Pursuant to Article 38, paragraph 5 and 6 of the Telecommunications Law (*Official Gazette of RS* nos. 44/03 and 36/06) and Article 18, item (11) of the Statutes of the Republic Telecommunication Agency (*Official Gazette of RS* no. 78/05),

The Managing board of the Republic Telecommunication Agency, on its session held on 13 May 2008, adopted

RULES

On terms and conditions for provision of voice transmission services over the Internet and the contents of authorization

I GENERAL PROVISION

Article 1

These Rules set out the conditions necessary for provision of voice transmission services over the Internet, on commercial basis, without assigning appropriate numbering to the operator for the needs of end users, and stipulate the (application) form, issuance procedure and the contents of authorization.

Article 2

The terms used herein shall have the following meaning:

- 1) **Internet** is a global electronic communication system of interconnected computer networks and devices, intended for exchange of all types of information pursuant to Internet standards.
- 2) **Internet standards** are documents which relate to concepts, networking procedures, protocols, interfaces and identification methods within the Internet. Internet standards, known as Request For Comments (RFC) are adopted by the international organization Internet Engineering Task Force (IETF).
- 3) **Internet protocol (IP)** is a set of protocols for communication and data transmission between the devices on the Internet.
- 4) **IP phone** is a device where conversion of voice into IP packets and vice versa is performed.
- 5) **Authorization holder** is a natural or legal person who has been granted an authorization for provision of voice transmission services over the Internet on commercial basis,

without assigning appropriate numbering to the operator for the needs of end users, under terms and conditions set out herein.

6) **End user** is a person using telecommunication services and not providing the resources of a public telecommunications network nor public telecommunication services.

Article 3

Voice transmission over the Internet, includes the following types of voice communication:

- PC/IP phone PC/IP phone: between the PC/IP phone of one user and PC/IP phone of another user;
- *PC/IP phone telephone*: between PC/IP phone of one user and another user using a telephone device directly connected to a PSTN in the Republic of Serbia or abroad;
- *Telephone-telephone:* between the users using telephone devices connected directly to the PSTN in the Republic of Serbia, or abroad, where one part of communication is carried out over the Internet (through "data packet") and another part over PSTN.

Service of voice transmission using the Internet (hereinafter: Service) regulated by hereby is a public Internet service for voice transmission referred to in para. 1, indent 2 and 3 hereof, provided commercially, without assigning subscriber numbers from the Numbering Plan to end users for the purposes of voice transmission over the Internet.

The provisions hereof shall not apply to the provision of the voice transmission services:

- referred to in para. 1, indent 1 hereof;
- within the private networks of natural or legal entities, exclusively for proper needs, provided on a non-commercial basis;
- using the Internet when the assignment of appropriate numbers from the Numbering Plan to end users.

II REQUIREMENTS FOR SERVICE PROVISION

Article 4

For Service provision, the following basic technical requirements need to be fulfilled pursuant to the international standards (ITU, ETSI), these Rules and relevant enactments of the Republic Telecommunication Agency (hereinafter: Agency).

It is necessary for the Service provider to fulfil the requirements regarding packet transmission delays, variations in delays, incorrectly transmitted packets and lost packets, specified in Table 1, given in Appendix 1, which is printed herein and an integral part hereof.

The requirements referred to in para. 2 herein are given pursuant to the recommendation ITU-T Y.1541. Table 1 contains classes of quality of service along with the parameters. The parameters are measured at end-points or points of interconnection with other telecommunication networks.

For Service provision referred to in para. 1 herein appropriate authorization issued by the Agency needs to be obtained.

Article 5

The Agency shall issue the authorization to the entity registered for telecommunications activity which submits to the Agency an application for registration accompanied by the required documentation, and which fulfils and/or agrees to fulfil terms and conditions stipulated by the Telecommunications Law (*Official Gazette of RS*, nos. 44/03 and 36/06, hereinafter: Law), these Rules and general enactments of the Agency.

Should the person referred to in Article 1 herein, at the time they are submitting the application hold more than one license for public telecommunication networks and/or public telecommunications service provision issued by the Agency, they shall be required to provide the Service, which is the subject hereof, through a separate related legal entity or a branch established pursuant to the law regulating the legal position of business companies.

III CONTENTS OF THE APPLICATION

Article 6

The application for obtaining the authorization for the Service provision shall be submitted using the Form B1, which is printed herein and is an integral part hereof.

The following shall be submitted together with the application form:

- original excerpt from the Business Register, not older than 30 days;
- data on object locations and the equipment for Service provision;
- short description of applicant's business;
- technical solution for the Service provision system, along with the proof of financial capacity to complete it, or technical solution of the actual system.
 Technical solution shall define the type of Internet connection, connection with the other telecommunications operators and end user's access.
- offer containing data on quality, price and requirements for the Service provision, to be publicly available;
- user contract draft in case a contract is to be closed with the users;

- evidence of payment of the application processing fee for the authorization issuance pursuant to the applicable general enactment of the Agency.

IV ISSUANCE AND CONTENTS OF THE SERVICE PROVISION AUTHORIZATION

Article 7

The Service provision authorization shall be issued by the Agency upon the decision of the Managing Board, to the entity fulfilling the requirements or accepting to fulfil the requirements referred to in Arts. 4, 5 and 6 herein and provide the evidence of payment of the fee for the Authorization Registry entry, pursuant to the general enactment of the Agency regulating the amount of fees and costs for license and authorization issuance.

The authorization referred to in the previous paragraph herein shall be issued no later than 30 days following the day the complete application is submitted together with the required documentation, by making an entry in the relevant Registry kept by the Agency.

The day the entry in the Registry referred to in para. 2 herein is made shall be considered the day of the authorization issuance.

Article 8

The Agency shall be required to take measures in order to provide to the authorization holder access to the public telecommunication network for the purpose of the Service provision, under equal conditions applied to all other holders of the authorization for this type of service, pursuant to the Law.

In case of dispute between the authorization holders and other telecommunications operators or end users regarding a right or obligation deriving from the authorization, the Agency shall be authorized to take measures, in accordance with the Law, these Rules and the issued authorization.

The Agency shall be authorized to prevent anticompetitive, and/or monopolistic activities and behaviour, pursuant to law.

Article 9

The authorization shall contain the following information and requirements:

- type of service;
- date of issuance and the ref. no. in the Authorization Registry;
- name and address of the person to whom the authorization holder;
- technical solution and standards defining the required quality of the Service;
- planned dynamics for the development of the Service;
- regulations on personal data and privacy protection;

- amount and method of payment of the annual fee for the issued authorization;
- financial obligation concerning the Universal Service financing;
- availability of data on tariffs, pricelist and standard contract with end user;
- text of the provisions from Arts. 3-5, 8, 10 25 herein;
- validity period of the authorization;

Authorization Form B2- is printed herein and is an integral part hereof.

Article 10

The authorization shall be issued for a period of five years.

The request for the renewal of the authorization shall be submitted no later than six months prior to the expiry of the authorization, but not before four years have passed since the issuance thereof.

Upon the request for renewal of the authorization referred to in para. 2 herein, the authorization shall be issued pursuant to the valid regulations.

V REVOCATION OF AUTHORIZATION AND RENOUNCEMENT BY THE AUTHORIZATION HOLDER

Article 11

The Agency shall be required to warn the authorization holder in writing of any breach of obligations from the authorization, and/or any other breach of obligations deriving from the authorization, Law or these Rules, and/or any other errors, giving a reasonable timeframe for the remedy thereof.

The authorization holder shall be required to respond, by a written statement, to the warning of the Agency, within 8 days.

In case the authorization holder does not act fully as instructed by the Agency within the given timeframe, the authorization shall be revoked by the decision of the Managing Board.

The procedure for the authorization revocation shall be initiated on the grounds of a justified and verified complaint made by an end user or another authorization holder and/or on the grounds of the report made by the telecommunications controller.

The authorization may be revoked for the following reasons:

- repeated breach of conditions and obligations given in the authorization, Law and these Rules;
- failure to pay the stipulated fees within 30 days following the payment due date;

- in case of insolvency, reorganization stipulated by the law regulating the insolvency procedure or presenting false data in the application for the authorization issuance;
- in case the authorization holder fails to act according to the final decision of the authority in charge concerning the business and Service provision;
- in case of a serious breach of conditions given in the authorization and the obligations from the Law, in particular obstructing or preventing telecommunications controller from performing their legal powers;

The license holder shall not be entitles to reimbursement of the authorization issuance fee in case of the revocation of authorization.

Article 12

In case the authorization holder wishes to renounce the authorization and/or no longer provide the service, they shall be required to provide the Agency with a written statement on the renouncement of authorization.

Authorization holder shall be required to inform the Agency and their end users at least 30 days prior to the date of termination of the Service provision thereof.

Authorization holder shall not be entitled to reimbursement of the authorization issuance fee in case of the renouncement of authorization.

VI OBLIGATIONS OF THE AUTHORIZATION HOLDER

Article 13

The authorization holder shall be required to ensure the Service provision to all interested users, without any discrimination.

In order to provide the Service, evidence of technical compliance of equipment, systems and facilities with the applicable enactments of the Agency needs to be submitted to the Agency.

The sole responsible for the installation and networking of the necessary equipment and systems and the operation thereof is the authorization holder who owns them, and/or who has the authority to operate, monitor and maintain them.

The authorization holder shall be required to provide, at own expense, the equipment, devices and installations, such as to enable the maintenance of relevant data, access to the data by the authorized authority and electronic supervision in cases stipulated by law, in the way and to the extent stipulated by the Agency enactment.

In order to provide the Service, the authorization holder shall be required to ensure interconnection with at least one public telecommunication operator of fixed or mobile telecommunications network in the Republic of Serbia providing public voice service, pursuant to the Law.

The authorization holder shall be required to provide information to the agency regarding what operators they are interconnected with, so that the Agency make that information publically available in order to prevent possible misuses in accounting between operators.

The authorization holder shall be required to provide for a unique representation of incoming/outgoing traffic. The service provider may transfer this requirement to the operator/s they are interconnected with.

The authorization holder shall be required to permanently erase their end users' traffic data or make them anonymous once the prescribed period for keeping the data expires.

The license holder shall be required to provide for devices, equipment, installation, procedure and internal organization such as to guarantee user data protection and disable any misuse by a third party, pursuant to the Law.

Article 14

The contract on the Service provision closed between the authorization holder and an end user shall clearly specify the rights and obligations of the contracting parties and, in particular, type and quality of service, prices, and the conditions for the provision thereof. The provisions on the conditions for the Service provision shall stipulate temporary or permanent disconnection of end user, or other limitations that may be applied to them, as well as the precise circumstances under which such limitations may occur.

In case the end user is using the services on any other grounds (such as prepaid card), the authorization holder shall be required to make available general terms and conditions for service provision and the standard pricelist in an appropriate way in the media and at the points of sale.

The contract or publically available conditions for service provision shall contain the following:

- conditions and method of indemnification of end user in case of incomplete or inadequate service provision;
- -requirements for terminal equipment;
- -procedures in case of failure to pay bills, including the limited access and usage of telecommunications service in that regard;
- -quality of service indicators, their definitions and measuring methods;
- -valid prices or reference to the valid pricelist made publically available in the same way as general terms and conditions for service provision;

-procedure for resolving end users' complaints and the information concerning where and how the complaints may be filed.

The contract shall stipulate the way in which the end user will be informed about the changes in the terms and conditions for the Service provision, and/or termination of the Service provision, and also the place where end user can obtain information on such changes.

The authorization holder shall be required to inform end users at least 30 days in advance about the forthcoming change in the terms and conditions for the Service provision.

The concluded contracts may not offer terms and conditions less favourable than those made publically available by the authorization holder, as regards price and quality of the Service.

The authorization holder shall be required to send bills for the provided services on a regular basis, if so stipulated by the contract.

The authorization holder shall be required to consider and solve user complaints.

The authorization holder shall be required to provide for confidentiality and safety of their Services and it shall be forbidden to them to use or disclose the information to a third party concerning the contents, facts and conditions of voice transmission, except in case this is requested by an authorized authority, pursuant to law.

The authorization holder's policy of Service provision may not be such as to limit access to the Service on the ground of national, racial, religious, political, territorial or any other criteria that could lead to violation of human rights and basic freedom.

Article 15

The authorization holder shall be required to pay the Service provision fee during the period for which the authorization is issued, pursuant to the general enactment of the agency regulating the amount of fees and costs for license and authorization issuance.

Article 16

The authorization holder may not establish any kind of monopoly by closing contracts with other providers of telecommunication services or entities dealing with the circulation of equipment for service provision.

Any business connection between authorization holders, with the exception of the usual commercial relations and business deriving from the obligation relations shall be subject to an approval by the Agency. The Agency shall answer all written requests of the kind within 30 days following the day the request is received.

Coordinated prices among the authorization holders shall not be allowed and shall be deemed serious violation of the conditions from the authorization.

Article 17

The authorization holder shall be required to keep an entirely separate analytic accounting record for the provision of the Service from the authorization.

The authorization holder shall be required to inform the Agency of any change in the status, change in the structure of the capital, change in the principal business activity and the like.

VII QUALITY OF SERVICE

Article 18

The quality of service offered to the end user shall be clearly specified (class 0 or class 1) in accordance with the ITU-T Y.1541 Recommendation and Table 1 from Annex 1 herein, known in advance and specified in the contract, and/or appropriately published in the media or points of sale. The authorization holder shall also be required to make this information publically available on their website.

When advertising, the Service provider shall be required to clearly specify the difference between the Service and public voice service, in particular if the emergency calls, value added service, certain geographic and/or non-geographic codes cannot be guaranteed and if the quality of the Service may result lower in respect to the public voice service.

The authorization holder shall be responsible for the repair of malfunctions and removal of any faults in the telecommunication facilities used for the Service provision, which are within their responsibility.

Article 19

In case of substantiated complaints from end users concerning the quality of the Service provision, the Agency shall be entitled to publish the end users' complaints and the replies from the relevant authorization holders on its website.

In case of repeated, substantiated complaints from end users, without an adequate response from the authorization holder, the Agency may issue a reprimand or take other measures stipulated herein or under the Law.

VIII FINANCING UNIVERSAL SERVICE OBLIGATION

Article 20

The authorization holder shall be subject to financing universal service obligation, pursuant to the Law and applicable general enactment of the Agency.

IX LEASED CAPACITIES

Article 21

The authorization holder may lease capacities from any public telecommunication operator (leased lines, access ports, transmission capacities, etc.).

X SERVICE PROVISION PRICES

Article 22

The authorization holder shall set the prices for their Services freely.

The authorization holder shall be required to make the prices for their Services publically available.

The authorization holder shall inform the Agency in writing about the pricelist and the application thereof and/or about the changes therein at least 30 days before the entry into effect.

The authorization holder shall be required to make the information on the increase in the price of the Service publically available at least 15 days before the entry into effect.

In case the authorization holder is designated an SMP operator for the service stipulated under this authorization, by a separate decision of the Agency, tariff regulation shall be carried out according to the aforesaid Agency decision and pursuant to the Law.

XI REPORTS AND INFORMATION

Article 23

For the purpose of monitoring the fulfilment of the terms and conditions from the authorization and monitoring the development of the telecommunications services, the authorization holder shall be required to provide the Agency with the reports on its business performance in the segment directly related to the provision of the Service from the authorization (level of quality of the provided Service, number and structure of the end users, total number of complaints concerning the QoS, pricelist, revenues, expenditures, etc.), on a six-month basis.

The Agency may set out the form and contents of the report by a separate decision.

The Agency may request from the authorization holder additional reports needed for the regulation of the telecommunications sector.

XII POWERS OF TELECOMMUNICATIONS CONTROLLERS

Article 24

Telecommunications controller shall be required to take appropriate measures in order to prevent breaches of the Law and rights and obligations deriving herefrom, pursuant to the Law.

When performing control, telecommunications controller shall have the powers stipulated by the Law.

XIII AUTHORIZATION TRANSFER BAN

Article 25

The authorization holder may not transfer the authorization or rights acquired through the authorization without a prior written approval of the Agency.

XIV FINAL PROVISION

Article 26

These Rules shall enter into force on the eighth day following the day they are published in the *Official Gazette of the Republic of Serbia*.

Ref. No. 1-01-110-11 /08 Belgrade, 13 May 2008 Chairman of the Managing Board

Prof. Dr. Jovan Radunovic

Table 1 ITU-T Recommendation Y.1541 – defines classes of network QoS with objectives for IP performance parameters

Network	Nature of network performance objective	QoS Classes		
performanc e parameter		Class 0	Class 1	
IPTD	Upper bound on the mean IPTD [1]	100 ms	400 ms	
IPDV	Upper bound on the $1 - 10^{-3}$ quantile of IPTD minus the minimum IPTD [2]	50 ms [3]	50 ms [3]	
IPLR	Upper bound on the packet loss probability	$1 \times 10^{-3} [4]$	$1\times10^{-3}\left[4\right]$	
IPER	Upper bound	1×10^{-4}	[5]	

IPTD	IP Packet Transfer Delay	
IPDV	IP packet Delay Variation	
IPLR	IP packet Loss Ratio	
IPER	IP packet Error Ratio	
The objectives apply to public IP Networks.		

For some parameters, performance on shorter and/or less complex paths may be significantly better. An evaluation interval of 1 minute is suggested for IPTD, IPDV, and IPLR and, in all cases, the interval must be recorded with the observed value. Any minute observed should meet these objectives. Individual network providers may choose to offer performance commitments better than these objectives.

- [1] Very long propagation times will prevent low end-to-end delay objectives from being met. In these and some other circumstances, the IPTD objectives in Classes 0 and 2 will not always be achievable. Every network provider will encounter these circumstances and the range of IPTD objectives in Table 1 provides achievable QoS classes as alternatives. The delay objectives of a class do not preclude a network provider from offering services with shorter delay commitments. According to the definition of IPTD in ITU-T Rec. Y.1540, packet insertion time is included in the IPTD objective. This Recommendation suggests a maximum packet information field of 1500 bytes for evaluating these objectives.
- [2] The definition of the IPDV objective (specified in ITU-T Rec. Y.1540) is the 2-point IP Packet Delay Variation. See ITU-T Rec. Y.1540 and Appendix II for more details on the nature of this objective. For planning purposes, the bound on the mean IPTD may be taken as an upper bound on the minimum IPTD and, therefore, the bound on the 1-10-3 quantile may be obtained by adding the mean IPTD and the IPDV value (e.g., 150 ms in Class 0).
- [3] This value is dependent on the capacity of inter-network links. Smaller variations are possible when all capacities are higher than primary rate (T1 or E1), or when competing packet information fields are smaller than 1500 bytes (see Appendix IV).
- [4] The Class 0 and 1 objectives for IPLR are partly based on studies showing that high quality voice applications and voice codecs will be essentially unaffected by a 10–3 IPLR.
- [5] This value ensures that packet loss is the dominant source of defects presented to upper layers, and is feasible with IP transport on ATM.



APPLICATION FOR SERVICE PROVISION AUTHORIZATION ПРИЈАВА ЗА

1.	Name, address and headquarters	
	of the applicant	
2.	Personal ID number	
3.	Fiscal ID number	
4.	Name and surname of the person	
	in charge, phone, fax, e-mail,	
	website	
5.	Information on the number and	
	qualification structure of the	
	employees and planned changes	
6.	Information on each owner and	
	share of the owned capital for those	
	with the share (in the owned	
	capital) of 10 % or more (in case the	
	owner is a foreign natural or legal entity, a	
	statement specifying complete ownership	
	structure with the ownership shares and correct addresses of the owners)	
7.	Equipment for the Service	
, .	provision:	
	(Type and manufacturer of the equipment	
	servers, routers)	
	Data maintenance:	
	(How often is the data stored, in which	
	media and how long the data kept)	
	Software:	
	(Programs which are support to the services	
	provided, payment collection, user record	
	entries)	
	LIDO	
	UPS:	
	(locations and length of time)	

	Access (for each location)	
	A) Internet: 1. Location, access points and provider (e.g. Belgrade, Telekom Srbija) 2. Type of link (optical, radio), capacity (2,34,155Mb/s, 100Mb/s Ethernet)	
	6) Fixed or mobile network: Capacity and type (number of lines, ISDN, 2Mb points)	
	Interfaces and protocols to the Internet and fixed and/or mobile network:	
8.	Data transfer safety: (Is there data transfer protection and if so what kind)	
9.	End-user care: (24/7 support, contact, sales points, complaints, bills)	
10.	Personal data and privacy	
	protection method: (cripting, limited access to data, statements on data protection, removal at the end of the prescribed period for keeping the data)	
11.	Way of making available the data	
	on tariffs, pricelist and standard	
	contract with end-users:	
12.	Framework development plan: (expected investments, timeframes, planned capacities, number of employees)	
13.	Monitoring: (software, on duty service)	





Date: Ref. no:

AUTHORIZATION

FOR THE PROVISION OF VOICE TRANSMISSION SERVICES OVER THE INTERNET

Name, address, headquarters and Fiscal ID number of the authorization holder	
Technical requirements and standards	
Development plan	
Regulations on personal data and privacy protection	
Financial obligation concerning the Universal Service	
financing	
Availability of data on tariffs, pricelist and standard	
contract with end-users	

The amount and	Type of fee	Amount	Due date	Account
method of payment for the authorization issuance fee	Application processing fee	RSD10,000.00 Art. 6 of the Rules on the amount and costs for license and authorization issuance (Off. Gazette of RS, no. 58/06)	Together with the application	Account of the Agency
	Register entry fee	RSD10,000.00 Art. 6 of the Rules on the amount and costs for license and authorization issuance (Off. Gazette of RS, no. 58/06)	By the date of the entry is made into the Authorization Registry	Account of the Agency
	Service Provision Authorization fee per business year	0.1% of the total revenue made in the relevant business year, and no less than RSD50,000.00	Pursuant to the issued Decision.	Account of the Agency

Valid until:	

THE TEXT OF ARTS. 3 TO 5, 8, 10 TO 25 OF THE RULES ON TERMS AND CONDITIONS FOR PROVISION OF VOICE TRANSMISSION SERVICES OVER THE INTERNET WITHOUT THE ASSIGNMENT OF APPROPRIATE NUMBERS TO ENDUSERS AND THE CONTENTS OF AUTHORIZATION