



years

Introduction

Over the past two decades, Ratel has successfully built a stable and modern regulatory framework for the development of the electronic communications and postal services sectors, and the protection of information security in the Republic of Serbia.

Ratel's task is to provide citizens and businesses with an open and stable market, aligned with European standards and ready for new technologies.

In the first decade, Ratel's activities were focused on harmonizing regulations and practices with the European Union legislation, creating regulatory conditions for the rational and efficient use of limited resources and developing free, fair and open electronic communications and postal services markets.

In the second decade of its work, Ratel was particularly focused on digitalization and the application of modern technologies, strengthening network integrity, protecting end-users and using innovative tools in regulatory decision-making.

Ratel's priority is to make modern, affordable and high-quality services available, in accordance with its role as an independent regulator, through encouraging competition and regulating the market.

The following key results can be highlighted:

- **liberalization of the electronic communications and postal services markets** – by ensuring conditions for new operators to enter the market and by encouraging competition, which resulted in increased availability and quality of services;
- **efficient management of the radio frequency spectrum** – by creating conditions for the introduction of modern technologies, by successfully implementing public tender procedures for the introduction of third, fourth and fifth generation mobile telephony and by building a comprehensive system for the RF spectrum monitoring;
- **ensuring conditions for the introduction of digital television (complete cessation of analogue television broadcasts) and digital radio** – by signing agreements and final acts at the Regional Conference for Planning the Digital Broadcasting Service in 2006; during the remaining transition period for the switchover to digital television, until June 17, 2015, Ratel prepared proposals for allotment plans with frequencies/locations for the initial digital television broadcasting network, which enabled simulcast for analog and digital television, resulting in the gradual switch-off of analog transmitters and the commissioning of digital transmitters in allotment areas (from February to May 2015);

- **introduction of number portability** – by establishing a system of a central database of ported numbers and enabling number portability in public mobile telecommunications networks and in public telephone networks at a fixed location;
- **abolition of additional roaming fees in the Western Balkans region** – by implementing the “roam like at home” rule from 1 July 2021, in accordance with the provisions of the Agreement on the price reduction of the roaming services in public mobile communications networks in the Western Balkans region, with continuous monitoring and supervision of compliance with obligations imposed on mobile operators;
- **successfully completed procedure for obtaining an orbital position for the future fixed satellite and broadcasting satellite network** – owing to the many years of engagement of Ratel experts to ensure that the Republic of Serbia receives a satellite network registered in the relevant international plan (Fixed Satellite Service) as a valuable resource for the implementation and development of satellite communications;
- **development of a model for the sustainability of the universal postal service** – through defining its role in accordance with the changing needs of users, in cooperation with the line ministry, the Public Postal Operator (PPO) and representatives of the academic community;
- **a higher level of user protection** – through a comprehensive system for submitting and resolving complaints and requests for out-of-court dispute resolution.



Bylaws
Electronic Communications



Bylaws
Postal Services

REGULATORY ACTIVITY



Bylaws
Information Security

Regulatory activities are aimed at creating a stable, fair and technologically neutral market, preserving competition, encouraging innovation, digital inclusion and protecting the interests of users.

Over the past two decades, the regulatory activity of Ratel can be divided into three key periods.

2005-2009 – initial framework (Telecommunications Act of 2003, in force since 2005):

Establishment of Ratel; planning and monitoring of the radio frequency spectrum; issuing licenses; managing numbering and regulating interconnection between operators; regulating operators with significant market share; enforcing technical standards and equipment control; encouraging competition and market liberalization.

2010-2018 – modernization and expansion of competences (Law on Electronic Communications of 2010 – amended in 2013 and 2014, amendments to the Law on Postal Services of 2014 and adoption of the Law on Information Security of 2016):

The new law regulating electronic communications is aligned with European standards, and after amendments in 2013 and 2014, it was further aligned with the EU regulatory framework, technological development and market needs.

After defining the first regulatory framework for postal services and establishing the postal services regulator (Rapus) in 2010, amendments to the law regulating postal services in 2014 enabled the merger of Ratel and Rapus and expanded regulatory competences in the field of postal services.

The law regulating information security gives Ratel the competence of the National CERT – the Center for the Prevention of Security Risks in Information and Communication Systems.

2019-2025 – harmonization with modern technologies and European regulations (Law on Postal Services of 2019, the new Law on Electronic Communications of 2023, the new Law on Postal Services of 2025, and the new Law on Information Security of 2025):

The 2023 Law on Electronic Communications is aligned with the European Electronic Communications Code (EECC), and Ratel was granted new powers in the areas of expert supervision, network security and integrity, transfer or leasing of RF spectrum rights, as well as obligations for access and shared use of electronic communications infrastructure.

The 2019 Law on Postal Services introduces independent measurement of the quality of postal services and approval of prices for the universal postal service, while the 2025 Law further liberalizes the postal services market. In both electronic communications and postal services the focus is on user protection, so the latest legal solutions provide for more transparent requirements for users and a meritorious decision-making mechanism,

if a user's complaint about the price or quality of services cannot be resolved amicably, through an out-of-court dispute resolution procedure.

The new Law on Information Security improves the institutional framework, with the aim of better responding to cyber incidents and strengthening resilience to cyber-attacks in the Republic of Serbia.

Ratel adopts numerous by-laws, which regulate in detail the field of electronic communications and the manner of application of the law. By-laws are an indispensable tool for the implementation of legal provisions, as they provide flexibility and enable rapid adaptation of regulations to new technologies and market changes. By-laws regulate, among other things, the following: issuing licenses and the general authorization regime, radio frequency spectrum management, numbering and number portability, quality of service parameters, interconnection and access to networks, user protection, information on contract terms, conditions and manner of providing postal services, cost accounting of the Public Postal Operator (PPO), access to the PPO network and expert supervision. Ratel, within the scope of its regulatory activities, also adopts appropriate decisions on the implementation of the public tender procedure, as well as numerous individual legal acts by which it decides within the framework of its powers.

Over the years, Ratel has adopted and implemented bylaws in line with European Union regulations, with the aim of improving the quality of services and protecting users. Ratel continuously follows regulatory trends, improves the regulatory framework, monitors the use of the radio frequency spectrum, resolves disputes within its jurisdiction and publishes quarterly and annual reports on the state of the electronic communications and postal services markets.



RADIO FREQUENCY SPECTRUM MANAGEMENT

One of the key tasks of Ratel is radio frequency spectrum management. Spectrum management primarily includes radio frequency planning, radio frequency coordination, radio frequency assignment by issuing individual licenses, and monitoring of radio frequency usage.

Radio frequency usage planning and coordination

Planning the use of radio frequencies begins with the adoption of an allocation plan that determines the allocation of radio frequency bands for various radio communication services, and based on the allocation plan, allotment plans for individual radio communication services are determined. During 20 years of operation, Ratel has prepared 12 proposals for allocation plans and 27 proposals for allotment plans, of which 15 are for the broadcasting service and 12 for the fixed and mobile radio service.

Successfully completed coordination procedures are a prerequisite for the adoption of allotment plans and the use of radio frequencies in border and other parts of the Republic of Serbia. Ratel representatives participated in more than 100 international coordination sessions, mostly in the field of broadcasting, at which Ratel concluded 46 international technical agreements. In accordance with the provisions of international agreements, coordination for more than 50,000 radio frequencies/locations has been carried out.

Issuance of individual licenses

Ratel has issued approximately 250,000 licenses for various radio communication services requiring individual licenses in 20 years, used by: functional systems, mobile operators, operators of electronic communication networks for the media content distribution, radio media service providers, radio amateurs, as well as for radio communications on vessels, aircrafts and locomotives. The licensing procedure has been further accelerated and improved by creating a system for electronic licensing for certain radio services.

Radio frequency spectrum control and monitoring

Radio frequency spectrum monitoring is the process of detecting, measuring and analyzing radio frequency signals. Ratel's RF spectrum monitoring system consists of two manned monitoring and measurement centers in Belgrade and Niš, with a separate office "Užice" in Sevojno, seven measurement vehicles equipped with specialized measurement equipment and telescopic antenna masts, as well as a network of remotely operated monitoring and measurement stations (ROMMS) and compact remotely operated measurement stations (CROMS) in urban areas for signal measurement and geolocation of emission sources.

The project to build a system of remotely operated measurement stations was launched in 2017. In the previous phases, 21 remotely operated monitoring and measurement stations

(ROMMS) and 91 compact remotely operated measurement stations (CROMS) in urban areas have been built and put into operation, which has enabled continuous monitoring of the situation in the aether in the major part of the national territory.

In this way, the response time to reports of interference has been reduced and the efficiency of detecting irregularities in the use of the RF spectrum and unlicensed radio stations has been improved. Conditions for the smooth operation of providers have been ensured, and citizens were given access to services, applications and infrastructure that use radio resources.

Over the last ten years, more than 700 radio frequency spectrum disturbances have been reported. Among the reported interference, the most numerous were those reported by mobile operators within public mobile networks and in link connections, by the Serbia and Montenegro Air Traffic Services Agency (SMATSA) in the range intended for aeronautical services, as well as interference in the sound broadcasting service. In all reported disturbances, Ratel's intervention was successful.



ELECTRONIC COMMUNICATIONS SERVICES

Registration of network and service operators

Prior to the establishment of Ratel, there was no registry of electronic communications network owners and service providers. By introducing the obligation for operators to register with Ratel and by prescribing the necessary technical and administrative procedures, a public registry of network and service operators was established. All service providers are obliged to register with the public registry, making the information available to everyone.

In order to liberalize the market, a general authorization regime was introduced in 2011, which increased the number of registered operators for various services. This provided users with a greater choice of operators, with competition bringing about better quality of services and more favorable prices.

International interconnection and opening of the wholesale internet market

The issuance of international interconnection authorizations began in 2009, allowing domestic operators to connect with operators abroad. This significantly liberalized the wholesale internet market, with 11 international interconnection authorizations issued in the first year alone.

Opening of the fixed telephony and access markets

In mid-June 2009, two licenses for a public fixed wireless telecommunications network (FWA-CDMA), voice service and packet data transmission were issued to the operators Telekom Srbija and Media Works (now Orion telekom). In order to enable further liberalization in the field of telecommunications in the Republic of Serbia, in January 2010, a license for public fixed telecommunications networks and services was granted to Telenor for a period of ten years. Ratel has adopted decisions regulating the mutual relations between operators, a decision on determining the elements regulating the interconnection of public telecommunications networks, as well as decisions regarding the conditions and prices for interconnection services, unbundled access to the local loop (full and shared), collocation, use of transport capacities and lease of telecommunications ducts.

Mobile networks

In 2006, after the issuance of the license to Telekom Srbija, public bidding procedures were carried out for the selection of the second and third mobile operators, and the licenses were awarded to Telenor (now Yettel) and Mobilkom Austria (now A1 Srbija). Conditions were created for the emergence of virtual mobile operators on the mobile telephony market, in addition to the three registered mobile operators, which enabled the offer of new services tailored to the needs of users. Since then, a total of four virtual mobile operators have been registered.

Numbering Plan

At the beginning of its work, by adopting the Numbering Plan for Telecommunications Networks, Ratel determined the method of assigning telephone numbers and codes, which had not been regulated in this way until then. Further amendments to the existing and the adoption of new numbering plans brought it into line with European regulations and practice. The previous international calling code was changed from "99" to "00" and short codes beginning with the digit "9" were changed to begin with the digit "1". The numbering plan introduced a single emergency number, "112", as well as European numbers for services of special social importance starting with "116". In accordance with the relevant regulations, among other things, the use and allocation of numbers for public voice service, value-added service and Voice over Internet (VoIP) service have been regulated, and the assignment of necessary numbering to virtual mobile operators has been enabled.

Number portability

Number portability is the ability for a voice service user to keep their number when changing public voice service operator and is considered an important mechanism for encouraging competition and liberalizing the electronic communications market. Number portability in mobile networks was enabled on July 1, 2011, and since then, as of the third quarter of 2025, a total of 1,521,687 number portability transactions have been completed. Number portability in fixed networks was enabled on 1 April 2014, and since then, as of the third quarter of 2025, a total of 459,726 number porting transactions have been implemented.

Quality Parameters and Net Neutrality

Ratel prescribes the values of service quality parameters and the manner of publishing and delivering measured parameters, while performing checks, periodically and upon request, on the quality parameters of services provided to users.

The issue of net neutrality is regulated in accordance with European Union regulations. First, guidelines were prepared, which provided recommendations for the actions of operators in terms of managing internet traffic and content availability, and later, the obligations of operators, in terms of ensuring net neutrality, were more closely prescribed by the relevant rulebook.

Analysis of the electronic communications market

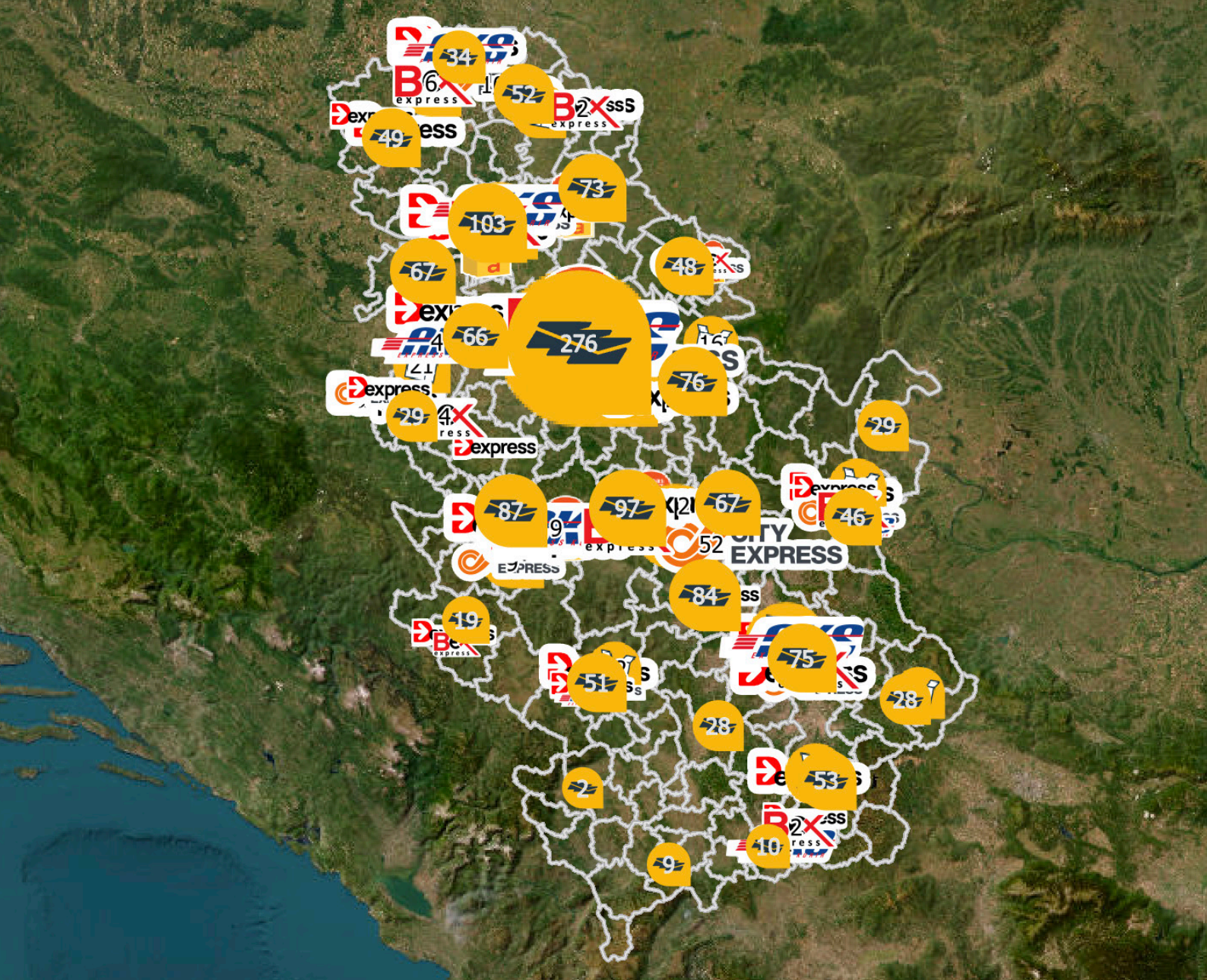
Ratel conducts an analysis of the existing relevant electronic communications markets at least once every five years, or an analysis of new electronic communications markets that are not subject to regulation at least once every three years, taking into account, to the

greatest extent possible, the relevant European Union recommendations on market analysis and the identification of significant market power.

The first round of analysis of the relevant electronic communications markets was conducted in 2011, when operators with significant market power were identified. The following round began in 2015, with operators with significant market power being identified during 2016 and 2017, while the next round of market analysis of the relevant electronic communications markets started in 2016, with the identification of operators with significant market power in the relevant markets during 2018 and 2019. According to the latest round of analysis of relevant electronic communications markets, which began in 2021 and ended in 2023, operators with significant market power and their regulatory obligations in the following relevant markets were identified:

1. on the wholesale market for call termination in the public telephone network at a fixed location;
2. on the wholesale market for call termination in the mobile network;
3. a) on the wholesale market for local access to network elements;
3. b) on the wholesale market for central access provided at a fixed location for mass market products.

Ratel has developed modern cost models and economic tests in accordance with best European practice, thereby significantly strengthening its analytical and regulatory capacities. These include the Long-Run Incremental Cost (LRIC) model for determining the prices of regulated wholesale services of operators with significant market power, as well as the Margin Squeeze test for determining prices of bundled services, and the Economic Replicability Test (ERT) model for assessing the commercial viability of a specific access point, which allow for the implementation of advanced economic analyses when their application is needed.



POSTAL SERVICES

Ratel issues permits to postal operators and maintains a registry of postal operator authorizations and licenses, established in 2010. The registry records all licensed operators, so that users can in one place find information about postal operators, the type of postal services and the territory in which the services are provided.

Access to the public postal operator (PPO) network has been enabled since 2014, with the aim of fostering competition in the postal services market. Ratel has prescribed a historical cost model (HCA) using full allocated costs (FDC method) and activity-based costing (ABC method) for checking and verifying regulatory reports of the public postal operator, which serves as the basis for approving the prices of postal services in the domain of non-reserved universal postal service.

Determining the quality parameters of postal services has been part of the regulator's competence since 2014, so Ratel has defined the quality parameters of the universal postal service, which are measured using the SRPS EN 13850 and SRPS EN 14508 standards and the SRPS EN 14012 standard for resolving complaints, which is prescribed for all postal operators.

Since 2021, Ratel has been conducting independent measurements of the quality of the universal postal service on a three-year basis and publishing the measurement results on its website. Comparative measurement of the quality parameters of express postal services according to four main criteria (quality in the collection phase, quality in the delivery phase, complaints and quality of customer service) and thirteen sub-criteria was carried out for the first time for the five largest postal operators, according to a unique methodology designed by Ratel for the period from 2022 to 2024, with the new measurement cycle continuing from 2025.

Innovative models/studies are constantly being developed, such as the Study on the sustainability of the universal postal service (UPS) and defining its role in accordance with changing user needs. Based on the results of the study, regulatory solutions were designed regarding the scope, quality and accessibility of the UPS, which served as the framework for defining new general acts.

Since the beginning of the regulation of the postal services market, surveys of the level of satisfaction and needs of postal service users have been carried out at two-year intervals. The results of these surveys are used as a basis for strategic planning in the field of postal services at the national level.

Ratel was granted the authority to supervise the work of postal operators in 2019, which has been effectively implemented since 2021. The 2025 Law on Postal Services defines

greater transparency for postal service users and encourages regulation through innovative solutions. Ratel monitors trends and develops new incentive tools to promote competition (portal Service Prices, GIS portal) that allow users to view, in a simple and clear way, all relevant information when choosing a postal operator (service prices, conditions, network coverage, delivery exceptions, working hours, branch network, parcel lockers, etc).



END-USER PROTECTION

One of the basic principles on which market regulation has been based since the establishment of Ratel is the protection of the interests of end-users. The main mechanisms for user protection include ensuring the availability of clear and complete information on prices and terms of use of services, as well as effective handling of complaints about the work of providers of electronic communications services and postal services.

In accordance with the provisions of the previously applicable regulations, Ratel was tasked with conducting a mediation procedure for the amicable resolution of disputes between subscribers/users and electronic communications operators regarding the amount of the bill and the quality of the service. With the 2019 Law on Postal Services, Ratel gains jurisdiction for out-of-court dispute resolution, which was improved by the 2025 law and now includes substantive decision-making in resolving disputes between users and postal service operators. Since 2025, in accordance with the new Law on Electronic Communications and its by-laws, Ratel has begun to make decisions on the merits in cases where the complaint of a user of electronic communications services relates to the amount of the bill or the quality of the service provided, if the dispute between the end-user and the provider of a publicly available electronic communications service cannot be resolved amicably. In this way, out-of-court dispute resolution is encouraged, which is in the interest of both parties. Ratel analyzes the general terms and conditions of providers of publicly available electronic communications services and postal services, and issues orders, recommendations and suggestions for their amendment, in order to harmonize the general terms and conditions with the regulations governing electronic communications, postal services and consumer protection, as well as with other relevant regulations, all with the aim of more efficient protection of end-users.

EMF RATEL- system for continuous monitoring of high-frequency electric field levels in populated areas was launched in 2017. Sensors have been installed in zones of increased sensitivity on 116 locations in 53 towns in Serbia. Internet portal intended for providing transparent and objective information has also been released.

Ratel has developed several tools intended for end-users:

Online Desk - a portal where users can submit a request for out-of-court settlement of disputes in the area of electronic communications and a complaint about the work of operators in the area of postal services, via electronic form.

Ratel NetTest - a free application that allows users to measure the speed of internet access and the quality of internet access in mobile and fixed electronic communications networks. In addition, the desktop application for measuring internet speed for fixed internet access provides more accurate measurement results, which can be used when submitting complaints about the quality of service.

Service Prices - a portal that allows users to easily compare offers and prices of electronic communications operators for mobile and fixed telephony, internet, television and corresponding bundled services, as well as offers of postal express and courier service operators.





RATEL



НАЦИОНАЛНА

САЈБЕР

КОНФЕРЕНЦИЈА

AP 2025



Значај благовремених и релевантних информација

Упознајте се са нападачима и актуелним претњама:

- Систем за дељење информација о претњама (МИСП)
- Обавештења сајту Националног ЦЕРТ-а

Будите информисани о рањивостима и компромитованим налазима у вашој инфраструктури:

- Систем за пружање раних упозорења

INFORMATION
SECURITY

As the National CERT, Ratel exerts the role of a national center for the prevention of security risks in information and communication (ICT) systems on the territory of the Republic of Serbia and performs the tasks of coordinating the prevention and protection from security risks in ICT systems at the national level.

The main responsibilities are focused on monitoring the state of cyber incidents at the national level, providing early warnings, alerts and announcements, as well as informing relevant persons about risks and incidents, responding to reported incidents by providing advice, keeping records of Special CERTs and raising awareness of the general public about the importance of information security.

In October 2025, a new Law on Information Security was adopted, which improves the institutional framework, with the aim of better responding to the growing number of cyber incidents and increasing resilience to cyber-attacks in the Republic of Serbia.

Every year, the National CERT organizes various types of educational events for representatives of the public and private sectors in the field of information security, and workshops intended for small and medium-sized enterprises, as well as media representatives. It creates publications and audio-video content that is available to the public on the website www.cert.rs, with the aim to raise awareness among the general public about challenges on the internet and preventive measures that users can apply to protect themselves from cyber fraud and attacks.



**INTERNATIONAL
COOPERATION**

Ratel maintains international cooperation through activities within international organizations, as well as through organizing bilateral and multilateral meetings with the national regulatory authorities from the EU and SEE countries.

Ratel continuously monitors the work and participates, as a full member or observer, in the activities of the most important international and European organizations:

- in the field of electronic communications:

ITU, CEPT, ETSI, REDCA, RSPG, IRG, BEREC and ENISA

- postal services:

UPU, CERP, ERGP and CEFTA

- and information security:

Trusted Introducer and FIRST.

Based on bilateral memorandums of understanding, Ratel exchanges information and experiences with other regulatory authorities and participates in expert meetings, organized to analyze and compare technical, legal, economic and other aspects of regulatory activities in the areas of electronic communications, postal services and information security. At the regional level, Ratel representatives are involved in the projects of the Regional Cooperation Council (RCC).



ORGANIZATIONAL STRUCTURE

COUNCIL

DIRECTOR

**CHIEF OPERATING
OFFICER**

Cabinet

**Independent Strategy
and Planning Section**

Internal Auditor

**ELECTRONIC COMMUNICATIONS
DEPARTMENT**

**Radio
Communications
Division**

**RF Spectrum
Monitoring Division**

**Networks, Services and
Electronic Equipment
Division**

Broadcasting Group

**Monitoring and
Measurement Center
Belgrade**

**Electronic and Radio
Equipment Group**

**Fixed and Mobile Radio
Communications Group**

**Monitoring and
Measurement Center
NIS**

**Networks and
Services Group**

Office "Užice"

**Fixed and Satellite
Radio Communications
Group**

**Maintenance
Group**

**General
Authorisations and
Interoperator
Relations Group**

**Quality of Service
Monitoring Group**

**LEGAL AFFAIRS
DEPARTMENT**

**Regulatory
Division**

**User Protection and
Legal Representation
Division**

**User Protection
Group**

**Legal
Representation
Group**

**MARKET ANALYSIS
AND ECONOMIC AFFAIRS
DEPARTMENT**

Market Analysis and Cost
Accounting Division

Accounting and Finance
Division

Fee Management
Section

**POSTAL SERVICES
DEPARTMENT**

Postal Regulation
Division

Postal Market Analysis
Division

**CYBER SECURITY AND
IT DEPARTMENT**

Cybersecurity and National CERT
Affairs Division

IT Division

**GENERAL AFFAIRS
DEPARTMENT**

HR and General Affairs
Division

Procurement, Mailroom
Operations and Records
Division

Procurement Group

Mailroom Operations
and Records Group

DIRECTORS



from 2005 to 2010
Prof. Dr. Jovan Radunović



from 2010 to 2015
Dr. Milan Janković



from 2015 to 2020
Dr. Vladica Tintor



from 2020
Dragan Pejović

MANAGEMENT BOARD / COUNCIL

The decision on the election of the Chair, Deputy Chair and members of the Management Board, or Council, of Ratel is made by the National Assembly of the Republic of Serbia.

The 2005-2011 Management Board (first term):

Chair of the Management Board Prof. Dr. Jovan Radunović, Deputy Chair of the Management Board Dr. Milenko Ostojić, members of the Management Board: Prof. Dr. Grozdan Petrović, Prof. Dr. Vlade Milićević and Prof. Dr. Zoran Arsić.

The 2011-2016 Management Board (second term):

Chair of the Management Board Prof. Dr. Jovan Radunović, Deputy Chair of the Management Board Dr. Zdravko Stanimirović, members of the Management Board: Prof. Dr. Miroslav Dukić, Prof. Dr. Vlade Milićević and MSc Vuk Vujović.

The 2016-2021 Management Board (third term):

Chair of the Management Board Dragan Kovačević, Deputy Chair of the Management Board Petar Stijović, members of the Management Board: Dr. Vladimir Krstić, Prof. Dr. Dejan Marković and Danka Martić.

Current Management Board/ Council (fourth term), in office from 2021 – present:

Chair of the Council Dragan Kovačević, Deputy Chair of the Council Petar Stijović, members of the Council: Dr. Vladimir Krstić, Prof. Dr. Dejan Marković and Dr. Slobodan Ristić.



TIMELINE OF KEY EVENTS

2005

Ratel started to operate.

2006

After conducting public tender procedures, licenses for the public mobile telecommunications network and public mobile telecommunications network services were issued to the operators Telenor and Mobikom Austria.

A new digital broadcasting plan was coordinated, which enabled the potential broadcasting of 32 - 48 TV and 12 - 16 radio programs in the Republic of Serbia.

Decision was made designating public telecommunications operator for public fixed telephone network services with significant market power.



2007

The provision of 3G mobile telephony services began.

Fixed telephony license was issued to Telekom Srbija.

Decision was made designating public telecommunications operator to provide radio and television program distribution services via the cable distribution network.

2008

Issuance of approvals for the provision of IPTV and VoIP services began.

2009

Two licenses for fixed wireless access (FWA-CDMA) were issued to operators Telekom Srbija and Orion Telekom.

2010

Fixed telephony license was issued to Telenor.

Rapus started to operate.

2011

The first round of analysis of nine relevant electronic communications markets was conducted, with the identification of operators with significant market power.

After testing and commissioning of the Central Database System of Ported Numbers, number portability in public mobile telecommunications networks was enabled.

The licensing cycle of all postal operators that provided postal services until the formation of Rapus gets completed.

2012

Ratel was appointed as the body for assessing the conformity of radio and telecommunications terminal (R&T) equipment.

The methodology for setting prices for the universal postal service of the public postal operator was defined.

2013

The first remotely controlled receiver was installed on Mount Rudnik, which enabled direct and immediate insight into the use of the radio frequency spectrum, with the aim of preventing potential interference and detecting unauthorized use of the radio frequency spectrum.

2014

Number portability in public telephone networks at a fixed location was enabled.

Extension of regulatory powers to postal services (merger with Rapus).

Access to the PPO network and definition of quality parameters for the provision of services from the UPS scope.

2015

A public tender procedure was conducted for the issuance of individual licenses for the use of radio frequencies in the 1800 MHz radio frequency band for the territory of the Republic of Serbia.

A public tender procedure was conducted for the issuance of individual licenses for the use of radio frequencies in the 800 MHz radio frequency band for the territory of the Republic of Serbia.

The provision of 4G mobile telephony services started.

Transition from analogue to digital television program broadcasting was completed.



2016

Decisions were made to extend the rights and obligations acquired under licenses for the public mobile telecommunications network and the provision of public mobile telecommunications network services issued during 2006 to the operators Telekom Srbija, Telenor and Vip mobile.

Users were enabled to use Ratel NetTest – a tool for measuring the performance of broadband systems, which enabled users of fixed and mobile devices to check and analyze the quality of internet access service and bandwidth speed at a selected network point.

2017

Ratel's competences were extended to information security. National CERT was established within Ratel.

EMF Ratel launched – a project to develop a system for continuous monitoring of electromagnetic field levels in urban areas.

Comparative measurements are being conducted – a benchmark of mobile communication networks of all three mobile operators.

A system for submitting applications and issuing individual licenses for the use of radio frequencies electronically was implemented.

The next round of analysis of relevant electronic communications markets was completed, with the identification of operators with significant market power.

The project to develop a long-term incremental cost (LRIC) model for determining prices for regulated wholesale services of operators with significant market power on relevant wholesale markets was completed.

Engagement in the international SEDDIF working group for spectrum optimization and replanning for the broadcasting service in the RF band 470-694 MHz, resulting in the signing of one multilateral (14 countries) and seven bilateral coordination agreements was completed.

2018

During 2018, the analysis process for seven relevant product and service markets in the field of electronic communications was completed.

The first remotely operated monitoring and measurement station (ROMMS Stanišić) was put into operation, out of the 21 stations currently covering most of the territory of the Republic of Serbia.

2019

A portal called Service Prices has been established where users can compare offers and prices of electronic communications operators for mobile and fixed telephony, internet, television and corresponding bundled services.

The first independent survey of transit times as the main indicator of the quality of the universal postal service was carried out.

Based on the new Law on Postal Services, a system for mediation in out-of-court dispute resolution was established, the concept of net cost was introduced and preparations were made for the establishment of expert supervision of postal operators.

A new round of analyses of relevant electronic communications markets was completed, with the identification of operators with significant market power.

2020

During 2020, Ratel conducted a survey of the level of satisfaction of the needs of postal service users for individuals and legal entities.

The procurement of a field measurement vehicle for RF spectrum monitoring (8m-high pole) was completed.

The methodology for maintaining separate accounting and checking the reliability of regulatory reports of the public postal operator was established.

The project for developing an interactive web portal for displaying the mobile operator network coverage was implemented.

2021

First licenses for the use of radio frequencies for GSM-R base stations were issued. First compact remotely operated measurement stations (CROMS) were put into operation, enabling TDOA geolocation of signal sources.

In accordance with the provisions of the Agreement on the price reduction of the roaming services in public mobile communications networks in the Western Balkans region, the “roam like at home” rules have been applied in the Western Balkans region since July 1, 2021.

First independent measurement of the quality of services from the UPS scope.

2022

Projects for measuring the quality (benchmark) of other postal services and developing a GIS portal, as a digital atlas of postal services and a service price portal for comparing prices of postal operators were implemented.

2023

Drafting of a study on the sustainability of the universal postal service and the definition of its role in accordance with the changing needs of users began in cooperation with the line ministry, the PPO and representatives of the academic community.

The coordination process of VHF band III (radio frequency spectrum 174-230 MHz) was completed, within the framework of the multilateral coordination group consisting of the administrations of Austria, Bosnia and Herzegovina, Hungary, Croatia, Slovenia, Romania and Serbia.

A Technical Agreement has also been signed among the administrations of Bosnia and Herzegovina, Montenegro, Albania, Croatia, North Macedonia and Serbia on the border coordination of MFCN networks in the frequency band 3400-3800 MHz.

At the World Radiocommunication Conference (WRC23), thanks to the many years of engagement of Ratel experts, the Republic of Serbia received geostationary orbital positions and the corresponding frequency resource, and the satellite network of the

Republic of Serbia was included in the FSS (Fixed Satellite Service) Plan, which represents a valuable asset for the implementation and development of satellite communications in the Republic of Serbia.

The last round of analyses of relevant electronic communications markets was completed, with the identification of operators with significant market power.

The implementation of the Law on Electronic Communications, harmonized with the European Electronic Communications Code (EECC), and the adoption of by-laws based on this law began.

2024

An early warning system was established as a mechanism for collecting and responding to threats in the field of information security.

Ratel's team of experts provided technical support in the monitoring of the radio frequency spectrum and radio devices during the Olympic Games and Paralympic Games in Paris.

The final phase of the study on the sustainability of the universal postal service was completed.

2025

A new regulatory framework for postal services was set, according to the new Law on Postal Services.

Expert supervision of electronic communications operators has been established. Public calls for applications for electronic communications network operators for the distribution of media content namely digital radio and digital television in the appropriate bands were launched.

A Technical Agreement was signed among the administrations of Austria, Croatia, Hungary, Romania, Serbia, the Slovak Republic and Slovenia on coordination in border areas for terrestrial systems intended for the provision of electronic communications services and national options in the 700 MHz frequency band.

In cooperation with the line ministry and in coordination with the European Commission,

the process of ensuring the conditions for the introduction of the “roam like at home” policy between the Republic of Serbia and the European Union began.

A public auction was conducted for the issuance of individual licenses for the use of radio frequency spectrum in the radio frequency bands 700 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2600 MHz and 3500 MHz, enabling the commercial use of 5G pioneer bands.



20



RATEL

