonable bundling of services (allow customers to buy unbundled elements of any service elements)</li> </ul>	Market analysis completed in March 2010. AEC final decision on M1-2/2003, Oct. 28, 2010.
	Retail publicly available telephone calls from fixed location (M3-6/2003)	National	Makedonski Telekom	CS/CPS     Wholesale line rental, based on retail minus     Non-discrimination     Ex ante price control     Transparency obligation (publication of charges, terms and conditions)     Accounting separation     Prohibition of anticompetitive behaviour     Prohibition of unreasonable bundling of services (allow customers to buy unbundled elements of any service elements)	Market analysis completed in March 2010. AEC final decision on M3-6/2003, Oct. 28, 2010.
	Minimum set of leased lines (M7/2003)	National	Makedonski Telekom	<ul> <li>Non-discrimination</li> <li>Ex ante price control</li> <li>Transparency obligation</li> <li>Accounting separation</li> </ul>	AEC final decision on M7/2003, April 1, 2010

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale call origination on the public telephone network provided at a fixed location (M8/2003)	National	Makedonski Telekom	<ul> <li>Interconnection and access</li> <li>CS/CPS</li> <li>Wholesale line rental, based on retail minus</li> <li>Non-discrimination</li> <li>Price control based on LRIC</li> <li>Transparency, including publication of RIO</li> <li>Accounting separation</li> </ul>	Market analysis completed in Oct. 2010. AEC final decision on M8/2003, Oct. 28, 2010.
	Wholesale call termination on individual public telephone networks provided at a fixed location (M9/2003)	National	Makedonski Telekom All other (7) alternative operators	Makedonski Telekom Interconnection and access Non-discrimination Price control based on LRIC Transparency, including publication of RIO Accounting separation Other operators Interconnection and access Non discrimination Transparency Price control (symmetry with Makedonski Telekom's FTRs)	Market analysis completed in Oct. 2010. AEC final decision on M9/2003, Oct. 28, 2010.
	Wholesale transit services in the public telephone networks (M10/2003)	National	Makedonski Telekom	<ul> <li>Interconnection and access</li> <li>Non-discrimination</li> <li>Price control based on LRIC</li> <li>Transparency (RIO)</li> <li>Accounting separation</li> </ul>	Market analysis completed in Oct. 2010. AEC final decision on M10/2003, Oct. 28, 2010.
	Wholesale network infrastructure access (including shared and full access) at a fixed location (M11/2003)	National	Makedonski Telekom	<ul> <li>Access and use of specific network elements</li> <li>Non-discrimination</li> <li>Price control based on LRIC</li> <li>Transparency (RO)</li> <li>Accounting separation</li> </ul>	Market analysis completed in June 2010. AEC final decision on M11/2003, Oct. 28, 2010.

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale broadband access (M12/2003)	National	Makedonski Telekom	<ul> <li>Access and use of specific network elements</li> <li>Non-discrimination</li> <li>Price control based on LRIC</li> <li>Transparency (RO)</li> <li>Accounting separation</li> </ul>	Market analysis completed in June 2010. AEC final decision on M12/2003, Oct. 28, 2010.
	Terminating segments of leased lines and trunk segments of leased lines (13-14/2003)	National	Makedonski Telekom	Access to and use of specific network facilities Non discrimination     Price control and cost orientation     Transparency obligation     Accounting separation	AEC final decision on M13-14/2003, April 1, 2010
	Wholesale access and call origination on the public mobile telephone network (M15/2003)	National	T-Mobile	<ul> <li>Interconnection and access</li> <li>Non discrimination</li> <li>Price control based on LRIC</li> <li>Transparency obligation (publication of charges, terms and conditions)</li> <li>Accounting separation</li> </ul>	AEC final decision on M15/2003, July 29, 2010
	Wholesale call termination in individual mobile network (market 16/2003)	National	T-Mobile ONE (previously Cosmofon) VIP	<ul> <li>Non discrimination</li> <li>Price control based on LRIC</li> <li>Transparency obligation</li> <li>Accounting separation</li> <li>Interconnection and access</li> </ul>	AEC final decision on M16/2003, May 18, 2010 (second round): T-Mobile, ONE, VIP

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
Turkey	Wholesale call termination in individual mobile networks (M16/2003)	National	<ul> <li>Turkcell</li> <li>Vodafone</li> <li>Avea</li> </ul> Other mobile network operators (i.e. potential new entrants)	Turkcell, Vodafone, Avea:  Non-discrimination  Cost accounting  Accounting separation  Transparency  Publication of RIO  Price control  Access and interconnection  Co-location  Other mobile network operators:  Access and interconnection  Non-discrimination  Transparency	Decision no. 2009.DK – 10.627 of Dec. 8, 2009
	Wholesale mobile access and call origination (M15/2003)	National	Turkcell	<ul> <li>Access and interconnection</li> <li>Non-discrimination</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Transparency</li> <li>Publication of reference offer</li> <li>Price control (cost orientation)</li> <li>Co-location</li> </ul>	Decision no. 2009/DK - 10.626 of Dec. 8, 2009
	Retail access to the public telephone network at fixed location for residential and business customers (M1-2/2003)	National	Türk Telekom	<ul> <li>Access</li> <li>CS/CPS</li> <li>Wholesale line rental</li> <li>Non-discrimination</li> <li>Price control</li> </ul>	Decision no. 2009/DK – 10/659 of Dec. 16, 2009
	Retail publicly available national, local and international telephone calls at fixed location (M3-6/2003)	National	Türk Telekom	<ul><li>Access</li><li>CS/CPS</li><li>Non-discrimination</li><li>Billing</li><li>Price control</li></ul>	Decision no. 2009/DK – 10.625 of Dec. 8, 2009

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale call termination on public telephone networks provided at a fixed location (M9/2003)	National	Türk Telekom     Other fixed telephone network operators assigned subscriber numbers	Türk Telekom:  Interconnection  Non-discrimination  Co-location  Cost accounting  Accounting separation  Transparency  Publication of reference offer  Price control (costorientation)  Other operators:  Interconnection  Non-discrimination  Transparency	Decision no 2009.DK – 10.624 of Dec. 8, 2009
	Wholesale call origination on the public telephone network provided at a fixed location (M8/2003)	National	Türk Telekom	<ul> <li>Interconnection</li> <li>CS/CPS</li> <li>Non-discrimination</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Transparency</li> <li>Publication of reference offer</li> <li>Price control (cost orientation)</li> <li>Co-location and facility sharing</li> </ul>	Decision no. 2010/DK – 10/9 of Jan. 7, 2010
	Transit services in the public telephone network provided at fixed locations (M10/2003)	National	Türk Telekom	<ul> <li>Interconnection</li> <li>Non-discrimination</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Transparency</li> <li>Publication of reference offer</li> <li>Price control (cost orientation)</li> </ul>	Decision no. 2010/DK-10/103 of Feb. 17, 2010

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale unbundled access (including shared access) to local loops and sub loops for the purpose of providing broadband and voice services (M11/2003)	National	Türk Telekom	<ul> <li>Unbundled access</li> <li>Non-discrimination</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Transparency</li> <li>Publication of reference offer</li> <li>Price control (costorientation)</li> <li>Co-location and facility sharing</li> </ul>	Decision no. 2010/DK – 10/10 of Jan. 7, 2010
	Wholesale broadband access (M12/2003)	National	Türk Telekom	Wholesale broadband access (xDSL resale, XDSL IP/ATM BSA, ATM, FR, ME resale)     Naked DSL (IP BSA)     Non-discrimination     Cost accounting     Accounting separation     Transparency     Publication of reference offer     Subject to tariff regulation     Co location and facility sharing	Decision no. 2010/DK – 10/20 of Jan. 7, 2010
	Wholesale leased lines (M13-14/2003)	National	Türk Telekom	Access (point-to-point line provision and partial circuits)     Non-discrimination     Cost accounting     Accounting separation     Transparency     Price control (costorientation)     Co-location     Publication of reference offer	Decision no. 2010/DK – 10/19 of Jan. 7, 2010

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Retail leased lines (M7/2003)	National	Türk Telekom	<ul> <li>Provision of minimum set</li> <li>Non-discrimination</li> <li>Transparency</li> <li>Price control</li> <li>Cost accounting</li> <li>Accounting separation</li> <li>Publication of SLA</li> </ul>	Decision no. 2010/DK – 10/18 of Jan. 7, 2010
Albania	Wholesale call termination on individual mobile networks (M16/2003)	National	<ul> <li>Albanian Mobile Communications</li> <li>Vodafone Albania</li> <li>Eagle Mobile</li> </ul>	<ul> <li>Non-discrimination</li> <li>Cost orientation</li> <li>Transparency</li> <li>Access and interconnection</li> <li>Price control</li> <li>RIO</li> </ul>	AKEP decisions of March 31, 2010, amended on July 23, 2010: AMC, Vodafone, Eagle Mobile
	Wholesale access and call origination on mobile networks (M15/2003)	National	Albanian Mobile     Communications     Vodafone Albania	Access and interconnection, including MVNO access and national roaming and access and call origination for calling cards operators and calls to 0800 numbers     Non-discrimination     Transparency (RIO)     Cost orientation for provision of access and call origination for Calling cards operators and calls to 0800 numbers      Provision of MVNO access and national roaming on commercial terms	AKEP decisions of March 31, 2010, amended on July 23, 2010: AMC, Vodafone
_	Retail access to the public telephone network at fixed location (M1-2/2003)	National	Albtelecom	Non-discrimination     Cost orientation	AKEP decision of July 26, 2010, amended on Aug. 28, 2010.
	Retail publicly available telephone calls at fixed location (M3-6/2003)	National	Albtelecom	<ul><li>Transparency</li><li>Price control</li><li>CS/CPS</li></ul>	
	Wholesale call termination to geographic numbers in Albtelecom fixed network (M9/2003)	National	Albtelecom	<ul><li>CS/CPS</li><li>Non-discrimination</li></ul>	

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale call origination on the public telephone network provided at a fixed location (M8/2003)	National	Albtelecom	<ul><li>Cost orientation</li><li>Transparency</li><li>Access and interconnection</li></ul>	
	National transit services in the public telephone network provided at fixed locations (M10/2003)	National	Albtelecom	<ul><li>Respect confidentiality</li><li>Price control</li><li>RIO</li></ul>	
	Minimum set of leased lines, comprising specified types of leased lines up to and including 2Mb/sec) (M7/2003)	National	Albtelecom	<ul> <li>Non-discrimination</li> <li>Transparency</li> <li>Publication of reference offer plus SLA/KPI</li> </ul>	Consultation on draft market analysis held in Nov. 2009. No final decision yet.
	Wholesale terminating segments of leased lines (M13/2003)	National	Albtelecom	Access and interconnection and joint usage of network	
	Wholesale trunk segments of leased lines (M14/2003)	National	Albtelecom	facilities  Accounting separation  Regulatory cost accounting and cost orientaion  Tariff control (retail and wholesale)	
	Wholesale broadband access (M12/2003)	National	Albtelecom	Non-discrimination     Transparency     Publication of reference offer     Access and interconnection and joint usage of network facilities     Accounting separation     Regulatory cost accounting and cost orientation     Tariff control	Consultation on draft market analysis held in April 2010.  No final decision yet.

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale unbundled access (M11/2003)	National	Albtelecom	<ul> <li>Non-discrimination</li> <li>Transparency</li> <li>Publication of reference offer</li> <li>Access and interconnection and joint usage of network facilities</li> <li>Accounting separation</li> <li>Regulatory cost accounting and cost orientation</li> <li>Tariff control</li> </ul>	Consultation on draft market analysis held in April 2010.  No final decision yet.
Bosnia & Herzegovina	Fixed telephony services	Geographic extent of each fixed network	BH Telecom     Telekom Srpske     HT Mostar	<ul> <li>Non-discrimination</li> <li>Cost orientation</li> <li>Transparency</li> <li>Access and interconnection</li> <li>Price control</li> <li>RIO</li> <li>CS/CPS</li> </ul>	RAK decision of Dec. 28, 2009 (Official Gazette of BiH 05/2010)
	Mobile telephony services	Geographic extent of each mobile network	BH Telecom     Telekom Srpske     HT Mostar	<ul> <li>Non-discrimination</li> <li>Cost orientation</li> <li>Transparency</li> <li>Access and interconnection</li> <li>Price control</li> <li>RIO</li> </ul>	RAK decision of Dec. 28, 2009 (Official Gazette of BiH 05/2010)
	Leased lines	Geographic extent of each fixed network	BH Telecom     Telekom Srpske     HT Mostar	<ul> <li>Non-discrimination</li> <li>Cost orientation</li> <li>Transparency</li> <li>Access and interconnection</li> <li>Price control</li> <li>RIO</li> </ul>	RAK decision of Dec. 28, 2009 (Official Gazette of BiH 05/2010)

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
Montenegro	Access to the public telephone network at a fixed location for residential and non-residential customers (M1/2007)	National	Crnogorski Telekom	CS/CPS WLR Prohibition of excessive prices, too high or too low prices Non-discrimination Prohibition of unduly bundling	EKIP final decision on M1/2007, Nov. 11, 2010
	Call origination on the public telephone network provided at a fixed location (M2/2007)	National	Crnogorski Telekom	<ul> <li>Access and interconnection</li> <li>Transparency (RIO)</li> <li>Non-discrimination</li> <li>Accounting separation</li> <li>Price control (benchmarking) and cost accounting</li> </ul>	EKIP final decision on M2/2007, Nov. 11, 2010
	Call termination on individual public telephone networks provided at a fixed location (M3/2007)	National	Crnogorski Telekom     M:Tel	Crnogorski Telekom	EKIP final decision on M3/2007, Nov. 11, 2010
	Network infrastructure access (including shared or fully unbundled access) at a fixed location (M4/2007)	National	Crnogorski Telekom	<ul> <li>Access</li> <li>Transparency (RUO)</li> <li>Non-discrimination</li> <li>Accounting separation</li> <li>Price control (benchmarking) and cost accounting</li> </ul>	EKIP final decision on M4/2007, Nov. 11, 2010

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
	Wholesale broadband access (M5/2007)	National	Crnogorski Telekom	<ul> <li>Access</li> <li>Transparency (RO)</li> <li>Non-discrimination</li> <li>Accounting separation</li> <li>Price control (retail minus 42%) and cost accounting</li> </ul>	EKIP final decision on M5/2007, Nov. 11, 2010
	Terminating or trunk segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity (M6/2007)	National	Crnogorski Telekom	<ul> <li>Access</li> <li>Transparency (RO)</li> <li>Non-discrimination</li> <li>Accounting separation</li> <li>Price control (benchmarking) and cost accounting</li> </ul>	EKIP final decision on M6/2007, Nov. 11, 2010
	Voice call termination on individual mobile networks (M7/2007)		<ul><li>ProMonte</li><li>T-Mobile</li><li>M:Tel</li></ul>	Access and interconnection     Transparency (RIO)     Non-discrimination     Price control (benchmarking) and cost accounting	EKIP final decision on M7/2007, Nov. 11, 2010
Serbia	Retail public fixed telephone networks and services	National	Telekom Srbija	Network access and interconnection     Non-discrimination     Cost orientation     Transparency     Prohibition of cross-subsidisation     Retail price control	RATEL decision of March 3, 2006
	Retail radio and television programme distribution via cable network	National	• SBB	Retail price control     Accounting separation	RATEL decision of Feb. 19, 2007

Country	Relevant market	Geographic scope	Operator(s) with SMP	Remedies imposed on SMP operator(s)	Legal basis Reference to relevant legislation or NRA decision
Kosovo (UNSCR 1244)	Retail public mobile services	National	PTK (Vala)	<ul> <li>Non-discrimination</li> <li>Cost orientation</li> <li>Transparency</li> <li>Network access</li> <li>Respect confidentiality</li> <li>RIO</li> </ul>	Telecommunications Act, Section 44
	Retail access to the public telephone network from fixed location	National	• PTK	<ul> <li>Non-discrimination</li> <li>Cost orientation</li> <li>Transparency</li> <li>Network access</li> <li>Respect confidentiality</li> <li>RIO</li> </ul>	

Table E.2 - Analyses of retail and wholesale markets

#### Notes:

Croatia: According to the NRA decision of July 9, 2008 on the markets relevant for ex ante regulation, two further markets will be analysed at a later stage covering access to public fixed telephony services at fixed location for residential and business customers and retail and wholesale terminating segments of leased lines. The process for market analyses of the markets related to the provisioning of leased lines (minimum set of leased lines, wholesale terminating segments and trunk segments of leased lines) has already started.

### F. Competitive safeguards

#### 1. Carrier selection and pre-selection

Article 19 of the Universal Service Directive (2002/22/EC) states that NRAs must require operators with SMP in the markets for the provision of connection to and use of the public telephone network at a fixed location to enable their subscribers to access the services of any interconnected provider of publicly available telephone services:

- on a call-by-call basis by dialling a carrier selection code; and
- by means of carrier pre-selection, with a facility to override any pre-selected choice on a call-by-call basis by dialling a carrier selection code.

Table F.1 details the regulatory obligations to offer CS and Table F.2 the obligations for CPS on the fixed networks of incumbent operators. These basic access services are still not available in Albania, Serbia and Kosovo. Also in Montenegro, only CS has been implemented in practice despite the existing legal requirement to offer CS and CPS for all fixed and mobile network operators.

Country		CS implementation	for different type of call	s	Operators required to	Call origination for CS
	Local	National	International	Calls to mobile	provide CS	included in RIO?
Croatia	February 2005	February 2005	February 2005	February 2005	T-Hrvatski Telekom	HT RIO, Section 4.2
FYROM	May 2008	January 2007	January 2007	January 2007	Makedonski Telekom	Makedonski Telekom RIO, Annex 3.D
Turkey	May 2009	April 2006	April 2006	April 2006	Türk Telekom	Türk Telekom RIO, Sections 2.1.1.2 and 3.1.6
Albania	Not available	Not available	Not available	Not available	Albtelecom  Deadline for implementation to be set out in a separate AKEP decision – to be adopted in connection with the tariff rebalancing process	No, only call origination for calling cards is included Albtelecom is required to amend its RIO to include call origination for CS/CPS
Bosnia & Herzegovina	October 2006	October 2006	October 2006	October 2006	BH Telecom     Telekom Srpske     HT Mostar	BH Telecom RIO, Section 5.3 Telekom Srpske RIO, Section 5 HT Mostar RIO, Section 2.2.3
Montenegro	December 2007	December 2007	December 2007	December 2007	All public telecommunications operators, both fixed and mobile	Crnogorski Telekom RIO, Section 2.5
Serbia	Not available	Not available	Not available	Not available	No requirement	No

Country		CS implementation for	or different type of calls		Operators required to	Call origination for CS
	Local	National	International	Calls to mobile	provide CS	included in RIO?
Kosovo (UNSCR 1244)	Not available	Not available	February 2011	Not available	TRA regulation on CS/CPS adopted on June 15, 2010 sets out a requirement for PTK as operator with SMP to implement CS for international calls	No

Table F.1 - Obligations to provide carrier selection

Country		CPS implementation for	r different type of calls	s	Operators required to	Call origination for CPS	
	Local National		International Calls to mobile		provide CPS	included in RIO?	
Croatia	February 2005	February 2005	February 2005	February 2005	T-Hrvatski Telekom	HT RIO, Section 4.2	
FYROM	May 2008	January 2007	January 2007	January 2007	Makedonski Telekom	Makedonski Telekom RIO, Annex 3.D	
Turkey	October 2009	July 2006	July 2006	July 2006	Türk Telekom	Türk Telekom RIO, Sections 2.1.1.2 and 3.1.6	
Albania	Not available	Not available	Not available	Not available	-	-	
Bosnia & Herzegovina	Not available July 2007 deadline was foreseen	Not available July 2007 deadline was foreseen	Not available July 2007 deadline was foreseen	Not available July 2007 deadline was foreseen	<ul><li>BH Telecom</li><li>Telekom Srpske</li><li>HT Mostar</li></ul>	BH Telecom RIO, Section 5.3 Telekom Srpske RIO, Section 5 HT Mostar RIO, Section 2.2.3	
Montenegro	Not available December 2007 deadline was foreseen	Not available December 2007 deadline was foreseen	Not available December 2007 deadline was foreseen	Not available December 2007 deadline was foreseen	All public telecommunications operators, both fixed and mobile – from December 2007	No Only CS is included in Crnogorski Telekom RIO, Section 2.5	
Serbia	Not available	Not available	Not available	Not available	-	-	
Kosovo (UNSCR 1244)	Not available	Not available	September 2012	Not available	TRA regulation on CS/CPS adopted on June 15, 2010 sets out a requirement for PTK as operator with SMP to implement CPS for international calls	-	

Table F.2 - Obligations to provide carrier pre-selection

In the countries where carrier selection and pre-selection have been available for some time, alternative service providers have entered the markets, but in very small numbers (see Table F.3). There has been limited adoption of these services by consumers and businesses. It appears that only in Croatia and Turkey, carrier selection and pre-selection, so far, can be considered to be a success. As of March 2010 there were close to 240,000 CPS users in Croatia and 515,000 CPS users in Turkey that corresponds, respectively, to 14% and 3% and of all fixed lines in these countries.

Country	CS implem	nentation	CPS implementation		
	Alternative operators offering CS	Number of CS users	Alternative operators offering CPS	Number of CPS users	
Croatia	5	N/A	5	239,833	
FYROM	1	4,337	1	209	
Turkey	8	N/A	10	515,000	
Albania	-	-	-	-	
Bosnia & Herzegovina	6	34,608	-	-	
Montenegro	6	N/A	-	-	
Serbia	-	-	-	-	
Kosovo (UNSCR 1244)	-	-	-	-	

Table F.3 - Implementation of carrier selection and pre-selection

#### 2. Number portability

Number portability in fixed networks is required to allow customers to switch operators, usually away from the incumbent to a rival, while retaining the value and familiarity of their existing number. The EU legal framework requires that it be available for both:

- geographic numbers; and
- non-geographic numbers.

There are a number of possible technical solutions. With **onward routing**, a call to a ported number is routed to the donor network (i.e. the network to which the called party previously subscribed to), which then forwards the call to the recipient network (i.e. the network providing service to the subscriber after porting). Whereas, with **direct routing**, a central or distributed database of ported numbers is used for routing calls to ported numbers directly to the recipient network:

## All calls query – ACQ

The originating operator consults the database for all calls.

### Query on release – QoR

The originating operator consults the database only when the call to the ported number is rejected by the donor network.

Table F.4 summarises the implementation of fixed number portability. Only Croatia, FYROM, and Turkey, have so far implemented number portability in fixed networks. While in FYROM and Turkey it is still very early in the introduction of this service, in Croatia 417,884 numbers have already been ported, which constitutes around 22.5% of total fixed subscriber numbers. In Bosnia & Herzegovina and Albania the service is expected to become operational before the end of 2010.

Country	Impleme	ntation	Deadline and legal basis	Inter-operator	Technical	Duration of the porting	NP database financing	Ported
	Geographic numbers	Non- geographic numbers		charge per ported number	solution	process		numbers statistics
Croatia	July 2005	July 2005	Deadline: Jan. 1, 2005, postponed to April 2005 Art. 72 of the Telecommunications Law of 2003 By law on number portability and carrier reselection of Dec. 2004 (Official Gazette 183/04). HAT Decision on number portability and carrier preselection of August 26, 2005 (with amendments)	None	Direct routing, ACQ with centralised database	5 days from subscriber request	Centralised database is operated by the NRA and funded from the NRA budget.	417,884 fixed numbers ported at the end of 1H 2010.
FYROM	September 2008	Not implemented	Deadline: Sep. 2008 Articles 84 and 85 of the Law on Electronic Communications Bylaw on number portability (Official Gazette of RM, No. 135/2006, 57/2007, 145/2007, 87/2008, 17/2009, 115/2009 and 72/2010)	Max. one-off fee of MKD 200 (€3.23) (applies both to operators and endusers) The fee was set by the NRA decision of June 2009. Makedonski Telekom RIO, Annex 8B	Direct routing, QoR with centralised database	Max. 7 days from subscriber request	Centralised database is operated by the NRA and funded from the NRA budget.	24,771 fixed numbers ported at the end of 1H 2010.
Turkey	September 2009	September 2009	Implemented on Sep.10, 2009 Bylaw on Number Portability based on Law No. 5809, Official Gazette dated July 2, 2009, No. 27276	Max. one-off fee of TRY 2.00 (€1.02) set by the NRA	Direct routing, ACQ with centralised database	Max. 7 days from subscriber request	Centralised database is operated by the NRA and was funded from the NRA budget. From April 2010, operating and management costs are shared between fixed	509 fixed numbers ported at the end of 1H 2010. 17,452 as of Oct. 2010

Country	Implemen	ntation	Deadline and legal basis	Inter-operator	Technical	Duration of the porting	NP database financing	Ported
	Geographic numbers	Non- geographic numbers		charge per ported number	solution	process		numbers statistics
							and mobile operators based on the formula defined by ICTA.	
Albania	Not implemented	Not implemented	Deadline: June 2009 Law on Electronic Communications (Law No. 9918 of May 19, 2008) sets the implementation deadline within 12 months from its entry into force. AKEP approved a regulation on Number Portability, and is in the process of procuring the centralised database and services for its operation. Tenders were invited by Sept. 24, 2010. Number portability should be implemented before end 2010.	Not decided Max. porting charge for end-users is ALL 600 (€4.32), incl. VAT	Direct routing, ACQ with centralised database	Max. 3 working days	Centralised database will be managed by an independent operator and financed from the NRA budget	-
Bosnia & Herzegovina	Not implemented	Not Implemented	Deadline: January 2011 Telecom Sector Policy, Official Gazette No. 8/2009, sets the implementation deadline at the end of 2009 Law on Communications (Official Gazette No. 31/2003, Art. 8, 27, 38 and 39) RAK Rule on Number Portability No. 32/2008 In Sept. 2010 RAK completed procurement procedure for the centralised database and services for its operation. Number portability should be implemented before end 2010.	Max. one-off fee of BAM 30.00 (€15)	Direct routing, ACQ with centralised database	Max. 10 working days	Centralised database will be managed by an independent operator and financed by telecom operators	

Country	Impleme	ntation	Deadline and legal basis	Inter-operator	Technical	Duration of the porting	NP database financing	Ported
	Geographic numbers	Non- geographic numbers charge per ported number		solution	process		numbers statistics	
Montenegro	Not implemented	Not implemented	Deadline: Aug. 27, 2011 Legal basis: Article 110 of Law on Electronic Communications Rulebook on number portability of Dec. 22, 2009 (Official Gazzette of Montenegro, No. 89/2009)	Not decided	Query on release, QoR, ACQ with centralised database	Max. 5 working days	To be financed by the NRA	-
Serbia	Not implemented	Not implemented	Deadline: not defined. Article 79 of the Electronic Communications Law provides legal basis for number portability	-	-	-	-	-
Kosovo (UNSCR 1244)	Not implemented	Not implemented	Deadline: not defined. Legal basis: Section 39 of the Telecommunications Law Implementing regulation is being drafted by the NRA.	-	-	-	-	-

Table F.4 - Availability of fixed number portability

Table F.5 summarises the implementation of mobile number portability. Only Croatia, FYROM and Turkey have so far implemented number portability in mobile networks. In Turkey, it appears to be a particular success with over 17.9 million mobile numbers having been ported since its introduction in November 2008. The service is expected to be implemented before the end of 2010 in Albania and Bosnia and Herzegovina and by January 2011 in Serbia.

Country			Technical	Duration of the	NP database	Use		
		and legal basis	charge per ported number	solution	ported process	financing	Ported numbers statistics	% of total mobile numbers
Croatia	October 1, 2006	Deadline: June 30, 2005. Article 72 of the Telecommunications Law of 2003 Ordinance on number portability and carrier pre-selection of Dec. 2004 (Official Gazette 183/04)	None	Direct routing, ACQ with centralised database	Max. 5 working days from subscriber request	Centralised database is operated by the NRA and funded from the NRA budget.	124,757 mobile numbers ported at the end of 1Q 2010.	2.07%

Country	Implementation	Implementation deadline	Inter-operator	Technical	Duration of the	NP database	Use	е
		and legal basis	charge per ported number	solution	ported process	financing	Ported numbers statistics	% of total mobile numbers
		NRA Decision on number portability and carrier pre-selection of Aug. 26, 2005 (with amendments)						
FYROM	September 2008	Deadline: July 2007, then postponed to September 2008 Articles 84 and 85 of the Law on Electronic Communications Bylaw on number portability (Official Gazette of RM, No. 135/2006, 57/2007, 145/2007, 87/2008, 17/2009, 115/2009 and 72/2010)	Max. one-off fee of MKD 200 (€3.23) (applies both to operators and end-users) The fee was set by the NRA decision of June 2009.	Direct routing, QoR with centralised database	Max. 7 working days from subscriber request	Centralised database is operated by the NRA and funded from the NRA budget.	10,366 mobile numbers ported at the end of 1Q 2010.	0.24% of total granted numbers for mobile telephony 0.53% of total active mobile subscribers
Turkey	November 2008	Deadline: Nov. 2008 Bylaw on Number Portability based on Law No. 5809, Official Gazette dated July 2, 2009, No. 27276	Max. one-off fee of TRY 2.00 (€1.02) set by the NRA	Direct routing, ACQ with centralised database	Max. 6 days from subscriber request	Centralised database is operated by the NRA and was funded from the NRA budget. From April 2010, operating and management costs are shared between fixed and mobile operators based on the formula defined by ICTA.	Approx. 17.9m mobile numbers ported at the end of 1H 2010. Approx. 22m – as of October 2010	Approx. 29% (1H 2010) Approx. 35% (October 2010)
Albania	Not implemented	Deadline: June 2009 Law on Electronic Communications (Law No. 9918 of May 19, 2008) sets the implementation deadline within 12 months from its entry into force. AKEP approved a regulation on Number Portability, and is in the process of procuring the centralised database and services for its operation. Tenders were invited by Sept. 24, 2010. Number portability should be implemented before end 2010.	Not decided	Direct routing, ACQ with centralised database	Max. 3 working days	Centralised database will be managed by an independent operator and financed from the NRA budget	-	-

Country	Implementation	Implementation deadline	Inter-operator	Technical	Duration of the	NP database financing	Use	9
		and legal basis	charge per ported number	solution	, , , , , , , , , , , , , , , , , , , ,		Ported numbers statistics	% of total mobile numbers
Bosnia & Herzegovina	Not implemented	Deadline: Dec. 2009 Telecom Sector Policy, Official Gazette No. 8/2009, sets the implementation deadline at the end of 2009 Law on Communications (Official Gazette No. 31/2003, Art. 8, 27, 38 and 39) RAK Rule on Number Portability No. 32/2008 In Sep. 2010 RAK completed procurement procedure for the centralised database and services for its operation. Number portability should be implemented before end 2010.	Max. one-off fee of BAM 30.00 (€15)	Direct routing, ACQ with centralised database	Max. 10 working days	Centralised database will be managed by an independent operator and financed by telecom operators	-	-
Montenegro	Not implemented	Deadline: Aug. 27, 2011 Legal basis: Article 110 of Law on Electronic Communications Rulebook on number portability of Dec. 22, 2009 (Official Gazzette of Montenegro, No. 89/2009)	Not decided	Direct routing, ACQ with centralised database	Max. 5 working days	To be financed by the NRA	-	-
Serbia	Not implemented	Deadline: Jan. 2011 Regulation on mobile NP was published in the Official Gazette of the Republic of Serbia, No. 5/10 of February 5, 2010.	RSD 1,000 (€10.74)	Direct routing, ACQ with centralised database	From 2 to 4 working days	Centralised database is going to be operated by the NRA and funded from the NRA budget	-	-
Kosovo (UNSCR 1244)	Not implemented	Deadline: not defined. Telecommunications Law provides no legal basis for mobile number portability. Implementing regulation is being drafted by the NRA.	-	-	-	-	-	-

Table F.5 - Availability of mobile number portability

Table F.6 shows where VoIP providers are allowed to use geographic and non-geographic numbers from the national numbering plan and where they are allowed to port-in such numbers from another operator, usually the incumbent operator. In most cases, in the absence of general number portability, it is not available for VoIP. The exception is FYROM where geographic numbers are available to both non-nomadic and nomadic VoIP. Croatia and Montenegro have created dedicated number ranges for non-nomadic VoIP.

The term 'nomadic services' refers to services where the user can connect to their VoIP service from any network termination point and make or receive calls using the same number. Nomadic VoIP services are therefore provided independently of the physical location of the user. However, the user may be required to specify a particular physical location and corresponding network termination point as their 'home' location when signing the contract with the provider of the nomadic VoIP service in order to enable the provision of caller location information to the emergency services.

Country		Access to subscribe	er numbers for VoIP			Number pe	ortability	
	Geog	raphic	Non-geographic dedicated range(s) for VoIP		Geogr	aphic	Non-geographic	
	Non-nomadic VoIP			Nomadic VoIP	Non-nomadic VoIP	Nomadic VoIP	Non-nomadic Nomadic \ VoIP	
Croatia	No	No	Yes	No	No	No	Yes	No
FYROM	Yes	Yes	No	No	Yes	Yes	No	No
Turkey	Yes	No	No	Yes	Yes	No	No	Yes
Albania	No	No	No	No	NP not imp	elemented	NP not implemented	
Bosnia & Herzegovina	Yes	No	No	No	NP not imp	plemented	NP not implemented	
Montenegro	No	No	Yes	No	NP not imp	plemented	NP not imp	lemented
Serbia	No	No	No	No	NP not implemented		NP not imp	lemented
Kosovo (UNSCR 1244)	No	No	No	No	NP not implemented		NP not implemented	

Table F.6 - Availability of numbers and number portability for VoIP

### 3. Reference interconnection offer

One of the key factors in enabling a competitive telecommunications market is the availability of a reference interconnection offer (RIO) from the operators with significant market power in transparent and non-discriminatory manner.

Table F.7 gives an overview of fixed and mobile operators with SMP that are required to publish RIOs and the number of interconnection agreements made, grouped by the type of interconnection.

Country	St	atus of RIO	Numb	er of intercor	
	Fixed operators with SMP	Mobile operators with SMP	Fixed – Fixed	Fixed – Mobile	Mobile - Mobile
Croatia	T-HT (T-Hrvatski Telekom) Valid from Oct. 1, 2009.	T-Mobile Hrvatska and VIPnet Valid from Oct. 1, 2009.	36	19	3
FYROM	Makedonski Telekom Valid from May 6, 2010	T-Mobile, ONE and VIP operator Valid from Aug. 1, 2010	12	9	3
Turkey	Türk Telekom RIO approved by the NRA and valid from Dec. 24, 2009	Turkcell, Vodafone and Avea RIOs approved by the NRA and valid from Dec. 15, 2009	35	53	3
Albania	Albtelecom RIO approved by the NRA on Feb. 10, 2009 and valid from Feb. 18, 2009 New RIO based on SPM decision of 2010 has been submitted to AKEP for approval and is currently reviewed by the regulator.	Vodafone Albania and AMC, RIOs approved by the NRA on Feb. 10, 2009 and valid from Feb. 18, 2009 New RIOs based on SPM decisions of 2010 has been submitted by Vodafone, AMC and Eagle Mobile to AKEP for approval and are currently reviewed by the regulator.	65	14	6
Bosnia & Herzegovina	BH Telecom RIO, valid from April 2010 Telekom Srpske RIO, valid from Nov. 2009 HT Mostar RIO, valid from Dec. 2009	No RIO published BH Telecom, Telekom Srpske and HT Mostar are designated as having SMP in mobile telephony services and required to publish RIOs	18	-	-
Montenegro	Crnogorski Telekom, RIO approved by the NRA and valid from April 2008	No RIO published ProMonte and T-Mobile were designated as having SMP in mobile telephony services under Telecommunications Law of 2000, but regulatory obligations were never applied in practice.	1	6	3
Serbia	Telekom Srbija Standard RIO, Aug. 2008 RIO for interconnection with VoIP providers, March 2009	No RIO published No operator designated as having SMP	1	3	3
Kosovo (UNSCR 1244)	PTK, valid from Jan. 2007 Approved by the NRA on Jan. 12, 2007	No RIO published  Vala has SMP in public mobile services market	1	1	1

Table F.7 - RIOs for fixed and mobile operators and number of agreements

### 4. Reference unbundling offer

Table F.8 below shows the legal basis for a reference unbundling offer (RUO), with the set-up and monthly charges for a fully unbundled local loop and a shared loop. The levels of adoption by alternative operators are shown in terms of both the number of operator agreements and the number of unbundled loops.

The number of unbundled loops to date is very small, being almost exclusively in Croatia where the RUO was first implemented in October 2005. Although Turkey has had a RUO since 2006, the number of unbundled loops is still very limited (10,719 out of a network of around 18 million lines). In Bosnia & Herzegovina RUO are available since January 1, 2010, and four agreements on LLU have been reached so far, although the implementation is still in a very early phase.

Albania, Montenegro, Serbia and Kosovo have yet to implement RUOs. In June 2010, the Serbian regulator set LLU prices in dispute between Telenor and Telekom Srbija, but in practice no agreement has been reached between operators yet.

Country	Status of RUO		One-off and r	nont	hly prices	Implem	entation
	Legal basis		Fully unbundled loop		Shared loop	Number of LLU agreements	Number of unbundled loops
Croatia	T- Hrvatski Telekom - Croatian Telecom (HT) RUO valid from October 1, 2009.  The first RUO was published in Oct. 2005 in accordance with LLU ordinance of April 6, 2005 (amended in Aug. 2005).	•	One-off: HRK 370 (€50.89) Per month: HRK 52.14 (€7.17)	•	One-off: HRK 550 (€75.65)  Per month:  HRK 21.46 (€2.95)  From Oct.1, 2010 HRK  18.17 (€2.47)	6	130,576 (as of 1Q 2010)
FYROM	Makedonski Telekom RUO April 2010 until superseded by a new RUO The first RUO was approved by AEC in May 2006.	•	One-off (for block of 100 loops): MKD 5,568 (€90.50) (for single loop): MKD 1,165 (€18.80) Per month: MKD 430 (€6.99)	•	One-off (for block of 100 loops): MKD 5,536 (€90) (for single loop): MKD 2,105 (€33.97) Per month: MKD 142.85 (€2.32) Naked-DSL, per month: MKD 430 (€6.99)	1	4,369 (as of 1Q 2010)
Turkey	Türk Telekom RUO Approved with changes by the NRA on July 28, 2010. The first RUO was approved in Nov. 2006.	•	One-off: TRY 35.44 (€17.98) Per month: TRY 14.62 (€7.42)	•	One-off: TRY 38.55 (€19.56) Per month: TRY 5.49 (€2.78)	10	10,719 (as of Aug. 1, 2010)
Albania	RUO not available The NRA adopted TRE Regulation No 416 of Dec. 7, 2007 on access and interconnection including rules for the publication and content of RUO, but there is no obligation for Albtelecom to provide LLU or to publish a RUO. The NRA is currently completing its analysis of the market for wholesale unbundled access.	-		-		-	-

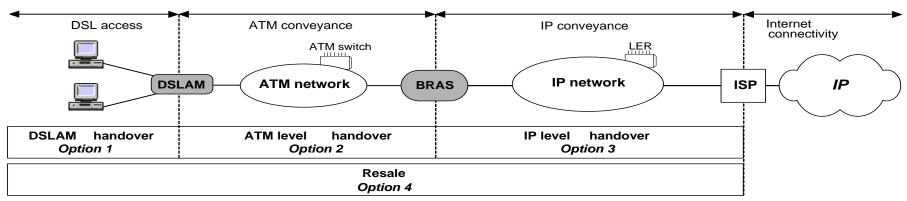
Country	Status of RUO	One-off and	d monthly prices	Implem	entation
	Legal basis	Fully unbundled loop	Shared loop	Number of LLU agreements	Number of unbundled loops
Bosnia & Herzegovina	BH Telecom RUO, HT Mostar RUO, Telelom Serpske RUO - all in force since Jan. 1, 2010 Regulation on LLU adopted by the NRA on May 27, 2008 ("Official Gazette BH", number 54/08)	<ul> <li>One off:         BAM 90.00 (€46.02)</li> <li>Per month:         BAM 13.94 (€7.13)</li> </ul>	One off:     BAM 108.00 (€55.22)     Per month:     BAM 5.58 (€2.85)	4	-
Montenegro	RUO not available Proposed as an obligation for Crnogorski Telecom in EKIP draft analysis of M4/2007 published for consultation between May 25 and July 25, 2010. Final decision adopted on Nov. 12, 2010.	Proposed • Per month: €3.88	Proposed • Per month: €1.16	-	-
Serbia	RUO not available On June 4, 2010 the NRA ruled on interconnection, LLU and infrastructure access conditions between Telenor and Telekom Srbija where it also set LLU charges (as shown in the next columns). The requirement to provide LLU access was imposed on Telekom Srbija under specific provisions set out in the bylaw on minimal conditions for issuing the 2 <sup>nd</sup> fixed licence.  Some conditions set out in the decision were clarified and confirmed in July – Aug. The two operators were required to reach an agreement by Sep. 1, 2010. The agreement is pending.	<ul> <li>One off: €38.20</li> <li>Per month: €6.28</li> </ul>	<ul> <li>One off: €38.20</li> <li>Per month: €2.49</li> </ul>	-	-
Kosovo (UNSCR 1244)	RUO not available	-	-	-	-

Table F.8 - Status of the RUO and local loop unbundling charges

#### 5. Wholesale broadband access

On April 2, 2004 the European Regulators Group (ERG) adopted a 'common position on bitstream access' that outlines the NRAs understanding of bitstream access and a harmonised regulatory approach. ERG clarified that bitstream access is a wholesale product that consists of the provision of transmission capacity in such a way as to allow alternative operators to control the technical characteristics of the service to the end-user and to offer their own, value-added services. This position was revised on May 25, 2005 to include a chapter on bitstream access via cable networks.

Figure 32 shows the various possible handover points for DSL traffic between an incumbent operator and an alternative operator or ISP.



DSLAM: DSL Access Multiplexer / ATM: Asynchronous Transfer Mode / BRAS: Broadband-Remote Access Server / LER: Router

Figure 32 - DSL interconnection

#### DSL interconnection services – bitstream access (BSA)

Option 1 - handover at the DSLAM

Option 2 – handover at the ATM network level, either at:

- the 'parent' ATM switch (i.e., the ATM switch closest to the DSLAM); or
- one or more 'distant' switches in the ATM network (involving additional conveyance across the ATM network by the incumbent);

Option 3 – handover at one or more points on the IP network of the incumbent.

#### Resale service

Option 4 – resale of end-to-end DSL service between the end-user and the ISP.

Table F.9 shows where bitstream access and resale offers are available, either on a commercial basis or mandated by the NRA. It shows the availability of the four options shown in Figure 32.

The extent of the adoption of the various options is shown in the final columns. Regulated offers are available in Croatia, FYROM and Turkey and commercial non-regulated wholesale access product is offered by the Serbian incumbent.

Country	Legal basis	Option 1	Option 2	Option 3	Option 4	Impler	mentation
	BSA/resale offered on commercial basis if not mandated?	DSLAM level	ATM/Ethernet handover	IP handover	End-to-end resale	Number of BSA/resale agreements	Number of broadband lines with BSA/resale by alternative operators
Croatia	Croatian Telecom (HT) designated as having SMP in the wholesale broadband access market has to offer bitstream access service with handover points at DSLAM, ATM/Ethernet and IP level (HAKOM Decision July 17, 2009).  T-HT reference offer for WBA  HAKOM decision on new WBA offer was adopted on September 15, 2010 and the new T-HT reference offer for WBA is valid from October 1, 2010.	Available (on request)	Available (on request)	Available (subject of the bitstream offer)	Not available (no obligation)	5	19,354
FYROM	Bylaw on bitstream access and resale of bitstream (adopted in Dec. 2008, Official Gazette of RM, No. 154/2008, No. 75/2010) BSA with handover at IP-level and resale offered commercially since 2007 BSA offer published on July 7, 2009	Available (subject of the bitstream offer)	Not available	Available (subject of the bitstream offer)	Available (subject of the bitstream offer)	1	19,918 (resale lines)
Turkey	BSA at IP level and resale was imposed on Türk Telekom by the TA board Decision No. 2004/535 of Oct. 6, 2004. The wholesale tariffs approved in July 2005. The first reference offers approved in Aug.2007. In July 2007, the TA also requested Türk Telekom to prepare by Jan.1, 2008 a wholesale BSA offer with handover at the ATM level (Option 2).  Reference IP level Bitstream Offer of Nov. 18, 2009  ATM Level Bitstream Offer of Sep. 24, 2009	Not available	Available	Available	Available	13 (Option 3) 25 (Option 4)	471,037 (BSA lines) 13,590 (resale lines)
Albania	No	Not available	Not available	Not available	Not available	-	-
Bosnia & Herzegovina	No	Not available	Not available	Not available	Not available	-	-
Montenegro	No	Not available	Not available	Not available	Not available	-	-

Country	Legal basis	Option 1	Option 2	Option 3	Option 4	Implem	entation
	BSA/resale offered on commercial basis if not mandated?	DSLAM level	ATM/Ethernet handover	IP handover	End-to-end resale	Number of BSA/resale agreements	Number of broadband lines with BSA/resale by alternative operators
Serbia	Telekom Serbia offers bitstream access on commercial basis	Not available	Not available	Yes Commercial offer	Not available	27	117,118
Kosovo (UNSCR 1244)	No	Not available	Not available	Not available	Not available	-	-

Table F.9 - Availability of wholesale fixed broadband access offers

#### 6. Wholesale line rental

An incumbent operator may rent its subscriber lines on a wholesale basis to alternative operators that would then resell the subscriber line to the end user, usually known as wholesale line rental (WLR). In conjunction with carrier pre-selection ('all calls' option), WLR enables alternative operators to end the billing relationship between the incumbent and the end user.

Table F.10 shows the availability of WLR in the monitored countries. WLR is currently only available in FYROM, where a bylaw was adopted in December 2008, and the incumbent's reference offer was approved by the NRA in March 2009. In Turkey, the obligation to provide WLR was imposed on Türk Telekom in December 2009, following the analysis of fixed retail access markets, but not implemented in practice yet.

Country	Available	Legal basis for	Pricing rule set by	Publication of a	Imple	mentation
	since when?	WLR	NRA?	reference offer	Number of WLR agreements	Number of WLR lines
Croatia	No	None	-	-	-	-
FYROM	Yes March 2009	Bylaw on WLR (Official Gazette of RM, No. 154/2008 of Dec.12, 2008)	Retail minus: 20% to 35%	Yes, published in March 2009. Last amendments and new fees were approved in August 2010	2	12,075 as of Q1 2010
Turkey	No	ICTA final decision on analysis of retail fixed access markets Decision no. 2009/DK – 10/659 of Dec.16, 2009	Cost orientation (not specified)	Submitted by Turk Telekom for the approval by ICTA. Review is underway.	-	-
Albania	No	None	-	-	-	-
Bosnia & Herzegovina	No	None	-	-	-	-
Montenegro	No	None	-	-	-	-

Country	Available	Legal basis for	Pricing rule set by	Publication of a	Implei	mentation
	since when?	WLR	NRA?	reference offer	Number of WLR agreements	Number of WLR lines
Serbia	No	None				
Kosovo (UNSCR 1244)	No	None	-	-	-	-

Table F.10 - Availability of wholesale line rental

#### 7. Implementation of wholesale offers in practice

Table F.11 summarises the state of play with all types of wholesale offer with the reference date of 1Q 2010. The large number of blank entries indicates the lack of progress.

Nonetheless, Croatia with fully unbundled loops and bitstream access is in a strong position, gaining experience for all parties. Turkey and Serbia have some success with BSA.

Country	Fully unbun	dled lines	Shared	Shared lines		access	Broadban	d resale	Wholesale li	ne rental
	Number of agreements	Number of lines								
Croatia	6	99,357	2	1,709	5	19,354	-	-	-	-
FYROM	1	4,647	1	0	0	0	1	19,918	2	12,075
Turkey	9	305	9	10,351	13	449,018	25	13,590	N/A	N/A
Albania	-	-	-	-	-	-	-	-	-	-
Bosnia & Herzegovina	4	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-	-
Serbia					27	117,118				
Kosovo (UNSCR 1244)	-	-	-	-	-	-	-	-	-	-

Table F.11 - Implementation of wholesale offers in practice

Article 12 of the Access Directive establishes that, based on a market analysis, NRAs can impose obligations on operators with SMP to meet reasonable requests for access to network elements and associated facilities. The NRA may do so where it finds denial of access or unreasonable terms and conditions would hinder the emergence of a competitive market at the retail level or would not be in the end-users' interest. Operators may be required, inter alia, to provide collocation or other forms of facility sharing, including of ducts, buildings, or masts.

Article 12 of the Framework Directive calls NRAs to encourage the sharing of facilities and access to properties by electronic communications network operators. In particular, where undertakings are deprived of access to viable alternatives because of the need to protect the environment, public health, public security or to

meet town and country planning objectives, the sharing of facilities or property (including physical co-location) or specific measures to facilitate the coordination of public works can be mandated subject to a prior public consultation. Such sharing or coordination arrangements may include rules for apportioning the costs of facility or property sharing.

Table F.12 shows whether obligations to provide access to ducts, have been imposed as a result of market analyses or based on specific legislation (e.g., national rules for electronic communications or competition law).

Country	Obligation to provide access to ducts	Reference offer available	Pricing rule set by NRA	Used in practice
Croatia	Yes HAKOM decision on analysis of M4/2007, July 2009 Article 30, Electronic Communications Act	No	Cost orientation based on CCA/FAC. Duct prices set by HAKOM decision of Feb. 5, 2010	Yes
FYROM	No Proposed in AEC market analysis on M11-12/2003 published on June 15, 2010	No	No	No
Turkey	Yes, for backhaul needs of alternative operators.	Yes, since February 2009	Reasonable price	Some operators have deployed their F/O cables into Turk Telekom exchanges for backhaul transmission between co-location room and their POPs.
Albania	No	No	No	No
Bosnia & Herzegovina	No	No	No	No
Montenegro	No Proposed as an obligation for Crnogorski Telecom in EKIP draft analysis of M4/2007 published for consultation between May 25 and July 25, 2010.	No	No Benchmarking methodology proposed in EKIP draft analysis of M4/2007	No

Country	Obligation to provide access to ducts	Reference offer available	Pricing rule set by NRA	Used in practice
Serbia	On June 4, 2010 the NRA ruled on interconnection, LLU and infrastructure access conditions between Telenor and Telekom Srbija where it also set duct access charges.  The requirement to provide LLU access was imposed on Telekom Srbija under specific provisions set out in the bylaw on minimal conditions for issuing the 2 <sup>nd</sup> fixed licence.  Some conditions set out in the decision were clarified and confirmed in July – August. The two operators were required to reach an agreement by Sep. 1, 2010. The agreement is pending.	No	No	No
Kosovo (UNSCR 1244)	No	No	No	No

Table F.12 - Access to ducts

# 8. National roaming, mobile access and call origination

Table F.13 shows the commercial and mandated offers of access to mobile networks.

Country	Legal obliga	Commercial reality		
	Mobile access and call origination for MVNOs and service providers	National roaming		
Croatia	No legal obligation to offer access since the market for wholesale access and call origination on mobile networks has been found competitive and deregulated	National roaming – based on commercial agreement.	National roaming 2G-2G:  Tele2 on T-Mobile (from June 2008 until June 2011)  Wholesale call origination/MVNO access: No Both mobile operators with SMP, T-Mobile and VIPnet, provide wholesale call origination for Premium Rate Service (PRS) and third party billing services. Access terms are negotiated commercially and not regulated in the RIOs.	
FYROM	Yes, only for MVNOs According to AEC final decision on M15/2003, July 29, 2010, SMP operator T-Mobile is obliged to submit to AEC Reference Offer for access and call origination in a period of 30 days, not later than Aug. 28, 2010.	Yes	National roaming 2G-2G: VIP on T-Mobile (from Sep. 2007)	
Turkey	Yes According to ICTA final decision on analysis of the market for wholesale mobile access and call origination services of Dec. 2009, Turkcell is designated as SMP operator in relevant market and required to provide wholesale access and call origination.	Yes National roaming services were included in market definition.	No Currently, there is no any MVNO that has made commercial agreement with a host operator.	
Albania	Yes According to AKEP final decisions on market analysis of wholesale mobile access and call origination services, AMC and Vodafone Albania, designated as SMP, have the obligations to provide access to:  Calling cards operators and calls to 0800 numbers under regulated terms and conditions, including RIO and cost orientation  MVNO and national roaming, on commercial terms	Yes	No	
Bosnia & Herzegovina	No RAK has created Guidelines for introducing MVNO and SP on the BiH mobile communications market. In accordance with Telecom Sector Policy deadline for RIOs in the field of mobile communications is the end of year 2010	Mobile 2G operators were required to have national roaming with each other to ensure national coverage.	National roaming 2G-2G: Between all the three mobile operators	

Country	Legal obliga	ation to offer	Commercial reality
	Mobile access and call origination for MVNOs and service providers	National roaming	
Montenegro	No	No	No
Serbia	No Mobile operators with SMP are required to provide open access to their networks. To date, no mobile operator has been designated as having SMP in the mobile origination market	No	National roaming 2G-2G: VIP – mt:s (Telekom Srbija)
Kosovo (UNSCR 1244)	No specific obligations, but MVNO operations can be launched subject to a commercial agreement between an MNO and a service provider.  The NRA issued an MVNO framework in Feb. 2008 (amended in May 2008) that clarifies licensing, numbering, interconnection and other service provision aspects for MVNO operations.	No	Two MVNO licences issued so far.  Dardafone was licensed on June 12, 2008 and Dukagjini Telecommunications on June 24, 2008.  Dardafone has a network access agreement with the MNO - Vala, whereas Dukagjini has with the MNO - IPKO.

Table F.13 - National roaming, mobile access and call origination

## 9. Price control and regulatory cost accounting for fixed and mobile wholesale prices

Where an operator is designated as having SMP in a wholesale market, NRAs are entitled under article 13 of Access Directive (2002/19/EC) to impose a cost accounting obligation to ensure that operators subject to price regulation follow fair, objective and transparent criteria when allocating their costs to services. However, the Directive does not prescribe which cost accounting methodology is to be used.

Table F.14 indicates the markets in which price controls have been imposed on operators having SMP. It also identifies the type of price control applied by the NRA and the specific Cost Accounting System (CAS) it has mandated:

LRAIC: Long Run Average Incremental Costs

LRIC: Long Run Incremental Costs

FDC: Fully Distributed Costs

EDC: Embedded Direct Costs

Where the LRIC model is used, it shows whether the costs have been calculated using:

TD: a top-down model (starting from the SMP operator's accounting data);

BU: a bottom-up model of an efficient network; or

BU/TD: a reconciliation of the other two models.

A description of the CAS and an annual statement concerning compliance are required to be published (Article 13(4) of the Access Directive).

Country	Regulated	Pricing rule set	Met	hodology mandated	d by NRA	Legal basis
	markets/activities	by NRA?	Cost base	Cost standard	BU, TD or reconciliation	
Croatia	Fixed access and interconnection,	Benchmarking	-	-	-	Electronic Communications Act of 2008 HAKOM decisions on analysis of M 2-5, 7/2007
	Wholesale broadband access	Retail minus	-	-	-	
	Mobile call termination	Benchmarking	-	-	-	
FYROM	LLU, fixed interconnection	Cost orientation	Current cost	LRIC	BU	TD LRIC cost methodology is implemented for determination of the incumbent's FTRs and LLU prices. AEC is working on LRIC BU cost model that will be used from 2010 (published for consultation in Oct. 2010)
	Mobile access, call origination and termination	Cost orientation	Current cost	LRIC	BU	AEC final decision on the second round analysis of M16/2003, May 14, 2010. On July 30, 2010 AEC completed BU LRIC cost model and set individual glide paths for MTRs of T-Mobile, One and VIP until August 2013.  AEC final decision on M15/2003 designating T-Mobile as having SMP, July 29, 2010.
	Wholesale line rental, wholesale broadband access	Retail minus	-	-	-	Bylaw on the provision of wholesale BSA and resale adopted by AEC on Dec. 5, 2008.  Bylaw on the provision of WLR adopted by AEC on Dec. 5. 2008.
	Leased lines	Benchmarking	-	-	-	
Turkey	Leased lines	Cost orientation	Current costs	LRIC	BU	Article 20 of Electronic Communications Law No. 5809  Turk Telekom is subject to price control obligation based on its SMP designation on the relevant market
	Fixed interconnection and LLU	Cost orientation	Current costs	LRIC	BU	Article 20 of Electronic Communications Law No. 5809  Turk Telekom is subject to price control obligation based on its SMP designation on the relevant market
	Mobile call termination	Cost orientation	Current costs	LRIC	BU	Article 20 of Electronic Communications Law No. 5809  Turkcell, Vodafone and Avea are subject to price control obligation based on their SMP designation on the relevant market
	WLR	Cost orientation (not specified)	-	-	-	Article 20 of Electronic Communications Law No. 5809  Turk Telekom is subject to price control obligation based on its SMP designation on the relevant market

Country	Regulated	Pricing rule set	Met	hodology mandated	d by NRA	Legal basis
	markets/activities	by NRA?	Cost base	Cost standard	BU, TD or reconciliation	
Albania	Fixed interconnection	Cost orientation	Forward- looking	LRAIC	BU	Albtelecom is subject to price control obligation based on its SMP designation in the relevant markets.  Current values based on benchmarking methodology.  BU LRAIC model completed in July 2010 and new prices will be set before end 2010.
	Mobile interconnection	Cost orientation	Forward- looking	LRAIC	BU	AMC, Vodafone and Eagle Mobile are subject to price control obligation based on SMP designation on the relevant markets. Current values based on benchmarking methodology.  BU LRAIC model completed in July 2010 and new prices will be set before end 2010.
Bosnia & Herzegovina	Fixed interconnection, LLU and leased lines	Benchmarking	-	-	-	RAK regulation on interconnection of March 11, 2002  Communications Law of 2002, article 21 (1) requires that the principle of cost orientation shall be applied to determine the level of the tariffs charged by companies having SMP.
Montenegro	Fixed interconnection, LLU, leased lines, mobile interconnection	Benchmarking	-	-	-	EKIP final decisions on market analyses adopted on Nov. 12, 2010.
Serbia	Fixed interconnection, LLU and infrastructure access	Benchmarking	-	-	-	On June 4, 2010 RATEL ruled on interconnection, LLU and infrastructure access conditions between Telenor and Telekom Srbija where it also set LLU charges
Kosovo (UNSCR 1244)	Fixed interconnection	Benchmarking	-	-	-	Based on section 6, paragraph 4, section 53, 57 of Law on Telecommunications, and also based on section 9 of the License for fixed national services granted to PTK, the NRA approved PTK's RIO on Jan. 12, 2007.
	Mobile call termination	Benchmarking	-	-	-	TRA ruling of Dec. 12, 2007 setting MTRs in a dispute between PTK Mobile (Vala) and Ipkonet mobile

Table F.14 - Price control and regulatory cost accounting obligations

## G. Universal service

# 1. Scope of universal service and provider designation mechanism

Universal Service Directive 2002/22/EC requires any designation of a universal service (US) provider to be carried out by "an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no undertaking is a priori excluded from being designated". These rules allow the designation of one or more undertakings to guarantee the provision of universal service and may also designate different undertakings or sets of undertakings to provide different elements of universal service and/or to cover different parts of the national territory. Furthermore, according to Article 8 and Recital 8 in the Universal Service Directive, mobile networks may be used for the provision of universal service. This could reduce the cost of universal service provision.

Table G.1 shows the designation of the universal service providers in SEE countries:

- the scope of universal service defined by national legislation;
- which operator(s) has been designated to provide the US obligations or where no designation procedure has been carried out which providers are currently required to provide the entire scope or specific elements of the universal service;
- the designation mechanism for the US providers and the legal basis;
- technology neutrality of the universal service obligation (e.g., whether there are any restrictions on mobile operators bidding for the provision of a connection to the public telephone network at a fixed location).

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral? Eligibility of mobile operators for US designation
Croatia	Access to the public voice telephone services through a connection at a fixed location and data communications at a minimum speed of 33.6 kbps     Access of end users to at least one comprehensive subscriber directory     Directory services     Provision of public payphones in the licensed areas     Access to emergency services to all subscribers free of charge     Lower tariffs for services provided to disabled people	Hrvatski Telekom d.d.(from Nov. 29, 2010) Imenik d.o.o. (directory services, from Nov. 29, 2010)	The NRA Council can impose an obligation on one or more providers of public voice services to provide USO, or it can select the most favourable bidder for providing universal services on the basis of a public tender.  If a public voice service provider has a market share above 80%, the NRA may require that provider to provide USO, without public tender. The tender procedure can be invoked even if there is public voice service provider with market share above 80% in justified cases, especially for geographically limited areas or on the request of other public voice service providers.	Yes

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral? Eligibility of mobile operators for US designation
			On July 21, 2010 HAKOM announced a public tender procedure for designating a US provider on national level, or at the level of one or more counties, for 5 years. Bids were invited until Sep.13, 2010.  On Oct. 1, 2010 HAKOM designated Imenik d.o.o. as US provider of directory services for 5 years term for:  • comprehensive subscriber directory  • special measures for disabled people for accessing the subscriber directory  On Oct. 27, 2010 Hrvatski Telekom has been designated US operator for:  • Access to the public voice telephone network to the end users at a fixed location  • Access of the end users, including the users of public payphones, to the directory services  • Provision of public payphones  • Special measures for disabled, including the access to the emergency service and directory services, in the same way in which other users use them  • Special tariff systems adapted to the needs of economically challenged end users.	
FYROM	Access to publicly available telephone services at a determined geographical location, making and receiving local, national and international telephone calls, facsimile communications and data communications at a minimum speed of 2,400 bps     Ensuring access to information in the single directory and directory enquiry services     Provision of public pay telephones     Ensuring conditions for equivalent access to and use of publicly available telephone services for disabled end users, including access to emergency calls services and information in single directory	None	Under article 35 of the Law on Electronic Communications, the NRA may designate one or several universal service providers, following a public tender procedure.  In Jan. 2008, the NRA started a public tender with prequalification for Universal Service provider nomination. Two companies passed the first phase. The procedure, however, was suspended pending amendment of the US provisions in the Law on Electronic Communications.  Following the amendments to the Law adopted in June 2010, the NRA adopted a bylaw on Universal Services provision.  The designation of the US provider has not been relaunched yet.	Yes

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral? Eligibility of mobile operators for US designation
Turkey	Access to emergency services to all subscribers free of charge	Türk Telekom	No designation mechanism – the requirement is set out in the	No
	Telephone directory services to be provided in the printed or electronic media	Türk Telekom	concession agreement of Türk Telekom.	No
	Provision of public payphones	Türk Telekom		No
	Access to public fixed telephony services	Türk Telekom		No
	Provision of satellite services to Turkish Red Crescent Society	Türksat	No designation mechanism – Türksat is designated for provision of these services (voice and data via satellite)	No
	Digital broadcasting (DVB-T services)	-	No designation mechanism - the technical and legal studies continue.	No
	Access to basic internet services	Türksat, Türk Telekom	No designation mechanism – Türk Telekom and Türksat are designated to establish the infrastructure of the basic internet services for training associations located in rural, high cost areas.	No
Albania	Access to the telephone service available to the public from a defined geographic location, enabling the user to make and receive local, national and international calls, facsimile communications and data communication at a minimum speed of 32 kbps     telephone directory     public payphones and     equivalent access to and use of telephone service for disabled end-users, including access to emergency calls services and information in telephone directory.	None	Under article 26 of the Law on Electronic Communications, the NRA may designate one or several universal service providers, following a public tender procedure and subject to approval by the Minister.  Upon failure of the tender procedure, AKEP has the right to designate the provider of the Universal Service, after a consultation process with interested parties and subject to approval by the Minister.	Yes
Bosnia & Herzegovina	Access to emergency services to all subscribers free of charge	All operators	No designation mechanism – the requirement is set out in the license terms.	Yes
	Provision of public payphones	BH Telecom     Telekom Srpske     HT Mostar	No designation mechanism – the requirement is set out in the license terms of the three fixed incumbent operators.	No
	Lower tariffs for services provided to disabled and persons with special social needs	BH Telecom     Telekom Srpske     HT Mostar	No designation mechanism – the requirement is set out in the license terms of the three fixed incumbent operators.	No

Country	Scope of US	Universal service providers	Designation mechanism for the US provider(s)	Technology neutral? Eligibility of mobile operators for US designation
	Connections to the fixed public telephone network at a fixed location and access to fixed public telephone services at affordable prices, allowing users to make and receive national and international calls, supporting speech, facsimile and/or data communications; provision of directories and directory enquiry services; public pay phones	BH Telecom     Telekom Srpske     HT Mostar	No designation mechanism – the requirement is set out in the license terms of the three fixed incumbent operators.	No
Montenegro	<ul> <li>Access to public fixed telephone services enabling functional Internet access (min. 144 kbps)</li> <li>equal access to and affordability of publicly available telephone services for disabled users and users with special social needs</li> <li>access to emergency services free of charge</li> <li>access to telephone directory and directory enquiry services.</li> </ul>	None Designation procedure is under way	Under article 54 of the Law on Electronic Communications, the NRA may designate one or several universal service providers for a period of 5 years, following a public tender procedure On October 25, 2010 EKIP launched a public tender procedure for the designation of the universal service provider. Offers invited until December 20, 2010.	Yes
Serbia	Access to a public fixed telephone service enabling functional Internet access (equivalent of a dial-up connection)     special measures for disabled and socially disadvantaged users     free access to emergency services; public payphones and access to telephone directory and directory enquiry services.	<ul><li>Telekom Serbia</li><li>Telenor</li><li>VIP</li><li>Orion Telecom</li></ul>	On March 12, 2010 RATEL designated the four operators as US providers based on article 50, Law on Telecommunications. The designation applies to all licensed providers of public fixed and mobile telephony services and fixed wireless access services.	Yes
Kosovo (UNSCR 1244)	Access to emergency services to all subscribers free of charge	All public telecommunications operators	No designation mechanism – the requirement is set out in the licence	Yes

Table G.1 - Universal service scope and provider designation mechanism

Notes:

Croatia:

The Agency shall organise a public consultation at least once in every two years in order to verify universal services have been provided in the prescribed and adequate manner, and whether there are operators interested in providing one or more services within universal services and/or covering different geographical areas of Croatia.

Turkey:

Under the Universal Service Law (No. 5369) of June 16, 2005, the scope of universal service covers fixed telephone services, public payphones, printed or electronic directory services, emergency call services, basic internet services, passenger transport services to places that can be reached only through sea transport, and maritime emergency and security communications services. Apparently the passenger transport services relate to two islands in the Aegean where private companies are not willing to provide services during the winter. In 2006, this list was extended by the Council of Ministers to include two further elements: 1) services oriented to spread information technologies, including computer literacy, to help the development of information society and 2) services for the provision of the digital broadcasting by the utilisation of

various broadcast media and technology via digital terrestrial transmitters to cover the entire settlements countrywide. The Universal Service Law envisages a tender procedure for the designation of universal service providers which has not yet been implemented.

Bosnia & Herzegovina: The Law on Communications states that the Council of Ministers shall define the scope of universal service, the funding mechanism and the designation of the

universal service providers. The NRA has submitted a draft decision covering the scope of universal service, undertakings the designation and the funding mechanisms and

the requirement for the NRA to set QoS parameters and terms for defining USO funding mechanism. The draft however was not approved by the Council of Ministers.

Chapter VI (Articles 52-52) of Law on Electronic Communications (Official Gazette of Montenegro, № 50/2008) provides legal basis for the Universal service. Universal service is not yet implemented in practice. Under the article 144 of Law on Electronic Communications the NRA was required, no later than 6 months from the entry into

force of the law, to adopt the necessary regulations and initiate tender procedure for selection of operator of Universal Service, which was not achieved in practice.

Secondary legislation is still under preparation.

Serbia: Under the transitional provisions of the Telecommunications Law, Telekom Srbija was required to provide the "initial scope" of universal services until expiry of its exclusivity

rights in June 2005. The initial scope of universal services was defined as comprising access to a public fixed telephone service enabling functional Internet access; special measures for disabled and socially disadvantaged users; free access to emergency services; public payphones and access to telephone directory and directory enquiry services. Following the expiry of Telekom Srbija's universal service obligations, the Ministry of Information Society and Telecommunications is required to define the scope

of universal service based on the proposal of the NRA, while the NRA must designate the provider and establish the universal service fund.

Kosovo: The Law on Telecommunications, Section 21.6, allows the NRA to establish additional conditions for authorizations, based upon the class or category of services, which

may include special arrangements for disabled people. Under Section 49, the NRA is also authorized to adopt secondary legislation on the scope of the USO, which may

include specific measures for people with disabilities.

# 2. Universal service funding

Montenegro:

Article 12 of the Universal Service Directive requires NRAs to calculate the net cost of universal service provision where they consider that it may represent an unfair burden on the provider. According to Article 13, NRAs may either introduce a public funding mechanism for compensation or share the net cost between operators.

Table G.2 shows the legal basis for any calculations and reimbursement of costs for the universal service, the method of funding (if any) and the status of implementation.

Country	Legal basis for	Method of funding	USO net cost	Cost	Benefits	Sharing of	USO net cost?
	calculation and reimbursement of USO costs established by componen	components		Yes/No By whom?	Methodology and legal basis		
Croatia	Articles 39-40 of the Electronic Communications Act of June 19, 2008 (Official Gazette 73/2008)	Cost sharing The reimbursement of net costs for universal service provision is to be financed by all operators of publicly available telephone services with revenue exceeding 2% of the total revenue in this market. The amount of contributions to be paid by individual operators is to be set in proportion to their market shares.	Not implemented	-	-	-	-

Country	Legal basis for	Method of funding	USO net cost	Cost	Benefits ats	Sharing of USO net cost?		
	calculation and reimbursement of USO costs	reimbursement of	established by NRA?	components		Yes/No By whom?	Methodology and legal basis	
FYROM	Article 38 of the revised Law of electronic communications Bylaw on the method of calculating the real costs and intangible benefits for universal service provision.	The bylaw for Universal Service provisioning defines the rules for determining the amount of the net costs of universal service provisioning. All operators owning public communication networks and all public communication service providers with revenues of at least €100.000 per year will be obliged to contribute up to 1% of their total revenues for covering net costs of US.	In preparation for implementation	Undefined	Undefined	Yes All operators owning public communication networks and all public communication service providers with gross yearly revenues of at least of €100,000 may be asked to contribute up to 1% of total revenues	Defined in the bylaw for Universal Services Provision	
Turkey	Law No.5369 on 'The Provision of Universal Services and Making Changes on Some Laws' (Official Gazette No. 25856, June 25, 2005) Ordinance on Principles and Procedures for the Collection of Universal Service Revenues and Execution of Expenditures (Official Gazette No. 26213, June 29, 2006).	According to article 6 of the Universal Service Law of June 2005, contributions to the universal service fund consist of the following:	USO net cost is established by Ministry of Transport Net cost of the universal service shall be calculated on the basis of the difference between the net cost when the incumbent operator does not provide services within the scope of universal services and when it provides such service. However, the calculation of the net cost shall also take into consideration the benefits	Not defined yet	Not defined yet	80% of universal service fund comes from public source. (as indicated in the law no 5369) 20% from telecom operators	Law No.5369 Universal Service Law (Official Gazette No. 25856, June 25, 2005) Ordinance on Principles and Procedures for the Collection of Universal Service Revenues and Execution of Expenditures (Official Gazette No. 26213, June 29, 2006)	

Country	Legal basis for	Method of funding	USO net cost	Cost	Benefits	Sharing of	USO net cost?
	calculation and reimbursement of USO costs		established by NRA?	components		Yes/No By whom?	Methodology and legal basis
		These revenues are collected in the public budget and allocated to the budget of the Ministry of Transport.	obtained by operators due to provision of the universal service.				
Albania	Articles 29 and 30 of the Law on Electronic Communications.  NRA shall define the methodology for calculating the real costs and intangible benefits that should be taken into consideration in the calculation of real costs of universal service provision and in doing so it shall take into account the EU recommendation on universal service.	Cost sharing is foreseen by Law on Electronic Communications.  Universal service fund is to be financed by the undertakings that own public electronic communication networks and provide electronic communication services, and the public electronic communications services providers, in accordance with the regulations to be adopted by the NRA.  The contribution may not exceed 1% of the operator's gross revenue received from the provision of public electronic communications networks and services.	Not implemented	-	-	-	-
Bosnia & Herzegovina	None	Cost sharing is foreseen Contributions will be required from all undertakings providing electronic communications networks and services, set in proportion to their revenues.	Not implemented	-	-	-	-
Montenegro	USO cost compensation is foreseen by Law on Electronic Communications, Article 57	Cost sharing is foreseen by Law on Electronic Communications, Article 58 Contributions will be required from all undertakings providing electronic communications networks and services, set in proportion to their revenues. If the net USO cost exceeds 1% of the total electronic communications sector revenues in that specific year, the Ministry	Not implemented	Revenues Cost of US Material benefits Non-material benefits	Material benefits Non-material benefits	Contributions will be required from all undertakings providing electronic communications networks and services, set in proportion to their revenues.  If the net USO cost exceeds 1% of the total electronic	Rulebook on net costs of Universal service

Country	Legal basis for	Method of funding	USO net cost	Cost	Benefits	Sharing of	USO net cost?
	calculation and reimbursement of USO costs		established by NRA?	components		Yes/No By whom?	Methodology and legal basis
		may provide for additional funding from the state budget.				communications sector revenues in that specific year, the Ministry may provide for additional funding from the state budget.	
Serbia	USO cost compensation is foreseen in art. 57 Electronic Communications Law of 2010	Cost sharing is foreseen Contributions will be required from other public telecommunications operators in proportion to their market shares. The amounts and timing of such payments have to be set out in a separate regulation to be adopted by the NRA.	Not implemented	-	-	-	-
Kosovo (UNSCR 1244)	USO cost compensation is foreseen by the Law on Telecommunications, Section 49	Not decided	Not implemented	-	-	-	-

Table G.2 - Universal service funding

#### Notes:

Montenegro:

Chapter VI (articles 52-52) of Law on Electronic Communications (Official Gazette of Montenegro, № 50/2008) provides legal basis providing of the Universal service. Universal service is not yet implemented in practice, but According to the article 144 of Law on Electronic Communications: "The Agency shall, no later than 6 months from the day this Law enters into force, adopt sub-laws referred to in article 8 of this Law and initiate tender procedure for selection of operator of Universal Service." Secondary legislation is prepared. Tender procedure will be completed by the end of 2010.

### 3. Subscriber directories

Directory information and a directory enquiry service constitute an essential access tool for publicly available telephone services. Two types of activities can be distinguished:

• collecting directory information from different providers of publicly available telephone services, aggregating this information into a single database and maintaining this database;

• providing access to such aggregated directory information, in particular by printing directories and providing directory enquiry services which are accessible via phone or online.

The European legislation addresses directories in the Universal Service Directive and the Privacy Directive:

- The Universal Service Directive addresses directory access for end-users. According to article 5 of the Universal Service Directive, at least one comprehensive directory (printed or in electronic form) and at least one comprehensive telephone directory enquiry service shall be available to end-users. These directories shall comprise all subscribers of publicly available telephone services. Article 25 (1) Universal Service Directive gives all subscribers the right to have a directory entry.
- The Privacy Directive addresses subscribers' privacy interests. According to article 12 (2) Privacy Directive subscribers shall be given the opportunity to determine whether their personal data are included in a public directory, and if so, which data, and to verify, correct or withdraw such data. Not being included in a public subscriber directory, verifying, correcting or withdrawing personal data from it shall be free of charge.

### a) Legislation on directories

Country	Obligation to inform or ask new subscribers? Free of charge?	Right to be included? Free of charge?	Right to be not included?  Free of charge?  mobile subscribers?  pre-paid and post-paid?		Relevant legislation
Croatia	Yes, all subscribers must be informed before being included (free of charge).	Yes, all subscribers have the right to be included (free of charge).	Yes, all subscribers may request not to be included (free of charge).	All subscribers (including mobile subscribers and pre-paid subscribers).	Art. 47 Electronic Communications Act
FYROM	Yes, all subscribers must be informed before being included (free of charge).	Yes, all subscribers have the right to be included (free of charge)	Yes, all subscribers may request not to be included (free of charge).	Opt-in, all subscribers are included. Subscribers must have the opportunity to determine which, if any, of their personal data from paragraph 1 of Article 118 of the Law for electronic communications will be included in a public directory. Subscribers may verify their personal data or require their correction or erasure.	Article 34 of the Law for electronic communications and the bylaw on Universal Services Provision
Turkey	Yes, all new subscribers must be asked whether they want to be included (free of charge).	Yes, all subscribers have the right to be included	Yes, all subscribers may request not to be included (free of charge).	All subscribers	Art.8 Bylaw on the protection of consumer rights Art.19 Bylaw on personal information processing and protection of privacy in the telecommunications sector
Albania	Yes, all subscribers must be informed before being included (free of charge)	Yes, all subscribers have the right to be included (free of charge).	Yes, all subscribers may request not to be included (free of charge).	All telephony subscribers (including mobile subscribers and pre-paid subscribers)	Art. 104 Law on Electronic Communications

Country	Obligation to inform or ask new subscribers? Free of charge?	Right to be included? Free of charge?	Right to be not included? Free of charge?	Scope mobile subscribers? pre-paid and post-paid?	Relevant legislation
Bosnia & Herzegovina	No explicit obligation to inform subscribers or ask new subscribers whether or not they want to be included.	Yes, all subscribers have the right to be included (free of charge).	Yes, all subscribers may request not to be included (free of charge).	All subscribers (including mobile subscribers and pre-paid subscribers).	Art. 9 Law on Communications
Montenegro	Yes, all subscribers must be informed before being included (free of charge).	Yes, all subscribers have the right to be included (free of charge).	Yes, all subscribers may request not to be included (free of charge).	All subscribers (including mobile post-paid and pre-paid subscribers)	Art. 53 and 111 Law on electronic communications.
Serbia	No explicit obligation in legislation. However the fixed incumbent asks when registering the subscriber for the first time whether the subscriber wants to be included.	Yes, all subscribers have the right to be included (free of charge).	Yes, all subscribers may request not to be included (free of charge).	All subscribers	In the granted licence the operator is obliged to provide electronic telephone directory.
Kosovo (UNSCR 1244)	Art. 76 para. 3 of the Law on Telecommunications states that subscriber data may only be included in directories if the subscriber consents in writing. Art. 81 of the Law on the Information Society Services states that service providers must give subscribers the opportunity to decide whether they want to be included.	Yes, all subscribers have the right to be included (free of charge).	Yes, subscribers may request not to be included (free of charge).	All subscribers (including mobile subscribers and pre-paid subscribers). Art. 76 of the Telecommunications Law and; Art. 81 of the Law on the Information Society Services	Telecommunications Law and Law On The Information Society Services

Table G.3 - Subscriber inclusion in directories

### Notes:

FYROM: Amendments introduced with the adoption the revised Law for electronic communications, published in "Official Gazette of RM" No. 83/2010 of 23.06.2010 on the right of a subscriber to be not included in directories free of charge.

Bosnia and Herzegovina: Law on Communications stipulates that operators of public voice telephony services shall maintain an up-to-date subscriber directory, and that subscribers shall have the right to decide whether or not their number shall be included in the database. Although not specifically prescribed by the Law, operators do give the right to subscribers to be/to be not included in the database free of charge. Also, when applying for new service, subscribers are asked whether they want to be included free of charge. Mobile operators give the right to both post-paid and pre-paid subscribers to be included.

# b) Availability of comprehensive directories

Country	Is a comprehensive directory or directory enquiry service available in practice? Form (printed, telephone enquiry, online)	Legal obligation to provide a comprehensive directory or directory enquiry service?	Legal provisions by which the provider of a directory or a directory enquiry service can request access to subscriber data of operators?
Croatia	Yes Comprehensive directory and directory enquiry service available in practice.	The provisions on universal service in Art. 35 Electronic Communications Act include the provision of a comprehensive directory of subscribers of all publicly available telephone services and provision of a directory enquiry service to all end users, including users of public pay phones.  The incumbent operator T-Hrvatski Telekom was designated as universal service provider by the NRA in 2005 until Nov. 2010, including the provision of the comprehensive directory and directory enquiry service.  On Oct. 1, 2010 HAKOM designated Imenik d.o.o. as US provider of directory services for a 5 years term.	Art. 47 para. 8 to 10 Electronic Communications Act obliges all operators of publicly available telephone services to grant publishers of directories and providers of directory enquiry services access to their subscriber data on the basis of the principles of non-discrimination and cost orientation.
FYROM	No comprehensive directory available in practice. All voice telephony network operators provide directory enquiry service for their own subscribers (i.e. currently the incumbent, the three mobile operators, and one alternative fixed operator)	Art. 33 and 34 Law on electronic communications defines the single directory and directory enquiry service as universal service.  No undertaking is obliged to provide the service.  The recently adopted bylaw on Universal Services Provision among the others prescribes the obligations related with the comprehensive directory and directory enquiry service	Art. 34 para. 6 of the Law on electronic communications obliges operators providing public telephone services to make subscriber data available to providers of the universal service on the basis of the principles of non-discrimination and cost orientation.
Turkey	No comprehensive directory available in practice	No relevant legislation.  No undertaking is obliged to provide the service.	Operators of directory enquiry service can request access to subscriber databases of all operators.  Bylaw on authorisation for electronic communications sector of May 28, 2009 provides that operators having rights of use are obliged to make available directory services (article 20(d)).
Albania	No comprehensive directory available in practice	Art. 25 Law on electronic communications defines the general telephone directory as universal service.  No undertaking is obliged to provide the service.	Art. 25 point 3 Law on electronic communications obliges providers of public telephone services to submit subscriber data to providers of universal services.
Bosnia & Herzegovina	No comprehensive directory available in practice.	No legal obligation to provide a comprehensive directory or directory enquiry service.	Art. 9 para. 1. d) obliges operators of public voice telephone services to make their subscriber directory available on request to other providers for an appropriate payment in electronic form or on-line for the purpose of providing information or publishing directories

Country	Is a comprehensive directory or directory enquiry service available in practice? Form (printed, telephone enquiry, online)	Legal obligation to provide a comprehensive directory or directory enquiry service?	Legal provisions by which the provider of a directory or a directory enquiry service can request access to subscriber data of operators?
Montenegro	No comprehensive directory available in practice	Art. 52 Law on electronic communication defines the universal phone directory enquiry as universal services. No undertaking is obliged to provide the services. Tender procedure for the designation of US provider launched in Oct. 2010.	Art. 53. Law on electronic communications
Serbia	Yes Currently, the directory includes subscribers of fixed operator. Form: printed, telephone enquiry, online	Art. 55 Electronic Communications Law	Art. 121 Electronic Communications Law
Kosovo (UNSCR 1244/99)	No comprehensive directory available in practice. The incumbent operator offers an electronic directory service.	No relevant legislation.  No undertaking is obliged to provide the service.  Under current Telecommunication Law, Section 21	Art. 76 para. 5 and 6 Law on telecommunications oblige service providers to submit subscriber data to persons that wish to publish a directory at reasonable prices and under non-discriminatory conditions.

Table G.4 - Availability of comprehensive directories

### c) 112 emergency number

Article 12 of the Universal Service Directive requires that all end-users of the electronic communications service for originating national calls to a number or numbers in a national telephone numbering plan, including users of public pay telephones, are able to call the emergency services free of charge and without having to use any means of payment, by using the single European emergency call number "112". Furthermore, caller location information must be made available free of charge to the authority handling emergency calls as soon as the call reaches that authority.

#### The table shows if:

- the 112 number is available;
- other emergency number(s) exist in the country;
- the existing emergency call is free of charge for end user;
- the call is also associated to location information (location of the caller); and
- provision of emergency call service is obligatory for fixed incumbent operator, mobile operators, fixed alternative operators, and/or public phones operators.

Country	Is the single European emergency number 112	Are there any other national emergency	Is the emergency number free of	Is the caller location	If available please spo	ecify if the obli service is b		er emergency
	available? (Yes/No)	numbers available?	charge for the caller? (Yes/No)	information provided? (Yes/No)	Fixed incumbent operator (Yes/No)	Alternative operators (Yes/No)	Mobile operators (Yes/No)	Public payphones (Yes/No)
Croatia	Yes Art. 77 Electronic Communications Act	92 Police 93 Fire brigade 94 Emergency	Yes	Yes	Yes	Yes	Yes	Yes
FYROM	No	Yes 192 Police 193 Fire brigade 194 Ambulance These numbers shall be kept into use even after the single emergency service with the special abbreviated number 112 is established.	Yes	Yes	Yes	Yes	Yes	Yes
Turkey	Yes, but currently connected only to medical emergency service. Project ongoing for combining other emergency services under 112	Yes 110 Fire 151 Coastal Safety 155 Police 156 Gendarmerie 157 Helpline for victims of human trafficking 158 Coast Guard 159 Road emergency 168 Turkish red crescent 177 Forest Fire	Yes	Yes Location data is provided for the following numbers: 110,112, 155, 156	Yes	Yes	Yes	Yes
Albania	No	126 Road accident 127 Ambulance 128 Fire Brigade 129 Police	Yes	No	Yes	Yes	Yes	Yes
Bosnia and Herzegovina	No	Yes 122 Police 123 Fire brigade 124 Ambulance	Yes	Yes	Yes	Yes	Yes	Yes

Country	Is the single European emergency number 112	Are there any other national emergency	Is the emergency number free of charge for the caller? (Yes/No)	Is the caller location information provided? (Yes/No)	If available please specify if the obligation to offer emergency service is by:			
	available? (Yes/No)	numbers available?			Fixed incumbent operator (Yes/No)	Alternative operators (Yes/No)	Mobile operators (Yes/No)	Public payphones (Yes/No)
Montenegro	Yes Available from June 2010	Yes 122 Police 123 Fire 124 Crisis intervention	Yes	Yes	Yes	No	Yes	Yes
Serbia	No	92 Police 93 Fire 94 Ambulance	Yes	Yes for more than 96% subscribers of fixed network	Yes	Yes	Yes	Yes
Kosovo (UNSCR 1244)	No According to Telecommunication Sector Policy, 3.1.4.a1, time frame for the Implementation of standard "E-112" emergency number was Q4 2008. The date of introduction has been postponed	112, 92 Police 193 Fire Brigade 194 Ambulance	Yes According to Law on Telecommunicatio ns	No	Yes According to Law on Telecommunications, section 55	Yes	Yes	No

Table G.5 - Availability of single European emergency number 112

### Notes:

FYROM:

The introduction of the single emergency call number E-112 pursuant to Universal service Directive (2002/22/EC), is regulated with the Crisis Management Law and the Law on Electronic Communications. The Government of FYROM in 2009 established a supervisory board for the feasibility study on the E-112 system for emergency calls by representatives from the Crisis Management Centre, Ministry of Interior, Ministry of Health, Ministry of Transport and Communications, Agency for Electronic Communications and representatives from the Rescue and Protection Directorate. The supervisory board in Nov. 2009 submitted to the Government Information on the final report defining the future establishment of the system for early warning and citizen alert. Implementation still pending of final approval

According to Article 114 of the Electronic communications Law paragraph (6), operators shall be obliged to supply the location data referring to emergency call numbers to the competent body responding to emergency calls on appropriate technical manner.

Bosnia & Herzegovina: Article 9 of Communication Law (Obligations of Telecommunications Operators Providing Public Voice Telephony Services) prescribes that telecommunications operators providing a public voice telephony service shall: (c) provide access free of charge to emergency services.

## 4. Itemised billing

Art. 10 and Annex I of the Universal Service Directive give subscribers the rights to receive itemised bills in order to allowing them verification and control of the charges, adequately monitor their usage and thereby exercise a reasonable degree of control over their bills. The details shall be laid down by the NRAs.

Art. 7 of the Privacy Directive addresses privacy concerns in relation to itemised billing, in particular the rights of calling users (because telephones are often used by persons other than the subscriber) and called subscribers. It also gives subscribers the right to receive non-itemised bills.

#### The table below shows:

- whether subscribers have the right to receive itemised bills;
- whether subscribers have the right to receive non-itemised bills;
- the applied methods for protection of privacy in itemised bills, e.g. making anonymous the last digits or that calls to toll-free numbers must not be included in the itemised bill;
- a reference to the relevant legislation.

Country	Right to receive itemised bills	Right to receive non-itemised bills	Methods for protection of privacy	Reference to the relevant legislation
Croatia	Yes	Yes	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 44 Electronic communications act
FYROM	Yes Subscribers have the right to receive itemised bills which show the cumulative number of accounting units separately for local calls, national calls, international calls, calls to mobile networks, data transfer and other services. If a subscriber wants to get a more detailed bill, he/she can get it for free upon request.	No	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 101 Law on electronic communications
Turkey	Yes	Yes	There is no specific requirement regarding emergency calls and toll free numbers. There is a provision in draft by-law relating to make some digits anonymous.	Art. 5 Bylaw on the protection of consumer rights
Albania	Yes	Yes	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 106 Law on electronic communications Consumer protection law includes obligation to deliver itemised bill for telecommunication services Standard terms and conditions of Albtelecom- subscriber contract.

Country	Right to receive itemised bills	Right to receive non-itemised bills	Methods for protection of privacy	Reference to the relevant legislation
Bosnia & Herzegovina	Yes	Yes	Calls which are free of charge to the calling subscriber, including calls to help lines, shall not be identified in the subscriber's itemized bills (obligation explicitly specified only for fixed operators).	Licence obligations.
Montenegro	Yes The law does not oblige operators to show details for every call; it only requires operators to show the number of accounting units accumulated for local calls, intercity calls, international calls, calls to mobile networks, calls to value added services and data transfer and other additional services.	Yes	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 113 Law on electronic communications
Serbia	Yes	Yes	Calls to toll free numbers, including emergency numbers, must not be included in the itemised bill	Art. 112 Electronic Communications law
Kosovo (UNSCR 1244)	Yes	Yes	No	Art. 71 Law on telecommunications and Art. 76 Law on the information society services

#### Table G.6 - Itemised billing

#### Notes:

FYROM: Itemised billing must be provided upon request of the subscriber, within 5 days of the day of receipt the request, free-of-charge

Bosnia & Herzegovina: Operators must provide to subscribers bills with billing items which allows verification and control of the charges incurred in using the fixed public telephone services.

Complete itemised bills, which include information on each specified call (destination number, date, time duration and number of pulses) can be offered as separate service at economically justified price. Specifically for incumbent operators: exceptionally, in case of justified bill complaints, complete itemised bills shall be provided to subscribers free of charge. Operator shall ensure that calls which are free of charge to the calling subscriber, including calls to help lines, shall not be identified in the subscriber's itemized bills. New operators: upon subscriber's request, the licensee may modify review of calculation items in the bill.

# 5. Quality of service

Article 11 of the Universal Service Directive (2002/22/EC) provides that NRAs may set specific performance targets for the designated universal service providers. The standards are set out in Annex III to the Directive, specifying ETSI EG 201 769-1 version 1.1.1 (April 2000).

Table G.7 shows the quality of service targets set for operators, together with any work done to assess compliance.

Country	NRA imposed performance targets/QoS requirements	Operators subject to QoS requirements	QoS measured according to which standard?	Actual performances against targets published? (date + weblink)	Penalties for non- compliance
Croatia	Yes	T – Hrvatski Telekom QoS requirements imposed on the universal service provider are set out in the Ordinance on Universal Services adopted by the NRA on Feb. 16, 2009.	ETSI EG 201 769-1	Performance indicators published in May 2010.	No
FYROM	Yes	Every operator or provider of public voice telephony services has an obligation to publish its QoS parameters for the previous year on its website and to inform the NRA about the measured QoS parameters.	ETSI EG 201 769-1	After the check and validation of the reported data for QoS parameters, AEC will publish them on its website.	No
Turkey	Yes	Public fixed networks operators with SMP (currently, Turk Telekom) have an obligation to inform the NRA about the measured QoS parameters defined by NRA for each quarter.	ETSI EG 202.057-1 ETSI-TS 102 250-2	No	Yes
Albania	Yes	All operators or providers of public voice telephony services (fixed and mobile).	ETSI EG 201 769-1 V1.1.2 (2000-10)	No	No
Bosnia & Herzegovina	Yes	Fixed and mobile operators with SMP	ETSI EG 201	No	No
Montenegro	Not yet	All public operators (foreseen according to the draft rulebook)	ETSI EG 202-057.1 (foreseen) (foreseen)	No	No
Serbia	QoS parameters are set out in the operators' licences. NRA can impose QoS parameters on all operators and services according to Article 109 of the Law on Electronic Communications.	All licensed public fixed and mobile network operators	ETSI EG 201 769-1 GSM: Handover success rate ≥95% Call success rate ≥98% Dropped call rate ≤2% UMTS: BLER ≤1%	No	No

Country	NRA imposed performance targets/QoS requirements	Operators subject to QoS requirements	QoS measured according to which standard?	Actual performances against targets published? (date + weblink)	Penalties for non- compliance
Kosovo (UNSCR 1244)	QoS parameters are set out in the operators' licences	All licensed public fixed and mobile network operators	ETSI EG 201 769-1	No	No

Table G.7 - Application of Quality of Service requirements

Notes:

FYROM: In June 2006, the NRA adopted Rules on technical requirements for the quality of universal service. No US providers designated yet.

Turkey: GSM operators are obliged to fulfil QoS requirements: call block rate must be less than 5% of total calls and call drop rate must be less than 2% of total calls. For more

details, see Ordinance on Quality of Service in the Telecommunications Sector.

Table G.8 shows the results of QoS measurements of fixed incumbent operators for key parameters according to ETSI indicators (1-5).

Country	Supply time for initial connection	Fault rate per access line per year	Fault repair time (hours: minutes)		
Croatia	95% of requests are fulfilled within 26.8 days	13.66%	22.94 hours for 80% on target date for faults on access lines 50.82 hours for 95% on target date for faults on access lines; 22.49 hours for 80% on target date for all other faults 48.24 hours for 95% on target date for all other faults.	1.212 % for national calls within fixed network	1.378 seconds for 80% of calls
FYROM	95% of requests are fulfilled within 6 calendar days. 99% of requests are fulfilled within 17 calendar days.	14%	80% of reported faults are repaired within 27:07:17 hours. 95% of reported faults are repaired within 76:49:11 hours.	3.38% for national calls 0.02% for international calls	1.73 seconds for national calls 4.37 seconds for international calls
Turkey	Not reported	5.56%	80% of faults on access lines are repaired within 24 hours 95% in 48 hours	1.2% for national calls  Not available for international long distance calls	Not reported
Albania	3 days after signing the contract	25%	50 minutes	0.15% for local calls 1.73% for national calls 1.73% for international calls	Not reported
Bosnia & Herzegovina	8-22 days It depends on technical possibilities.	13-26%	80% faults - 28:00 - 51:30 95% faults - 125:18	3.01% for national calls 4.47% for international calls 1.15% for fixed to mobile calls	0.05 - 4 seconds

Country	Supply time for initial connection	Fault rate per access line per year	Fault repair time (hours: minutes)	Unsuccessful call ratio	Call set-up time (seconds)
Montenegro	95% of all initial connection have to be in max. 15 days	15% of total number of access lines	Max. 24 hours for 80% of faults on access lines Max. 12 hours for 80% of other faults	2% of all calls (domestic) 5% of all calls (international)	3 sec for domestic calls 5 sec for international calls
Serbia	14 days (if technically possible)	25%	48 hours	average 0.37% 0.0%% for calls originated and terminated at the same local switch 0.38% for national calls 0.42% for fixed to mobile calls 0.63% for international calls	1.50
Kosovo (UNSCR 1244)	6.4 days	0.003	24 hours	0.2%	0.50

Table G.8 - Quality of service measurements of fixed incumbent operators

# H. Fixed retail telephony tariffs

The reference date for the information in this section is July 1, 2010.

Regulatory objectives of pro-competitive telecommunications policies are aimed at protecting the interests of consumers in terms of choice, price, quality of service and value for money, in particular through promoting open and competitive markets. Retail prices represent one of the most important indicators enabling to assess the outcomes of regulatory policies.

Historically, telecommunications operators and regulators have set retail prices for network access as low as possible. Prices for other services, such as long distance calls, have been kept high to subsidise low access prices. With the introduction of competition, such an approach becomes untenable as new entrants concentrate on provision of services with high margins and avoid services priced below cost. A policy of rebalancing seeks to increase access prices, and reduce prices for services that have traditionally subsidized low access prices. The objective is to ensure that the price for each service reflects the underlying cost of providing that service.

Regulators usually allow several years for implementing tariff rebalancing over several years in order to soften the consequences for consumers. Furthermore, when monthly rentals and local call tariffs are increased, it has been common to differentiate between residential and business tariffs. At the end of the process, lower call tariffs can stimulate demand for access, helping to mitigate the effects of increased access prices.

However, some consumers, typically low-income or low-usage customers may experience an increase in their telecommunications costs as a result of the tariff rebalancing. The policy response has been to protect such users with targeted subsidies or special tariff packages.

### 1. Tariff rebalancing and regulation of retail tariffs

Table H.1 shows the extent of the regulation of retail prices of fixed operators designated as having SMP. In particular, it identified progress towards rebalancing of the retail tariffs of the incumbent operator. Any requirements for the advance notification of new retail prices to the NRA or the ministry are specified, together with the approval process, whether it must be granted or whether tacit approval is possible, after a period of notification has elapsed.

Retail price control methodologies may include one or more of the following:

- compliance with a price cap regulation that has been set for the specific service(s);
- price squeeze tests, one or both of:
  - Test 1: SMP operator's own costs: There is a price squeeze when the proposed retail prices would not cover the SMP operator's own network and commercial costs.
  - Test 2: Costs of an "efficient alternative operator": There is a price squeeze where the proposed retail prices could not be replicated by an alternative operator using the most efficient combination of its own network, commercial infrastructure and wholesale services purchased from the SMP-operator with prices fixed in the wholesale reference offer; and
- international benchmarking.

Country	Status of tariff rebalancing (target date if established)	Retail services and operators covered	Advance notification requirements	Notice period	Formal or tacit approval	Assessment method (for formal approvals)
Croatia	Ongoing	Fixed voice telephony (T-Com)	Yes – to HAKOM	30 days	Formal	Test 1
FYROM	Ongoing	Fixed access and voice telephony (Makedonski Telekom)	Yes – to AEC	30 days	Tacit	According to the Bylaw on Retail price regulation (Official Gazette of the Republic of Macedonia, No. 154/08 of December 12, 2008, AEC may apply one of the following methods:  Price cap Individual tariff approval Benchmarking and Cost orientation Manual on price squeeze tests currently under preparation by AEC
Turkey	Ongoing	Fixed voice telephony (Turk Telekom)	Yes – to ICTA	15 days for tariffs and 7 days for promotions	Tacit	According to Bylaw on Tariff published on Nov. 12, 2009, tariff proposals may be based on the following methods separately or together.  Notification Upper/lower limit Cost Orientation Price Cap Ex-post lower limit control in use since Jan. 2010.
Albania	Ongoing	Fixed access and voice telephony (Albtelecom)	Yes – to AKEP	15 days	Formal	Price cap/Price ceilings
Bosnia & Herzegovina	The second phase of tariff rebalancing will be carried out during 2010-2012.  Rule on the Model of Tariff Rebalance of Voice Telephone Services has been adopted. Implementation from Jan. 1, 2010.	Fixed voice telephony services (three incumbent operators):	Yes – to RAK	1 month	Formal	Benchmarking/Price cap
Montenegro	Ongoing	Fixed voice telephony	Yes – to EKIP	8 days	Formal	Benchmarking/Price cap

Country	Status of tariff rebalancing (target date if established)	Retail services and operators covered	Advance notification requirements	Notice period	Formal or tacit approval	Assessment method (for formal approvals)
Serbia	Ongoing	Fixed voice telephony (Telekom Srbija) Cable TV services (SBB)	Yes – to RATEL	Not specified	Formal	Cost orientation
Kosovo (UNSCR 1244)	Ongoing	Fixed voice telephony (PTK)	Yes	Not specified	Formal	Cost orientation

Table H.1 - Tariff rebalancing and regulation of retail tariffs

Notes:

FYROM: Before termination of the Concession Contract of Makedonski Telekom in Aug. 2008 with the latest amendments of the Law for electronic communications, retail

prices were regulated with price cap. In Dec. 2008 the Commission of the Agency for electronic communication has adopted a bylaw for the regulation of retail prices.

AEC drafted manual for price-squeeze test and held public consultation in October 2009.

Albania: AKEP Decision nr.1348 of 26.07.2010 regulates retail residential and business tariffs. AKEP imposed maximum tariffs to be applied by Albtelecom, starting from

Sep. 1, 2010. Albtelecom may increase off-net call tariffs (including international calls), in case of increase in termination rates in other networks. In this case

Albtelcom should notify AKEP 15 days in advance. Cost Orientation and completion of full rebalancing (methodology, procedures and deadlines) will be decided by a

separate AKEP decision to be taken in the second half of 2010.

Bosnia & Herzegovina: Assessment method on the base of the benchmark comparison with prices for the same services in other countries.

Serbia: RATEL adopted the bylaw on the cost-based model on Oct. 14, 2008

# 2. Retail price caps

Under Article 17 of the Universal Service Directive (2002/22/EC), NRAs are empowered to impose regulatory obligations to control individual tariffs (*inter alia*, by price caps) on undertakings with SMP in a given retail market if they have concluded, following a market analysis, that:

- the given market is not competitive; and
- obligations imposed on the wholesale market under the Access Directive (2002/19/EC) and the obligation to offer carrier selection and/or carrier preselection under Article 19 of the Universal Service Directive have failed to address competition concerns.

Table H.2 shows where retail price caps have been imposed on operators and the period of their validity.

Country	Validity of current price cap	Price cap (or sub caps)
Croatia	None	-
FYROM	None	-
Turkey	None	From Jan. 1, 2010 the price cap method will no longer apply. New by-law on tariffs came into force Nov. 12, 2009 introducing ex post lower limit method applicable to all operators and advance notification requirements of Turk Telekom prices.

Country	Validity of current price cap	Price cap (or sub caps)				
Albania	Albtelecom Sep. 1, 2010 – Aug. 31, 2012	RPI-RPI for the whole basket (residential and business):     one-off installation fee     monthly subscription fee     local calls     national calls     retention rate for calls to mobile     retention rate for international calls	Sub caps:  RPI+15% for monthly rental residential  RPI+4.2% for local calls (residential peak RPI-X ≤ 8%)  RPI-15% national calls (within Albtelecom network)  RPI-20% for retention rate for calls to mobile  RPI-15% for retention rate for international calls			
	AMC and Vodafone Sep. 1, 2008 to Aug. 31, 2010	RPI-23% for one prepaid tariff option for both MNOs (Albacarta for AMC and Vodafone Card for Vodafone)	Sub caps:  RPI-28% for retention rate for calls to other MNOs (national)  RPI-28% for retention rate for calls to fixed network (national)			
Bosnia & Herzegovina	The second phase of tariff rebalancing will be carried out during 2010-2012.	To be defined				
Montenegro	None	-				
Serbia	None	-				
Kosovo (UNSCR 1244)	None	-				

Table H.2 - Retail price caps

### Notes:

FYROM:

According to the Bylaw for the regulation of the retail prices, Makedonski Telekom is obliged to submit to the AEC notification of price changes within 30 days before their coming into effect. In addition, AEC has started market analysis of the retail markets 1-6/2003. The draft decision published on Dec. 17, 2009 proposes to impose a price control obligation on the incumbent operator, with the methodology to be specified at a later stage subject to public consultation.

# 3. Call charging system

The charges for public fixed voice telephony services can comprise two components: an initial or set-up charge applied at the beginning of a call and a charge for the remainder of the call, that may not depend on the type of initial charge used.

Initial charges can be of four different types:

• Call set-up charge set at the start of the call (when the call is answered). This charge does not include any call time. Per second or per unit charges apply from the beginning of the call.

- Initial charge that is used in the same way as call set-up, but additionally includes a certain number of seconds of call time before normal time-based charging starts.
- Unit charge in effect works the same way as the initial charge: A full unit is charged at the beginning of the call, providing a certain number of seconds call time until the next unit is charged. Depending on the principle used by the operator (synchronous or asynchronous) the number of seconds call-time in the first unit may be less than the specified unit duration.
- Minimum charging is normally used with per second billing, to ensure the operator obtains a minimum revenue per call. If the call duration is short, the actual call charge may be less than the minimum charge. In such cases the minimum charge will be applied.

Charging system during the call can by of three different types:

- Real time charging or "per second billing" in which the cost of the call to be calculated based on the exact duration of the call (normally to the nearest second). A call set-up charge, initial charge or minimum charge may be applied, in addition to the duration charge.
- Unit based charging using fixed price unit. The duration of this unit will vary with the destination of the call and time of day. The call duration will always be raised to a multiple of whole units, so the user will nearly always pay for more time than is used. Rarely, a call set-up charge may be applied to this method.
- Fixed period charging uses a variable price, but fixed duration unit. The call is normally charged on a per minute basis, or per 6 seconds. The price for the period will vary with destination and time of day. The charged duration of the call will be raised to a multiple of whole periods. A call set-up charge or initial charge is often implemented in the form of a higher charge for the first minute or period. This initial charge may vary with destination and time of day.

Table H.3 presents information on the call charging systems used by the fixed incumbent operators and the minimum cost of a call for local, long distance, international calls and call to a mobile phone.

Country	Type of call	Initial charges		Charging du	ring the call
		Types of charges	Nominal value (€ incl. VAT)	Minimum charging unit	Nominal value (€ incl. VAT)
Croatia	Local	Call set-up	0.011	60 seconds	0.032
	Long distance	Call set-up	0.011	60 seconds	0.032
	Fixed-to-mobile	None		First 15 seconds	0.055
				or	or
				1 second	0.003
	International	None		First 15 seconds	0.064
				or	or
				1 second	0.005
FYROM	Local	None		60 seconds	0.016
	Long distance	None		60 seconds	0.049
	Fixed-to-mobile	None		60 seconds	0.162

Country	Type of call	Initial charges		Charging during the call		
		Types of charges	Nominal value (€ incl. VAT)	Minimum charging unit	Nominal value (€ incl. VAT)	
	International	None		60 seconds	0.161 – 0.878 (1-10 tariff group)	
Turkey	Local	None		60 seconds	0.034 (incl. SCT tax 15%)	
	Long distance	None		60 seconds	0.040 (incl. SCT tax 15%)	
	Fixed-to-mobile	None		20 seconds	0.398 (incl. SCT tax 15%)	
	International	None		60 seconds	0.053 (incl. SCT tax 15%)	
Albania	Local	Set up	0.006	1 second	0.007 (residential)	
	Long distance	Set up	0.006	1 second	0.007 (residential) 0.0117 (business)	
	Fixed-to-mobile	Set up	0.007	1 second	0.007 (residential)	
	International	Set up	0.006	1 second	0.007 (residential)	
Bosnia &	Local	None		1 second	0.00028	
Herzegovina	Long distance	None		1 second	0.00060	
BH Telecom	Fixed-to-mobile	None		1 second	0.00145	
	International	None		1 second	Depends on international zone 0.00724 (to UK)	
Bosnia &	Local	None		1 second	0.00026	
Herzegovina	Long distance	None		1 second	0.00062	
Telekom Srpske	Fixed-to-mobile	None		1 second	0.00145	
	International	None		1 second	Depends on international zone 0.00852 (to UK)	
Bosnia &	Local	None		1 second	0.00023	
Herzegovina	Long distance	None		1 second	0.00062	
HT Mostar	Fixed-to-mobile	None		1 second	0.00145	
	International	None		1 second	Depends on international zone 0.00997 (to UK)	
Montenegro	Local	None		60 seconds	0.019	
	Long distance	None		60 seconds	0.050	
	Fixed-to-mobile	None		60 seconds	0.190	
	International	None		60 seconds	Depends on international zone	

Country	Type of call	Initial charges		Charging during the call		
		Types of charges	Nominal value (€ incl. VAT)	Minimum charging unit	Nominal value (€ incl. VAT)	
Serbia	Local	None		1 pulse (2 minutes off-peak, 1 minute peak)	0.004	
	Long distance	None		1 pulse (24 s off-peak, 12 s peak)	0.019	
	Fixed-to-mobile	None		1 pulse (4 s off-peak, 2.66 s peak)	0.086	
	International	None		1 pulse (from 1,727s to 0,54s)	0.133	
Kosovo (UNSCR 1244)	Local	Pulse	0.010	4 minutes	0.040	
	Long distance	Pulse	0.010	4 minutes	0.040	
	Fixed-to-mobile	Pulse	0.100	24 seconds	0.040	
	International	Pulse	0.260	9.2 seconds	0.040	

Table H.3 - Call charging systems of fixed incumbent operators

Notes:

Croatia: Reference date – July 1, 2010. There are two call charging systems.

In the first case the minimum charging unit is one minute or 60 seconds for the calls in the national network, but for calls to mobile networks and the international calls

the minimum charging unit is 15 seconds.

In the second case the minimum charging unit is one second (although the first 60 seconds of the call are always charged as 1 minute) with the call set-up charge at

the amount of 0.08 HRK for all calls in the national network, the same charging unit of one second is also applied to calls to mobile networks and the international calls

without the call set-up charge.

Turkey: Charges include VAT and the Special Communication Tax of 15% for fixed network services.

Albania: Tariff structure applicable from September 1, 2010.

Serbia: Depending on the type of call (local, long distance, international, non-geographic code) pulse length could be:

2 min local (1 min in peak) - 24 sec long distance (12 sec in peak) - 4 sec national mobile (2.666 sec in peak)

Price for international calls vary by country (from 1.727s to 0.54s)

### I. Minimum cost of a local call

In the calculation of the minimum charge for calls using per second billing it is assumed that the call is terminated as soon as it starts, making the minimum charge for the call equal to any call set-up or defined minimum unit charge. Effectively, only in Bosnia and Herzegovina where there are no any call set up charges and there the billing per second is applied, the minimum cost of a call is zero.

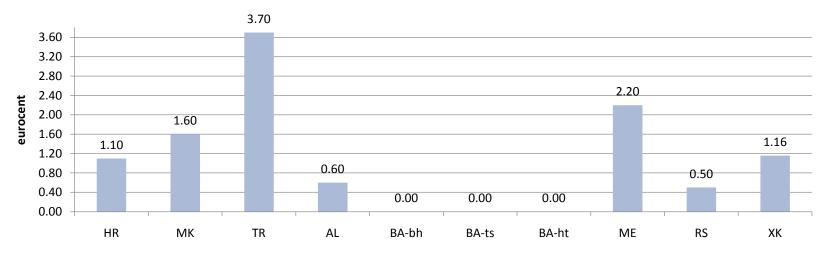


Figure 33 - Minimum cost of a local call in eurocents, including VAT

Notes: Turkey:

The tariff includes a 15% Special Communications Tax.

# 1. Monthly subscription fees for residential and business users

Table I.1 shows the monthly rental prices for PSTN lines in the fixed network for residential subscribers in nominal euro with value added tax included. It shows the prices for the standard tariff plans and, where available, the prices for the low usage tariff plan. For the low usage tariff plan, it shows the basis for its offering (e.g., legal requirement such as a universal service obligation or commercial offer) and any restrictions that might apply (e.g., no possibility to use CS/CPS).

Both Serbia and Turkey show a considerable increase of the residential monthly rental fee from October 2009 (respectively, by 80% and 51% net of exchange rate variation). In Turkey the increase is applicable only to new subscribers from January 2010. Albania has the lowest fee in the region, still much below the EU average. Albania has been gradually increasing the monthly rental fees since 2006, in a very slow tariff rebalancing process which is still not completed. From October 2009 the fee increased by 31% bet of exchange variation. In Bosnia and Herzegovina monthly rentals increased between 10% and 21% from October 2009.

Croatia, Kosovo and Macedonia have the highest rates. Values are quite stable in all of the other countries.

Country	Standard	Value of call un	its included	Availability of a low	Restrictions applicable	Low usage	Value of call u	nits included
	monthly rental € with VAT	Number of units	Nominal value of each unit, €	usage package Basis for the offer	to low usage package mon renta with		Number of units	Nominal value of each unit, €
Croatia	10.115	43	0.039	50% discount on Halo Start and Halo Super 60 Low-USO	Only for disabled people and family members of fallen Croatian soldiers	5.058	87	0.039
FYROM	7.651	0	-	Minimal model – tariffs model	None	4.219	0	-
Turkey	10.151	0	-	-	None	-	0	-
Albania	3.920	0	-	None	None	-	0	-
Bosnia & Herzegovina     BH Telecom     Telekom Srpske     HT Mostar	<ul><li>5.862</li><li>5.085</li><li>5.623</li></ul>	160 minutes of local calls (peak time)	<ul><li>0.020</li><li>0.018</li><li>0.016</li></ul>	Yes special package: families of soldiers died in the war, disabled veterans, blind persons and the other disabled persons	None	<ul><li>2.512</li><li>2.512</li><li>2.512</li></ul>	160 minutes of local calls (peak time)	<ul><li>0.020</li><li>0.018</li><li>0.016</li></ul>
Montenegro	5.89	100 minutes of local off-peak calls	0.011	Yes (mini package)	For residential users only	3.042	0	0
Serbia	4.32	150 pulses	-	A package to fully disabled customers offered on a commercial basis by Telekom Srbija	Only to disabled customers	2.16, (i.e. 50% of the standard monthly rental)-	300 pulses	0
Kosovo (UNSCR 1244)	8.074	250	0.046	Yes	None	4.025	-	-

Table I.1 - Residential monthly line rental charges of fixed incumbent

Notes:

Turkey: Basic package applicable to new subscribers (Ev Avantaj100), applicable from August 1, 2010. For users who subscribed before that date the previous basic monthly

rental charge applies (€8.33).

Serbia: Offer for low usage refers to fully disabled customers, and it is in commercial offer.

Kosovo: 10 minute traffic towards mobile operator Vala also included in the package.

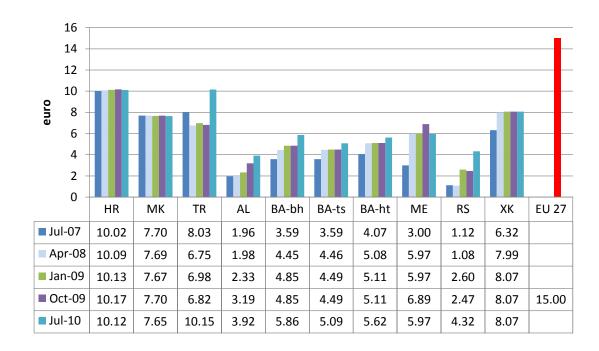


Figure 34 - Standard residential monthly rental (incl. VAT)

#### Notes:

The EU-27 weighted average is taken from the 15<sup>th</sup> Implementation Report of the European Commission, September 2009.

Turkey: The charges include the Special Communications Tax.

Prices are generally lower in South East Europe than the EU average. The relationship between national price levels may be expressed through purchasing power parity indexes that reflect the differences in relative price levels.

Taking these price levels into account means that the prices for consumers in this region appear higher than what is expressed through the nominal exchange rate, except for Kosovo where no PPP exchange rates are available yet. From October 2009, residential monthly charges almost doubled in Serbia. In Bosnia Herzegovina rates of BH Telecom and Telekom Srpske reached levels more aligned with HT Mostar. A 23.5% increase was also observed in Albania.

Figure 35 shows the differences in monthly rental when presented in nominal euro and in €/PPP values, except for Kosovo where no PPP exchange rates are available yet.

Figure 36 presents the low usage options in comparison with the standard monthly rental. Turkey and Albania do not have special low usage options. Albanian standard monthly rates is however lower than the low usage alternatives of all other countries, except for Bosnia and Herzegovina and Serbia.

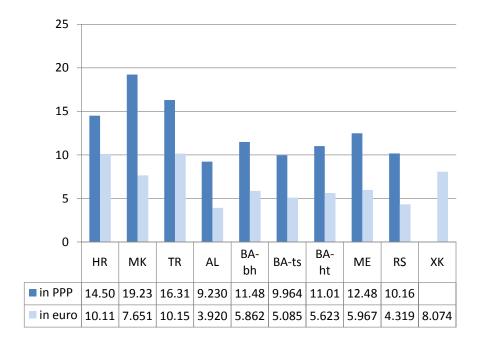


Figure 35 - Standard residential monthly rental (incl. VAT) in PPP and nominal euro

Notes:

Turkey: The charges include the Special Communications Tax Serbia: Low usage available for disabled subscribers.

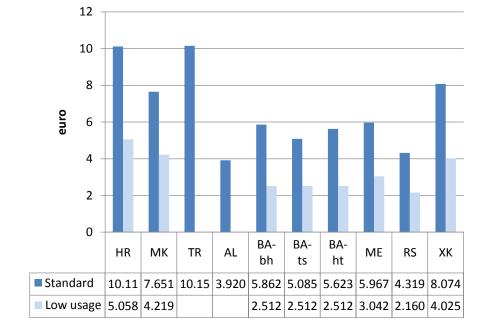


Figure 36 - Standard and low usage residential monthly rental including VAT

Table I.2 shows the monthly rental prices for PSTN lines in the fixed network for business subscribers in nominal Euro without value added tax.

Country	Standard monthly rental	Value of call units included			
	€	Number of units	Nominal value of each unit €		
Croatia	9.67	0	0		
FYROM	11.38	0	0		
Turkey	8.78	0	0		
Albania	11.08	0	0		
Bosnia & Herzegovina:					
BH Telecom	• 8.39	<ul> <li>160 minutes of local calls in peak time</li> </ul>	• 0.02		
Telekom Srpske	• 8.39	<ul> <li>160 minutes of local calls in peak time</li> </ul>	• 0.01		
HT Mostar	• 8.39	<ul> <li>160 minutes of local calls in peak time</li> </ul>	• 0.01		
Montenegro	5.10	0	0		
Serbia	3.66	0	0		
Kosovo (UNSCR 1244)	21.74	2,500	0.04		

Table I.2 - Business monthly line rental charges of the fixed incumbent (excluding VAT)

Notes:

Turkey: Basic tariff applicable to new business subscribers from Jan. 2010, It includes 100 minutes of traffic. Includes Special Communications tax

Serbia: If the subscriber spent less than 150 pulses per month he pays only monthly rental price of €2.20.

Montenegro: For double party lines monthly rental is €3.82. After rebalancing of tariffs, all prices for residential and business users are the same.

Figure 37 below shows the monthly line rental charges for business subscribers and presents the corresponding information from July 2006 for comparison. In Kosovo, monthly rental for business users remains considerably high in region, also much above the EU 27 average. Albania had significant price increases over three consecutive monitoring periods. Serbia considerably increased the business monthly rental at the beginning of 2009, and again in 2010 (+80% net of exchange rate variation from October 2009). There are no major changes in the other countries.

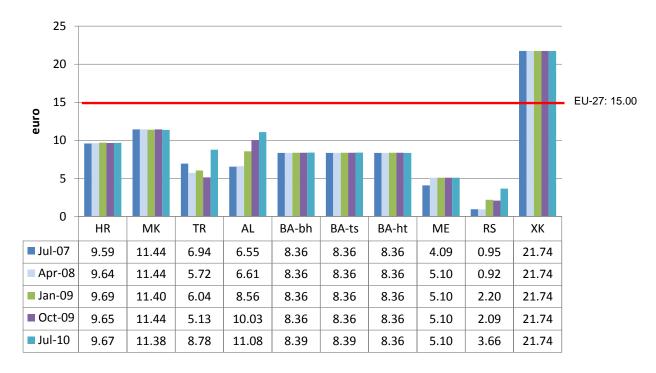


Figure 37 - Monthly rental business users

Notes:

Turkey: Includes Special Communications Tax.

The EU-27 weighted average is taken from the 15<sup>th</sup> Implementation Report of the European Commission, September 2009.

# 2. One-off connection charges

Table I.3 shows the initial costs for the installation and connection of residential and business subscriptions. All prices are in euro. The installation costs represent the cost of a new installation in a location that has not been connected before. The connection cost is the cost for the connection of an existing subscriber line to a new subscriber, for example, when a new family takes over an apartment where the previous occupant was already connected.

Some operators have special reconnection tariffs that apply after a subscriber has been disconnected for failure to pay accounts. These are not included in the table.

Country	Residential	(including VAT)	Business (excluding VAT)		
	New line connection charge	Reconnection charge (takeover)	New line connection charge	Reconnection charge (takeover)	
	€	€	€	€	
Croatia	84.29	10.12	69.09	8.29	
FYROM	23.78	0	20.15	0	
Turkey	3.40	3.40	2.88	2.88	
Albania	35.47	0	29.56	0	
Bosnia & Herzegovina:					
BH Telecom	35.89	0	30.68	0	
Telekom Srpske	47.86	0	40.90	0	
HT Mostar	47.86	0	40.90	0	
Montenegro	64.99	12.50	55.55	10.68	
Serbia	55.66	4.15	94.34	3.51	
Kosovo (UNSCR 1244)	10.00	2.02	8.62	1.74	

Table I.3 - One-off connection charges of the fixed incumbent

Notes:

Turkey: Includes Special Communications Tax.

Figure 38 shows the trends in connection charges for residential customers since 2007. Some of these have dropped quite dramatically, notably Albania and Bosnia and Herzegovina. In Serbia there has been a gradual decrease since 2007. The level in Albania, previously much above the monitored countries' average, has now reached the level of the other countries. Connection charges in Croatia are the highest among the monitored countries.

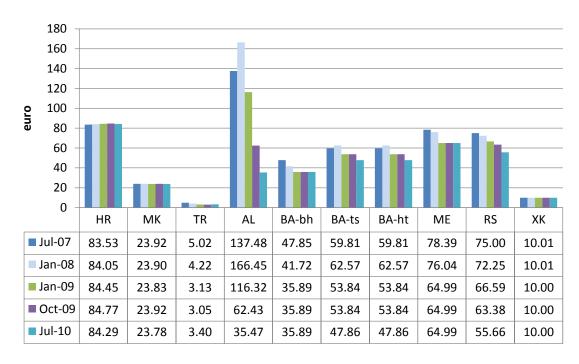


Figure 38 - Incumbent operator connection charges for residential customers including VAT

Notes:

Turkey: Includes Special Communications Tax

### 3. Local fixed telephony tariffs of the incumbent and an alternative operator

Country	Largest alternative operator	Technologies used
Croatia	OT - Optima Telekom	VoIP
FYROM	ONE - Skopje	Fixed GSM
		WLR
	Neotel	FWA
Turkey	Millenicom	PSTN + IP
Albania	PRIMO	PSTN + IP
Bosnia & Herzegovina	ANEKS	Cable-HFC

Country	Largest alternative operator	Technologies used
Montenegro	m:tel	WiMax
Serbia	Orion Telekom	CDMA
Kosovo (UNSCR 1244)	Ipko	VoIP

Table I.4 - Alternative operators chosen for comparison of retail tariffs

Notes:

Bosnia & Herzegovina: Company ANEKS d.o.o. Banja Luka is the largest alternative operator in BiH. Aneks d.o.o offers triple play services by optical-fiber transfer connections, usage of the

latest IP and SS7 and highest-quality communications equipment

Serbia: Orion Telekom: Orion Telekom, a fixed-line operator and Internet provider in the CDMA standard, was set up by the merger of Internet providers Neobee, Media Works

and Sezampro. All three companies are owned by the Netherlands-based Greenhouse Telecommunications Holdings. Orion Telekom offers fixed services through the

licence for the deployment of wireless fixed-line voice services in the CDMA standard awarded to Media Works in 2009

Table I.5 below presents the local tariffs by the incumbent operator and an alternative operator for 3-minute calls and 10-minute calls. All tariffs are in euro with VAT included. With competition introduced in the fixed market only in 2009 in Serbia, in this progress report we are able provide the rates of an alternative operator for the first time in this country.

Country		Incu	mbent	Alternative operator		
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €	
Croatia		0.116	0.388	0.111	0.371	
FYROM		0.058	0.192	0.052	0.173	
Turkey		0.119	0.448	0.087	0.290	
Albania		0.087	0.273	0.128	0.426	
Bosnia & Herzegovina	BH Telecom	0.059	0.197	0.036	0.120	
	Telekom Srpske	0.054	0.179	0.036	0.120	
	HT Mostar	0.048	0.162	0.036	0.120	
Montenegro		0.067	0.222	0.120	0.400	
Serbia		0.014	0.045	0.013	0.045	
Kosovo (UNSCR 1244)	_	0.035	0.116	0.174	0.580	

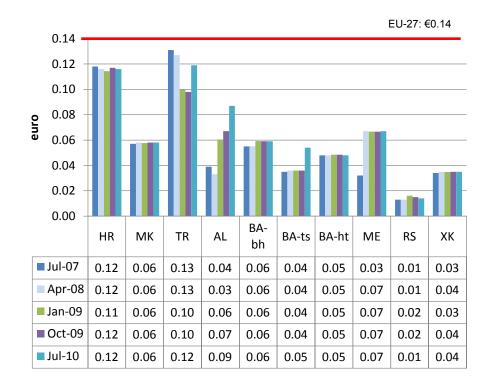
Table I.5 - Local calls for residential customers (including VAT)

Notes:

Turkey: Includes Special Communications Tax

Albania: The alternative operator PRIMO offers PSTN traditional fixed telephony (referred here as PSTN) and VoIP through PRIMO Phone (referred here as IP).

Figure 39 shows the cost of a three-minute local call in Eurocents on the network of the incumbent operator, including VAT for residential consumers. There is considerable variation in the prices, with Croatia and Turkey more expensive, while Serbia is the cheapest. The EU-27 average is indicated by the red line. Figure 40 shows the equivalent data for a ten-minute call with very similar patterns.



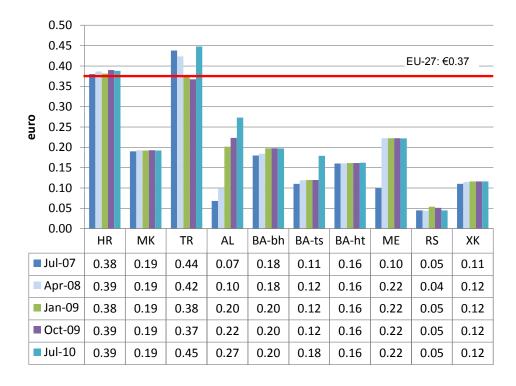


Figure 39 - Cost of a three-minute local call (incumbent) in nominal value

Figure 40 - Cost of a ten-minute local call (incumbent) in nominal value

Notes:

Turkey: Includes Special Communications Tax.

EU-27: weighted average from 15<sup>th</sup> Implementation Report of the European Commission. September 2009.

### 4. Long distance fixed telephony tariffs of the incumbent and an alternative operator

Table I.6 below presents the long distance tariffs by the incumbent operator and an alternative operator for 3-minute calls and 10-minute calls. All tariffs are in euro with VAT included.

It should be noted that in the past the alternative operators in Albania were regional operators that could not compete directly with the incumbent operator. With the introduction of the new authorisations regime, in 2008, all alternative operators can now compete with the incumbent on a national level (see Table C.2 for more details).

No substantial change is observed since October 2009. Long distance prices offered by alternative operators are significantly lower only in FYROM, and to a lesser extent, in Turkey, Serbia and Montenegro.

Country		Incu	mbent	Alternative operator		
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €	
Croatia		0.116	0.388	0.111	0.371	
FYROM		0.173	0.575	0.052	0.173	
Turkey	Turkey		0.475	0.121	0.357	
Albania	Albania		0.573	0.535	1.782	
Bosnia & Herzegovina	BH Telecom	0.126	0.419	0.126	0.419	
	Telekom Srpske	0.131	0.437	0.126	0.419	
	HT Mostar	0.131	0.437	0.126	0.419	
Montenegro	Montenegro		0.590	0.120	0.400	
Serbia		0.068	0.225	0.067	0.222	
Kosovo (UNSCR 1244)		0.035	0.116	0.174	0.580	

Table I.6 - Long-distance calls for residential customers (including VAT)

Notes:

Turkey: Includes Special Communications Tax

Albania: Albtelecom applies Regional and National calls. Table shows national calls tariffs. Regional call tariffs are lower than national call tariffs (e.g. 3.00 ALL Peak for

residential). Primo for PSTN telephony applies 2 distance based charges: Zone 2 (up to 50 Km and Zone 3 (more than 50 km). Table shows Zone 3 tariffs. Zone 2

tariff are approximately 20% lower than zone 3.

Figure 41 below presents the price developments for a 3-minute residential long distance call from July 2006. Figure 42 presents the corresponding information for a 10-minute call. The most dramatic decrease since 2008 is observed in Albania where prices have now reached the EU average level. A decrease from the October 2009 level is also observed in Serbia, and parts of Bosnia and Herzegovina. In all other countries, long distance call prices have been stable.

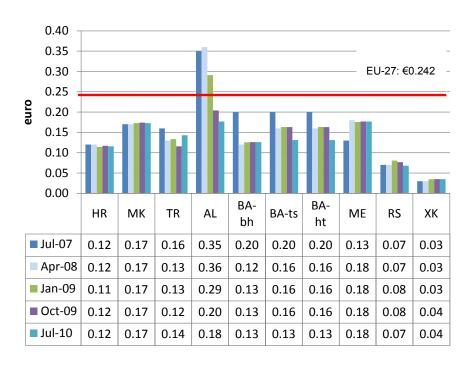


Figure 41 - Residential long distance charges for 3-minute calls (incumbent)



Turkey: Includes Special Communications Tax.

The EU-27 weighted average is taken from the 15th Implementation Report

of the European Commission. September 2009

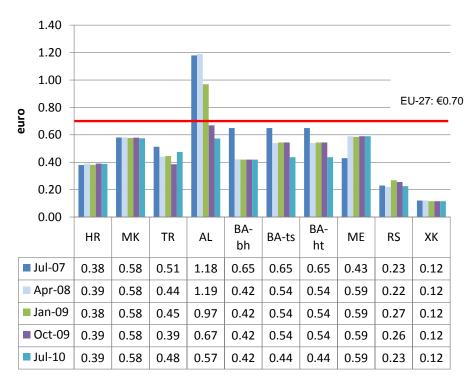


Figure 42 - Residential long distance charges for 10-minute call (incumbent)

Table I.7 below presents the corresponding information on long distance calls for business subscribers. These prices are without VAT.

Country		Incu	mbent	Alternative operator		
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €	
Croatia		0.095	0.318	0.091	0.304	
FYROM		0.146	0.488	0.044	0.146	
Turkey		0.139	0.463	0.104	0.348	
Albania		0.222	0.727	n/a	n/a	
Bosnia & Herzegovina	BH Telecom	0.107	0.358	0.107	0.358	
	Telekom Srpske	0.112	0.373	0.107	0.358	
	HT Mostar	0.112	0.373	0.107	0.358	
Montenegro		0.151	0.504	0.103	0.342	
Serbia		0.071	0.237	0.57	0.189	
Kosovo (UNSCR 1244)		0.030	0.100	0.150	0.600	

Table I.7 - Long-distance calls for business customers (excluding VAT)

Notes:

Turkey: Includes Special Communications Tax 15%.

Albania: Albtelecom applies regional and national calls. Table shows national calls tariffs. Regional call tariffs are slightly lower than national call tariffs.

# 5. Fixed-to-mobile tariffs of the incumbent and an alternative operator

Table I.8 below presents the prices from the fixed network of the incumbent operator and for an alternative operator to a mobile network.

Country		Incu	mbent	Alternative operator		
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €	
Croatia		0.809	2.697	0.713	2.377	
FYROM		0.575	1.916	0.529	1.764	
Turkey	Turkey		1.675	0.431	1.275	
Albania		0.701	2.321	1.583	5.276	
Bosnia & Herzegovina	BH Telecom	0.305	1.017	0.278	0.927	
	Telekom Srpske	0. 305	1.017	0.278	0.927	
	HT Mostar	0. 305	1.017	0.278	0.927	

Country	Incun	nbent	Alternative operator		
	3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €	
Montenegro	0.667	2.223	0.567	1.890	
Serbia	0.304	1.014	0.301	1.002	
Kosovo (UNSCR 1244)	0.348	1.160	0.348	1.160	

Table I.8 - Fixed-to-mobile calls for residential customers (including VAT)

Notes:

Turkey: Includes Special Communications Tax 15%.

Figure 43 below presents the price developments for fixed to mobile calls for the incumbent operator since July 2007. The lowest rates are in Bosnia & Herzegovina, although an increase since October 2009 was reported only for BH Telecom. Turkey shows a dramatic decrease since 2007, with net value however slightly increasing since the October 2009 level. Decreasing trends are also observed in Serbia. Croatia, Albania and Montenegro have the highest fixed-to-mobile rates among the monitored countries. However, fixed-to-mobile rates show decreasing trends in Albania, with 36% reduction since July 2007. In Kosovo, rates decreased by over 37% in 2009, have been stable since October 2009.

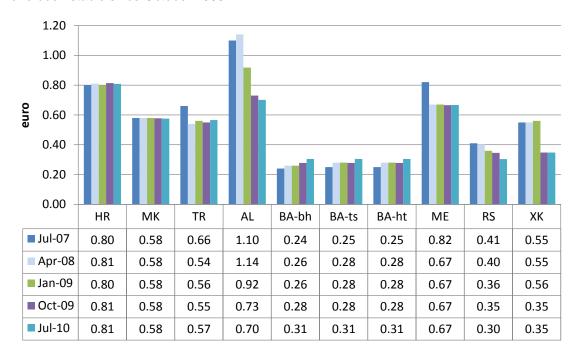


Figure 43 - Residential charges for 3-minute fixed to mobile calls (incumbent)

Notes:

Turkey: Includes Special Communications Tax.

Bosnia & Herzegovina: The charges shown above apply for calls to incumbents' own mobile networks. For calls to other mobile networks, charges are two times higher.

Table I.9 presents the tariffs for fixed to mobile calls for business customers. The table includes tariffs from an alternative operator when available.

Country		Incu	umbent	Alternative operator		
		3 minutes, €	10 minutes, €	3 minutes, €	10 minutes, €	
Croatia		0.663	2.211	0.585	1.948	
FYROM		0.487	1.623	0.449	1.495	
Turkey		0.490	1.632	0.373	1.243	
Albania		0.786	2.620	1.319	4.397	
Bosnia & Herzegovina	BH Telecom	0.261	0.869	0.238	0.793	
	Telekom Srpske	0.261	0.869	0.238	0.793	
	HT Mostar	0.261	0.869	0.238	0.793	
Montenegro	Montenegro		1.900	0.485	1.615	
Serbia		0.320	1.067	0.255	0.849	
Kosovo (UNSCR 1244)		0.300	1.000	0.360	1.200	

Table I.9 - Fixed-to-mobile calls for business customers of the incumbent and alternative operator (excluding VAT)

Notes:

Turkey: Includes Special Communications Tax.

#### 6. International tariffs of the incumbent and an alternative operator

Table I.10 presents the long distance call tariffs to the UK for a ten-minute call from residential as well as business subscribers. The main difference between these tariffs is due to the fact that the residential tariffs include VAT. Tariffs are shown both for the incumbent operator and a major alternative operator. With the only exception of Albania, prices for international calls tend to be lower in alternative operators' offers, both for residential and business customers. From October 2009, alternative operators' rates became comparably cheaper in Montenegro and Kosovo. Rates for an alternative operator in Serbia have been reported for the first time, and they are considerably lower than those of the incumbent.

Country	Resid	dential	Business		
	Incumbent, €	Alternative operator, €	Incumbent, €	Alternative operator, €	
Croatia	3.793	3.129	3.109	2.556	
FYROM	1.898	1.709	1.609	1.448	

Country		Re	sidential	Business		
		Incumbent, €	Alternative operator, €	Incumbent, €	Alternative operator, €	
Turkey		0.704	0.400	0.609	0.346	
Albania		1.371	5.675	1.483	4.693	
Bosnia & Herzegovina	BH Telecom	5.085	2.393	4.346	2.045	
	Telekom Srpske	5.982	-	5.113	-	
	HT Mostar	6.999	-	5.982	-	
Montenegro		1.760	1.498	1.500	1.280	
Serbia		2.589	0.434 2.392		0.368	
Kosovo (UNSCR 1244)		3.712	0.998	3.200	0.860	

Table I.10 - Ten-minute call to the UK

Notes:

Turkey: Includes Special Communications Tax.

Figure 44 below shows the price developments since July 2007 for the international tariffs of the incumbent operator for residential users. The most considerable decreases since October 2009 are observed in Bosnia & Herzegovina, where (Telekom Srprske and HT Mostar decreased their rates by approximately 23% and 10% respectively. In Turkey there was a net 25% price increase from October 2009.

Table I.11 and Figure 45 provide the corresponding tariff information for long distance calls to the United States. From October 2009, prices increased by 25% in Turkey and by 7% in Albania net of exchange rate variation. Both remain the lowest in the region. The highest prices are still observed in Bosnia and Herzegovina, where however prices decreased from October 2009 by 17% (Telekom Srpske) and 10% (HT Mostar).

Country		Resi	dential	Business		
		Incumbent, €	Alternative operator, €	Incumbent, €	Alternative operator, €	
Croatia		5.900	4.805	4.836	3.938	
FYROM		1.878	1.709	1.609	1.448	
Turkey		0.704	0.400	0.609	0.346	
Albania	Albania		5.636	1.483	4.696	
Bosnia & Herzegovina	BH Telecom	7.179	2.393	6.136	2.045	
	Telekom Srpske	8.973	-	7.669	-	
	HT Mostar	9.691	-	8.283	-	
Montenegro	Montenegro		4.000	4.000	3.419	
Serbia		4.133	0.434	4.344	0.434	
Kosovo (UNSCR 1244)		4.408	1.160	3.800	0.860	

Table I.11 - Ten-minute call to the USA

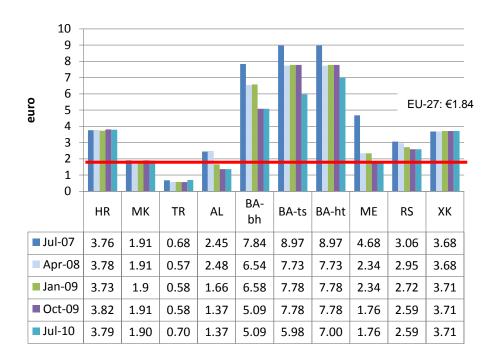


Figure 44 - 10-minute call to UK by incumbent operator for residential users

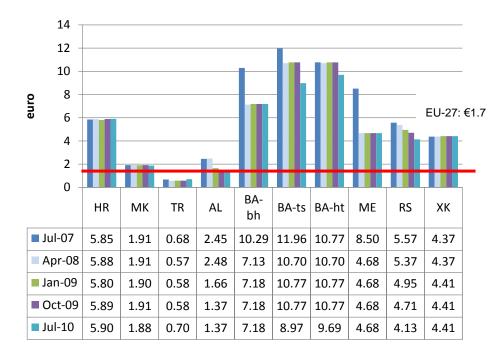


Figure 45 - 10-minute call to USA by incumbent operator for residential users

#### Mobile retail tariffs

Mobile network operators provide a range of tariff options that are quite complicated and difficult to compare. Consumers have to take into account a significant number of parameters, including the initial activation charge, monthly subscription charge, peak and off-peak tariffs, "free" calls and text messages included in the package, volume-dependent tariffs, SMS tariffs, tariffs for calls within the same network (on-net calls), tariffs for calls to other mobile networks (off-net), calls to fixed networks and, of course, cross-subsidies for the handset which can imply, for instance, minimum contract duration period.

In order to be able to make comparisons between its members states the OECD constructed a set of mobile tariff "baskets" building on its work in fixed telephony baskets. These baskets are updated to reflect changing usage patterns. The European Commission adopted the OECD 2006 baskets in its 13<sup>th</sup> Implementation Report, reporting a wider range of data for operators and different tariff packages. It should be noted that the EC uses monthly and not annual results.

The table below shows the structure and composition of the 2006 mobile baskets. While the basket is the annual cost, the numbers of SMS and calls are for each month. The mobile baskets are defined as "low user" - a definition that includes 30 outgoing calls per month plus 33 SMS messages, "medium user" - 65 outgoing calls plus 50 SMS, and "high user" - 140 calls and 55 SMS.

	Calls	SMS	MMS	Fixed calls		Mobile calls		Voicemail	Time of day		
				Local	National	On-net	Off-net		Peak	Off-peak	Weekend
Low user	30	33	0.67	15%	7%	48%	22%	8%	48%	25%	27%
Medium user	65	50	0.67	14%	7%	48%	24%	7%	50%	24%	26%
High user	140	55	1.00	13%	7%	47%	26%	7%	60%	19%	21%

Table J.1 - Composition of OECD 2006 mobile baskets

While some critics have argued for the creation of a "Balkan basket" or set of baskets that might better reflect local usage patterns, this would make any comparisons with the EU or with OECD impossible. Indeed, it would be likely to make historical comparisons very difficult, unless the old results could be recalculated.

The table below shows the results for each usage basket, including both postpaid and prepaid offers.

Country	Operator	Low-user	Medium-user	High-user	
		€	€	€	
Croatia	T-Mobile	5.1	8.5	15.4	
	VIPnet	8.9	15.8	27.1	
	Tele2	8.0	13.1	24.7	
FYROM	T-Mobile	8.84	19.5	37.1	
	Cosmofon (ONE)	8.0	18.4	37.5	
	Vip	4.5	7.9	17.2	
Turkey	Avea	11.7	38.6	79.8	
		9.59*	15.2*	19.2*	
	Turkcell	16.1	49.5	99.6	
		9.14*	14.9*	19.6*	
	Vodafone	14.4	41.5	82.7	
		8.55*	13.9*	19.1*	
Albania	AMC	10.9	25.3	35.6	
	Vodafone Albania	13.9	28.2	33.8	
	Eagle Mobile	8.9	21.0	40.3	
Bosnia &	BH Telecom	9.1	30.1	60.0	
Herzegovina	Telekom Srpske	12.3	24.4	48.7	
	HT Mostar (HT Eronet)	17.0	29.9	51.4	
Montenegro	M:Tel	5.7	15.4	31.9	
	ProMonte	5.7	17.7	31.6	
	T-Mobile	6.4	18.0	29.7	
Serbia	m:ts	2.9	4.9	9.1	
	Telenor	2.9	5.6	11.2	
	Vip	4.34	7.5	11.0	
Kosovo (UNSCR 1244)	Vala	6.0	14.9	27.5	
	IPKO	5.8	14.3	26.6	

Table J.2 - OECD 2006 mobile tariff baskets, July 2010

Turkey: Includes Special Communications Tax 25%. Price with asterisk: alternative package.

In earlier reports retail mobile tariffs of Turkish mobile operators were calculated for the packages with the highest number of subscribers. However those packages are all prepaid and the tariffs applied for those packages are subject to change in relevance with the refilling amount. In earlier reports retail mobile tariffs of Turkish mobile operators were calculated by taking into consideration of tariffs that are valid if there is no refill within 30 days. For the above mentioned values the alternative package is calculated by taking into consideration tariffs which are valid if there is refill within 30 days.

Albania: Postpaid

Montenegro: Low baskets are related with pre-paid packages.

Serbia: Postpaid. Includes Special Tax 10%

The three following figures show the prices in the low, medium and high user baskets in 2009 in the monitored countries. For comparison, the EU 27 average values from the 15<sup>th</sup> Implementation Report of the European Commission have been used.

For the low user basket, most of the monitored countries have offerings that are cheaper than the simple average of EU operators (€11.41 per month). In Croatia mobile prices have dropped considerably since October 2009. A decrease was also observed in Albania, and even higher in the case of the smaller operator Eagle Mobile. Prices in Serbia decreased further, and are still the lowest in the region. Competitive pressure, including from the third mobile operator, seems to be driving prices down towards increasingly lower levels. From October 2009 prices slightly increased in Montenegro, and in FYROM (except for Vip).

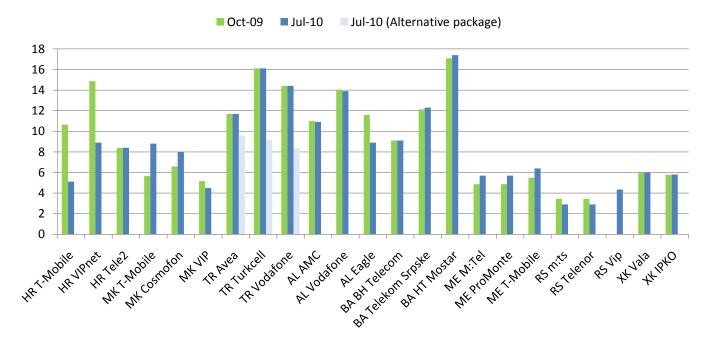


Figure 46 - Low usage OECD (2006) mobile basket

For medium users, the average price in the EU was €19.25. Average prices in Bosnia & Herzegovina remain significantly higher, while in Croatia, Serbia and Kosovo average prices tend to be lower than the EU average. A decrease of net prices from October 2009 is observed most remarkably in Croatia for one operator, and in Kosovo. The significant drop in Turkey is mainly due to a change of the calculation methodology.

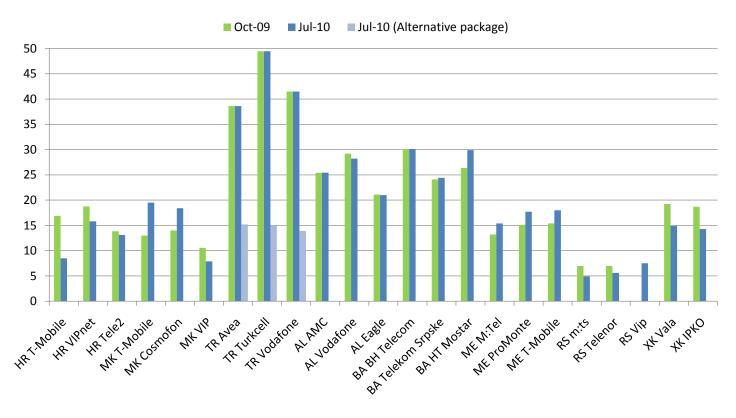


Figure 47 - Medium usage OECD (2006) mobile basket

For high users, Bosnia & Herzegovina and Albania remain significantly above the EU average of €30.19 while other countries, notably Serbia, Croatia, and one operator in FYROM and, offer lower prices. The significant drop in Turkey is mainly due to a change of the calculation methodology.

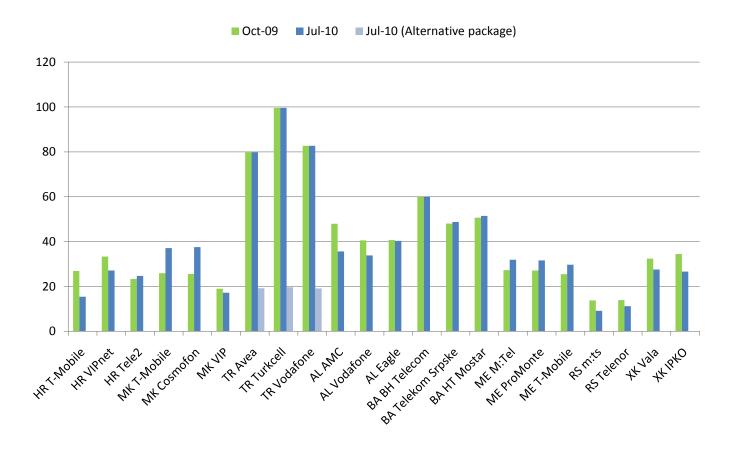


Figure 48 - High usage OECD (2006) mobile basket

### K. Special cross-border arrangements for retail fixed and mobile tariffs

The political, economical and social events in the last fifteen years in South-Eastern Europe, in particular in the territory of the former Yugoslavia, created specific entities and territories some of which still have a provisional status. This has resulted in many special tariff arrangements that cross territorial boundaries. For example, there have been preferential rates between the Serb population in Bosnia & Herzegovina and Serbia. Similarly, there have been preferential rates for the Croatian population in Bosnia & Herzegovina and Croatia. Such arrangements are gradually being phased out and replaced by more conventional country tariffs.

On June 30, 2007 the EU regulation on international roaming came into force.<sup>18</sup> It set price caps for wholesale and retail charges and requires a pro-active provision of roaming prices to customers via SMS. The Regulation sets the maximum retail charges for 2007-2009 for outgoing and received calls and also for wholesale charges. The EU regulation was revised in June 2009<sup>19</sup>, setting a new glide path for reductions until 2011 of both wholesale and retail process for calls and SMS, and introduced wholesale caps also for data roaming services, However, operators in South-East Europe may not have access to the regulated wholesale tariffs within the EU and are not obliged to offer similar rates to other European operators.

Table K.1 sets out the current arrangements for cross-border fixed and mobile tariffs. It also identifies special international mobile roaming arrangements. However, it addresses only retail roaming offers as it would be beyond the scope of this project to assess confidential agreements on wholesale Inter Operator Tariffs (IOTs).

Country	Fixed network	Mobile network	Special retail international roaming offers
Croatia	-	-	-
FYROM	-	-	-
Turkey	-		Vodafone has a special roaming tariff called "Dünyayı Gezen Tarife" whose subscribers can make or receive call on other Vodafone networks in 17 foreign countries paying monthly recurring charge of 0,433 € /month (exc. taxes) and usage charge of 0,326 €/minute (exc. taxes) for making and receiving calls abroad.
Albania	-	There are cross-border arrangements for international mobile to mobile calls on networks that are part of the same international group.  AMC reduces the charges by 34% for calls to other Cosmote Group networks (four SEE countries including Greece).  Vodafone Albania charges for calls to Vodafone Greece are 34% lower than calls to neighbouring countries.  Calls to Vodafone Group mobile operators are charged at lower tariffs than calls to other mobiles of the same country.  Eagle Mobile (a new entrant) does not currently have any such arrangements.	Vodafone Albania applies reduced tariffs if customers roam on Vodafone Greece (34% lower) and on other Vodafone networks. Vodafone also offers it Passport package of roaming tariffs.

<sup>18</sup> http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:171:0032:0040:EN:PDF

<sup>19</sup> http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:167:0012:0023:EN:PDF

Country	Fixed network	Mobile network	Special retail international roaming offers
Bosnia & Herzegovina Telekom Srpske ad Banja Luka	-	-	Telekom Srpske subscribers have free of charge incoming calls in Serbia and Montenegro on Telekom Serbia network.
Montenegro	To fixed networks in Serbia and Kosovo €0.110 per minute (peak time) €0.055 per minute (off peak)	To fixed networks in Serbia €0.190 per minute (peak time) €0.095 per minute (off peak)	All three mobile operators in Montenegro have special roaming offers for Serbia, with no charge for incoming calls when the user is in roaming.
Serbia	Fixed Serbia – fixed Montenegro €0.114 per minute for residential, €0.142 per minute for business users.  The same price is for fixed Serbia – fixed Republika Srpska (Republika Srpska is a constitutive entity of Bosnia & Herzegovina).  For the rest of Bosnia & Herzegovina international rate for zone 1 is applied (€0.133 per minute for residential, €0.164 for business users).  Fixed Serbia – mobile Montenegro €0.172 per minute for residential, €0.213 for business users.  Fixed Serbia – mobile Republika Srpska €0.114 per minute for residential, €0.142 for business users.	Telekom Srbija (m:ts) For the following three operators: Montenegro m:tel Bosnia & Herzegovina m:tel in the Republika Srpska Telekom Srpska fixed network the incoming call per minute is €0.047 (Summer 2010). In all other neighbouring countries with Serbia incoming call per minute is €0.311 postpaid/€0.320 prepaid (summer 2010).	Vip mobile         All operators owned by mobilkom austria: mobilkom austria         (A1) - Austria, Mobiltel (M-TEL) - Bulgaria, Vipnet (HR VIP) - Croatia, mobilkom liechtenstein (FL1) - Liechtenstein, Si.mobil (SI.MOBIL) - Slovenia, Vip operator (Vip MK) – Macedonia (€0.273 incoming call per minute).         Telenor         Telenor Montenegro (Promonte) (€0.075 incoming call per minute)
Kosovo (UNSCR 1244)	-	-	-

Table K.1 - Special cross-border arrangements for retail fixed and mobile tariffs

#### L. Leased lines retail tariffs

#### National leased lines

Leased lines are the building blocks for alternative networks that compete, directly or indirectly, with the networks of the incumbent operators. Before competition begins in a market the prices are generally quite high. Price pressures are introduced as alternatives become available, for example, by operators associated with energy and railway companies. Such competition has probably had more effect on prices than obligations requiring cost orientation, at least on more popular route.

There is a long history of legislation, litigation, reporting on and a sector inquiry into the provision of leased lines. A pro-competitive framework was set out in a Council Directive in 1992.<sup>20</sup> A minimum set of leased lines was carried through into the 1998 and 2003 regulatory packages, though it is now proposed to handle these in a technology neutral manner, using market analyses for the provision of local access.

In a series of figures below, the tariffs for national leased lines are shown for 2 km leased lines with the transmission capacities of 64 kbps, 2 Mbps and 34 Mbps.

All prices are annual and retail, excluding VAT and without any one-time or connection charges. Not all operators have tariffs that correspond directly to these categories, in which case the closest alternative has been selected. In Turkey, the leased line offerings are based not on distance but on four levels: 1) same exchange, 2) different exchange, 3) inner city, and 4) intercity. The 2 km distance has been considered to be the "different exchange" rate.

Leased lines at 64 kbps are now often replaced by more advanced technologies such as ISDN, ADSL and SDSL where these are available with service level agreements (SLA).

Figure 49 shows the prices for a short circuit of 2 kilometres at 64 kbps speed. While Turkey, Montenegro and Serbia are relatively cheap, Albania, Croatia and FYROM are expensive in terms of South-East Europe. Prices have been considerably stable since 2006 in most countries. In Albania and Turkey prices increased from October 2009 by respectively 28% and 14%, net of exchange rate variation. In Serbia a 7% net price decrease was observed, instead.

Figure 50 shows the prices for short circuits of 2 km at the higher speed of 2 Mbps, though these too have often been replaced by other technologies where appropriate SLAs are available. Prices have been stable in all countries, except for Serbia where they have been gradually decreasing over the last few years.

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<sup>&</sup>lt;sup>20</sup> http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0044:EN:HTML

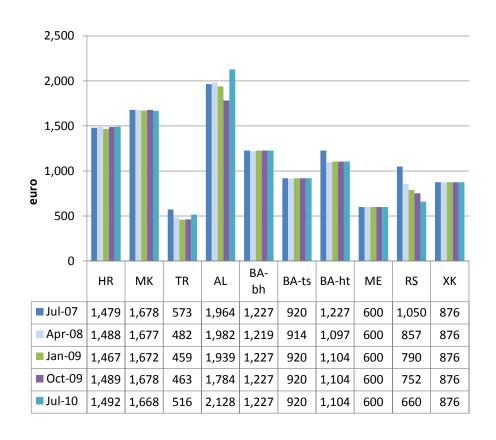


Figure 49 - Annual prices for a 2 km 64 kbps leased line

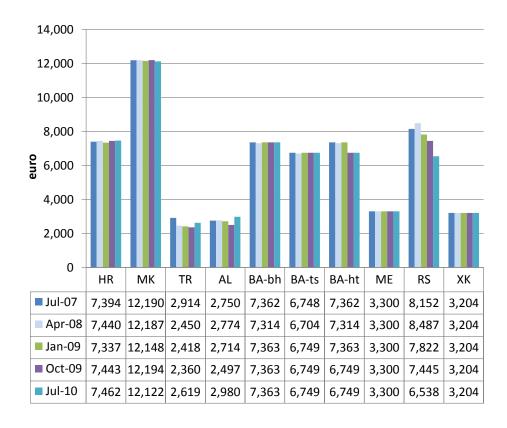


Figure 50 - Annual prices for a 2 km 2 Mbps leased line

Figure 51 shows the prices for higher speed leased lines at 34 Mbps. The shorter 2km circuits are currently not available in Albania and in FYROM. The prices in Kosovo and Turkey are relatively low. In Serbia prices are more expensive, but have been decreasing over the last years (7.12% net decrease from October 2009.

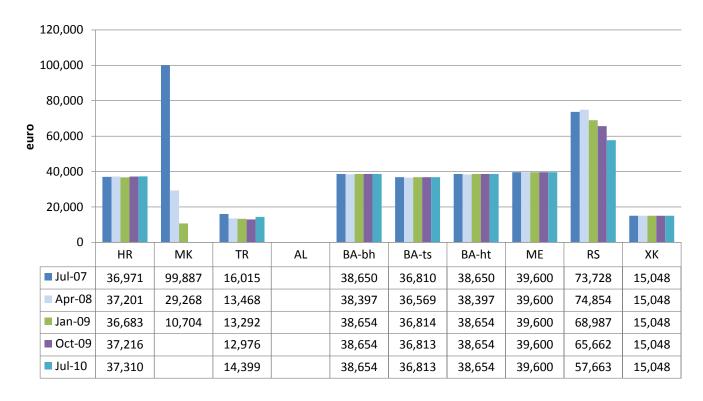


Figure 51 - Annual prices for a 2 km 34 Mbps leased line

#### 2. International leased lines

International leased lines have traditionally been provided in the form of two half-circuits, one national half-circuit being connected to another half-circuit or to a transit circuit near the border, with the corresponding arrangement in the destination country. International circuits can be provided in the form of double routing or single routing. Double routing includes an additional element of redundancy and such lines have a higher charge. Only single routing lines are only available in Turkey, otherwise the tariffs are for double routing half-circuits.

The annual prices (excluding VAT) for international half-circuits are given for:

- 64 kbps to a near country and to the UK;
- 2 Mbps to a near country and to the UK.

For comparison, EU averages have been taken from the 15<sup>th</sup> Implementation report, showing prices in the autumn of 2009. These are to a near and to a distant country which, for this report, has been uniformly taken to be the United Kingdom.

Figure 52, Figure 53 and Figure 54 show the annual charges for 64 kbps half-circuits. Albania and FYROM are the obvious exception on the longer routes to the UK.

Figure 55, Figure 56 and Figure 57 show the 2 Mbps prices, where again Albania is expensive on the routes to the UK.

Prices have been decreasing over the last four years, except in Albania, where the incumbent fixed line operator has kept its tariffs for leased line offerings largely unchanged since mid-2007.

For 64 kbps half circuits to UK, tariffs have not fallen so significantly. Charges in Albania and FYROM are the highest in the region, with all other incumbent operators now charging below €13,000. Prices have been decreasing since 2006, but have been quite stable over the last three monitoring periods, except for Albania (30% net increase from October 2009).

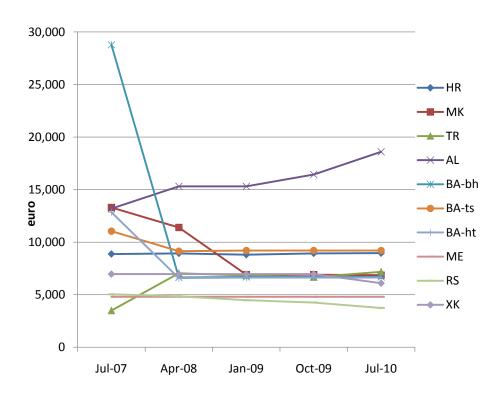


Figure 52 - Annual prices for international half circuits 64 kbps to near country (2007-2010)

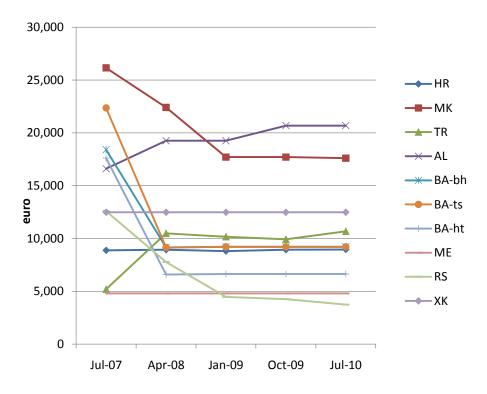


Figure 53 - Annual prices for a 64 kbps international half-circuit to the UK (2007-2010)

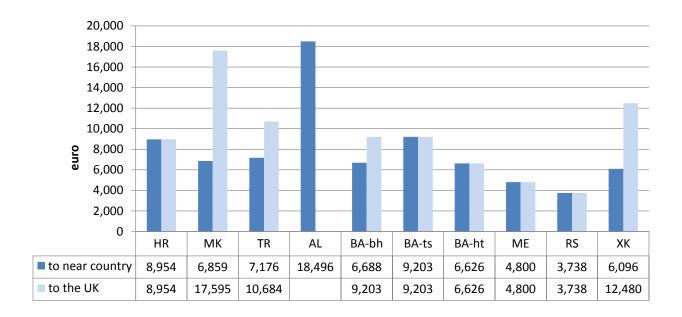


Figure 54 - Annual prices for a 64 kbps international half-circuit, July 2010

For 2 Mbps half circuits to a near country, retail prices were reduced significantly, except in Albania, where they remain the highest in the region by a significant margin and also show increasing trends. All other incumbents have reduced charges to below €100,000 per year. In FYROM, prices were significantly reduced based on the bylaw for regulation of terminating and trunk segments of leased lines adopted by the NRA in September 2008, but prices to the UK are considerably higher than in the rest of the region.

In the case of 2 Mbps half circuits to the UK, charges have not fallen significantly, except in FYROM, Serbia and Republika Srpska. The Albanian incumbent charges are significantly higher than the rest of the region. Turkey also remains expensive at over €170,000 per annum. Montenegro and FYROM have the lowest prices. In Serbia prices decreased by 11% since October 2009 net of exchange rate variations. All other incumbents are keeping charges stable at below €100,000 per annum.

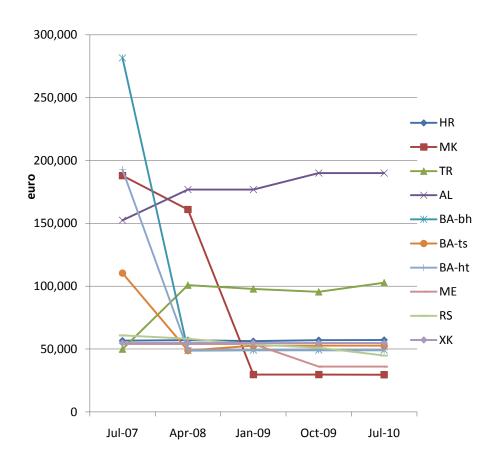


Figure 55 - Annual prices for international half circuits 2 Mbps to near country (2007-2010)

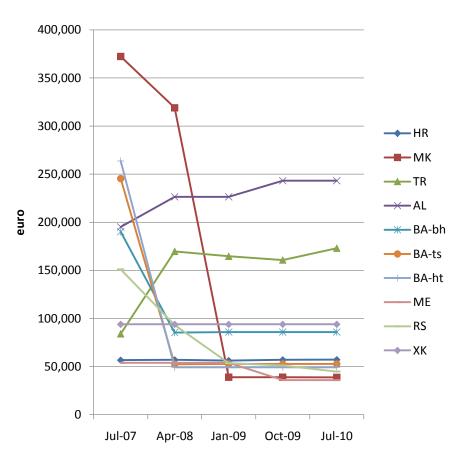


Figure 56 - Annual prices for a 2 Mbps international half-circuit to the UK (2007-2010)

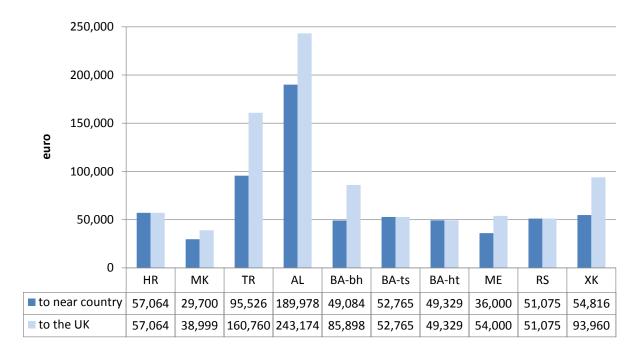


Figure 57 - Annual prices for a 2 Mbps international half-circuit, July 2010

Notes: Turkey:

Without Special Communications Tax

### M. Internet and broadband retail prices

#### 1. Dial-up Internet access cost

Access to the Internet for households in South-East Europe has primarily been by dial-up on fixed telephone lines. While FYROM, Turkey, Albania and Kosovo have moved into broadband as the major form of Internet access, dial-up service remains a significant form of access in Croatia, Bosnia & Herzegovina, Montenegro and Serbia.

Table M.1 shows the cost of forty hours of dial-up access to the Internet. The prices vary considerably across countries and even within Bosnia & Herzegovina. The most expensive prices are in FYROM at over €70 per month, followed by Croatia, slightly above €60. The remaining countries have charges between €19 and €37 per month. In terms of PPP, prices are considerably more expensive in Macedonia than in the rest of the region.

Country	ISP c	harge	PSTN	usage	Total		
	€	PPP	€	PPP	€	PPP	
Croatia	40.46	64.65	20.23	32.32	60.69	96.97	
FYROM	73.63	200.97	-	-	73.63	200.97	
Turkey	4.49	7.97	24.43	43.40	28.92	51.37	
Albania	10.76	27.65	21.28	54.72	32.04	82.37	
Bosnia & Herzegovina / BH Telecom	7.36	16.19	14.36	31.58	21.72	47.77	
Bosnia & Herzegovina / Telekom Srpske	2.99	6.58	21.54	47.37	24.53	53.95	
Bosnia & Herzegovina / HT Mostar	5.98	13.16	31.59	69.48	37.57	82.64	
Montenegro	9.80	22.48	28.08	64.37	3788	86.85	
Serbia	8.26	23.48	10.80	30.69	19.07	54.18	
Kosovo (UNSCR 1244)	0	-	27.84	-	27.84	-	

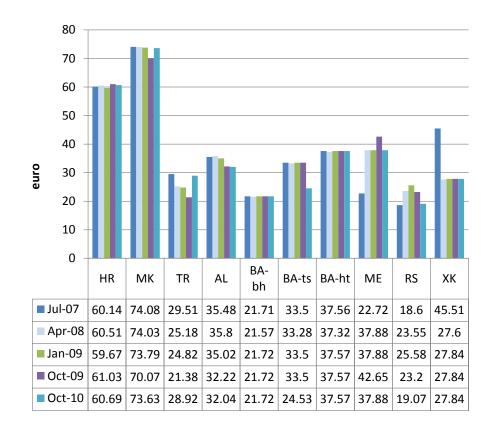
Table M.1 - Dial-up Internet access cost - 40 hours at peak time including VAT

Notes:

Turkey: Includes Special Communications Tax 15%. There is no tariff differentiation between peak and off peak charges of dial-up internet access cost.

Bosnia & Herzegovina: Telekom Srpske -Dialup Flat service offers customers unlimited internet access during the period for 30 days at a cost of 5 KM

Serbia: ISP charge is an average for the largest ISPs that collectively have approximately 80% market share



80 70 60 50 enro 40 30 20 10 0 BA-BA-BA-ME HR MK TR ΑL RS XK bh ts ht ■ ISP charge | 40.46 | 73.63 | 4.49 | 10.76 | 7.36 | 2.99 5.98 9.8 8.26 0 ■ PSTN usage 20.23 24.43 21.28 14.36 21.54 31.59 28.08 10.8 27.84 0

Figure 58 - 40 hours peak time use of Internet (2007-2010), in euro

Figure 59 - 40 hours peak time use of Internet: PSTN/ISP charges, in euro

For twenty hours a similar range of prices can be seen in Table M.2. The cheapest is Serbia, while the most expensive offers are in Albania and FYROM.

Country	ISP c	harge	PSTN	usage	Total		
	€	PPP	€	PPP	€	PPP	
Croatia	10.12	16.16	5.06	8.08	15.17	24.44	
FYROM	18.41	50.24	-	-	18.41	50.24	
Turkey	4.49	7.97	12.21	27.20	16.70	29.67	
Albania	10.76	27.65	8.51	21.89	19.27	49.54	
Bosnia & Herzegovina / BH Telecom	7.36	16.19	3.59	7.9	10.95	24.08	
Bosnia & Herzegovina / Telekom Srpska	2.99	6.58	7.18	15.79	10.17	22.37	
Bosnia & Herzegovina / HT Mostar	5.98	13.16	9.33	20.53	15.31	33.69	
Montenegro	4.90	11.23	7.02	16.09	11.92	27.33	
Serbia	4.10	11.65	2.70	7.68	6.80	19.32	
Kosovo (UNSCR 1244)	-	-	13.92	-	13.92	-	

Table M.2 - Dial-up Internet access cost - 20 hours at off-peak time, in euro

Notes:

Turkey: Includes Special Communications Tax 15%.

Bosnia & Herzegovina: Telekom Srpske -Dialup Flat service offers customers unlimited internet access during the period for 30 days at a cost of 5 KM

Serbia: ISP charge is an average for the largest ISPs that collectively have approximately 80% market share

#### 2. Broadband internet access cost

Table M.3, Figure 60, Figure 61 and Figure 62 below show the monthly subscription charges for broadband Internet access for both xDSL from the incumbent operator and for an alternative operator, in euro including VAT.

Country	Speed	Incumbent DSL, €	Alternative operator, €	Alternative operator and technology
Croatia	512 kbps	-	-	
	1 Mbps	-	-	
	2 Mbps	10.92	5.25	OT-Optima telekom d.d., ADSL
FYROM	512 kbps	9.57	8.05	TRD-KTV Cabletel, cable modem
	1 Mbps	22.17	35.47	OnNet ADSL over LLU and Bitstream access
	2 Mbps	-	-	-

Country	Speed	Incumbent DSL, €	Alternative operator, €	Alternative operator and technology
Turkey	512 kbps	-	9.03	Doğan Telekom, ADSL (www.smileadsl.com)
	1 Mbps	23.50	23.50	Doğan Telekom, ADSL (www.smileadsl.com)
	2 Mbps	33	33	Doğan Telekom, ADSL (www.smileadsl.com)
Albania	512 kbps	-	18.00	Primo, ADSL
	1 Mbps	-	-	
	2 Mbps	26.59	34.99	Abissnet, ADSL
Bosnia & Herzegovina:	512 kbps	-	14.96	Logosoft d.o.o. Sarajevo – DSL
BH Telecom	1 Mbps	10.17	-	
	2 Mbps	14.96	11.96	Logosoft d.o.o. Sarajevo - DSL
Bosnia & Herzegovina:	512 kbps	11.37	-	
Telekom Srpske	1 Mbps	14.96	-	
	2 Mbps	20.94	-	
Bosnia & Herzegovina:	512 kbps	-	-	
HT Mostar	1 Mbps	11.37	-	
	2 Mbps	-	-	
Montenegro	512 kbps	-	11.64	M-Kabl (cable modem)
	1 Mbps	20.00	30.00	M:Tel; Wi-Max (FWA at 3.5 GHz band, IEEE 802.16d standard)
	2 Mbps		28.07	M-Kabl (cable modem)
Serbia	512 kbps	-	-	-
	1 Mbps	-	15.83	INTCS (Sezampro), ADSL Internet
	2 Mbps	20.16	23.95	INTCS (Sezampro), ADSL Internet
Kosovo (UNSCR 1244)	512 kbps	15.13	-	
	1 Mbps	10.08	14.96	
	2 Mbps	45.39	19.95	Ipko, cable

Table M.3 - Broadband Internet monthly subscription (including VAT)

Notes:

Turkey: Includes Special Communications Tax 15%.
Croatia: Incumbent minimum access speed is 4 Mbps.

FYROM: Makedonski Telekom - The access speed is reduced on 64/64 kbps, when the total monthly traffic exceeds this level. The 1 Mbps monthly subscriptions include monthly

traffic up to 15 GB. Price for equipment is MKD1524.

Albania: Albtelecom has stopped providing 256 and 512 kbit/s, by updating to higher speeds. Minimum speed is 2 Mbps and maximum 12 Mbps.

Montenegro: Incumbent operator T-Com Montenegro has no packages at 512 kbps and at 2Mbps in its standard DSL offer.

According to its pricelist, offered packages for residential users are:

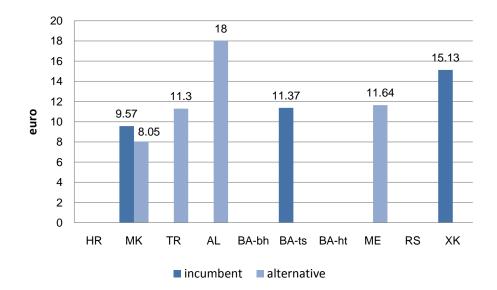
•	2Mbps/256kbps, flat rate	17.09 EUR (excluding VAT)
•	5Mbps/256kbps, flat rate	21.36 EUR (excluding VAT)
•	7Mbps/256kbps, flat rate	38.45 FUR (excluding VAT)

Alternative operator M:Tel: According to its price list, offered (Wi-Max) packages for residential users are (contract signed for 24 months):

•	512kbps/128kbps, flat rate	17.09 EUR (excluding VAT)
•	1Mbps/256kbps, flat rate	28.21 EUR (excluding VAT)
•	2Mhns/256khns flat rate	35.04 FUR (excluding VAT)

Alternative operator M-Kabl has not packages with 256 kbit/s. According to its pricelist, offered (CATV) packages for residential and business users are:

•	512kbps/64kbps, flat rate)	8.50 EUR (excluding VAT)
•	1Mbps/128kbps, flat rate	16.50 EUR (excluding VAT)
•	2Mbps/256kbps, flat rate	20.50 EUR (excluding VAT)
•	4Mbps/384kbps, flat rate	33.50 EUR (excluding VAT)



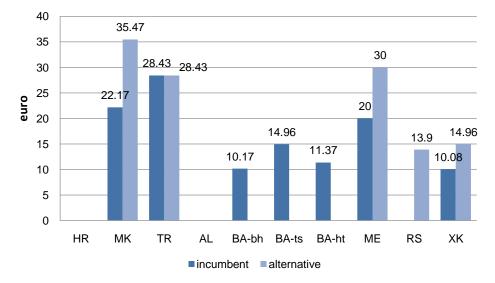


Figure 60 - Broadband 512 kbps monthly subscription charges in euro, including VAT

Figure 61 - Broadband 1 Mbps monthly subscription charges in euro, including VAT

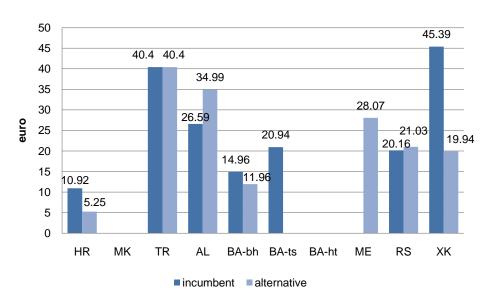


Figure 62 - Broadband 2 Mbps monthly subscription charges in euro, including VAT

#### N. Wholesale tariffs

The information in this section has a reference date of July 1, 2010, unless stated otherwise.

#### 1. Call termination on the incumbent and alternative operators' fixed networks

Table N.1 and Table N.2 show the interconnection tariffs on the fixed networks of the incumbent and major alternative operators, respectively. This information for alternative networks is not available for all of the monitored countries, either because it is confidential or simply because there are no alternative fixed networks.

In most of the monitored countries, fixed operators apply the same termination rates, regardless of whether a call originates on a national fixed or mobile network. The exceptions are Turkey, Serbia and Kosovo, where higher termination rates apply to calls originating on mobile networks.

In addition to per minute call conveyance charges, the incumbent operator, as well as all fixed network operators in Albania, applies call setup charges. Alternative operators' rates are higher than the incumbents' in Turkey and in Montenegro, and - at the single transit level - in Croatia. In Albania alternative operators charge lower termination rates than the incumbent. In all of the other countries rates are symmetrical.

Since October 2009 tariffs decreased in Serbia (in peak time termination charges decreased respectively by 84%, 67% and 75% for local, single transit, and double transit calls). The decrease, however, only applies to calls originating on fixed networks. For calls originating on mobile networks, termination charges remained unchanged. Tariffs increased in Albania (above 90% for all levels of termination). In Turkey both local and single transit termination charges remain same but double transit charges decreased by almost 17%.

Country			Local,	€		Single transit, €				Double transit, €				
		Pea	ak	Off	Off-peak		Peak		Off-peak		Peak		Off-peak	
		Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	
Croatia		0.0000	0.0066	0.0000	0.0033	0.0000	0.00926	0.0000	0.0046	0.0000	0.0180	0.0000	0.0048	
FYROM		0.0000	0.0070	0.0000	0.0047	0.0000	0.0102	0.0000	0.0068	0.0000	0.0143	0.0000	0.0094	
Turkey	Turkey		0.0071	0.0000	0.0071	0.0000	0.0087	0.0000	0.0087	0.0000	0.0114	0.0000	0.0114	
Albania		0.0061	0.0111	0.0061	0.0111	0.0064	0.0185	0.0061	0.0185	0.0061	0.0259	0.0061	0.0259	
Bosnia & Herzegovina	BH Telecom	0.0000	0.0089	0.0000	0.0067	0.0000	0.0134	0.0000	0.0101	0.0000	0.0179	0.0000	0.0134	
	Telekom Srpske	0.0000	0.0089	0.0000	0.0089	0.0000	0.0134	0.0000	0.0134	0.0000	0.0179	0.0000	0.0179	
	HT Mostar	0.0000	0.0089	0.0000	0.0067	0.0000	0.0134	0.0000	0.0101	0.0000	0.0179	0.0000	0.0134	
Montenegro		0.0000	0.0225	0.0000	0.0225	0.0000	0.0270	0.0000	0.0270	N/A	N/A	N/A	N/A	
Serbia		0.0000	0.0020	0.0000	0.0010	0.0031	0.0064	0.0000	0.0032	0.0000	0.0077	0.0000	0.0039	
Kosovo (UNSCR 1244)		0.0000	0.0400	0.0000	0.0240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Table N.1 - Call termination on the incumbent operator's fixed network

Notes:

Turkey: No peak or off-peak differentiation.

Kosovo: Single transit and double transit not available.

Country			Loc	al, €		Single transit, €					Double transit, €			
			Peak	Of	f-peak		Peak	0	ff-peak		Peak	Off-peak		
		Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	Setup	Per min.	
Croatia		-	-	-	-	0.0000	0.0131	0.0000	0.0066	-	-	-	-	
FYROM		-	-	-	-	-	-	-	-	-	-	-	-	
Turkey		0.0000	0.0163	0.0000	0.0163	0.000	0.0163	0.000	0.0163	0.0000	0.0163	0.0000	0.0163	
Albania		0.0061	0.0144	0.0061	0.0144	0.0061	0.0240	0.0061	0.0240	0.0061	0.0336	0.0061	0.0336	
Bosnia & Herzegovina	BH Telecom	0.0000	0.0089	0.0000	0.0067	0.0000	0.0134	0.0000	0.0101	0.0000	0.0179	0.0134	0.0102	
	Telekom Srpske	0.0000	0.0089	0.0000	0.0089	0.0000	0.0134	0.0000	0.0134	0.0000	0.0179	0.0179	0.0205	
	HT Mostar	0.0000	0.0089	0.0000	0.0067	0.0000	0.0134	0.0000	0.0101	0.0000	0.0179	0.0134		
Montenegro		0.0000	0.0300	0.0000	0.0300	0.0000	0.0300	0.0000	0.0300	-	-	-	-	
Serbia		0.0000	0.0020	0.0000	0.0010	0.0000	0.0064	0.0000	0.0032	0.0000	0.0077	0.0000	0.0039	
Kosovo (UNSCR 1244)		0.0000	0.0400	0.0000	0.0400	-	-	-	-	-	-	-	-	

Table N.2 - Call termination on the largest alternative network

#### Notes:

FYROM: The operator submitted interconnection agreements to the Agency but data are strictly confidential.

Albania: Some alternative operators charge only double or single termination, and some other operators have agreed same termination rates as Albtelecom termination rates. Mobile to fixed and fixed to fixed termination charges are the same, although mobile operators have chosen to interconnect at high level of fixed networks or in most cases interconnect with alternative operators through Albtelcom and pay double tandem termination.

Bosnia & Herzegovina: Company ANEKS d.o.o. Banja Luka is the largest alternative operator in BiH.

Macedonia: Double transit is not available, because of the hierarchy structure of fixed alternative operator's network

Serbia: Tariffs are given for Telenor Kosovo: Calls to IPKO fixed network

Figure 63, Figure 64 and Figure 65 show the fixed call termination rates on the incumbent and alternative networks at local, single transit and double transit level, respectively, in comparison with the EU-27 average values for incumbent operators according to the 15<sup>th</sup> Implementation Report.

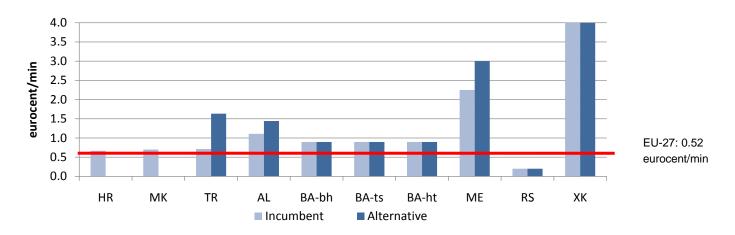


Figure 63 - Local call termination on the fixed incumbent and alternative network (peak hours)

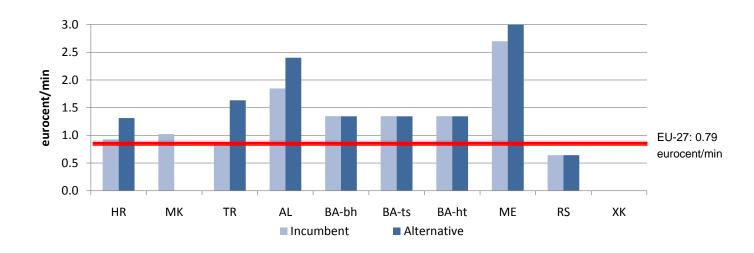


Figure 64 - Single transit call termination on the fixed incumbent and alternative network (peak hours)

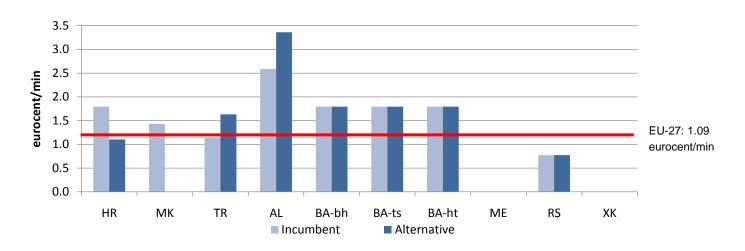


Figure 65 - Double transit call termination on the fixed incumbent and alternative network (peak hours)

## 2. Call termination on mobile networks – all mobile operators

Table N.3 below presents the termination rates of the mobile operators for all countries where this information is available.

Country	Operator	P	Peak, €		Off-peak, €	
		Setup	Per min	Setup	Per min	
Croatia	T-Mobile Hrvatska	0.0000	0.0774	0.0000	0.0774	
	VIPnet	0.0000	0.0774	0.0000	0.0774	
	Tele2	0.0000	0.1006	0.0000	0.1006	
FYROM	T-Mobile	0.0000	0.0520	0.0000	0.0520	
	Cosmofon	0.0000	0.0585	0.0000	0.0585	
	VIP Operator	0.0000	0.0878	0.0000	0.0878	
Turkey	Turkcell	0.0000	0.0160	0.0000	0.0160	
	Vodafone	0.0000	0.0165	0.0000	0.0165	
	Avea	0.0000	0.0189	0.0000	0.0189	

Country	Operator	Р	Peak, €		Off-peak, €	
		Setup	Per min	Setup	Per min	
Albania	AMC	0.0024	0.0776	0.0023	0.0776	
	Vodafone Albania	0.0024	0.0776	0.0023	0.0776	
	Eagle Mobile	0.0029	0.0955	0.0029	0.0955	
Bosnia & Herzegovina	BH Telecom	0.0000	0.0920	0.0000	0.0920	
	Telekom Srpske	0.0000	0.0920	0.0000	0.0920	
	HT Mostar (Eronet)	0.0000	0.0920	0.0000	0.0920	
Montenegro	ProMonte	0.0000	0.1000	0.0000	0.1000	
	T-Mobile	0.0000	0.1000	0.0000	0.1000	
	m:tel	0.0000	0.1000	0.0000	0.1000	
Serbia	m:ts	0.0031	0.0586	0.0031	0.0586	
	Telenor	0.0031	0.0586	0.0031	0.0586	
	Vip mobile	0.0031	0.0586	0.0031	0.0586	
Kosovo (UNSCR 1244)	Vala	0.0000	0.0400	0.0000	0.0240	
	Ipko	0.0000	0.0400	0.0000	0.0240	

Table N.3 - Call termination on all mobile networks

Notes:

FYROM: The operator submitted interconnection agreements to the Agency but data are strictly confidential. Prices are based on Bottom up LRIC + model and will be

implemented from Sep. 1, 2010 with glide path to 2013.

Turkey: Termination rates, approved by ICTA, apply from April 1, 2010.

No peak / off peak price differentiation

Albania: Based on AKEP decision of July 23, 2010 starting form Nov. 1, 2010 charges for international incoming calls are to be set on a commercial basis (until Oct. 31, 2010

tariffs are the same as for termination of national calls)

Serbia: CI estimates. The interconnection agreements between mobile operators are confidential.

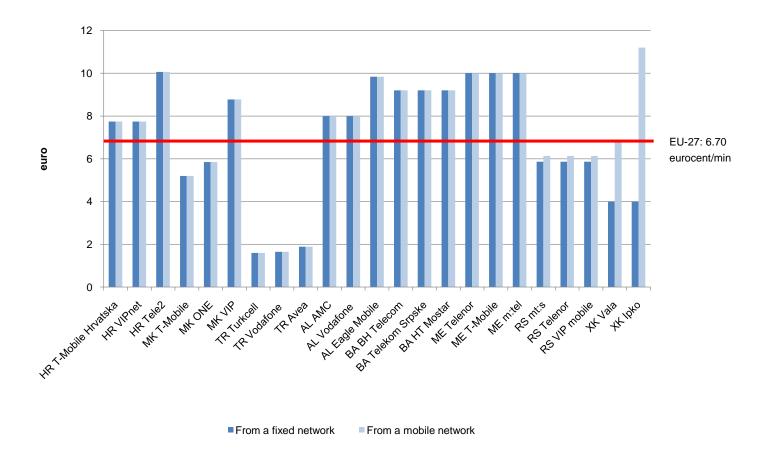


Figure 66 - Mobile termination rates, peak time

#### 3. LLU charges

Figure 67 and Figure 68 below compare the one-off connection charges and monthly rental prices for full and shared LLU access in the three monitored countries and the EU-27 averages according to the 15<sup>th</sup> Implementation report.

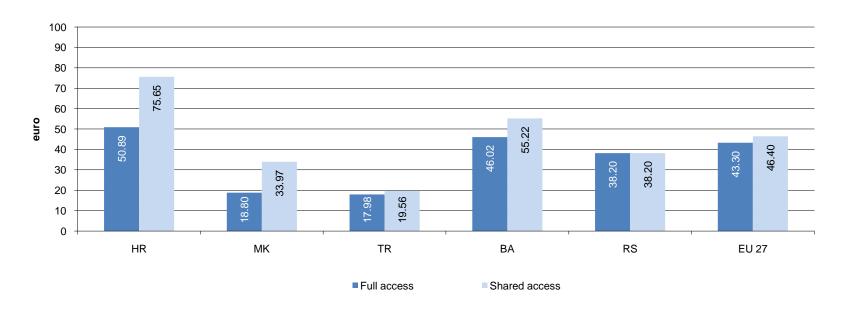


Figure 67 - Connection prices for fully unbundled loop and shared access

Notes:

FYROM: The connection prices as set per a block of 10 loops with physical collocation.

Serbia:

Bosnia & Herzegovina: The same connection charges are applied by the three incumbent operators: BH Telecom, Telekom Srpske and HT Mostar. RUOs are in force from Jan. 1, 2010. On June 4, 2010 the NRA ruled on interconnection, LLU and infrastructure access conditions between Telenor and Telekom Srbija where it also set LLU charges.

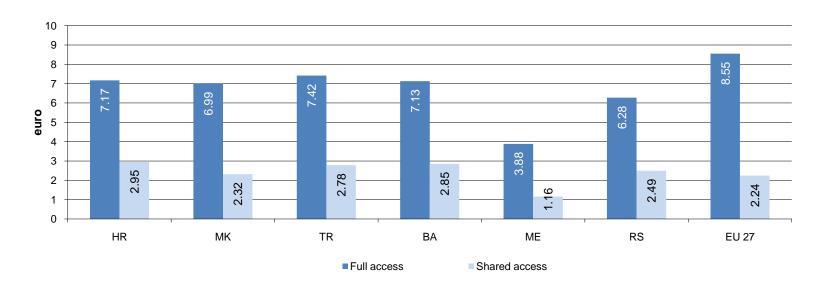


Figure 68 - Monthly rental prices for fully unbundled loop and shared access

Notes:

Croatia:

From Oct.1, 2010 the monthly fee for shared access was further reduced to HRK 18.17 (€2.47)

Serbia:

Montenegro:

Bosnia & Herzegovina: The same monthly charges are applied by the three incumbent operators: BH Telecom, Telekom Srpske and HT Mostar. RUOs are in force from Jan. 1, 2010. On June 4, 2010 the NRA ruled on interconnection, LLU and infrastructure access conditions between Telenor and Telekom Srbija where it also set LLU charges The charges are according to EKIP proposals in draft analysis of M4/2007 published for consultation between May 25 and July 25, 2010 (proposals only include monthly fees).

#### O. Information society legislation and policy

#### 1. Information society legislation

The following table lists the titles and sources of the relevant legislation on information society topics. The first two columns provide the title of the law or ordinance in the original language and in English translation and the third column references to the official gazette number of the original version and later amendments (eventually only the last amendment or amendments relevant in the context of this study). Links are provided if texts are available online in original language or English translation.

The scope of the covered primary legislation includes:

- law on electronic communications (or law on telecommunications) and special laws on certain topics of electronic communications regulation, such as law on universal service, law on digital switchover, law on wireless communications, law on data retention etc.;
- laws on broadcasting or electronic media, law on the public service broadcaster;
- law on competition;
- laws on electronic signature, e-commerce and electronic documents;
- law on data protection;
- the Criminal Code;
- other laws relevant for the sector (for example Law on the information society services, laws containing special provisions for internet service providers etc.) or other laws that are referred to in other tables of this study.

With regard to secondary legislation, contributing authorities were asked to include the most important items of secondary legislation, in particular on the following topics (if these topics are addressed by secondary legislation and not by individual decisions of the NRA):

- network access and interconnection, joint use of infrastructure;
- authorisation and licensing framework (including most relevant provisions on fees);
- universal service;
- tariff regulation;
- data protection in electronic communications, network security; and
- other secondary legislation that the contributing authorities referred to in other tables of the questionnaire.

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
Croatia	Zakon o elektroničkim komunikacijama	Electronic Communications Act	(OG 73/08) http://narodne- novine.nn.hr/clanci/sluzbeni/340018.html
	Pravilnik o namjeni radiofrekvencijskog spektra	Ordinance on Radio Frequency Spectrum Allocation	(OG 136/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_11_136_3838.html (OG 17/10) http://narodne-novine.nn.hr/clanci/sluzbeni/2010_02_17_409.html
	Pravilnik o uvjetima dodjele i uporabe radiofrekvencijskog spektra	Ordinance on Conditions of Assignment and Use of Radio Frequency Spectrum	(OG 136/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_11_136_3839.html
	Pravilnik o prelasku s analognog na digitalno odašiljanje radijskih i televizijskih programa te pristupu položajima u multipleksu u zemaljskoj digitalnoj radiodifuziji	Ordinance on Transition from Analogue to Digital Broadcasting of Radio and Television Programmes and Access to Multiplex Positions in Digital Terrestrial Broadcasting	(OG 148/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_148_4074.html
	Pravilnik o plaćanju naknada za pravo uporabe adresa, brojeva i radiofrekvencijskog spektra	Ordinance on Payment of Fees for Right to Use Addresses, Numbers and Radio Frequency Spectrum	(OG 154/08, 28/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4201.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_28_642.html
	Pravilnik o plaćanju naknada za obavljanje poslova Hrvatske agencije za poštu i elektroničke komunikacije	Ordinance on Payment of Fees for Carrying Out of Tasks of the Croatian Post and Electronic Communications Agency	(OG 158/09) http://narodne- novine.nn.hr/clanci/sluzbeni/2009_12_158_3945.html
	Pravilnik o dodjeli adresa i brojeva	Ordinance on Addressing and Numbering	(OG 154/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4203.html
	Pravilnik o načinu i uvjetima obavljanja djelatnosti elektroničkih komunikacijskih mreža i usluga	Ordinance on Manner and Conditions for Provision of Electronic Communications Networks and Services	(OG 154/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4202.html
	Pravilnik o načinu i uvjetima pristupa i zajedničkog korištenja elektroničke komunikacijske infrastrukture i povezane opreme	Ordinance on Manner and Conditions of Access and Shared Use of Electronic Communications Infrastructure and Associated Facilities	(OG 154/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_12_154_4203.html (OG 93/10) http://narodne-novine.nn.hr/clanci/sluzbeni/2010_07_93_2613.html
	Pravilnik o načinu rada unutarnje ustrojstvene jedinice za zaštitu prava korisnika	Ordinance on Functioning of the Internal Customer Protection Unit	(OG 10/09, 154/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_01_10_239.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_12_154_3790.html
	Pravilnik o univerzalnim uslugama u elektroničkim komunikacijama	Ordinance on Universal Services in Electronic Communications	(OG 23/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_02_23_516.html
	Pravilnik o imeniku i službi davanja obavijesti o pretplatnicima	Ordinance on Directory and Directory Enquiry Service	(OG 23/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_02_23_517.html
	Pravilnik o potvrdi i naknadi za pravo puta	Ordinance on Right-of-Way Certificate and Payment of Fees for Right of Way	(OG 31/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_31_699.html

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Pravilnik o standardnim ponudama	Ordinance on Reference Offers	(OG 37/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_37_829.html
	Pravilnik o prenosivosti broja	Ordinance on Number Portability	(OG 42/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_04_42_954.html
	Pravilnik o načinu i uvjetima određivanja zone elektroničke komunikacijske infrastrukture i povezane opreme, zaštitne zone i radijskog koridora te obveze investitora radova ili građevine	Ordinance on Manner and Conditions for Determination of Zone of Electronic Communications Infrastructure and Associated Facilities, of Protection Zone and Radio Corridor, and of Obligation of Construction Work or Building Investor	(OG 42/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_04_42_953.html
	Pravilnik o načinu i uvjetima sprječavanja i suzbijanja zlouporaba i prijevara u pružanju usluga elektroničke pošte	Ordinance on Manner and Conditions for Prevention and Suppression of Abuse and Fraud in Provision of Electronic Mail Services	(OG 42/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_04_42_952.html
	Pravilnik o amaterskim radijskim komunikacijama	Ordinance on Amateur Radio Communications	(OG 61/09, 92/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_05_61_1412.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_07_92_2330.html
	Pravilnik o jedinstvenom europskom broju za hitne službe	Ordinance on Single European Emergency Call Number	(OG 82/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_07_82_1992.html
	Pravilnik o tehničkim uvjetima za elektroničku komunikacijsku mrežu poslovnih i stambenih zgrada	Ordinance on Technical Requirements for Electronic Communications Network in Office and Residential Buildings	(OG 155/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_12_155_3833.html
	Pravilnik o elektromagnetskoj kompatibilnosti (EMC)	Ordinance on Electromagnetic Compatibility (EMC)	(OG 112/08, 5/10) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_10_112_3262.html http://narodne-novine.nn.hr/clanci/sluzbeni/2010_01_5_127.html
	Pravilnik o radijskoj opremi i telekomunikacijskoj terminalnoj opremi	Ordinance on Radio Equipment and Telecommunications Terminal Equipment	(OG 112/08) http://narodne- novine.nn.hr/clanci/sluzbeni/2008_10_112_3263.html
	Pravilnik o uvjetima uporabe norme za kodiranje digitalnog televizijskog signala u zemaljskim radiodifuzijskim sustavima	Ordinance on Conditions of Use of Encoding Standard for Digital Television Signal in Terrestrial Broadcasting Systems	(OG 73/07) http://narodne- novine.nn.hr/clanci/sluzbeni/2007_07_73_2291.html
	Pravilnik o ograničenjima jakosti elektromagnetskih polja za radijsku opremu i telekomunikacijsku terminalnu opremu	Ordinance on Limitations in Intensity of Electromagnetic Fields for Radio Equipment and Telecommunications Terminal Equipment	(OG 183/04) http://narodne-novine.nn.hr/clanci/sluzbeni/2004_12_183_3160.html
	Zakon o medijima	Media Act	OG 153/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2009_12_153_3740.html

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o elektroničkim medijima	Electronic Media Act	OG 122/03, 79/07, 32/08, 65/09) http://www.nn.hr/clanci/sluzbeno/2003/1729.htm http://www.nn.hr/clanci/sluzbeno/2007/2493.htm http://www.nn.hr/clanci/sluzbeno/2008/1032.htm http://narodne- novine.nn.hr/clanci/sluzbeni/2009_06_65_1460.html
	Zakon o Hrvatskoj radioteleviziji	Croatian Radiotelevision Act	(OG 25/03) http://www.nn.hr/clanci/sluzbeno/2003/0362.htm
	Zakon o Hrvatskoj izvještajnoj novinskoj agenciji	Croatian News Agency Act	(OG 96/01) http://www.nn.hr/clanci/sluzbeno/2001/1612.htm
	Zakon o potvrđivanju Europske konvencije o prekograničnoj televiziji i Protokola o izmjenama Europske konvencije o prekograničnoj televiziji	Act on Confirmation of the European Convention On Transfrontier Television and the Protocol Amending the European Convention On Transfrontier Television	(OG – IA 11/01) http://narodne-novine.nn.hr/clanci/medunarodni/328037.html
	Zakon o elektroničkom potpisu	Electronic Signature Act	(OG 10/02, 80/08) http://narodne- novine.nn.hr/clanci/sluzbeni/2002_01_10_242.html http://narodne- novine.nn.hr/clanci/sluzbeni/2008_07_80_2604.html
	Pravilnik o evidenciji davatelja usluga certificiranja elektroničkog potpisa	Ordinance on the Records of Certification Authorities for Electronic Signatures	(OG 54/02, 112/07) http://narodne-novine.nn.hr/clanci/sluzbeni/2002_05_54_1021.html http://narodne-novine.nn.hr/clanci/sluzbeni/2007_10_112_3313.html
	Pravilnik o registru davatelja usluga certificiranja elektroničkih potpisa koji izdaju kvalificirane certifikate	Ordinance on the Register of Qualified Certification Authorities for Electronic Signatures	(OG 54/02) http://narodne-novine.nn.hr/clanci/sluzbeni/2002_05_54_1022.html
	Pravilnik o mjerama i postupcima uporabe i zaštite elektroničkog potpisa i naprednog elektroničkog potpisa, sredstava za izradu elektroničkog potpisa, naprednog elektroničkog potpisa i sustava certificiranja i obveznog osiguranja davatelja usluga izdavanja kvalificiranih certifikata	Ordinance on the Measures and procedures for the Use and Protection of Electronic Signature and Advanced Electronic Signature, Electronic Signature and Advanced Electronic Signature Development Tools and Certification System and Obligatory Insurance for Certification Authorities Issuing Qualified Certificates	(OG 54/02) http://narodne-novine.nn.hr/clanci/sluzbeni/2002_05_54_1023.html
	Pravilnik o mjerama i postupcima uporabe i zaštite elektroničkog potpisa i naprednog elektroničkog potpisa, sredstava za izradu elektroničkog potpisa, naprednog elektroničkog potpisa i sustava certificiranja i obveznog osiguranja davatelja usluga izdavanja kvalificiranih certifikata	Ordinance on the Measures and procedures for the Use and Protection of Electronic Signature and Advanced Electronic Signature, Electronic Signature and Advanced Electronic Signature Development Tools and Certification System and Obligatory Insurance for Certification Authorities Issuing Qualified Certificates	(OG 54/02) http://narodne-novine.nn.hr/clanci/sluzbeni/2002_05_54_1023.html

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Pravilnik o tehničkim pravilima i uvjetima povezivanja sustava certificiranja elektroničkih potpisa	Ordinance on the Technical Rules and Conditions for Linking Certifying Systems for Electronic Signatures	(OG 89/02) http://narodne- novine.nn.hr/clanci/sluzbeni/2002_07_89_1472.html
	Uredba o djelokrugu, sadržaju i nositelju poslova certificiranja elektroničkih potpisa za tijela državne uprave	Regulation on the Scope of Operations, Content and Responsible Authority for Operations of Electronic Signature Certification for State Administration Bodies	(OG 146/04) http://narodne- novine.nn.hr/clanci/sluzbeni/2004_10_146_2554.html
	Zakon o elektroničkoj trgovini	Electronic Commerce Act	(OG 173/03, 67/08, 36/09) http://narodne- novine.nn.hr/clanci/sluzbeni/2003_10_173_2504.html http://narodne- novine.nn.hr/clanci/sluzbeni/2008_06_67_2228.html http://narodne- novine.nn.hr/clanci/sluzbeni/2009_03_36_796.html
	Zakon o elektroničkoj ispravi	Electronic Document Act	(OG 150/05) http://www.nn.hr/clanci/sluzbeno/2005/2898.htm
	Zakon o zaštiti osobnih podataka	Personal Data Protection Act	(OG 103/03, 118/06, 41/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2003_06_103_1364.html http://narodne-novine.nn.hr/clanci/sluzbeni/2006_11_118_2616.html http://narodne-novine.nn.hr/clanci/sluzbeni/2008_04_41_1381.html
	Uredba o načinu pohranjivanja i posebnim mjerama tehničke zaštite posebnih kategorija osobnih podataka	Regulation on the Procedure for Storage and Special Measures Relating to the Technical Protection of Special Categories of Personal Data	(OG 139/04) http://narodne-novine.nn.hr/clanci/sluzbeni/2004_10_139_2433.html
	Zakon o informacijskoj sigurnosti	Information Security Act	(OG 79/2007) http://narodne- novine.nn.hr/clanci/sluzbeni/2007_07_79_2484.html
	Uredba o mjerama informacijske sigurnost	Regulation on Information Security Measures	(OG 46/08) http://narodne-novine.nn.hr/clanci/sluzbeni/2008_04_46_1547.html
	Uredba o obvezama iz područja nacionalne sigurnosti Republike Hrvatske za pravne i fizičke osobe u telekomunikacijama	Regulation on the Obligations in the Area of National Security of the Republic of Croatia for Legal and Natural Persons in Telecommunications	(OG 64/08) http://narodne- novine.nn.hr/clanci/sluzbeni/2008_06_64_2178.html
	Uredba o sigurnosnoj provjeri za pristup klasificiranim podacima	Regulation on the Safety Check for the Access to Classified Data	(OG 72/07) http://narodne- novine.nn.hr/clanci/sluzbeni/2007_07_72_2237.html
	Zakon o tajnosti podataka	Data Secrecy Act	(OG 79/2007) http://narodne-novine.nn.hr/clanci/sluzbeni/2007_07_79_2483.html

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o pravu na pristup informacijama	Right to Information Access Act	(OG 172/03) http://narodne- novine.nn.hr/clanci/sluzbeni/2003_10_172_2491.html
	Pravilnik o ustroju, sadržaju i načinu vođenja službenog upisnika u ostvarivanju prava na pristup informacijama	Ordinance on the Organisation, Contents and Manner of Keeping Official Register on Obtaining Rights to Information Access)	(OG 137/04) http://narodne-novine.nn.hr/clanci/sluzbeni/2004_10_137_2418.html
	Zakon o potvrđivanju Konvencije o kibernetičkom kriminalu	Act on Confirmation of the Convention on Cybercrime	(OG - IA 9/02) http://narodne- novine.nn.hr/clanci/medunarodni/327873.html
	Kazneni zakon	Criminal Code	(OG 110/97, 27/98, 50/00, 129/00, 51/01, 11/03, 190/03, 105/04, 71/06, 110/07, 152/07) http://narodne-novine.nn.hr/clanci/sluzbeni/1997_10_110_1668.html http://narodne-novine.nn.hr/clanci/sluzbeni/1998_02_27_333.html http://narodne-novine.nn.hr/clanci/sluzbeni/2000_12_129_2385.html http://narodne-novine.nn.hr/clanci/sluzbeni/2001_06_51_816.html http://narodne-novine.nn.hr/clanci/sluzbeni/2003_12_190_2986.html http://narodne-novine.nn.hr/clanci/sluzbeni/2004_07_105_2026.html http://narodne-novine.nn.hr/clanci/sluzbeni/2006_06_71_1706.html http://narodne-novine.nn.hr/clanci/sluzbeni/2007_10_110_3227.html
	Zakon o autorskom pravu i srodnim pravima	Copyright an Related Rights Act	(OG 167/03, 79/07) http://narodne- novine.nn.hr/clanci/sluzbeni/2003_10_167_2399.html http://narodne- novine.nn.hr/clanci/sluzbeni/2007_07_79_2491.html
	Zakon o zaštiti topografija poluvodičkih proizvoda	Act on the Protection of Topographies of Semiconductor Products	(OG 173/03, 76/07, 30/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2003_10_173_2497.html http://narodne-novine.nn.hr/clanci/sluzbeni/2007_07_76_2412.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_30_656.html

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o patentu	Patent Act	(OG 173/03, 87/05, 76/07, 30/09) http://narodne-novine.nn.hr/clanci/sluzbeni/2003_10_173_2494.html http://narodne-novine.nn.hr/clanci/sluzbeni/2005_07_87_1710.html http://narodne-novine.nn.hr/clanci/sluzbeni/2007_07_76_2409.html http://narodne-novine.nn.hr/clanci/sluzbeni/2009_03_30_654.html
	Zakon o tehničkim zahtjevima za proizvode i ocjeni sukladnosti	Act on Technical Requirements for Products and on Technical Requirements	(OG 20/10) http://narodne- novine.nn.hr/clanci/sluzbeni/2010_02_20_485.html/298927.htm l
	Uredba o postupcima službenog obavješćivanja u području norma, tehničkih propisa, te propisa o uslugama informacijskog društva	Regulation on procedures for the provision on notification in the field of standards, technical regulations and conformity assessment procedures and of regulations on information society services	(OG 28/09) http://narodne- novine.nn.hr/clanci/sluzbeni/2009_03_28_600.html
FYROM	Zakon za elektronski komunikacii http://aec.mk/index.php?option=com_content&view= category&id=77%3Azakon-za-elektrosnkite- komunikacii&Itemid=66&layout=default⟨=mk	Law on electronic communications http://aec.mk/index.php?option=com_content&view =category&id=77%3Azakon-za-elektrosnkite- komunikacii&Itemid=66&layout=default⟨=en	13/2005, 14/2007, 55/2007, 98/2008 and 83/2010
	Zakon za radiodifuzna dejnost http://aec.mk/index.php?option=com_content&view= article&id=204%3A2009-03-25-11-18- 01&catid=91%3Adrugi-zakonski- akti&Itemid=78⟨=mk	Broadcasting Law	100/2005, 19/2007 and 103/2008
	Zakon za zashtita na konkurencijata http://www.kzk.gov.mk/mak/law.asp	Law on competition http://www.kzk.gov.mk/eng/law.asp	04/2005, 70/2006 and 22/2007
	Zakon za zashtita na lichnite podatoci http://www.dzlp.mk/files/uploads/global/ZZLP_Precis ten%20tekst.pdf	Law on private data protection	12/1994, 4/2002 and 07/2005
	Zakon za elektronska trgovija http://www.mio.gov.mk/files/pdf/dokumenti/elektrons ka_trgovija_133_02112007.pdf	Law on electronic commerce http://www.mio.gov.mk/files/pdf/na_angliski/Law_on _%20e-Commerce_2007_REV_final.pdf	133/2007
	Zakon za pravna zashtita na uslugite koi se zasnovaat na ili opfakaat usloven pristap http://www.itu.int/ITU-D/tech/digital-broadcasting/Bulgaria_Assistance_Transition/Maced onia/Zakon_za_Pravna_zashtita_127_09102008.pdf	Law on legal protection of services that are based on or concern conditional access	127/2008

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon za podatoci vo elektronski oblik I elektronski potpies http://ca.kibs.com.mk/Repository/Repository/ZakonZaPodatociVoElektronskiOblikIElektronskiOblik.pdf	Law on data in electronic form and electronic signatures	34/2001, 06/2002 and 98/2008
	Krivichen zakon na Republika Makedonija http://www.jorm.org.mk/zakon-krivicen.shtml	Crime Code of the Republic of Macedonia	37/1996, 7/2008, 139/2008
	Zakon za sledenje na komunikacii http://www.mvr.gov.mk/DesktopDefault.aspx?tabind ex=0&tabid=266	Law on interception of communications http://mio.gov.mk/files/pdf/na_angliski/Law_on_Inter ception_of_Comunications_%21.pdf	121/2006, 110/2008, 05/2009
	Zakon za avtorskoto pravo I srodnite prava www.mlrc.org.mk/ <b>zakon</b> i/Z1996039.htm	Law on copyright and related rights	47/96, 3/98, 98/02, 4/05, 23/05,131/07
	Zakon za sloboden pristap do informacii od javen karakter http://www.stat.gov.mk/pdf/SlobodenPristapDoInfor macii/zakon_za_informacii.pdf	Law of free access to information of public character	13/2006
	Zakon za elektronsko upravuvanje http://www.mio.gov.mk/?q=node/217	Law on electronic management http://www.mio.gov.mk/files/pdf/na_angliski/Law_on _Electronic_Management.pdf	105/2009
	Pravilnik za tehnicki i organizaciski merki za obezbeduvanje na tajnost i zastita vo obrabotkata na licni podatoci	Rulebook for technical and organisational measures for providing secrecy and protection of personal data processing	38/2009
Turkey	5809 Sayılı Elektronik Haberleşme Kanunu http://www.tk.gov.tr/Duzenlemeler/Hukuki/Kanunlar/2 008/elektronik_haberlesme_kanunu.htm	Electronic Communications Law http://www.btk.gov.tr/doc/5809english.doc	Official Gazette 27050 dated 10.11.2008 (not amended)
	5070 sayılı Elektronik İmza Kanunu http://www.tk.gov.tr/eimza/eimza_yasasi.htm	Electronic Signature Law http://www.tk.gov.tr/eng/pdf/Electronic_Signature_L aw.pdf	Official Gazette 25355 dated 23.01.2004 (not amended)
	5651 Sayılı İnternet Ortamında Yapılan Yayınların Düzenlenmesi ve Bu Yayınlar Yoluyla İşlenen Suçlarla Mücadele Edilmesi Hakkında Kanun http://www.tk.gov.tr/Duzenlemeler/Hukuki/Kanunlar/2 007/internetsuclari.pdf	Law No 5651 On Regulating Broadcast in Internet and Combating Crimes Committed Through Such Broadcast	Official Gazette 26530 dated 23.05.2007 (not amended)
	5237 sayılı Türk Ceza Kanunu	Turkish Criminal Code	Official Gazette 25611 dated 12.10.2004
	4054 sayılı Rekabetin Korunması Hakkında Kanun	Law on The Protection Of Competition http://www.rekabet.gov.tr/index.php?Sayfa=sayfaice rik&icId=165	Official Gazette 22140 dated 13.12.1994 last amendment by Law no. 5728, dated 08.02.2008, Official Gazette 26781

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	5369 sayılı Evrensel Hizmet Kanunu http://www.mevzuat.adalet.gov.tr/html/1506.html	Universal Service Law http://www.tk.gov.tr/eng/pdf/5369.pdf	Official Gazette 25856 dated 25.06.2005 last amendment by Law no. 5809, Official Gazette 27050 dated 10.11.2008
	4982 sayılı Bilgi Edinme Hakkı Kanunu http://rega.basbakanlik.gov.tr/eskiler/2003/10/20031 024.htm#1	Freedom of Information Act	Official Gazette 25269 dated 24.10.2003
	3984 sayılı Radyo ve Televizyonların Kuruluş ve Yayınları Hakkında Kanun	Law on Establishment and Broadcasting of Television Enterprises	Official Gazette 21911 dated 20.04.1994, last amendment by Law no. 5785, dated 10.07.2008
	2954 sayılı Türkiye Radyo ve Televizyon Kanunu	Law on Turkish Radio and Television Corporation	Official Gazette 18221 dated 14.11.1983, last amendment by Law no. 5767, Official Gazette 26918 dated 26.06.2008
	4822 sayılı Tüketicinin Korunması Hakkında Değişiklik Yapılmasına Dair Kanun http://rega.basbakanlik.gov.tr/eskiler/2003/03/20030 314.htm#1	Law amending the Law on Protection of Consumers (articles provided for the distance contracts)	Official Gazette 25048 dated 14.03.2003
	Fikir ve Sanat Eserleri Kanunu	Law on Intellectual and Artistics Works	Official Gazette 7981 dated 13.12.1951, last amendment by Law No: 5571, 28.12.2006
	Telekomünikasyon Sektöründe Kişisel Verilerin İşlenmesi ve Gizliliğinin Korunmasına Dair Yönetmelik http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/Yonetmelikler.htm	Bylaw on Processing of Personal Data and Protection of Privacy in The Telecommunications Sector http://www.tk.gov.tr/eng/pdf/data_protection.pdf	Official Gazette 25365 dated 06.02.2004 (in the revision process)
	Elektronik Haberleşme Sektöründe Tüketici Hakları Yönetmeliği - http://www.btk.gov.tr/Duzenlemeler/Hukuki/yonetmeli kler/2010/tuketici-haklari.pdf	Bylaw On The Consumer Rights in The Telecommunications Sector	Official Gazette 25678 dated 22.12.2004 last amended by Official Gazette 27655 dated 28.07.2010
	Telekomünikasyon Hizmetlerinin Yürütülmesinde Geçiş Hakkına İlişkin Yönetmelik http://www.btk.gov.tr/Duzenlemeler/Hukuki/yonetmeli kler/2010/ehhyghdy.htm	Bylaw Regarding The Rights Of Way In Execution Of Telecommunication Services http://www.tk.gov.tr/eng/pdf/regulation_on_the_right s_of_way.pdf	Official Gazette 26156 dated 02.05.2006 last amended by Official Gazette 27482 dated 03.02.2010
	Erişim ve Arabağlantı Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/erisimvearabaglanti.pdf	Bylaw on Access and Interconnection http://www.tk.gov.tr/pdf/ordinance_access_interconnection.pdf	Official Gazette 26552 dated 14.06.2007, last amendment Official Gazette 27343 dated 08.09.2009
	Numara Taşınabilirliği Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/nty.pdf	Bylaw on Number Portability http://www.tk.gov.tr/eng/doc/NT_ordinance_ing.doc	Official Gazette 26421 dated 01.02.2007, last amendment Official Gazette 27276 dated 02.07.2009

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Elektronik Haberleşme Güvenliği Yönetmeliği / Elektronik Haberleşme Güvenliği Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2008/elektronikhaberlesmeguvenligi.pdf http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/EHGY_YD_020309.pdf	Bylaw Amending By-law on Security of Electronic Communications	Official Gazette 26942 dated 20.07.2008, last amendment Official Gazette 27157 dated 02.03.2009
	İşletmecilere ait Ticari Sırların Korunması ile Kamuoyuna Açıklanabilecek Bilgilerin Yayımlanmasına İlişkin Usul ve Esaslar Hakkında Yönetmelik http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/ticari-sirlarin-korunmasi.pdf	Bylaw On Protection Of Operators' Trade Secrets And Publication Of Publicly Available Information http://www.btk.gov.tr/eng/pdf/2009/ordinance_on_tr ade_secrets.pdf	Official Gazette 27241 dated 28.05.2009
	Elektronik Kimlik Bilgisini Haiz Cihazlara Dair Yönetmelik http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/ekbhcdy.htm	Bylaw on the Devices with Electronic Identity http://www.tk.gov.tr/eng/pdf/regulation_amending.pdf	Official Gazette 27271 dated 27.06.2009
	Spektrum Yönetimi Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/spektrumyonetmeligi.pdf	Bylaw on Spectrum Management http://www.btk.gov.tr/eng/doc/byLaw-on-SM.doc	Official Gazette 27276 dated 02.07.2009
	Tarife Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/Yonetmelikler.htm	Bylaw on Tariff http://www.tk.gov.tr/pdf/TARIFF_ORDINANCE.pdf	Official Gazette 24507 dated 28.08.2001 (in the revision process)
	Telekomünikasyon Sektöründe Hizmet Kalitesi Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2010/Telekomunikasyon-Sektorunde-Hizmet- Kalitesi-Yonetmeligi.pdf	Bylaw on the quality of service in the telecommunications sector http://www.tk.gov.tr/eng/pdf/Ordinance%20On%20 Quality%20Of%20Service%20In%20The%20Telecommunication%20Sector.pdf	Official Gazette 25744 dated 03.03.2005
	Elektronik Haberleşme Sektöründe Etkin Piyasa Gücüne Sahip İşletmeciler ile Bu İşletmecilere Getirilecek Yükümlülüklerin Belirlenmesi Hakkında Yönetmelik http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/EPG.doc	Bylaw on Principles and Procedures for Determination of the Operators with Significant Market Power http://www.tk.gov.tr/eng/pdf/EPG_engordinance.doc	Official Gazette 26396 dated 07.01.2007, last amendment Official Gazette 27336 dated 01.09.2009
	Elektronik Haberleşme Sektörüne İlişkin Yetkilendirme Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/2009/ehsiyy.pdf	Bylaw on Authorization for electronic Communications sector http://www.tk.gov.tr/eng/aoecs.html	Official Gazette 27241 dated 28.05 2009

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Numaralandırma Yönetmeliği http://www.tk.gov.tr/Duzenlemeler/Hukuki/yonetmelik ler/Yonetmelikler.htm	Bylaw on numbering http://www.tk.gov.tr/eng/Numbering_Regulation.pdf	Official Gazette 25385 dated 26.02.2004, last amendment Official Gazette 27271 dated 27.06.2009
	Elektronik Belge Standartları Konulu Başbakanlık Genelgesi	Prime Ministry Circular regarding the Electronic Documents Standards	Official Gazette 26938 dated 16.07.2008
	Kamu Sertifikasyon Merkezi Oluşturulması Konulu Başbakanlık Genelgesi	Prime Ministry Circular regarding Establishment of a Public Institutions Certification Centre	Official Gazette 25575 dated 6.09.2004
	Kamu Sertifikasyon Hizmetlerine İlişkin Usul ve Esaslar Hakkında Başbakanlık Genelgesi	Prime Ministry Circular on the procedures about Public Certification Services	Official Gazette 26144 dated 19.04.2006
	Kısa Mesafe Erişimli Telsiz Cihazları (KET) Yönetmeliği http://www.btk.gov.tr/Duzenlemeler/Hukuki/yonetmeli	Bylaw on Short Range Radio Devices (SRD) http://www.tk.gov.tr/eng/doc/ByLaw_SRD.pdf	Official Gazette 27572 dated 08.03.2010
	kler/2010/KET_yonetmeligi.pdf  Telekomünikasyon Sektöründe Hizmet Kalitesi Yönetmeliği http://www.btk.gov.tr/Duzenlemeler/Hukuki/yonetmeli kler/2010/ElektHaberSektHizmKalitesiYonetmeligi.ht m	Bylaw on the quality of service in the telecommunications sector	Official Gazette 27697dated 12.09.2010
	Elektronik Haberleşme Cihazlarına Güvenlik Sertifikası Düzenlenmesine İlişkin Yönetmelik http://www.btk.gov.tr/Duzenlemeler/Hukuki/yonetmeli kler/Yonetmelikler.htm	Regulation on Preparation the Safety Certificate for the Electronic Communication Equipment	Official Gazette 27230 dated 16.05.2009
	http://rega.basbakanlik.gov.tr/ is the website of the Off option from this website using the date and number of		legislation; the laws can be searched from the "Gelişmiş arama"
Albania	Ligj Nr. 9918 datë 19.05.2008 "Për komunikimet elektronike në Republikën e Shqipërisë"	Law no. 9918 dated 19.05.2008 on electronic communications	84/2008
	Ligji Nr.9880 datë 25.2.2008 "Per nenshkrimin elektronik"	Law no. 9880 dated 25.02.2008 on electronic signature on 25.2.2008	40/2008
	Ligji nr.9742 datë 28.05.2007 "Për transmetimet numerike në Republikën e Shqipërisë"	Law no. 9742 dated 28.05.2007 "On digital transmission in the Republic of Albania"	74/2007

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	Ligji nr. 8410 datë 30.09.1998 "Për Radion dhe Televizionin Publik e Privat ne Republiken e Shqiperise"	Law no. 8410 dated 30.09.1998 "On public and private radio and television in Republic of Albania" amended by law no. 8655 dated 31.07.2000,	24/1998
	ndryshuar me ligjin nr. 8655 date 31.07.2000, me ligjin nr. 8794 datë 10.05.2001, me ligjin nr. 9016 datë 20.02.2003, me ligjin nr. 9124 datë 29.07.2003, me ligjin nr. 9531 datë 11.05.2006,	amended by law no. 8794 dated 10.05.2001, amended by law no. 9016 dated 20.02.2003, amended by law no. 9124 dated 29.07.2003, amended by law no. 9531 dated 11.05.2006, amended by law no. 9584 dated 17.07.2006,	24/2000 34/2001 18/2003 71/2003 65/2006
	me ligjin nr. 9584 datë 17.07.2006, me ligjin nr. 9677 datë 13.01.2007, me ligjin nr. 9262 datë 21.07.2008	amended by law no. 9677 dated 13.01.2007, amended by law no. 9262 dated 21.07.2008	84/2006 2/2007 125/2008
	Ligji nr. 9121 datë 28.07.2003 "Per mbrojtjen e konkurrences" amenduar me Ligjin nr. 9499, date 03.04.2006, me Ligjin nr. 9584, date 17.07.2006	Law no. 9121 dated 28.07.2003 "On competition", amended by law no. 9499 dated 03.04.2006 and by law no. 9584 dated 17.07.2006.	71/2003, 37/2006 and 84/2006
	Ligji nr. 9887 datë 10.3.2008 "Per mbrojtjen e te dhenave personale"	Law no. 9887 dated 10.03.2008 "On personal data protection"	43/2008
	Ligji nr. 7895 datë 27.01.1995 "Kodi Penal" i ndryshuar Ligji nr. 9859 datë 21.01.2008, Ligji nr. 10023 datë 27.11.2008	Law no. 7895 dated 27.01.1995 "Criminal code", amendments on cybercrime by law no. 9859 dated 21.01.2008 and law no. 10023 dated 27.11.2008	2/1995 (original version) 10/2008 and 190/2008 (amendments on cybercrime) Other amendments not included
	Ligji nr. 10273 date 29.4.2010 "Per dokumentin elektronik"	Law no 10273 dated 29.4.2010 on electronic document	58/2010
	Ligji Nr.10128 datë 11.05.2009 "Per tregetine elektronike "	Law No.10128 dated 11.05.2009 on electronic commerce	85/2009
	VKM nr. 322, datë 5.5.2010 i Këshillit të Ministrave "Për Miratimin e Dokumentit të Politikave për Komunikimet Elektronike në Republikën e Shqipërisë"	Council of Ministers Decision no. 322 dated 05.05.2010 "On the approval of policy paper on electronic communications in Republic of Albania"	65/2010
	VKM nr. 479 datë 06.05.2009 "Per miratimin e Planit Kombetar te Frekuencave"	Council of Ministers Decision no. 479 dated 06.05.2009 "On the approval of National Frequencies Plan"	90/2009
	VKM nr. 59 datë 21.01.2009 "Per miratimin e Strategjise Ndersektoriale per Shoqerine e Informacionit"	Council of Ministers Decision no. 59 dated 21.01.2009 "Inter-sector strategy for the information society"	25/2009
	VKM nr. 525, datë 13.05.2009, "Per miratimin e Rregullores per Nenshkrimin Elektronik"	Council of Ministers Decision no. 525, dated 13.05.2009, "On approval of Regulation for Electronic Signature"	92/2009

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	Rregullore mbi analizen e tregut miratuar me vendimin e Keshillit Drejtues te AKEP-se nr. 747 te dates 17.07.2009	"Regulation on marked analyses", approved by the Governing Council of AKEP, decision no. 747 dt. 17.7.2009	www.akep.al
	Rregullore mbi Aksesin dhe Interkoneksionin miratuar me Vendim te Keshillit Drejtues te AKEP, nr.1300 date 14.06.2010	Regulation "On access and interconnection", approved by the Governing Council of AKEP, decision no. 1300 dated 14.6.2010	www.akep.al
	Rregullore mbi "Njoftimin e autorizimit te Pergjithshem" miratuar nga Keshilli Drejtues i AKEP, me vendimin nr.495 dt. 19.09.2008	Regulations "On general authorisation notification", approved by the Governing Council of AKEP, decision no. 495 dated 19.09.2009	www.akep.al
	Rregullore "Mbi pagesat për mibkqyrjen e tregut të komunikimeve elektronike"-miratuar me vendim te Keshillit Drejtues (VKD) nr. 1170, datë 19.02.2010	Regulation on market of electronic communication surveillance payment , approved by Decision of Governing Council of AKEP, no 1170 dated 19.2.2010	http://www.akep.al/images/stories/AKEP/legjislacioni/dokument et-pagesave/rregullore-nr-1170-dat-19022010-mbi-pagesat-për-mbikqyrjen1.pdf
	Rregullore "Mbi kushtet e përdorimit të frekuencave dhe kërkesat teknike për pajisjet radio që përdoren pa autorizim individual"-miratuar me VKD-ne nr. 1126, datë 08.01.2010	Regulation on conditions of usage of frequencies and technical requirements for radio equipments used without individual authorisations, approved by Decision of Governing Council of AKEP no 1126 dated 8.1.2010	http://www.akep.al/images/stories/AKEP/rregullore/rregullore-për-kushtet-e-përdorimit-të-frekuencave6.pdf
	Plani i Përdorimit të Radiofrekuncave-miratuar me VKD nr. 1255, datë 16.04.2010,	Usage plan of frequencies, approved by Decision of Governing Board no 1255, dated 16.4.2010	http://www.akep.al/sq/ppf
	"Rregullore për portabilitetin e numrit"- miratuar me VKD nr. 1219, datë 07.04.2010	Regulation on Number portability, approved by Decision of Governing Board no 1219 dated 7.4.2010	http://www.akep.al/images/stories/AKEP/publikime/vendim-nr-1219-datë-07-04-2010.pdf
Bosnia & Herzegovina	Zakon o komunikacijama http://www.mkt.gov.ba/bos/dokumenti/zakoni/?id=26 5	Law on Communications	31/03
	Zakon o dopunama Zakona o komunikacijama http://www.mkt.gov.ba/bos/dokumenti/zakoni/?id=14 65	Law on amendment of the Law on communication (related to legal interception)	75/06
	Zakon o izmjenama i dopunama Zakona o komunikacijama http://www.rak.ba/bih/index.php?uid=1269443180	Law on changes and amendments to the Law on communications (related to gender equality)	32/10
	Zakon o konkurenciji Bosne i Hercegovine http://www.bihkonk.gov.ba	Law on Competition http://www.bihkonk.gov.ba/en/	18/06, last amendment 76/07
	Zakon o zaštiti ličnih podataka http://www.azlp.gov.ba	Law on Protection Personal Data	49/06

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	Zakon o javnom radiotelevizijskom sistemu Bosne i Hercegovine http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01- rtvsist.pdf	Law on Broadcasting System BiH	78/05
	Zakon o javnom radiotelevizijskom servisu Bosne i Hercegovine http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01- rtvserv.pdf	Law on Broadcasting Service BiH	92/05
	Zakon o elektronskom potpisu http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01- elepot.pdf	Law on Electronic Signature	91/06
	Zakon o elektronskom pravnom i poslovnom prometu http://www.mkt.gov.ba/bos/dokumenti/zakoni/BS-01-elepravpot.pdf	Law on Electronic legal and business transactions	88/07
	Secondary legislation		
	Odluka o osnovama upotrebe e-Potpisa i pružanja usluiuga ovjeravanja http://www.mkt.gov.ba/dokumenti/zakoni	Decision of the bases of usage eSignature and providing certifications services	21/09
	Odluka o posebnim obavezama za fizičke i pravna osobe koje pružaju telekomunikacijske usluge, administriraju telekomunikacijske mreže i vrše telekomunikacijske djelatnosti u pogledu održavanja i održavanja kapaciteta koji će omogućiti ovlaštenim agencijama da vrše zakonito preretanje telekomunikacija, kao i kapacitetaza čuvanje i osiguravanje telekomunikacijskih podataka	Decision on special obligations of physical and legal persons providing telecommunications services, administrating telecommunications networks and carrying out telecommunications activities in terms of maintaining capacity that will allow authorised agencies to carry out legal interception and the capacity for retaining telecommunications data	104/06, 58/07
	Odluka o sastavu zajedničkog upravnog odbora za zakonito presretanje telekomunikacija i naćinu izvršavanja aktivnosti	Decision on the structure of the common supervision board for legal interception of telecommunications and the way of the implementation activity	58/07
	Pravilo o interkonekciji br. 16/2002 http://www.rak.ba/bs/legal/rules- codes/telecom/rules/default.aspx?cid=1403	Interconnection Rule http://www.rak.ba/en/legal/rules- codes/telecom/rules/default.aspx?cid=699	36/02
	Pravilo o pristupu izdvojenoj lokalnoj petlji br. 35/2008 http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=4934	Rule 35/2008 on unbundled access to the local loop http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=4975	54/08

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	Pravilo 20 o utvrđivanju graničnih cijena iznajmljenih linija u BiH http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=2927	Rule 20/2003 on determining ceiling prices for leased circuits in Bosnia and Herzegovina http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=2929	41/03, last amendment 105/08
	Pravilo 24/2005 o modelu rebalansa cijena govornih telefonskih usluga u BiH http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=3842	Rule 24/2005 on the model of tariff rebalance of voice telephone services in Bosnia and Herzegovina http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=3940	50/05, last amendment 105/08
	Pravilo o izmjenama i dopunama pravila o visini naknade za dozvolu za mrežnog operatora CRA Pravilo 15/2002 http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=5177	Rule on the amendment of the rule on the license fees for network operatorsCRA rule 15/2002 http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=5381	105/08
	Pravilo o izmjenama i dopunama pravila o visini naknade za dozvole za pružanje internet usluga CRA Pravilo 14/2002 http://www.rak.ba/bs/legal/rules-codes/telecom/rules/default.aspx?cid=5174	Rule on the amendment of the rule on the license fee for the provision of internet services - CRA rule 14/2002 http://www.rak.ba/en/legal/rules-codes/telecom/rules/default.aspx?cid=5380	105/08
Montenegro	Zakon o elektronskim komunikacijama http://www.gov.me/files/1227718289.pdf http://www.skupstina.me/cms/site_data/PREDLOZI/ PREDLOZI3/ZAKON%200%20DOPUNI%20ZAKON A%200%20ELEKTRONSKIM%20KOMUNIKACIJA MA.pdf	Law on electronic communications	50/08, 70/09
	Zakon o izmjenama i dopunama Zakona o elektronskim komunikacijama http://www.skupstina.me/cms/site_data/AKTI%2020 10-4/Zakon%200%20izmjenama%20i%20dopunama%2 0Zakona%20o%20elektronskim%20komunikacijama %20PDF.pdf	Law on amendments of Law on electronic communications	41/10. The amendments are related to the Law on electronic media.
	Zakon o elektronskom potpisu http://www.gov.me/files/1198662448.pdf	Law on electronic signature http://www.mid.gov.me/en/library/zakoni	55/03, 31/05, 41/10
	Zakon o izmjenama I dopunama Zakona o elektronskom potpisu http://www.skupstina.me/cms/site_data/IVANA/ZAK ONI/Zakona%20o%20elektronskom%20potpisu.pdf	Law on amendments of Law on electronic signature	41/10

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	Pravilnik o tehničkim pravilima i uslovima povezivanja sistema certifikovnja elektronskih potpisa http://www.mid.gov.me/biblioteka/pravilnici	Rulebook on technical rules and requisites for connecting electronic signature certification systems	25/05
	Pravilnik o mjerama upotrebe i zastite elektronskog potpisa, sredstava za izradu elektronskog potpisa i sistema certifikovanja http://www.mid.gov.me/biblioteka/pravilnici	Rulebook on measures and procedures for use and protection of electronic signature and certification system	25/05
	Pravilnik o evidenciji, registru i obaveznom osiguranju davalaca usluga certifikovanja http://www.mid.gov.me/biblioteka/pravilnici	Rulebook on records, register and compulsory insurance of certification service providers	25/05
	Zakon o elektronskoj trgovini http://www.gov.me/files/1198662564.pdf	Law on electronic commerce http://www.mid.gov.me/en/library/zakoni	80/04
	Zakon o izmjenama i dopunama Zakona o elektronskoj trgovini http://www.skupstina.me/cms/site_data/IVANA/ZAK ONI/ZAKON%20o%20elektronskoj%20trgovini%203 79.pdf	Law on amendments Law on electronic commerce	41/10
	Zakon o elektronskom dokumentu http://www.gov.me/files/1221489506.pdf	Law on electronic document	5/08
	Zakon o primjeni propisa kojima se uređuje zaštita prava intelektualne svojine http://www.pkcg.org/zakonodavstvo/intelektualna_svojina/dok_1.pdf	Law on application of legal acts for protection of intellectual property rights	45/05
	Zakon o medijima	Media Law	51/02, 56/04
	Zakon o elektronskim medijima http://www.skupstina.me/cms/site_data/AKTI%2020 10- 4/Zakon%20o%20elektronskim%20medijima%20PD F.pdf	Law on electronic media	41/10
	Zakon o javnim radio-difuznim servisima Crne Gore http://www.skupstina.me/cms/site_data/23_%20SAZ IV%20ZAKONI/ZAKON%20O%20JAVNIM%20RADI O-DIFUZNIM%20SERVISIMA%20CRNE%20GORE.pd f	Law on public broadcasting services of Montenegro	79/08
	Zakon o slobodnom pristupu informacijama	Law on free access to information	68/05

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o tajnosti podataka http://www.skupstina.me/cms/site_data/23_%20SAZ IV%20ZAKONI/ZAKON%20O%20TAJNOSTI%20P ODATAKA.pdf	Information Secrecy Law http://www.mup.gov.me/en/library/zakoni?pagerInde x=1&alphabet=lat	14/08
	Zakon o izmjenama i dopunama Zakona o tajnosti podataka http://www.skupstina.me/cms/site_data/IVANA/ZAK ONI/ZAKON%20o%20tajnosti%20podataka.pdf	Law on amendments of Information Secrecy Law	41/10
	Zakon o zastiti neobjavljenih podataka http://www.skupstina.me/cms/site_data/23_%20SAZ IV%20ZAKONI/ZAKON%20O%20ZA%C5%A0TITI% 20NEOBJAVLJENIH%20PODATAKA.pdf	Law on protection of unpublished data	16/07
	Zakon o izmjeni zakona o zastiti neobjavljenih podataka http://www.skupstina.me/cms/site_data/23_%20SAZ IV%20ZAKONI/ZAKON%20O%20IZMJENI%20ZAK ONA%20O%20ZA%C5%A0TITI%20NEOBJAVLJEN IH%20PODATAKA.pdf	Law on modification of law on protection of unpublished data	73/08
	Zakon o zaštiti podataka o ličnosti http://www.skupstina.me/cms/site_data/23_%20SAZ IV%20ZAKONI/ZAKON%20O%20ZA%C5%A0TITI% 20PODATAKA%20O%20LICNOSTI.pdf	Law on personal data protection	79/08
	Pravilnik o operatorskom pristupu i interkonekciji http://www.ekip.me/download/regulativa/pero/2009_ 79%20Pravinik%20o%20oprat%20pristupu%20i%20 interkonekciji.pdf	Rulebook on operational access and interconnection	79/09
	Zakon o potvrđivanju Konvencije o računarskom kriminalu http://www.skupstina.me/cms/site_data/novo/Zakon %20o%20potvrdjivanju%20Konvencije%20o%20rac unarskom%20kriminalu.pdf	Law on confirmation of Convention on Cyber crime	Off. Gazette of Montenegro – "International Contracts", 4/09
	Zakon o potvrđivanju dodatnog protokola uz Konvenciju o računarskom kriminalu http://www.skupstina.me/cms/site_data/novo/Zakon %200%20potvrdjivanju%20Dodatnog%20protokola %20uz%20Konvenciju%20o%20racunskom%20krim inalu%20koji%20se%20odnosi%20na%20kaznjavan je%20akata.pdf	Law on confirmation of additional protocol to the Convention on Cyber crime	Off. Gazette of Montenegro – "International Contracts", 4/09

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o dopunama Zakona o zaštiti podataka o ličnosti http://www.skupstina.me/cms/site_data/23_%20SAZ IV%20ZAKONI/ZAKON%20O%20ZA%C5%A0TITI% 20PODATAKA%20O%20LICNOSTI.pdf	Law on additions of Law on personal data protection	70/09
	Zakon o potvrđivanju dodatnog protokola uz Konvenciju o zaštiti lica u odnosu na automatsku obradu ličnih podataka u vezi sa nadzornim organima i prekograničnim protokom podataka http://www.skupstina.me/index.php?strana=zakoni&i d=530	Law on ratification of the Additional Protocol to the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, regarding supervisory authorities and transborder data flows	
	Zakon o informacionoj bezbjednosti http://www.skupstina.me/cms/site_data/AKTI%202010 Zakon%20o%20informacionoj%20bezbjednosti.pdf	Law on Information Security	14/10
Serbia	Zakon o elektronskim komunikacijama	Law on Electronic Communications	Official gazette of RS, no. 44/10
	Zakon o potvrdjivanju amandmana na clan XII (c) (ii) sporazuma o medjunarodnoj telekomunikacionoj satelitskoj organizaciji (ITSO)	Law of ratification of the Amendment to the article XII (c) (ii) of the ITSO Agreement	Official gazette of RS-International contracts, no. 1-10
	Zakon o potvrdjivanju zavrsnih akata regionalne konferencije o radio-komunikacijama za planiranje digitalne terestrijalne radiodifuzne sluzbe u delovima regiona 1 i 3, u frekvencijskim opsezima 174-230 MHz I 470-862 MHz (RRC-06)	Law of ratification of the Regional Agreement relating to the planning of the digital terrestrial broadcasting service in Region 1 (parts of Region 1 situated to the west of meridian 170° E and to the north of parallel 40° S, except the territory of Mongolia) and in the Islamic Republic of Iran, in the frequency bands 174-230 MHz and 470-862 MHz	Official gazette of RS-International contracts, no. 4-10
	Zakon o potvrdjivanju protokola o izmenama i dopunama odredjenih delova regionalnog sporazuma za evropsku radiodifuznu zonu (Stokholm, 1961) sa rezolucijama (RRC-06-REV.ST61)	Law of ratification of the Protocol revising certain parts of the Regional Agreement for the European Broadcasting Area (Stockholm, 1961)	Official gazette of RS-International contracts, no. 4-10
	Zakon o potvrdjivanju akata kojima se menjaju ustav i konvencija medjunarodnog saveza za telekomunikacije	Law of ratification of the Instruments amending the Constitution and the Convention of the International Telecommunication Union (Marrakesh, 2002 and Antalya, 2006)	Official gazette of RS-International contracts, no. 1-10
	Zakon o potvrdjivanju Memoranduma o saglasnosti izmedju Republike Srbije i Evropske zajednice o ucescu Republike Srbije u programu zajednice "Program podrske razvoju politike informaciono-komunikacionih tehnologija (ICT PSP) Okvirnog programa za konkurentnost i inovativnost (CIP) (od 2007. do 2013. godine)"	Law of ratification of the Memorandum of Understanding between the Republic of Serbia and the European Community on the participation of Serbia to the Community Programme "ICT Policy Support Programme (ICT PSP) of the Competitiveness and Innovation Framework Programme (2007 to 2013)"	Official gazette of RS-International contracts, no. 7-10

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Zakon o elektronskom potpisu	Law on Electronic Signature	Official gazette of RS, no. 135/04
	Zakon o elektronskom dokumentu	Law on Electronic Document	Official gazette of RS, no. 51/09
	Zakon o elektronskoj trgovini	Law on Electronic Commerce	Official gazette of RS, no. 41/09
	Zakon o zaštiti podataka o ličnosti	Law on personal data protection	Official gazette of RS, no. 97/2008, 104/2009
	Zakona o organizaciji i nadležnosti državnih organa za borbu protiv visokotehnološkog kriminala	Law on the organisation and jurisdiction of state authorities in fighting cybercrime	Official gazette of RS, no. 61/2005, 104/2009
	Krvični zakonik	Criminal Code	Official gazette of RS, no. 85/2005, 88/2005, 107/2005, 72/2009, 111/2009
Kosovo (UNSCR 1244)	Ligji nr. 2002/7 për telekomunikacionin http://www.unmikonline.org/regulations/unmikgazette /03albanian/A2003regs/RA2003_16.pdf Ligji Nr. 03/L-085 http://www.assembly- kosova.org/common/docs/ligjet/2008_03- L085_al.pdf	Law no. 2002/7 on telecommunications http://www.unmikonline.org/regulations/unmikgazett e/02english/E2003regs/RE2003_16.pdf Amended by law no. 03/L-085 http://www.assembly- kosova.org/common/docs/ligjet/2008_03- L085_en.pdf	Official gazette no. 19, Dec.1, 2007 Official gazette no. 32, June 15, 2008 (page 53)
	Ligji nr. 02/L-23 për shërbimet e shoqerise http://www.unmikonline.org/regulations/unmikgazette /03albanian/A2006regs/RA2006_32_ALA02_L23.pdf	Law no. 02/L-23 on the information society services http://www.unmikonline.org/regulations/unmikgazett e/02english/E2006regs/RE2006_32_ALE02_L23.pd f  This law includes laws on electronic commerce, distance contracts, electronic invoicing, electronic payment, data protection, electronic signatures and protection of information systems.	
	Ligji nr. 02/L-15 për komisionin e pavarur te mediave dhe transmetimin http://www.unmikonline.org/regulations/unmikgazette/03 albanian/A2005regs/RA2005_34_ALA02L_15.pdf	Law no. 02/L-15 on the independent media commission and broadcasting http://www.unmikonline.org/regulations/unmikgazett e/02english/E2005regs/RE2005_34_ALE02L_15.pd f	
	Ligji nr. 2004/36 per konkurrencën http://www.unmikonline.org/regulations/unmikgazette/03 albanian/A2004regs/RA2004_44_ALA2004_36.pdf	Law no. 2004/36 on competition http://www.unmikonline.org/regulations/unmikgazett e/02english/E2004regs/RE2004_44_ALE2004_36.p df	
	Ligji nr. 03/L-172 per mbrojten e te dhenave personale http://www.ks-gov.net/gazetazyrtare/Documents/GZRK_70_shqip.pdf	Law no. 03/L-172 on the protection of personal data http://www.ks-gov.net/gazetazyrtare/Documents/GZRK_70_eng.pdf	Official gazette no. 70, May 31, 2010

Country	Title of the law (original language) Link to full text, if available online	Title of the law (in English) Link to full text of translation, if available	Publication of original version and last amendment (official gazette number)
	Ligji nr. 03/L-166 per parandalimin dhe luftimin e krimit kibernetik http://www.ks- gov.net/gazetazyrtare/Documents/GZRK_74_SHQIP .pdf	Law no. 03/L-166 on prevention and fight of the cyber crime http://www.ks-gov.net/gazetazyrtare/Documents/GZRK_74_ENG.pdf	Official gazette no. 74, July 20, 2010
	RA 2003/25 Kodi i përkohshëm penal i Kosovës http://www.md-ks.org/?page=1,95	RE 2003/25 Provisional criminal code of Kosovo Amended by UNMIK/REG/2004/19 Promulgated by Decree No. DL-059-2008, dated 27.11.2008, of the President http://www.md-ks.org/?page=2,95	
	Secondary legislation by TRA		
	http://www.art-ks.org/?cid=1,34	http://www.art-ks.org/?cid=2,34	
	Udhëzimi administrativ nr. 2004/3 mbi caktimin e dënimeve për kundërvajtjet nga telekomunikacioni	Administrative instruction no. 2004/3 onto charges definition for infractions from telecommunication	
	Plani i numeracionit për rrjetat e telekomunikacionit në Kosovë	Numbering plan for telecommunication networks in Kosovo	
	Udhëzimi administrativ nr. 2004/3 mbi caktimin e dënimeve për kundërvajtjet nga telekomunikacioni	Administrative instruction no. 2004/3 onto charges definition for infractions from telecommunication	
	Korniza e ndryshuar për operatorët e rrjetes virtuale mobile (MVNO), nr.180/08	Mobile Virtual Network Operator – Framework	
	Rregullore për dhënien e licencës për akordimin e së drejtës për shfrytëzimin e radio frekuencave, nr. 008/08	Regulation on granting license for the right to use radio frequencies	
	Rregullorës për licenca dhe autorizime Ndryshimi dhe plotësimi i rregullorës për licenca dhe autorizime, nr. 182/07-B	Regulation on licensing and authorisations Amendments to the regulation on licensing and authorisations	
	Rregullore për mbrojtjen e konsumatorit dhe fshehtësisë së përdoruesve të shërbimeve telekomunikuese, nr. 222/08	Regulation on consumer protection and telecommunications services consumer privacy	
	Rregullore për tarifim të spektrit Ndryshimi dhe plotësimi i rregullorës për tarifim të spektrit, nr. 028/09	Regulation on spectrum tariffs plan Amendments to the regulation on spectrum tariffs	
	Rregullore për procedurën e zgjidhjes së konflikteve , nr. 183/07	Regulation on procedures for dispute resolution	

Table O.1 - Information society legislation

#### 2. Ongoing legislative work

The following table shows

- preparations for new primary and secondary legislation with relevance for the information society;
- which part of the EU acquis the planned legislation will transpose;
- the current status and planned next steps; and
- which body or bodies are responsible for drafting.

In particular, the table addresses the status of transposition of the EU 2009 regulatory framework.

Country	Description of draft legislation	Relevant EU acquis	Current status of preparations and schedule for the next steps	Responsible body
Croatia	Act on the Amendments to the Electronic Communications Act	EU 2009 regulatory framework 2009/136/E, 2009/140/EC	Working group established in March 2010 Ministry of the Sea, Transport and Infrastructure in co- operation with HAKOM has started preparations. The draft act is foreseen to be finalised by March 2011.	Ministry of the Sea, Transport and Infrastructure and established working group
FYROM	Law amending the Law on electronic commerce	E-Commerce Directive 2000/31/EC	In process of adoption by the Government.	Ministry of Economy
	No specific plans yet for transposing the EU 200	09 regulatory framework.		
Turkey	E-Commerce Draft Law	E-Commerce Directive 2000/31/EC	Preparations completed by Ministry of Justice. Draft sent to Prime Ministry on July 26, 2010. Planned next steps: Draft sent to Parliament's related Commission by December 2010.	Ministry of Justice
			Draft adopted by Parliament in March/April 2011.	
	Draft Law on the Protection of Personal Data	Data Protection Directive 95/46/EC	Pending in the Parliament's Justice Commission. Planned to be taken into the agenda by December 2010. A related amendment to article 20 of the Constitution has been adopted and came into force after a constitutional referendum on September 12, 2010.	Ministry of Justice
	Revision of the Bylaw on personal information processing and protection of privacy in the telecommunications sector	E-Privacy Directive 2002/58/EC	This bylaw is being reviewed by ICTA.	ICTA
	Law on the Emergency Services (112)	Provisions on emergency services in the Universal Service Directive 2002/22/EC	The draft is currently being reviewed in the Ministry after consultation with relevant parties.  It is planned to be sent to the Prime Ministry in October 2010 and foreseen to be adopted in 2011.	Ministry of Interior

Country	Description of draft legislation	Relevant EU acquis	Relevant EU acquis Current status of preparations and schedule for the next steps					
	No specific plans yet for transposing the EU 2009 regulatory framework. All the authorities responsible for negotiating chapter 10 (Information society and media) are als responsible for transposing the EU 2009 regulatory framework.							
Albania	Draft law amending the Law on electronic communications	EU 2009 regulatory framework 2009/136/E, 2009/140/EC	Draft published for national consultation in June 2010: www.keshilliministrave.al/?fq=brenda&r=&gj=gj1&kid=83  A round table with stakeholders is planned for Nov. 2010 and adoption in parliament is foreseen in 2011.	MITIK				
	Draft law amending the Law on electronic communications	Data Retention Directive 2006/24/EC	Working group established in March 2010	MITIK				
	Draft law on audiovisual media services	Audiovisual Media Services Directive 2010/13/EU	Draft law is under consultation with Council of Europe and European Commission	Parliament in cooperation with National Council on Radio Television, MITIK, AKEP				
Bosnia & Herzegovina	Changes and addendums of Law on Broadcasting system in B&H	EU secondary legislation for broadcasting	Working group established in August 2009 Draft published for national consultation in May 2010 Currently, the bill is in procedure for adoption by the government (Council of Ministers ) It is expected that: Bill will be adopted by government: November 2010 Bill will adopted by parliament: March/April 2011 Amended law will come into force: May/June 2011	Ministry of Communications and Transport Public Broadcasting Services CRA				
	Harmonisation of the Law on Broadcasting System and Law on Broadcasting Services with the EU acquis  EU secondary legislation for broadcasting		Working group established in April 2010 The work is still in progress	Ministry of Communications and Transport Public Broadcasting Services CRA				
	Note: There are two different working groups working on different tasks related to the same law.							
	Draft for a new law on electronic communications	EU 2003 and 2009 regulatory framework	Work on this law will start in 2011.	Ministry of Communications and Transport				
Montenegro	Law on digital switchover for terrestrial broadcasting systems		Planned within the Government Agenda	Ministry of Maritime Affairs, Transportation and				
	Draft law amending the Law on electronic communications	EU 2009 regulatory framework	Law is in the first phase of preparation	Telecommunication				

Country	Description of draft legislation	Relevant EU acquis	Current status of preparations and schedule for the next steps	Responsible body
Kosovo (UNSCR 1244)	Law on electronic communications	EU 2003 and 2009 regulatory framework	Working group established in June 2010 Draft Law is expected to be approved by the government by end of 2010. Adoption by parliament is expected in 2011.	Ministry of Transport and Communications together with Prime Minister's office, Telecommunications Regulatory Authority and Independent Media Commission

Table O.2 - Ongoing legislative work

#### 3. Information society policy

The following table shows

- the body (or bodies) which is (are) responsible for preparing and overseeing the information society policy;
- the title and links to relevant adopted or prepared policy documents (if available, to English translations); and
- which policy areas are covered by the respective documents.

Country						icy areas cove	ered		
	body for information society policy		Informa- tion society in general	Electronic communications	Broad- band	Digital TV	eSEE Initiative	E-Govern- ment	E- Business
Croatia	Central State Administrative Office for e- Croatia Ministry of sea, transport and infrastructure (MMPI) Ministry of Economy,	Study of development of Information Society in the Republic of Croatia in 2005 (e-Croatia)	✓						
		Strategy for the development of broadband internet access in the Republic of Croatia ( <i>MMPI</i> )  A new strategy for the years 2011 to 2015 has been published for consultation in Nov. 2010.			1				
		Strategy of transfer from analogue to digital television broadcasting in the Republic of Croatia (e-Croatia, MMPI)				1			
	Labour and Entrepre- neurship (MINGORP)	Strategy for the development of Electronic Government in the Republic of Croatia for the period 2009–2012 (e-Croatia)						1	

Country	Responsible	Information society policy documents	Policy areas covered						
	body for information society policy		Informa- tion society in general	Electronic communications	Broad- band	Digital TV	eSEE Initiative	E-Govern- ment	E- Business
		Strategy for the development of Electronic Business in the Republic of Croatia for the period 2007–2010 (MINGORP)							<b>~</b>
		The Croatian Government adopted on May 25, 2007 a conclusion accepting the content of the eSEE Agenda+ for 2007–2012.					✓		
		The objectives in the Electronic communications act and the process of amending the act constitute the Croatian electronic communications policy.		1					
FYROM	Ministry of Information	Government programme 2008–2012	1			1			
	Society Ministry of Transport and Communication	National Strategy for Information society development	1						
		National strategy for electronic communication and information technologies		1					
		National strategy for next generation broadband			✓				
		National strategy for e-government						1	
Turkey	State Planning Organisation	Information society strategy and annexed action plan (2006–2010)							
	www.dpt.gov.tr	High Planning Council, decision no. 2006/38 of July 11, 2006 www.bilgitoplumu.gov.tr	1	✓	✓	(✔)		1	✓
		rtially covers digital TV within the scope of the frequency allotment action numbered 108. This action aims designation of the transition process for using the s for digital broadcasting that are currently used for analogue broadcasting, in line with the frequency band usage approach of EU.							
Albania	Minister for Innovation and Information and Communication Technologies	Inter-sector strategy for the information society (2008–2013) Council of Ministers Decision no. 59 dated 21.01.2009 http://www.akshi.gov.al/?crd=7	1		1		1	1	1
		Policy paper on electronic communications in Republic of Albania Council of Ministers Decision no. 322 dated 05.05.2010		•					

Country	Responsible	Information society policy documents	Policy areas covered						
	body for information society policy		Informa- tion society in general	Electronic communications	Broad- band	Digital TV	eSEE Initiative	E-Govern- ment	E- Business
		A "Strategy for analogue to digital broadcasting switch-over" is under preparation and expected to be adopted soon.				<b>(√</b> )			
Bosnia & Herzegovina	Ministry of Communication and Transport B&H	Policy, Strategy and Action Plan of Information Society Development in B&H Council of Ministers, November 2004 http://www.undp.ba/index.aspx?PID=36&RID=37	1			1	✓		
Montenegro  Ministry for Information Society  www.mid.gov.m  e	Strategy for Information Society Development of Montenegro, for period 2009–2013 http://www.gov.me/files/1255505965.pdf	1				1	1	✓	
	_	Strategy of Electronic Communications Sector in Montenegro, May 2006 (Ministry of Maritime Affairs, Transportation and Telecommunication) http://www.gov.me/files/1238591508.pdf		•					
Serbia	Ministry of Telecommunica	Strategy for information society development up to 2020	1						✓
	tions and Information Society	Strategy for switchover from analogue to digital broadcasting of radio and television programme in the Republic of Serbia				1			
	www.mtid.gov.r s	Strategy for e-Government development in period of 2009 to 2013						1	
		National Strategy for Broadband Access up to 2012			✓				
		Strategy for development of electronic communications up to 2020 adopted by the Government on Sep. 2, 2010.		1					
		Action plan for the implementation eSEE Agenda+ for the development of information society in SEE 2007–2012, "Official Journal of Republic of Serbia", No. 29/2009					1		

Country	Responsible	Information society policy documents	Policy areas covered						
	body for information society policy		Informa- tion society in general	Electronic communications	Broad- band	Digital TV	eSEE Initiative	E-Govern- ment	E- Business
Kosovo (UNSCR 1244) Ministry of Transport and Post-	Transport and Post-	Government adopted on May 2, 2007 a decision accepting the document of the eSEE Agenda+ for 2007–2012.					<b>√</b>		
	Telecommunica tion www.mtpt.org	E-government strategy 2009–2015 and action plan approved by the Government on Dec. 12, 2008 (Ministry of Public Administration)						1	
		Draft of the sectoral strategy of Ministry of Transport and Communications is ready for government approval. Electronic communications and broadband sectors are major parts of this strategy.		(✔)	(✔)				
		National strategy for information society development of Kosovo, for period 2006–2012 Approved on Apr. 26, 2006	<b>√</b>						
		Working Group (WG) for Analogue Digital Switchover Strategy is established. Independent Media Commission is leading this WG. It is expected this strategy to be ready by Q2 2011				(✔)			

Table O.3 - Information society policy

#### P. Fundamental rights and freedoms

The adoption of the EU 2009 regulatory framework raised a new discussion on fundamental rights and freedoms in the information society. A controversy between European Parliament and the Council on amendment 138 (renumbered 46 in second reading) delayed adoption of the package. The text, which was finally agreed in the conciliation procedure, became law as new article 1 para. 3a of the Framework Directive: "Measures taken by Member States regarding end-users' access to, or use of, services and applications through electronic communications networks shall respect the fundamental rights and freedoms of natural persons as guaranteed by the European Convention for the Protection of Human Rights and Fundamental Freedoms and general principles of Community law." In particular, measures that would restrict end-users access to services and applications may only be imposed if they are "appropriate, proportionate and necessary within a democratic society" and duly respect "the principle of the presumption of innocence and the right to privacy".

Issues which have been controversial in several EU member states include the following:

- Laws or proposed bills that would restrict certain end-users' rights to access the internet, in particular end-users who repeatedly infringed copyright laws.
  - In this context it is being discussed whether such laws interfere with fundamental rights, in particular whether the law puts the burden of proof on the enduser and whether the applied procedure respects the rights of innocent end-users who might suffer the consequences of misconduct carried out by other users of the same account. The issue particularly addressed by the European Parliament is whether a penalty may only be imposed by judicial authorities, or if that can also be done by an administrative authority as by the French HADOPI.
  - According to the new provision in the Framework Directive, the procedure before blocking a person is not necessarily to be taken by a judge, but it must be fair and impartial and must include the right to be heard of the persons concerned (except in urgent cases). After the decision, the right to effective and timely judicial review shall be guaranteed.
- Laws or proposed bills that would restrict end-users' rights to access certain websites, in particular if these websites contain illegal content.
  - Examples for this discussion are a German law on blocking access to paedophile content or an Italian law blocking access to gambling website.
  - In this context it is being discussed how the applied procedures differentiate between legitimate and illegal content, how to supervise the administration of the blacklist of blocked websites and how blocked users and content providers can appeal decisions. It is particularly problematic to deal with websites that contain a large amount of legitimate content and only singular illegal files (for example the popular video portals), because any decision to block access to the illegal content can interfere with many innocent users' fundamental rights.

#### 1. Constitutional rights

The following table addresses which fundamental rights and freedoms are guaranteed by the constitution or legal system of the participating countries.

Country	Freedom of expression	Right to respect for private and family life	Relevant case law		
Croatia	Art. 38 of the Constitution	Art. 35 of the Constitution	No relevant case law		
FYROM	Art. 16 of the Constitution	Art. 25 of the Constitution	The legislation on data retention (amendments to the law on electronic communications) has been challenged at the Constitutional Court. The case is still pending.		

Country	Freedom of expression	Right to respect for private and family life	Relevant case law					
Turkey	Art. 26 of the Constitution	Art. 20 of the Constitution An amendment to this article came into force after the constitutional referendum of Sep. 12, 2010 and now also protects personal data.	Many court decisions based on Law no. 5651, see table P.2					
Albania	Art. 22, 23 of the Constitution	Art. 35, 36, 37 of the Constitution	No relevant case law					
Bosnia & Herzegovina	Art. 2 g) and h) of the Constitution	Art. 2 f) of the Constitution	No relevant case law					
	According the Constitution of Bosnia & Herzegovir Rights with optional protocols are directly applied.	na the European Convention on Human Rights with its	all protocols and the International Pact on Citizens and Political					
Montenegro	Art. 47 of the Constitution	Art. 40, 42, 43 of the Constitution	No relevant case law					
Serbia	Art. 46 of the Constitution	Art. 42 of the Constitution	The provisions on data retention in the new Law on electronic communications have been challenged at the Constitutional Court of Serbia. A judgment is expected in the next two months.  The court has also ruled on the provisions on interception in the former Law on telecommunications (IUz 149/2008, published in the Official gazette of the Republic of Serbia no. 50/2009, see note below).					
	Art. 41 of the Constitution protects the confidentiality of letters and other means of communications. This article allows interception only under court orders and only prosecution of crimes and state security. Art. 55 para. 1 of the former Law on telecommunications allowed interception not only under court orders but also under or (unspecified) laws. The Constitutional Court repealed this reference to other laws, as it extended the scope of possible interception to cases of interception without order or for other purposes than allowed by the Constitution. The Law on telecommunications has in the meantime been replaced by the Law on electronic communications.							
Kosovo (UNSCR 1244)	Art. 40 of the Constitution	Art. 36 of the Constitution	No relevant case law					

Table P.1 - Constitutional rights

#### 2. Mechanisms to restrict the freedom of expression and information

The following table addresses whether there are laws or other mechanisms that could potentially restrict the freedom of expression and information and which safeguards these laws or mechanism foresee. In particular, the table contains:

- laws which block access to certain websites or certain content on websites, for example by obliging internet access providers to implement filters or blocking mechanisms, or
- laws which restrict certain users from accessing the internet, for example persons who have been found guilty to infringe copyrights.

The table does not include the typical mechanisms that are foreseen in most criminal procedure codes, for example that the criminal court may confiscate things that have been used to commit a crime or that the court may impose alternative sanctions such as avoiding certain situations for a specified time (diversion programmes). The table also does not include restrictions of internet access imposed on persons in jails.

Country	Legal source	Description of the mechanism Responsible (judicial?) authorities Technical implementation Measures addressed to internet service providers or to end-users?	Safeguards Appeal procedures? Compensation for ISPs? Protection of innocent users which use the same service?
Croatia	No such regulation	No such mechanism	-
The Former Yugoslav Republic of Macedonia	No such regulation	No such mechanism	-
Turkey	Art. 13 of the Constitution on "Restriction of fundamental rights and freedoms": According to this article; fundamental rights and freedoms may be restricted only by law.  Law no. 5651, dated May 4, 2007 on "Regulation of publications on the internet and combating crimes committed by means of such publications"	Law no. 5651 fights an exhaustive list of eight crimes committed on the internet, namely: committing suicide, sexual exploitation of children, facilitating the use of narcotics or psychotropic substances, procurement of hazardous material for health, prostitution, pornography, providing a place and possibilities for gambling and crimes against the Atatürk-Law no. 5816.  Content providers or hosting providers can be ordered to remove content which constitutes one of the eight crimes within 48 hours (,notice and take down' procedure). In case of non-compliance, access providers can be ordered to block access to infringing websites.  Responsible authorities  a) Judicial authorities: The decision on blocking the access to websites shall be made by the judge during the investigation stage and by the court during the prosecution stage.  During the stage of investigation, the Public Prosecutor may also decide on blocking the access if there is a case not to be delayed. In such cases, the Public Prosecutor shall submit his/her decision to the approval of the judge within 24 hours and the judge shall decide not later than in 24 hours.  b) Telecommunication Communication  Presidency (TCP) of ICTA: If the content provider or hosting provider is located abroad, ICTA can order to block access to content that constitutes one of the eight crimes.  'Notice and take down' procedure is used as the principle methodology.	Content providers or hosting providers can appeal access blocking decisions of judges or courts within the court hierarchy, or access blocking decisions of TCP to the administrative courts.  ISPs must implement the access blocking decisions without compensation.  Within law no. 5651 the 'notice and take down' procedure is adopted as principle methodology. The basic purpose of this regulation is to correct the problematic content without the necessity of blocking the website.  Within the context of article 9 of law no. 5651, cases of violation of personal rights are subject to enabling removal of the content and the right of reply.

Country	Legal source	Description of the mechanism Responsible (judicial?) authorities Technical implementation Measures addressed to internet service providers or to end-users?	Safeguards Appeal procedures? Compensation for ISPs? Protection of innocent users which use the same service?
		Technical implementation  Decisions taken by the judge, the court or the public prosecutor are sent to ICTA for implementation.  ICTA notifies access providers in electronic form about all decisions to block access to websites.  Access providers shall not be liable for controlling whether the content of the information accessed via them is unlawful or requires responsibility or not.	
Albania	No such regulation	No such mechanism	-
Bosnia & Herzegovina	No such regulation	No such mechanism	-
Montenegro	No such regulation	No such mechanism	-
Serbia	No such regulation	No such mechanism	-
Kosovo (UNSCR 1244)	No such regulation	No such mechanism	-

Table P.2 - Mechanisms to restrict the freedom of expression and information

#### Q. Information society statistics

#### 1. Computer and internet usage by individuals

Table Q.1 provides data on computer and internet usage by individuals. The percentage of individuals regularly using the internet is policy indicator A.2 of the eEurope 2005 benchmarking framework.

- population is defined as being from 16 to 74 years;
- regularly is defined as at least weekly;
- usage includes all locations and methods of access;
- *e*Europe analyses used background variables of age, gender, employment status and education level;
- i2010 benchmarking framework added bandwidth as a variable.

Country	Percentage of individuals who used a computer in the last three months			Percentage of in	ndividuals regul internet	arly using the	Comments (different data definition, date of survey)
	Total	Female	Male	Total	Female	Male	
Croatia	50	47	53	47	43	51	Survey of first quarter 2009. Central Bureau of Statistics.  Data shown are estimates obtained through the IKT-DOM survey, which is the annual survey on the usage of Information-Communication Technologies (ICT) in households and by individuals.  A survey of 2010 is being processed and will be published in due course.  According to HAKOM report/data, at the end of 1Q of 2010 Croatia has 57.43% individuals who regularly used the internet
FYROM	55.5	53.0	58.0	46.9	45.0	48.9	Survey of April 2009 (last fully processed statistical information). Target population consists of all individuals aged 15 to 74.
Turkey	39.1	29.4	49.1	33.3	24.6	42.3	Survey of April 2010. Turkish Statistical Institute.
Albania	[45]	N/A	N/A	[45%]	N/A	N/A	Estimate by AKEP as of July 1, 2010 based on different sources (figures reported by ISPs and mobile operators to AKEP, survey on internet coffee, INSTAT) INSTAT LSMS 2008 survey: 48.2% of internet users are female and 51.8% are male
Bosnia & Herzegovina	[36.74]*	N/A	N/A	[34]**	N/A	N/A	* Estimate based on various sources (statistical institutes in BiH, studies of WB, UNDP and EC and some NGOs, i.e. BAIT, BHIST)  ** Estimate by RAK as of January 2009
Montenegro	[57.5]	[53.5]	[61.8]	[40.7]	[36.9]	[44.7]	Survey of Agency of electronic communications and postal services based on research of Centre for Monitoring (CEMI) in July 2008. The methodology is not comparable with Eurostat methodology. MONSTAT will conduct a pilot research in 2010 and regular research based on Eurostat methodology will start in 2011.
Serbia	50.8	46.8	54.8	38.3	34.2	42.5	Survey of the Statistical Office in April 2010.
Kosovo (UNSCR 1244)	[32.5]	[25]	[40]	[25]	[19]	[31]	Estimate based on subscriber numbers of the main ISPs and surveys of the Riinvest Institute.

Table Q.1 - Computer and internet usage by individuals

#### 2. Computer and internet usage by enterprises

Table Q.2 provides data on computer and internet usage by enterprises, as collected by national statistics institutes and, where available, grouped by the size of the enterprises. Indicator B.1 of the eEurope 2005 benchmarking framework asks for the percentage of persons employed using computers connected to the internet, in their normal work routine. However, these data are generally not collected in South-East Europe, Instead, the table includes:

- percentage of enterprises using computers;
- percentage of enterprises having access to the internet (eEurope indicator B.2); and
- comments, in particular on the date of the survey and eventually different data definitions.

Country	Percentage of enterprises using computers (by number of employees)			Percentage of enterprises having access to the internet (by number of employees)				Comments (different data definition, date of survey)	
	Total (10+)	10-49	50-249	250+	Total (10+)	10-49	50-249	250+	
Croatia	98.0	97.6	99.4	99.6	95.2	94.3	99.2	99.6	Survey of first quarter of 2009. Central Bureau of Statistics.  Data shown are estimates obtained through the IKT-DOM survey, which is the annual survey on ICT usage in enterprises.
FYROM	94.7	94.2	95.6	100.0	86.3	84.6	90.9	100	Survey of first quarter of 2009.  Concerning both financial and non-financial enterprises
Turkey	90.7	89.5	97.7	99.3	88.8	87.5	96.9	99.0	Survey of April 2009 Data for 2010 will be published on November 24, 2010.
Albania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	INSTAT will have the preliminary data by the end of 2010 based on a survey which is ongoing.  IDRA survey 2010 on internet usage:  enterprises with more than 80 employees: 100%  enterprises with 21-80 employees: 90%  enterprises with 6-20 employees: 85%  enterprises with 1-5 employees: 58%
Bosnia & Herzegovina	[85]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Estimation based on several sources.
Montenegro	92.9	N/A	N/A	N/A	90.5	N/A	N/A	N/A	Data are based on ISSP ICT Survey, December 2007.  MONSTAT will conduct a pilot research in 2010 and regular research based on Eurostat methodology will start in 2011.
Serbia	97.8	97.1	100	100	96.8	96.3	98.2	99.3	Survey of May/June 2010.

Country	Percentage of enterprises using computers (by number of employees)		Percentage of enterprises having access to the internet (by number of employees)		_	Comments (different data definition, date of survey)			
	Total (10+)	10-49	50-249	250+	Total (10+)	10-49	50-249	250+	
Kosovo (UNSCR 1244)	87.4	86.0	95.6	99.0	78.1	77.0	92.3	98.3	Survey made by Riinvest, April 2008. No recent data available.

Table Q.2 - Computer and internet usage by enterprises

### 3. Body responsible for Information society statistics

Table Q.3 shows the body, whether the national statistics institute or another organisation, that collects and publishes data on information society indicators. The indicators were defined in the Council Resolution of February 18, 2003 on the implementation of the eEurope 2005 Action Plan and further developed under the i2010 Benchmarking Framework, in particular on:

- supply and demand of e-government, e-learning and e-health services;
- buying and selling online; and
- ICT skills and internet users' experience regarding ICT security.

Country	Responsible body for information society statistics, URL	Short description of available statistical data, URL	Integration of national statistics with Eurostat
Croatia	Central Bureau of Statistics www.dzs.hr	Usage of ICT in households and by individuals 2009 results: http://www.dzs.hr/Eng/Publication/2009/2-1-8_1e2009.htm Usage of ICT in enterprises 2009 results: http://www.dzs.hr/Eng/Publication/2009/2-1-9_1e2009.htm	Statistics already integrated with Eurostat
FYROM	State Statistical Office of the Republic of Macedonia www.stat.gov.mk	ICT usage by households and individuals, and by enterprises http://www.stat.gov.mk/english/statistiki_eng.asp?ss=14.04&rbs=1	Statistics already integrated with Eurostat
Turkey	Turkish Statistical Institute (TURKSTAT) www.turkstat.gov.tr	Use of ICT in households (computer and internet usage by gender and age group, by education level and by labour force status, also separately for rural and urban areas)  Use of ICT in enterprises (computer usage and internet access grouped by economic activity and size of the enterprise, data on the type of internet connections, on the purpose of internet usage and the proportion of enterprises which have a website, etc.)  http://www.turkstat.gov.tr/PreTablo.do?tb_id=60&ust_id=2	Statistics already integrated with Eurostat

Country	Responsible body for information society statistics, URL	Short description of available statistical data, URL	Integration of national statistics with Eurostat		
Albania	Institute of Statistics (INSTAT) www.instat.gov.al	A survey on usage of ICT in enterprises is ongoing.  AKEP and the Minister have the right to collect statistical data from the market players of electronic communications.	Statistics not yet integrated with Eurostat		
Bosnia & Herzegovina	No dedicated public authority	No information society statistics available	National information society statistics not integrated with Eurostat. See comment below.		
	Development of the Information Society of group for drafting a new law on ARID. Wo	e development of the information society of BiH, the responsible body for information society statistics shall be the Agency for of BiH (ARID). The law on ARID has not been adopted and ARID has not been established yet. The Ministry has established worki ork is still in progress. ARID should be responsible to implement activities for the benchmarking process and then the statistical ection, the experts will make data analysis and ARID will be the focal point to distribute and follow up the final reports.			
Montenegro	Statistical Office of Montenegro (MONSTAT) www.monstat.org Ministry for Information Society www.mid.gov.me	MONSTAT is responsible for the benchmarking process.	The pilot research will be conducted in 2010, and in 2011 regular research will start based on Eurostat methodology.		
Serbia	Statistical Office of the Republic of Serbia www.stat.gov.rs Republic Agency for Electronic Communications (RATEL) www.ratel.rs	Use of information technologies in households (computer and internet usage by gender and age group, by education level and by labour force status, also separately for rural and urban areas)  Use of information technologies in enterprises (computer usage and internet access grouped by economic activity and size of the company, data on the type of internet connection, on the purpose of internet usage and the proportion of enterprises which have a website)  http://webrzs.stat.gov.rs/axd/dokumenti/ict/2009/IKT2009.pdf  RATEL produces annual statistics on telecommunications markets and broadband.  http://www.ratel.rs/market/overviews_of_telecom_market.129.html	Statistics already integrated with Eurostat		
Kosovo (UNSCR 1244)	Telecommunication Regulatory Authority (TRA) http://www.art-ks.org/ Statistical Office of Kosovo http://www.ks-gov.net/esk/	No information society statistics available	No concrete plans yet.		

Table Q.3 - Body responsible for Information society statistics

### R. Network and information security

To address security challenges to the information society, the European Union institutions have developed several lines of action:

- The regulatory framework on electronic communications requires providers of public communications networks and publicly available electronic communications services to safeguard network security (articles 13a and 13b Framework Directive) and the security of processing personal data (article 4 e-Privacy Directive). The e-Privacy Directive also deals with specific questions such as spam and cookies.
- Computer crime has been identified as an area of serious crime with a cross-border dimension that needs combat on a common basis (article 83 TFEU). The
  Council adopted a framework decision<sup>21</sup> which echoes the Council of Europe Convention on Cybercrime and some other initiatives more specifically aimed
  at protecting minors. The Commission submitted proposals to replace these framework decisions by directives.<sup>22</sup>
- The European Network and Information Security Agency (ENISA) have been established<sup>23</sup> as an institutionalised means of cooperation between Member States. Its tasks include the collection of information, the analysis of current and emerging network risks, the development of common methodologies and the promotion of exchanges of best practices as well as methods of alert.
- The Commission proposed<sup>24</sup> an action plan on Critical Information Infrastructure Protection (CIIP) to protect Europe from large scale cyber-attacks and disruptions and enhance preparedness, security and resilience. The action plan calls, for example, for establishing Computer Emergency Response Teams (CERTs) in all Member States and for a European Information Sharing and Alert System.

The EU 2009 regulatory framework significantly enhanced the competent national authorities' role in network security. The new articles 13a and 13b of the Framework Directive oblige operators to take appropriate measures to secure their networks and ensure the continuity of supply of services. Security breaches must be notified to the NRA, which has to report annually to ENISA. The NRA may submit operators to a security audit.

Amendments to article 4 of the e-Privacy Directive enhance the protection of personal data and the role of the relevant national authorities (which are not necessarily identical with the NRAs). National authorities shall be able to audit the security measures taken by service providers. Providers will be obliged to notify the authority and affected subscribers or individuals in case of a personal data breach.

<sup>&</sup>lt;sup>21</sup> Council Framework Decision 2005/222/JHA of February 24, 2005 on attacks against information systems.

<sup>&</sup>lt;sup>22</sup> On March 29, 2010 the Commission adopted a Proposal for a Directive of the European Parliament and of the Council on combating the sexual abuse, sexual exploitation of children and child pornography, repealing Framework Decision 2004/68/JHA, COM(2010) 94 final, and on September 30, 2010 a Proposal for a Directive of the European Parliament and of the Council on attacks against information systems and repealing Council Framework Decision 2005/222/JHA, COM(2010) 517 final.

<sup>&</sup>lt;sup>23</sup> ENISA was established by Regulation (EC) 460/2004 and its mandate was extended by Regulation (EC) 1007/2008.

<sup>&</sup>lt;sup>24</sup> Commission Communication of March 30, 2009, COM(2009)149 final.

### 1. Network security obligations

#### Table R.1 shows:

- legal provisions obliging operators to safeguard the network security, in particular the continuity of supply of services over networks (see articles 13a, 13b Framework Directive);
- how the law describes the security level required (for example as "appropriate to the risk presented", taking into account the state of the art of technical and organisational measures);
- whether operators are obliged to report security breaches to the NRA; and
- whether the NRA is entitled to ask operators for information on their security measures or to submit operators to a security audit carried out by a qualified independent body.

Country	Legal provisions on network security	Level of security measures required	Obligation to notify the NRA in case of security breach	Is the NRA entitled to audit operators' security measures?		
Croatia	Art. 99 Electronic communications act	"a level of security appropriate to network security risk presented", "having regard to the available technical and technological solutions and the costs of their implementation"	No	No explicit provision on auditing operators' security measures		
FYROM	Art. 110 Law on electronic communications	"a level of security and protection appropriate to the reasonable foreseeable risks", taking into account "the technical feasibility of the measure"	No	No explicit provision on auditing operators' security measures		
Turkey	Bylaw on security of electronic communications	Conformance to ISO/IEC 27001 standard	Yes	Yes		
	The bylaw came into force on July 20, 2008. This bylaw comprises all the operators providing public telecommunications services and requires them to provide conformance to ISO/IEC 27001 standard and also specifies the measures which must be taken in order to avoid or decrease the risks caused by threats and weaknesses regarding physical area security, data security, hardware/software security and personnel reliability. Operators are obliged to send annual reports to the NRA (ICTA) about security of electronic communications and ICTA has the power to audit the operators whether they meet the requirements of the bylaw.					
Albania	Art. 122 Law on electronic communications	Appropriate technical and organisational measures	No	No explicit provision on auditing operators' security measures		
	Draft law on amending the law on electronic communications includes the provision of obligation of operators to notify the NRA in case of security breach, and would entitle the NRA to submit operators to a security audit.					
Bosnia & Herzegovina	Art. 5, 8 Law on communications	"recognised state of the art" with regard to safety of network operators and network integrity	Yes	No explicit provision on auditing operators security measures		

Country	Legal provisions on network security	Level of security measures required	Obligation to notify the NRA in case of security breach	Is the NRA entitled to audit operators' security measures?
Montenegro	Art. 112 Law on electronic communication	Appropriate technical and organisational measures	Yes	No explicit provision on auditing operators security measures
	The scope of art. 112 includes protection of users from mal	icious activities, electronic sabotage, fra	aud or abuse. It does not include, for e	xample, service continuity.
Serbia	Art. 124 and 125 Law on electronic communications	Appropriate technical and organisational measures, suitable for the existing risks	Yes	Yes. According to art. 131 of the Law on electronic communications, RATEL is in charge of supervising obligations that operators have under this law.
Kosovo (UNSCR 1244)	Art. 43 Law on telecommunications	"a level of security and protection which is proportional to the anticipated risk and costs, and which is commensurate with the level of technical development of the system"	No	Yes TRA may request providers to submit details about security measures and a declaration that these measures have been implemented (art. 43 para. 4). TRA also may oblige providers to remove deficiencies (art. 43 para. 5).

Table R.1 - Network security obligations

### 2. Security of processing personal data

#### The table shows:

- legal provisions obliging operators to safeguard the security of processing personal data (see article 4 e-Privacy Directive);
- how the law describes the security level required, in particular whether it only requires "appropriate" measures (like article 4 e-Privacy Directive in its original version) or also sets up some minimum requirements (like article 4 paragraph 1a of the e-Privacy Directive, for example that the operator must ensure that personal data can be accessed only by authorised personnel for legally authorised purposes);
- whether operators are obliged to report personal data breaches to the competent authority and whether operators also must notify the subscribers and individuals who are affected by the personal data breach (see the new paragraphs 3 to 5 of article 4 e-Privacy Directive);
- whether a national authority is entitled to audit the measures taken by the providers; and
- which authority has been designated by national law as competent for supervising the security of processing personal data by operators (the NRA or the data protection authority).

Country	Legal provisions on security of processing personal data	Level of security measures required	Obligation to notify the competent authority and/or the affected subscribers in case of personal data breaches	Is the competent authority entitled to audit operators' security measures?	Competent national authority
Croatia	Art. 99 and 100 Electronic communications act	Appropriate technical and organisational measures	No explicit obligation to notify the competent authority Operators are obliged to notify personal data breaches to the subscribers and individuals affected by the personal data breach	No explicit provision on auditing operators' security measures	NRA
FYROM	Art. 110 Law on electronic communications	"a level of security and protection appropriate to the reasonable foreseeable risks", taking into account "the technical feasibility of the measure"	No explicit obligation to notify the competent authority and/or the affected subscribers	No explicit provision entitling the NRA to audit operators' security measures	NRA is responsible for technical measures. Data privacy protection for end consumers is a responsibility of the Directorate for Personal Data Protection.
	Art. 23 Law on personal data protection	Rulebook for technical and organisational measures for providing secrecy and protection of personal data processing	No explicit obligation to notify the competent authority and/or the affected subscribers	Yes The personal data protection inspectors of the Directorate are entitled to audit operators' security measures (art. 44 and 44-c of the Law on personal data protection)	Directorate for Personal Data Protection
Turkey	Art. 6-7 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Appropriate technical and organisational measures	Operators are obliged to notify personal data breaches to the subscribers affected by the personal data breach No explicit obligation to notify the NRA	Operators are obliged to propound technical and organisational measures to NRA for approval.	NRA

Country	Legal provisions on security of processing personal data	Level of security measures required	Obligation to notify the competent authority and/or the affected subscribers in case of personal data breaches	Is the competent authority entitled to audit operators' security measures?	Competent national authority			
Albania	Art.121 of Law on electronic communications	Appropriate technical and organisational measures	No explicit obligation to notify the competent authority and/or the affected subscribers	No explicit provision on auditing operators' security measures NRA has the right to impose fines on operators breaking the requirements of art. 121	NRA			
	Draft law on amending the law on electronic communications includes the provision of obligation of operators to notify the NRA in case of security breach, and would entitle the NRA to submit operators to a security audit.							
Bosnia & Herzegovina	Art 11 and 12 Law on protection of personal data in B&H	Appropriate technical and organisational measures measure	No explicit obligation to notify the competent authority and/or the affected subscribers	No explicit provision on auditing operators security measures	Personal Data Protection Agency			
Montenegro	Art. 112, 119 Law on electronic communication	Appropriate technical and organisational measures	Obligation to notify the NRA No explicit obligation to notify the affected subscribers	No explicit provision on auditing operators security measures	NRA			
Serbia  Art. 122 and 123, Law on electronic communications Law on personal data protection		Appropriate technical and organisational measures	Operators are obliged to notify personal data breaches to the NRA and, under conditions, also to the subscribers and individuals affected by the personal data breach	Yes. NRA with regard to provisions of the Law on electronic communications (art. 131) Commissioner with regard to data retention (art. 130) and with regard to the Law on personal data protection	Commissioner for Information of Public Importance and Personal Data Protection			

Country	Legal provisions on security of processing personal data	Level of security measures required	Obligation to notify the competent authority and/or the affected subscribers in case of personal data breaches	Is the competent authority entitled to audit operators' security measures?	Competent national authority
Kosovo (UNSCR 1244)	Art. 14 Law on the protection of personal data	Art. 14: detailed requirements. The measures must be "adequate and kept up to date taking into account the nature of the personal data to be protected and the risks represented by the processing of such data"  Art. 7 (2) When sensitive personal data are transmitted over telecommunications networks they shall be considered as suitably protected if they are encrypted to ensure their illegibility and non-recognition.	No explicit obligation to notify the competent authority and/or the affected subscribers	Yes National Agency for the Protection of Personal Data is competent to carry out inspections and audits, see art. 29 (2.3).	National Agency for the Protection of Personal Data

Table R.2 - Security of processing personal data

## 3. Cybercrime

### Table R.3 shows:

- whether the country has ratified and transposed into national legislation the Council of Europe Convention on Cybercrime;
- whether national legislation considers attacks against information systems as criminal offences;
- whether national legislation considers other computer related acts as criminal offences; and
- the policy framework on the fight against cybercrime, and the main lines of that policy.

Country	Ratification of Council of Europe Convention on Cybercrime	Are the following attacks against information systems considered as criminal offences? Illegal access? Illegal interception? Data interference? System interference?	Are the following computer-related acts considered criminal offences? Computer-related forgery? Computer-related fraud? Offences related to child pornography? Offences related to infringements of copyright and related rights	Policy framework on the fight against cybercrime
Croatia	Yes, on July 8, 2002 (Official Gazette 9/2002) Ratification of the Protocol to the Convention on cyber crime concerning the criminalization of acts of racist and xenophobic nature committed through computer systems on May 9, 2008 (Official Gazette 4/2008)	Yes, in the Criminal Code:  • illegal access and interception (art. 223 para. 1)  • systems interference (art. 223 para. 2)  • data interference (art. 223 para. 3)	Yes, in the Criminal Code:  child pornography (art. 196)  computer forgery (art. 223a)  computer fraud (art. 224a)  The provisions on copyright do not explicitly refer to computer related acts but include all forms of communicating works to the public (art. 229ff).	National Programme of Information Security in the Republic of Croatia
FYROM	Yes, on June 16, 2004 Ratification of the Protocol to the Convention on cyber crime concerning the criminalization of acts of racist and xenophobic nature committed through computer systems on July 5, 2005	Yes, in the Criminal Code:  Damage and illegal entrance into a computer system (art. 251)  Creation and input of computer viruses (art. 251a)  illegal access to computer resources (art. 251b)  unauthorised use of computer data (art. 379a, 251b)  illegal use and multiplication of computer data (art. 379a)  illegal manipulation with computer data (art. 379a)  changing, damaging of data or programs (art. 379a)  abuse of passwords (art. 251b).	<ul> <li>Yes, in the Criminal Code:</li> <li>Violation of copyright and similar rights (art. 157)</li> <li>Production and distribution of child's pornography through a computer system (art. 193a)</li> <li>Internet communication with minor under 14 for abuse, child pornography or other abuse (art. 193b)</li> <li>Computer fraud (art. 251b)</li> <li>Producing and obtaining of means for forgery of credit cards (art. 271)</li> <li>Forgery and abuse of credit cards. (Article 274b)</li> </ul>	No explicit policy framework
Turkey	No According to the 2010 Annual Programme (adopted by the Council of Ministers on Oct. 12, 2009) the Ministry of Justice will launch a study aiming to become a signatory to the Convention on Cybercrime.	Yes, in the Turkish Penal Code (5237/2005):  illegal access (art. 243 par. 1)  illegal interception (art. 243 par. 1)  system interference (art. 244 par. 1)  data interference (art. 244 par. 2)	Yes, in the Turkish Penal Code (5237/2005):  computer related forgery (art. 244 par. 2)  computer related fraud (art.158 par.1 subpar. f)  offences related to child pornography (art. 226 par. 3-5)	The National Strategy Document on Combating Organised Crime, which was approved by the Prime Ministry on July 19, 2010 is the main policy framework in the fight against organised crimes including cybercrime.  Action plan, which is annexed to the Strategy Document for 2010-2012 period, contains action points such as  to improve the organisational

Country	Ratification of Council of Europe Convention on Cybercrime	Are the following attacks against information systems considered as criminal offences? Illegal access? Illegal interception? Data interference? System interference?	Are the following computer-related acts considered criminal offences?  Computer-related forgery?  Computer-related fraud?  Offences related to child pornography?  Offences related to infringements of copyright and related rights	Policy framework on the fight against cybercrime
			In the Law on intellectual and artistic works (5846/1951 rev.2006):  • offences related to infringements of copyright and related rights(art.1/B, 2, 71-75)	capacity of law enforcement agencies  to improve the level of cooperation between law enforcement agencies and other public and private bodies.
Albania	Yes Law No. 8888 dated April 25, 2002	Yes, in the Criminal Code:  Unauthorised access (art. 192/b)  Illegal interception of computer data (art. 293/a)  Data interference (art. 293/b)  System interference (art. 293/c)  Misuse of computer devices (art. 293/ç)	Yes, in the Criminal Code:  Offences related to child pornography (art. 117)  Computer-related fraud (art. 143/b)  Computer-related forgery (art. 186/a)  Offences related to infringements of copyright and related rights (law 9380 on copyright)	On Jan. 9, 2008 the Government approved a sector strategy of public order, with the following main items on cybercrime:  • to establish a special organisational unit to deal with cybercrime;  • to recruit officers with special knowledge on the field; and  • to improve the legislation in the field of cyber crime.
Bosnia & Herzegovina	Yes, in 2006	No provisions in the Criminal Code	No provisions in the Criminal Code	No explicit policy framework
Montenegro	Yes, in 2010	Yes, in the Criminal Code:  data interference (art. 349)  computer sabotage (art. 350)  distribution of viruses (art. 351)  unauthorised use (art. 353)  disturbing electronic processing (art. 354)  illegal access (art. 355)  preventing access to networks (art. 356)	Yes, in the Criminal Code:  criminal offences against copyright (art. 234)  computer fraud (art. 352)  electronic distribution of child pornography covered by art. 211	No explicit policy framework

Country	Ratification of Council of Europe Convention on Cybercrime	Are the following attacks against information systems considered as criminal offences? Illegal access? Illegal interception? Data interference? System interference?	Are the following computer-related acts considered criminal offences? Computer-related forgery? Computer-related fraud? Offences related to child pornography? Offences related to infringements of copyright and related rights	Policy framework on the fight against cybercrime
Serbia	Yes, on March 19, 2009	Yes, in the Criminal Code:  damaging computer data and programs (art. 298)  computer sabotage (art. 299)  creating and introducing computer viruses (art. 300)  unauthorised access (art. 302)  preventing or restricting access to a public computer network (art. 303)  unauthorised use of a computer (art. 304)	Yes, in the Criminal Code:  computer fraud (art. 301)  child pornography (art. 185)  criminal offences against intellectual property (art. 198 to 202)	Law on the organisation and jurisdiction of state authorities in fighting cybercrime, and a separate chapter of the Criminal Code
Kosovo (UNSCR 1244)	No Law no. 03/L–166 on prevention and fight of the cyber crime was approved by the Assembly in June 2010.	Intrusion into computer systems, data interference (art. 264, Criminal Code)     Illegal access to information systems (art. 98, Law on information society services)     Illegal interference with information systems (art. 99, Law on information society services)     Illegal access (art. 9, Law on prevention and fight of the cyber crime)     Illegal interception (art. 10, Law on prevention and fight of the cyber crime)	Computer-related forgery and computer-related fraud (art. 14, Law on prevention and fight of the cyber crime)     Offences related to child pornography (art. 16, Law on prevention and fight of the cyber crime)     Offences related to infringements of copyright and related rights (Law on copyrights and related rights)	The Law on prevention and fight of the cyber crime also contains provisions on information campaigns, cooperation between authorities, training of personnel and international cooperation.

Table R.3 - National measures to fight against cybercrime

### 4. Bodies in charge for security policy

#### Table R.4 shows:

- the body (or bodies) responsible for network and information security policy, in particular for collection of information, the analysis of current and emerging network risks, the development of common methodologies and the promotion of exchanges of best practices as well as methods of alert;
- a short description of the body's responsibilities; and
- references to relevant policy documents, websites promoting security awareness or alert networks.

The table only list bodies that are responsible for policy making and for the network and information security in general (that is including commercial and private users). It does not include bodies that are solely responsible for governmental networks or solely responsible for the security of information exchange between governmental bodies.

Country	Body/bodies responsible for network and information security policy		Description of responsibilities	Policy documents, websites, alert networks
Croatia	Office of the Council on National Security (UVNS)	•	Central state body responsible for information security  Coordinates activities in implementation of measures and standards of information security	http://www.uvns.hr/ National Programme for Information Security in the Republic of Croatia, adopted by government and Parliament in March 2005
	Institute for Information Systems Security (ZSIS)	•	Central state body for technical aspects of information security in information systems of government bodies and legal entities In charge of information systems security accreditations procedures	http://www.zsis.hr/
	National CERT in Croatian Academic and Research Network – CARNet	•	National body for prevention and protection from computer threats to public information systems	http://www.cert.hr/ Computer security brochure for internet users http://www.cert.hr/dokumenti/sigurnije_na_internetu
FYROM	Not yet established.	-		-
Turkey	TR-CERT TR-CERT is operating under the National Research Institute of Electronics and Cryptology. The website of NRIEC is hosted at www.uekae.tubitak.gov.tr TR-CERT has been established according to the 88 <sup>th</sup> action of "Information Society Strategy Action Plan (2006-2010)" (see Table O.3)	•	Public information security awareness activities via national information security portal  Technical trainings on information security (for public officials)  Consultancy to state institutions for establishing Information Security Management Systems (ISMS)  Performing penetration tests for information technology systems of state institutions  Preparing the policy document of "minimum security requirements for government information and information systems" (completed by TR-CERT, but not published)	http://www.bilgiguvenligi.gov.tr/ (National Information Security Portal)  http://www.tr-cert.gov.tr/ (National CERT Coordination Center)

Country	Body/bodies responsible for network and information security policy		Description of responsibilities	Policy documents, websites, alert networks
		•	Preparing the policy document of "security categorisation for government information and information systems" (completed by TR-CERT, but not published)	
		•	Preparation of guidance documents on information security. Prepared documents are hosted at www.bilgiguvenligi.gov.tr (in Turkish)	
		•	International cooperation:	
			<ul> <li>Participation to biannual NATO-CERT (NCIRC) CyberDefense Workshops</li> </ul>	
			<ul> <li>Cooperation with NCIRC based on Memorandum of Understanding</li> </ul>	
			<ul> <li>Participation to international CERT meetings and conferences (FIRST, TF-CSIRT, ITU Internet Governance Forum)</li> </ul>	
			<ul> <li>Participation to biannual OECD - WPISP (Working Party on Information Security and Privacy) meetings</li> </ul>	
		•	Designing and implementing the information security projects of state bodies (Government, Military)	
		•	Operating Turkish National CERT/CC (Coordination Center) (Accredited by "Trusted Introducer for CSIRTs in Europe")	
			<ul> <li>Incident response coordination</li> </ul>	
			<ul> <li>Computer Security incident response teams (CSIRT) support</li> </ul>	
			<ul> <li>Alarm and alerting services</li> </ul>	
		•	Leading government bodies for establishing government CERT organizations (consultancy, training, exercise)	
Albania	No dedicated body responsible Establishment of CERT under consideration	-		-
Bosnia & Herzegovina	No dedicated body responsible	-		-
Montenegro	Ministry for Information Society Establishment of a CERT in the ministry is under consideration	Go	vernmental body responsible for information security	Programme of information security in Montenegro, adopted in May 2008 http://www.mid.gov.me/biblioteka/dokument
Serbia	Office of the Council for National Security	•	Looks after the national security	-
		•	Coordinates the work of state bodies responsible	

Country	Body/bodies responsible for network and information security policy		Description of responsibilities	Policy documents, websites, alert networks
			for national security and considers the measures needed for improving of the national security	
		•	Sets the priorities and means of protection in order to protect national interests	
		•	Provides the Government with its opinion of periodical, annual and long-term work plans of security agencies, as well as regarding the appointment and relief from the office of the directors of security agencies.	
		•	Looks after the harmonised implementation of the provisions and standards regarding the personal data protection as well as regarding other provisions on human rights.	
Kosovo	Ministry of Public Services for governmental networks	•	Prepare policy documents for the government	-
(UNSCR 1244)	TRA and the Ministry of Transport and Post-	•	Collect data on information security	
	Telecommunications for public and telecommunications networks	•	Public awareness activities	
	nother the second	•	Coordinate information security projects of state institutions	

Table R.4 - Bodies responsible for network and information security policy

## S. Electronic commerce and electronic signatures

### 1. Market access and liability

Table S.1 shows whether certain provisions of the Electronic Commerce Directive (2000/31/EC) have been transposed.

- According to Art. 4 of the E-Commerce Directive Member States shall ensure that the taking up and pursuit of the activity of an information society service provider may not be made subject to prior authorisation or any other requirement having equivalent effect.
- Art. 12 to 14 of the E-Commerce Directive exempt certain activities of internet service providers ('mere conduit', caching and hosting) from criminal and civil liability under certain conditions.
- According to art. 15 Member States shall neither impose on providers a general obligation to monitor the information they transmit or store nor a general obligation to actively seek facts or circumstances indicating illegal activity.

Country	Does a law explicitly state that	Have the provision	ons on liability of intermediary ser	rvice providers been transposed	into national law?
	information society services do not need prior authorisation?	'mere conduit' Art. 12 E-Commerce Directive	'caching' Art. 13 E-Commerce Directive	hosting Art. 14 E-Commerce Directive	no general obligation to monitor Art. 15 E-Commerce Directive
Croatia	Yes Art. 5 Electronic commerce act	Yes Art. 16, 20 Electronic commerce act	Yes Art. 17, 20 Electronic commerce act	Yes Art. 18, 20 Electronic commerce act	Yes Art. 21 Electronic commerce act
FYROM	Yes Art. 6 Law on electronic commerce	Yes Art. 15 Law on electronic commerce	Yes Art. 16 Law on electronic commerce	Yes Art. 17 Law on electronic commerce	Yes Art. 20 Law on electronic commerce
Turkey	No	No	No	Art. 5 of Law no. 5651 contains a similar provision, but not as a transposition of the Electronic Commerce Directive	Art. 5 of Law no. 5651 contains a similar provision, but not as a transposition of the Electronic Commerce Directive
	Works are underway regarding the	alignment with the Electronic Com	merce Directive under the responsi	ibility of Ministry of Justice.	
Albania	Yes Art. 6 Law on electronic commerce	Yes Art. 15 Law on electronic commerce	Yes Art. 16 Law on electronic commerce	Yes Art. 17 Law on electronic commerce	Yes Art. 20 Law on electronic commerce
Bosnia & Herzegovina	Yes Art. 14 Law on electronic legal and business transactions	Yes Art. 24 Law on electronic legal and business transactions	Yes Art. 25 Law on electronic legal and business transactions	Yes Art. 26 Law on electronic legal and business transactions	Yes Art. 28 Law on electronic legal and business transactions
Montenegro	Yes Art. 6 Law on electronic commerce	Yes Art. 18 Law on electronic commerce	Yes Art. 19 Law on electronic commerce	Yes Art. 20 Law on electronic commerce	Yes Art. 21 Law on electronic commerce
Serbia	Yes Art. 5 Law on electronic commerce	Yes Art. 16 Law on electronic commerce	Yes Art. 17 Law on electronic commerce	Yes Art. 18 Law on electronic commerce	Yes Art. 20 Law on electronic commerce
Kosovo (UNSCR 1244)	Yes Art. 17 Law on the information society services	Yes Art. 24 Law on the information society services	Yes Art. 25 Law on the information society services	Yes Art. 26 Law on the information society services	Yes Art. 27 Law on the information society services

Table S.1 - Market access and liability

#### 2. Legal recognition of electronic contracts and electronic signatures

Table S.2 shows whether the legislation in South-East Europe has been adapted to recognise the conclusion of electronic contracts and whether electronic signatures are legally recognised. These questions are important pre-conditions to ensure the take-up of electronic commerce.

The Electronic Commerce Directive (2000/31/EC) requires Member States to remove any legal obstacles for the use of electronic contracts. This means that a contract cannot be deprived of legal validity on the ground that it has been made by electronic means. The table shows whether this general principle is recognised in the legal system. Art. 9 of the directive lists categories of contracts which would not automatically be legally valid and whose electronic conclusion could be restricted (such as contracts on real estate or contracts governed by family law). The table does not include details to what extent the countries made use of these exceptions.

The Electronic Signatures Directive (1999/93/EC) distinguishes between ordinary electronic signatures and 'advanced electronic signatures' that are based on 'qualified certificates' and created by a 'secure signature-creation device' (referred to in the table as 'qualified electronic signatures'). The technical requirements of qualified electronic signatures are specified in the three annexes of the directive. They are based on public key cryptography, involving the intervention of 'certification service providers'.

The Directive specifies that there is no automatic legal recognition of ordinary electronic signatures but that they cannot be denied legal effect or refused as evidence in courts solely on the grounds that they are in electronic format or because they are not 'qualified signatures'.

Qualified electronic signatures on the other hand must be legally recognised as equivalent to hand-written signatures and be admissible in courts.

Country	Are there any regulatory obstacles to the conclusion of electronic contracts (if yes, specify type of problem)?	Are ordinary electronic signatures denied legal effect or refused as evidence in courts?	Are qualified electronic signatures recognised as equivalent to hand-written signatures?
Croatia	No	No	Yes
		Art. 6 Electronic signature act	Art. 5 Electronic signature act
FYROM	No	No Art. 12 of Law on data in electronic form and electronic signatures	Yes Art. 13 of Law on data in electronic form and electronic signatures
Turkey	No	No The legal effect of ordinary electronic signatures is not explicitly regulated in the electronic signature law. Ordinary electronic signatures have legal effectiveness under the discretion of the judge according to art. 240, 287 and 367 of the Code of civil procedure.	Yes Art. 5 Law on electronic signature Art. 295/A Code of civil procedure
Albania	No	No	Yes Art. 4 Law no. 9880 on electronic signature.
Bosnia & Herzegovina	No	No	Yes Art. 5 Law on electronic signature
Montenegro	No	No	Yes Art. 7 Law on electronic signature

Country	Are there any regulatory obstacles to the conclusion of electronic contracts (if yes, specify type of problem)?	Are ordinary electronic signatures denied legal effect or refused as evidence in courts?	Are qualified electronic signatures recognised as equivalent to hand-written signatures?
Serbia	No	No	Yes Art. 10 Law on electronic signature
Kosovo (UNSCR 1244)	No		Yes Art. 86 Law on the information society services

Table S.2 - Legal recognition of electronic contracts and signatures

### 3. Market access, supervision and accreditation

According to Article 3 of the Electronic Signatures Directive, Member States:

- shall not make the provision of certification services subject to prior authorisation;
- may introduce voluntary accreditation schemes aiming on enhanced levels certification-service provision; and
- shall ensure the establishment of a supervision scheme for certification-service providers issuing qualified certificates.

Table S.3 shows whether prior authorisation, a voluntary accreditation scheme and/or supervision have been established and which institutions are responsible.

Country	Are providers required to notify?	Is prior authorisation required?	Voluntary accreditation scheme established?	Supervision established?
Croatia	Certification-service providers must notify to the ministry at least 8 days in advance.	No prior authorisation required. Art. 13, 15 and 16 Electronic signature act	Yes Art. 34a to 34d Electronic signature act Croatian Accreditation Agency	Yes Ministry of the Economy, Labour and Entrepreneurship and State Inspectors' Office
FYROM	Certification-service provider is obligated to register its activity with the Ministry of Finance in the register of CAs at least 30 days prior beginning of its operation.  Art. 16 Law on data in electronic form and electronic signatures	No prior authorisation required by the law. In practice, prior authorisation required by secondary legislation on the registration process: Providers must be registered in the register of CAs before starting provision of certification services.	No Art. 43 to 46 Law on data in electronic form and electronic signatures provide a legal basis for accreditation by the Ministry of Finance, but no voluntary accreditation scheme has been established yet.	Yes Ministry of Finance www.finance.gov.mk
Turkey	Providers of qualified certificates must notify to the NRA two months in advance. Art. 8 Electronic signature law	No prior authorisation required. Certification-service providers are not obliged to wait for registration before being allowed to begin their activities.	No	Yes Information and Communication Technologies Authority www.btk.gov.tr Art. 15 Electronic signature Law

Country	Are providers required to notify?	Is prior authorisation required?	Voluntary accreditation scheme established?	Supervision established?
Albania	Certification-service providers must notify to the authority no later than the date of commencement of service. Art. 11 Law on electronic signature	No prior authorisation required. Certification-service providers are not obliged to wait for registration before being allowed to begin their activities. Art. 11 Law on electronic signature	No	Yes National Authority for Electronic Certification www.akce.gov.al Art. 16 Law on electronic signature
Bosnia & Herzegovina	Certification-service providers must notify to the supervision body immediately at the beginning of their activities. Art. 7 Law on electronic signature	No prior authorisation required. Certification-service providers are not obliged to wait for registration before being allowed to begin their activities Art. 7 Law on electronic signature	No	No
	Transport of B&H.	·	sion (supervision body) shall be established anisation in the ministry, which has not been	
Montenegro	Certification-service providers must notify to the supervision body at least 8 days in advance Art. 19 Law on electronic signature	No prior authorisation required. Certification-service providers are not obliged to wait for registration before being allowed to begin their activities. Art. 18, 21 Law on electronic signature	No	Yes Ministry of Information Society www.mid.gov.me
Serbia	Providers of qualified certificates must notify to the Ministry of Telecommunication and Information Society at least 15 days before beginning their activity.  Art. 15 Law on electronic signature	No prior authorisation required for non- qualified certificates. Providers of qualified certificates must apply for registration. Art. 20 para. 4 Law on electronic signature	No	Yes Ministry of Telecommunication and Information Society www.mtid.gov.rs
Kosovo (UNSCR 1244)	No obligation to notify under the chapter on electronic signatures in the Law on the information society services.	No prior authorisation required. Art. 17 Law on the information society services	No	No The chapter on electronic signatures in the Law on the information society services does not foresee a supervisory authority.

Table S.3 - Market access for providers of certification services

### 4. Electronic signature market data

### Table S.4 shows:

- certification service providers, which issue qualified certificates in the respective country;
  - NB. The table shows certification service providers, which are established in the respective country, as well as certification service providers, which are established in another country, but are active on the respective national market, for example by establishing a network of registration services, or by gaining a voluntary accreditation.
- available market data on usage of electronic signatures, in particular: number of valid qualified certificates.

Country	Certification service provider(s) issuing qualified certificates  Name(s) and URL(s)	Data on usage of electronic signatures
Croatia	Financial agency (Fina)     www.fina.hr	June 30, 2010: 17,616 valid normal certificates 17,616 valid qualified certificates
FYROM	KIBS AD Skopje     ca.kibs.com.mk     Makedonski Telekom     ca.mt.net.mk	No data available
Turkey	<ul> <li>Electronic Information Security Corp. (e – Güven Corp.)         www.e-guven.com</li> <li>National Research Institute of Electronics and Cryptology (NRIEC) –         Government Certification Authority (TUBITAK UEKAE))         www.kamusm.gov.tr</li> <li>TürkTrust Information, Communication and Informatic Security Services Corp         (TurkTrust Corp.)         www.turktrust.com.tr</li> <li>EBG Informatic Technologies and Services Corp. (e – Tuğra Corp.)         www.e-tugra.com.tr</li> </ul>	52,106 valid and/or active traditional qualified electronic certificates 71,736 valid and/or active mobile qualified electronic certificates (as of December 2009)
Albania	Albanian Post is registered as a CSP, but it is not issuing qualified certificates yet.	None
Bosnia & Herzegovina	No such providers	Not applicable
Montenegro	No such providers	24% of enterprises use electronic signatures

Country	Certification service provider(s) issuing qualified certificates  Name(s) and URL(s)	Data on usage of electronic signatures
Serbia	<ul> <li>PTT Communications "Serbia"         www.ca.posta.rs</li> <li>Serbian Chamber of Commerce         ca.pks.rs</li> <li>Ministry of Interior         ca.mup.gov.rs</li> <li>Halcom BG CA (since Oct. 1, 2010)         www.halcom.rs</li> </ul>	PTT Communications "Serbia": 2,500 valid certificates Serbian Chamber of Commerce: 200 valid certificates Ministry of Interior: 500 valid certificates
Kosovo (UNSCR 1244)	No such providers	Not applicable

Table S.4 - Market data on electronic signatures

### T. Data protection and data retention

### 1. Protection of confidentiality of communications

According to Article 5 of the Privacy Directive, member states shall ensure the confidentiality of communications and the related traffic data through national legislation. In particular, they shall prohibit listening, tapping, storage or other kinds of interception or surveillance of communications and the related traffic data by persons other than users, without the consent of the users concerned, with the exception of lawful interception.

#### Table T.1 shows:

- legal provisions for the protection of confidentiality of communications;
- the scope of the protected communications: content of the communications and/or related traffic and location data;
- whether the provisions only refer to interception by an operator and its staff or also to interception by third parties;
- which penalties are prescribed by the provision; and is interception considered a criminal offence, a misdemeanour or can intercepted persons only enforce the provision by a lawsuit under civil law.

Country	Legal provisions on confidentiality	Scope of protected communications: content and/or traffic data	Protection against interception by operator and/or interception by third parties	Penalties
Croatia	Art. 100 Electronic communications act	All data in telecommunication traffic	Protection against interception by operator and interception by third parties	Misdemeanour (art. 119 Electronic communications act)  A responsible person of a legal entity will be fined with an amount from €2,757 to €13,784.  A natural person who broke the law will be fined with an amount from €1,378 to €6,892.  It is possible to penalise the legal entity with the protective measure of prohibiting practice for three months to one year and for the natural person or responsible person in the legal entity the same measure for one to six months.
	Art. 230 Criminal Code	All data in telecommunication traffic	Protection against interception by anyone	Criminal offence The penalty can vary between a monetary fine and one year in prison. If the offence is done during performing official duties, the offender can be penalised with a sentence between one year and three years in prison.
FYROM	Art. 111 Law on electronic communications	<ul> <li>Content of communications</li> <li>Traffic data and location data relating to communications</li> <li>Unsuccessful attempts to establish a connection.</li> </ul>	Protection against interception by operator	Misdemeanour fines (Law on electronic communications):  A fine in the amount of  • 7 to 10% for the legal entity which undertakes surveillance, tapping, interruption, recording, storage and diverting of communications and data in instances forbidden by the law; or  • 4 to 7% for the legal entity which fails to protect the confidentiality of electronic communications of the total annual revenue acquired during the commercial year prior the year when the misdemeanour was performed or of the total revenue acquired for a shorter period of the year preceding the misdemeanour.
	Art. 151 Criminal Code	This provision does not explicitly refer to communications data, it applies to everyone who taps or records <i>on audio</i> conversation or statement that was not intended for him.	Protection against interception by anyone	Criminal offence Imprisonment up to one year or a pecuniary fine Imprisonment up to three years, if the crime was committed by an official while performing his duty Pecuniary fine, if the crime was committed by a firm

Country	Legal provisions on confidentiality	Scope of protected communications: content and/or traffic data	Protection against interception by operator and/or interception by third parties	Penalties
Turkey	Art. 132, 135, 136 Turkish Criminal Code	Content of communications     Traffic data and location data relating to communications	Protection against interception by operator and interception by third parties	Criminal offence Imprisonment from 6 months to 2 years (art. 132) Imprisonment from 6 months to 3 years (art. 135) Imprisonment from 1 year to 4 years (art. 136)
	Art. 6 Law on regulating broadcast in internet and combating crimes committed through such broadcast	Traffic data	Protection against interception by operator and interception by third parties	Misdemeanour: €4,598 to €22,988
	Art. 8 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Content data and traffic data	Protection against interception by operator and interception by third parties	No penalty provided in the bylaw This bylaw is being reviewed. According to the draft of the new bylaw a fine in the amount of up to 3% of the total annual revenue acquired during the commercial year prior to the current year is foreseen.
Albania	Art. 123 Law on electronic communications	Content data and traffic data	Protection against interception by operator and interception by third parties	Misdemeanour with a fine from 7% to 10% of annual revenue
	Art. 123 Criminal Code (obstruction or breach of privacy of correspondence) and 293/a Criminal Code (illegal interception of computer data)	Communications in general, not restricted to electronic communications data	Protection against interception by anyone	Criminal offences  pecuniary fine or up to two years of imprisonment (art. 123, violation of privacy)  3 to 7 years of imprisonment (art. 293/a, public computer system interception)  7 to 15 years of imprisonment (art. 293/a, state computer system interception)
Bosnia & Herzegovina	No explicit legislation, but operators and se	ervice providers ensure confidentiality (con	ntent data and traffic data) according	to their licences.
Montenegro	Art. 119 Law on electronic communications	<ul> <li>Content of communications</li> <li>Data of user</li> <li>Traffic data and location data relating to communications</li> <li>Unsuccessful attempts to establish a connection</li> </ul>	Protection against interception by operator and interception by third parties	Misdemeanour, with a fine from the tenfold to the 250-fold of the minimal income in the country Art. 138, premise 1, point 38 Law on electronic communications
Serbia	Art. 126 Law on electronic communications	Content data and traffic data	Protection against interception by operator and interception by third parties	Misdemeanour, with a fine of RSD 1m–2m (€9,400– €18,800) Art. 137 Law on electronic communications

Country	Legal provisions on confidentiality	Scope of protected communications: content and/or traffic data	Protection against interception by operator and/or interception by third parties	Penalties
	Art. 142, 143, 144, 146 Criminal Code	Content data and traffic data	Protection against interception by operator and interception by third parties	Criminal offence Imprisonment of three months to five years or pecuniary fine
Kosovo (UNSCR 1244)	Art. 74 Law on telecommunications	Content data and traffic data	Protection against interception by operator and interception by third parties	Misdemeanour TRA may impose fines according to the general provision in art. 15 Law on telecommunications. This provision does not specify the amount.
	Art. 74 and 98 Law on the information society services	Content data and traffic data	Protection against interception by operator and interception by third parties	Criminal offence, imprisonment of a maximum of no less than one year in serious cases. Serious cases are defined as excluding cases where the conduct resulted in no damage or economic benefit.  Art. 101 Law on the information society services

Table T.1 - Protection of confidentiality of communications

#### Traffic and location data

According to Article 6 Privacy Directive, traffic data relating to subscribers and users must be erased or made anonymous when it is no longer needed for the purpose of a communication, for billing and interconnection payments, or for lawful interception. Some countries transpose this provision by defining a certain period of time (which is typically the same for all operators and subscribers), some refer to the period during which the bill may be lawfully challenged or payment can be pursued (which is typically dependent on the contract between the operator and the subscriber).

NB. See Table T.3 on data retention below. Data retention means that operators are obliged to retain traffic data for the purpose of lawful interception, for a longer period than needed by the operator for its own purposes, in particular billing. This table does not cover lawful interception or data retention. It only refers to legal provisions that specify the period for which the operator can store and use the date for its own purposes.

Article 6 para. 3 Privacy Directive requires the subscriber's informed consent before providers can use traffic data for marketing their own services or for the provision of value added services.

Article 9 Privacy Directive contains provisions to protect location data, in particular that the usage of location data typically needs informed consent by the user or subscriber and even where consent has been obtained, the user or subscriber must be able to temporarily refuse the processing of location data.

#### The table below shows:

- how the member state defines the maximum period for storage and processing of traffic data for purposes of the operator, e.g. billing (regardless of eventually longer periods defined in data retention legislation);
- whether informed consent is required before traffic data can be used for marketing purposes or for provision of value-added services;
- whether informed consent is required before location data can be used; and

• whether the user/subscriber can, even after giving consent, temporarily refuse the processing of location data.

Country	Traffic	c data	Location	on data
	Maximum storage period	Informed consent required for marketing?	Informed consent required?	Possibility to temporarily refuse?
Croatia	As long as needed for billing (period of statute of limitation – 1 year) Art. 102 Electronic communications act	Yes	Yes Art. 104 Electronic communications act	Yes
FYROM	As long as needed for billing.  Art. 112 Law on electronic communications In its original version, article 112 para. 1 of the law said that operators must erase traffic data as soon as they are no longer needed for transmission of a message, and para. 2 contained an exception if data is needed for billing.  Amendments to article 112 para. 1 adopted in June 2010 generally oblige operators to retain all raw traffic data for 24 months.	Yes	Yes Art. 114 Law on electronic communications	Yes
Turkey	<ul> <li>6 months – 2 years for art. 6, Law no. 5651 on regulating broadcast in internet and combating crimes committed through such broadcast (This storage period is obligatory for access providers)</li> <li>1 year – Draft bylaw on processing of personal data and protection of privacy in the telecommunications sector</li> </ul>	Yes Art. 9 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Yes Art. 9 Bylaw on personal information processing and protection of privacy in the telecommunications sector	Yes Art. 9 Bylaw on personal information processing and protection of privacy in the telecommunications sector
	protection of privacy in the telecommunica		is users (Art. 2 Law no. 5651). The bylaw or ette on February 6, 2004 is currently in force period.	
Albania	As long as needed for billing Art. 124 Law on electronic communications	Yes	Yes Art. 126 Law on electronic communications	Yes
Bosnia & Herzegovina	Not regulated	Not regulated	Not regulated	Not regulated

Country	Traffic data		Location data	
	Maximum storage period	Informed consent required for marketing?	Informed consent required?	Possibility to temporarily refuse?
Montenegro	All personal data must be deleted or made anonymous after five years or as soon as it is no longer needed.  Art. 121 Law on electronic communications	Yes	Yes Art. 123 Law on electronic communications	Yes
Serbia	As long as needed for billing. Art. 122 Law on electronic communications In addition, art. 128 of the law provides a maximum data retention period of 12 months.	Yes	Yes Art. 123 Law on electronic communications	Yes
Kosovo (UNSCR 1244)	As long as needed for billing. Art. 75 and 76 Law on telecommunications Art. 75 Law on the information society services	Yes	Yes Art. 78 Law on the information society services	Yes

Table T.2 - Processing of traffic and location data

#### Data retention

According to the Privacy Directive, providers typically have to erase traffic data as soon as they do not need them any more for their legitimate purposes (in particular for billing, see the table above). However, Art. 15 (1) Privacy Directive establishes an exception to that principle and allows Member States to adopt legislation providing for the retention of data for a limited period where this constitutes a necessary, appropriate and proportionate measure in a democratic society to safeguard national security (i.e. State security), defence, public security, and the prevention, investigation, detection and prosecution of criminal offences or of unauthorised use of electronic communication systems.

Directive 2006/24/EC on Data Retention harmonises Member States' laws on the retention of traffic, location and identification data to ensure the investigation, detection and prosecution of 'serious crimes'. All categories of data covered by the directive must be retained for a minimum of six months and for a maximum of two years specifies the principles, the types of data to be retained and the retention periods.

#### The table below shows:

- the legal basis for an obligation to systematically retain traffic data;
- the types of data covered, in particular telephony data and/or internet data (internet access, internet mail and/or internet telephony);
- the retention periods (minimum and/or maximum); and

• who bears the costs of retaining data (in particular investments to set up a data retention system) and whether the operator has a right to being compensated.

Country	Legal basis for data retention obligations	Types of data covered (telephony data and/or internet data)	Retention period (Min. or max.)	Who bears the costs? Right to compensation?		
Croatia	Art. 109 and 110 Electronic Communications Act	Telephony data and internet data	12 months	Operators bear the costs.  No right to compensation.		
FYROM	Art. 112 Law on electronic communications, as amended in June 2010	The law obliges all operators of public communications networks and providers of public communications services to retain "raw traffic data", but does not clearly determine the types of data to be retained.	24 months	Operators bear the costs.  No right to compensation.		
Turkey	Art. 6 of Law no. 5651 on regulating broadcast in internet and combating crimes committed through such broadcast  Draft bylaw on personal information processing and protection of privacy in the telecommunications sector (see comment below)	Law no. 5651: Article 6 obliges access providers to retain traffic data. The exact type of data to be retained would be specified by a bylaw that has not been adopted. Draft bylaw: Telephony data and internet data	Law no. 5651: Article 6 obliges access providers to retain traffic data for a period of six months to 2 years. The retention period would be specified by a bylaw that has not been adopted. Draft bylaw: 12 months	Law no. 5651 and draft bylaw: Operators bear the costs. No right to compensation.		
	The bylaw on personal information processing and protection of privacy in the telecommunications sector, as published in the official gazette on February 6, 2004 is currently in force. Works are underway to publish an amended version of the bylaw in order to transpose the Data Retention Directive.					
Albania	Art. 101 Law on electronic communications	Telephony data Although art. 101 of the law obliges all providers of public electronic communications networks and services, the list of retained data refers to telephony data; there is no specific requirement for internet data.	Maximum 2 years	Operators bear the costs.  No right to compensation.		
Bosnia & Herzegovina	Art. 4 Law on electronic communications (as amended by official gazette 75/06) Secondary legislation: Decisions of the Council of Ministers on legal interception and data retention	Telephony data and internet data	Maximum 12 months	Operators bear the costs.  No right to compensation.		
Montenegro	Art. 126 Law on electronic communications	Telephony data and internet data	Minimum 6 months Maximum 2 years	Operators bear the costs.  No right to compensation.		

Country	Legal basis for data retention obligations	Types of data covered (telephony data and/or internet data)	Retention period (Min. or max.)	Who bears the costs? Right to compensation?
Serbia	Art.128, 129 and 130 Law on electronic communications	Art. 129 of the law does not specify the type of communications service, but would in principle cover both telephony data and internet data.  A bylaw that will be enacted by July 2011 will determine in detail, which type of data must be retained for which communications service.	12 months	Operator bears the costs.  No right to compensation.
Kosovo (UNSCR 1244)	No legal provisions on data retention			

Table T.3 - Data retention obligations

### 4. Spam

Art. 13 of the Privacy Directive requires unsolicited commercial communications by e-mail to be subject to the individual's prior consent (opt-in), except for the sending of direct marketing emails to existing customers. For companies, Member States are free to require an opt-in or an opt-out.

NB. In addition to other requirements, Art. 7 of the Electronic Commerce Directive states that when unsolicited commercial communications by e-mail is allowed, it must be clearly identifiable and service providers who send such communications must respect opt-out registers.

The table below shows whether spam is authorised or prohibited in the countries and whether there is a dedicated public authority to fight the phenomenon.

Country	Is spam prohibited or allowed?		rohibited or allowed?	Authority to fight spam
	To companies	To individuals	Legal basis	
Croatia	Prohibited	Prohibited	Art. 107 Electronic communications act	HAKOM – NRA CARNet – CERT
FYROM	Prohibited	Prohibited	Art. 117 Law on electronic communications Art. 17 Law on personal data protection	No dedicated public authority Directorate for personal data protection is responsible for individuals (www.dzlp.mk) Agency for electronic communications for network operators and service providers (www.aec.mk)
Turkey	Prohibited	Prohibited	Art. 20 Bylaw on personal information processing and protection of privacy in the telecommunications sector	TÜBİTAK-UEKAE (NRIEC) designs and implements awareness raising activities against security threats including spam.  www.uekae.tubitak.gov.tr  Turkish anti-spam organization (TASO) also fights against spam.  www.spam.org.tr  ICTA implements projects with operators and civil society in order to fight spam (www.btk.gov.tr).

Country	Is spam prohibited or allowed?		rohibited or allowed?	Authority to fight spam		
	To companies	To individuals	Legal basis			
	Art. 20 Bylaw on personal information processing and protection of privacy in the telecommunications sector and Article 50(5) of Law no 5809 on subscriber's contract include provisions regarding spam which takes into account the provisions of the E-Commerce Directive. Nevertheless, this provision is considered as unsatisfactory because it adopts opt-out method and determines only the obligations of electronic communications operators regarding spam, but omits the roles and responsibilities of other parties. On the other hand, the draft E-Commerce Law covers some provisions addressing spam in line with the E-Commerce Directive.					
Albania	Prohibited	Prohibited	Art. 128 Law on electronic communications	No dedicated public authority		
				AKEP inspectors can prosecute infringements by misdemeanour proceedings		
Bosnia & Herzegovina	No explicit legislation	No explicit legislation	No explicit legislation or regulation on spam	No dedicated public authority		
Montenegro	Prohibited	Prohibited	Art. 124 of Law on electronic communications	No dedicated public authority		
Serbia	Prohibited	Prohibited	Art. 9 Law on advertising Art. 118 Law on electronic communications	No dedicated public authority		
Kosovo (UNSCR	Allowed, under conditions	Allowed, under conditions	Art. 19 and 20 Law on the information society services:	No dedicated public authority		
1244)			20.1. Unsolicited commercial communications by electronic mail are permitted provided however that such communications by a service provider need to be clearly identifiable and unambiguously as such			
			According to article 20.2 service providers must respect opt-out registers			

Table T.4 - Legal provisions on spam

### U. Management of internet domains

### 1. National domain name registry

#### Table U.1 shows:

- The name and website of the national registry in charge of the country codes Top Level Domains (ccTLD). The registry is the body which manages the central database and the domain name servers.
- The legal basis of to the registry in the national legislation, for example a body could be given the responsibility to act as the national registry by law, by an ordinance, by a contract with the government, or it could not have a formal legal basis.
- The legal basis of the national domain name policy, in particular the rules on who can register a domain name, rules on accrediting registrars and dispute settlement provisions. For example, such rules could be defined by an ordinance of a minister or the registry could have the legal power to adopt such rules.

Country	Name and website of the national registry	Legal basis of the national registry	Legal basis of the national domain name policy
Croatia	Croatian Academic and Research Network - CARNet http://www.dns.hr/	Contract with Internet Assigned Number Authority (IANA), Art. 79 Electronic communications act	Ordinance on organisation and management of national internet top-level domain, enacted by the Minister of Science, Education and Sports, on the proposal by CARNet, and approved by the Minister of the Sea, Transport and Infrastructure and the State Secretary of the Central State Administrative Office for e-Croatia, based on Art. 79 Electronic communications act.
FYROM	Macedonian Academic and Research Network (MARNet) http://dns.marnet.net.mk/	MARNet was established in 1994 as a department of the "Ss Cyril and Methodius" University by endorsement of the Ministry of Sciences and decision of the University Board.  A national law on the organisation and operation of the National and Research Education Network (NREN) is still under preparation. It will establish the NREN as a new legal entity, which will also take over the function of the national registry.  The law is in procedure for adoption by the Parliament.	Statute on the organisation and management of the national top level domain in the area of internet '.mk' and the subdomains within. This Statute was adopted by the MARNet Management Board and the University Board and published in the national official gazette. It has no formal recognition as a national law.
Turkey	Nic.tr – ".tr" Domain Names Administration Middle East Technical University (METU) https://www.nic.tr/	Nic.tr is an organisational unit of METU, operating since 1991 when first world-wide internet connection of the country has been established by METU.  No explicit legislation on domain name management except ICANN contract between nic.tr and ICANN.  Currently, the preparation process is ongoing regarding domain name management in line with the new Electronic Communications Law.  ICTA prepared a draft Domain Names Bylaw, which envisages ICTA to be registry. nic.tr will continue its operations during the transition period.	General Terms and Conditions, as adopted by the DNS Working Group of Internet Council that was formed under the auspices of Ministry of Transport and Communication. According to Art. 5 of Electronic Communications Law (Law no: 5809, Nov. 5, 2008), the Ministry is competent for domain name strategy and policy. The draft bylaw will become the legal basis for domain name registration.
Albania	Authority of Electronic and Postal Communications (AKEP) http://akep.al/	Under article 8 point k) of Law no. 9918 on electronic communications, AKEP is the responsible authority for the administration of ccTLD .al and other subdomains.	Regulation "On the registration and administration of the domain names under .al and sub-domains .gov.al, .mil.al, .edu.al, .com.al, .org.al and .net.al", adopted by AKEP's predecessor TRE on February 21, 2008, amended by Decision of the Governing Council of AKEP no. 1299 of June 11, 2010.
Bosnia & Herzegovina	University Teleinformatic Centre (UTIC) http://www.nic.ba/	From 1996 UTIC has been authorised by IANA. Also in 1996 the government of Bosnia & Herzegovina authorised UTIC. No explicit legislation on domain name management.	Regulations regarding the registration and use of the domain name under the Bosnia & Herzegovina country internet .BA domain, adopted by UTIC. The Ministry of Communications and Transport intends to adopt a policy on management and usage of the .BA top level domain.
Montenegro	.ME Register (doMEn) http://www.domen.me/	On the basis of article 7(1) of the Law on the property of the Republic of Montenegro the government adopted a decision establishing the Council for ".me" domain.  This council announced a public invitation for selection of the Agent for domain registration. GoDaddy.com won this public tender.	Decision of the Council for ".me" domain of July 14, 2007.

Country	Name and website of the national registry	Legal basis of the national registry	Legal basis of the national domain name policy
Serbia	Register of National Internet Domain of Serbia (RNIDS) http://www.rnids.rs/	RNIDS is a non-governmental and non-profit association of internet service providers and university institutions, established as a fund in July 2006.  On Sep. 25, 2007 ICANN decided to delegate the .rs domain registry to RNIDS and also designated RNIDS as temporary caretaker of the .yu registry until its closure.  Registration of .rs started on March 10, 2008. Operation of .yu ended in March 2010.  In Jan. 2010 the government appointed the Ministry of telecommunications and information society in cooperation with RNIDS to ensure the conditions for introducing a Cyrillic country code top-level domain.  No explicit legislation on domain name management.  On Nov. 8, 2010 ICANN approved .cp6 as an additional national domain for Serbia.	General Terms and Conditions for Registration of .rs Domain Names, as adopted by the General Assembly of RNIDS on October 26, 2007
Kosovo (UNSCR 1244)	N/A	N/A	N/A

Table U.1 - National domain name registry

### 2. Registrars of domain names

The management of internet domain names consists of two different functions, which can be performed by different bodies:

- administrating the registry, in particular a central database and domain name servers (registry function); and
- registering individual domain names, customer contact and billing (registrar function).

For some top-level domains, the registry is the only registrar. In many countries, the registrar function is performed by many different registrars in a competitive environment. Usually, such registrars are accredited (and to some extent supervised) by the registry and have access to the registry's central database by means of an electronic interface.

#### Table U.2 shows:

- whether the registry itself is the only registrar or competition between registrars has been established;
- whether foreign registrars become accredited and, if yes, if accreditation of foreign registrars is restricted to certain countries;
- whether registrars are accredited by the registry or by a different body;
- whether an electronic interface between registrars and registry exists; and
- the number of active registrars.

Country	Competition between registrars exists?	Can foreign registrars become accredited?	Who accredits registrars?	Electronic interface exists?	Number of active registrars
Croatia	Yes	No	The registry	Yes	13
FYROM	No	No	-	No	1
Turkey	Yes	No (for the time being)	The registry	Yes	13 (since beginning of 2009)
	The accreditation process has been stopped at the beginning of 2009 due to the foregoing legislation preparation process. So the number of active registrars is the sa as last year.				
Albania	No	No	-	No	1
Bosnia & Herzegovina	Yes	No	The registry	Yes	20 (Aug. 2010)
Montenegro	Yes	Yes	The registry	Yes	123 (July 2010)
Serbia	Yes	Yes, but local legal presence is required (e.g. a company registered in Serbia, legal representative resident in Serbia or a proxy contact resident in Serbia)	The registry	Yes	36 (Sep. 2010)
Kosovo (UNSCR 1244)	N/A	N/A	N/A	N/A	N/A

Table U.2 - Registrars of domain names

## 3. Cybersquatting and dispute resolution

Cybersquatting is registering, trafficking in, or using a domain name with intent to profit from the goodwill of a trademark belonging to someone else. The cybersquatter then offers to sell the domain to the person or company who owns a trademark contained within the name at an inflated price.

Table U.3 describes the national policies against cyber squatting, including the availability of alternative dispute resolution mechanisms.

Country	Policies against cybersquatting	Dispute resolution mechanism
Croatia	The regulations for .hr limit the number of second level domains per holder to two for natural persons and up to ten for legal persons. For third level domains under .com.hr the number is not limited.	Domain name disputes are resolved according to arbitration rules based on ICANN's Uniform Domain Name Dispute Resolution Policy. The arbitration rules are published on CARNet's website and are included in the new Ordinance on
	The registration of one second level domain that corresponds to the registrants name is free of charge (see Table U.4 for detailed conditions).	organisation and management of national internet top-level domain.
	According to the Ordinance on organisation and management of national internet top-level domain, the holder must not register a domain name if it violates the rights of a third party like trademarks and names of products or services that third parties offer.	
	A domain name cannot be sold or transferred.	

Country	Policies against cybersquatting	Dispute resolution mechanism
FYROM	There are certain general statements in the registry's Statute that the registrants shall not use the domain names for impersonating third party identity and use the domain name in bad faith but there are no instruments for enforcing such policy apart from the dispute resolution policy.	A dispute resolution policy has been stipulated in the Statute that offers three mechanisms for resolution of disputes:  mutual negotiation and resolution between the affected parties  by means of an independent Arbitrage Committee or  by means of an of authoritative court resolution.
Turkey	As stated in the ".tr" Domain Names Policies, Rules and Procedures' document, domain names under ".tr" are not to be sold, rented or transferred. In the case of violation, all domain names registered to the owner of the relevant domain name will be subject to deletion. Domain names may only be transferred on the condition that certified rights are also transferred (trademark and patent rights etc.).  In the draft bylaw dated April 24, 2010, it is foreseen that .tr domain names may be sold, rented or transferred.	Domain name disputes can be ultimately resolved by court proceedings or by the DNS Working Group. The Ministry of Transport established the "DNS Working Group" in 2000 which functions under the authority of the Internet Council and consists of eleven corporate members of sector representatives, as a means to apply the division of legislative, executive and judicial powers for ".tr" Domain Names. In this context, DNS Working Group operates as the pre-legislative authority and is in charge of determining policies and rules.  The draft domain names bylaw foresees an alternative dispute resolution
	sold, reflied of transferred.	mechanism that will be run by dispute resolution service providers. The mechanism is planned to be in parallel with ICANN's mechanism.
Albania	Regulation on the registration and administration of domain names under .al (article 4 points 2 and 3, article 18 point 2/d, article 34 point 3)	Domain name disputes can be resolved in court proceedings or by arbitration.
Bosnia & Herzegovina	WIPO's ccTLD best practices for the prevention and resolution of intellectual property disputes  No explicit legislation on cybersquatting or domain name disputes	ICANN's Uniform Domain Name Dispute Resolution Policy
Montenegro	Art 27 of the Rules on registration and use of domain below the national internet Domain ".me": "In case of any litigation regarding the right to use the name of the domain between the user of a domain registered according to this Rulebook and third person, international standards, usual rules, and Uniform Domain-Name Dispute-Resolution Policy (UDRP) will be applied."	.ME Uniform Domain Name Dispute Resolution Policy (based on ICANN's Uniform Domain Name Dispute Resolution Policy) The World Intellectual Property Organization (WIPO) is assigned as dispute resolution provider. All claims have to be filed with WIPO.
Serbia	No explicit legislation on cybersquatting or domain name disputes	Rules on Arbitration Proceedings for Settling Disputes Arising out of Registration of .rs Domains, as adopted by the General Assembly of RNIDS on Oct. 26, 2007.  Each registrant must in advance give his consent to participate in arbitration proceedings and to comply by the final decision (Art. 18 of the General Terms and Conditions).  Domain name disputes can be resolved by arbitration or in court proceedings.
Kosovo (UNSCR 1244)	Kosovo does not have a ccTLD, so for the moment is not facing any domain name disputes.	TRA has approved a regulation on procedures for dispute resolution based on Art. 4 and 11 of the Law on telecommunications, This also applies to domain name disputes.

Table U.3 - Policies against cybersquatting and dispute resolution mechanism

### 4. Domain market data

### Table U.4 shows:

- the number of registered sub domains of the relevant ccTLD;
- the price charged by the registry per sub domain and year, excluding VAT;
- whether this price covers solely the registry functions (for countries with separated functions of registry and registrars) or if it also includes registrar functions (for countries where the registry is the only registrar).

	Number of domains	Price per domain and year (excl. VAT)	Services covered by this price
Croatia	75,000 (Aug. 2010)	<ul> <li>Second level domains for virtual identity of the registrant:</li> <li>one per registrant (for legal persons and persons that offer registered services, eg craftsmen, artists)</li> <li>must correspond to the registrants name</li> <li>free of charge</li> <li>Second level domains:</li> <li>up to 9 for legal entities</li> <li>one for natural persons</li> <li>€21 per year</li> <li>Third level domains under .com.hr):</li> <li>number is not limited</li> <li>€3 per year</li> <li>About 80% of all registered domains are free of charge.</li> </ul>	Annual registration and transfer of the domain (transfer includes one year renewal).  Registrar functions not included.
FYROM	16,390 (July 2010)	<ul> <li>€8.58 for the first year, half that price yearly subscription afterwards for local registrants.</li> <li>Doubled price for foreign registrants.</li> </ul>	Registration and 3 free of charge updates within the subscription period. Further changes are charged €2.62 per change. Registrar functions included
Turkey	224,029 (Aug. 3, 2010)	<ul> <li>com.tr, net.tr: TRY 20.50 TL (€10.48)</li> <li>namesurname.com.tr , namesurname.net.tr: TRY 9.84 (€5.03)</li> <li>biz.tr, info.tr, tv.tr, org.tr, web.tr, gen.tr, av.tr, bbs.tr, dr.tr: TRY 12.30 (€6.29)</li> <li>k12.tr, name.tr, tel.tr, bel.tr : TRY 4.10 (€2.10)</li> <li>gov.tr, edu.tr, pol.tr, mil.tr, tsk.tr: free of charge</li> </ul>	Annual registration for a ".tr" domain and any other operation regarding this domain (contact change, DNS server change etc.) Registrar functions not included
Albania	3,244 (July 1, 2010)	ALL 1,600 per 2 years (corresponds to €11.72 per year – CI)	Annual registration and some other operation such as contact changes, DNS server changes, domain name information update.  Registrar functions included

	Number of domains	Price per domain and year (excl. VAT)	Services covered by this price
Bosnia & Herzegovina	10,466 (Aug. 2010)	First year: 80 BAM (€40.9) Next four of five years: 30 BAM (€15.34)	.ba domain name registration by the registry (includes yearly maintenance for the first year).  Registrar functions not included
Montenegro	407,422 (June 2010)	<ul> <li>Open registrations €10 per year, minimum term 1 year</li> <li>€5.99 for domains of third level for Montenegrin registrars</li> </ul>	Registry services. Registrar functions not included
Serbia	59,430 (Sep. 3, 2010)	<ul> <li>~€13 for .rs</li> <li>~€2.30 for .in.rs</li> <li>~€4.20 for .co.rs, .edu.rs, .org.rs</li> </ul>	Annual registration for .rs domain by the registry Registrar functions not included
Kosovo (UNSCR 1244)	N/A	N/A	N/A

Table U.4 - Domain market data