

## **Regulatory aspects for Quality of public communication services in the Republic of Macedonia**



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# Introduction

- o ICT
- o Liberalization
- o Privatization
- o Regulation



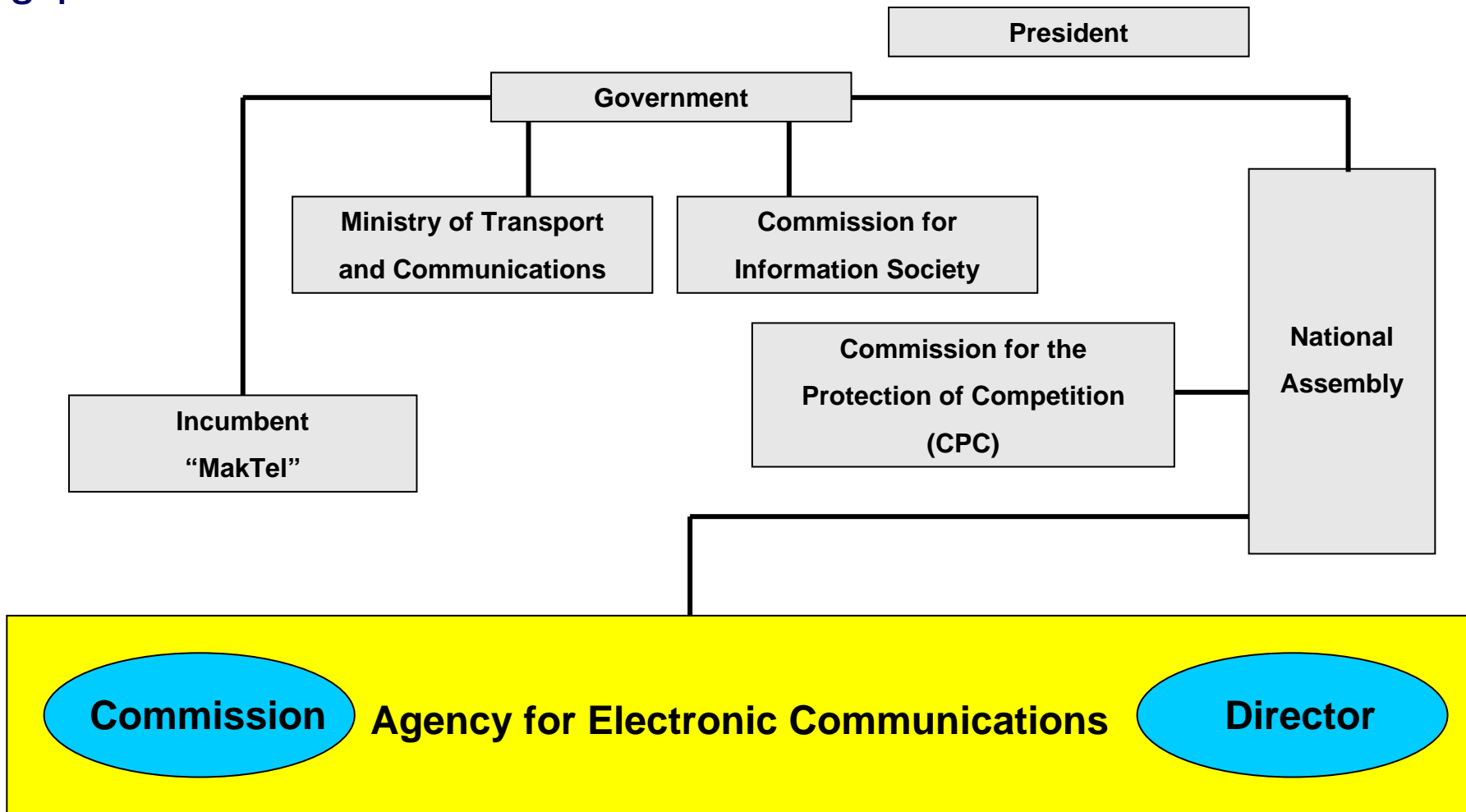
# Legislation

- o Electronic Communications Law, adopted in March 2005
- o completely based on 2002 acquis of European Union, implementing mostly all directives from the electronic communications framework
- o Electronic communication activities and services are treated as a public good easy accessible and competition driven

# National Regulatory Authority (NRA)

- o Agency for Electronic Communications
- o Official start from 1<sup>st</sup> of July 2005
  - Commission (5 members)
  - Director

# Main institutions in the Macedonian electronic communications regulatory framework





## Duties of the Agency for Electronic Communications (1/4)

- o supervise, control and monitor electronic communications network operator' activities and service providers' activities in accordance with the Law, the regulations adopted pursuant there to and the existing concession agreements;
- o provide access of the users to public electronic communication networks and public communication services on non-discriminatory base;
- o determine the content of the standard agreement between the operators of the electronic communication networks, providers and users of the electronic communication services;

- o control the prices for electronic communication services and take measures in cases where the electronic communication network operator or electronic communication service provider either alone or jointly hold a dominant position in a relevant market for electronic communication services;
- o control the prices of electronic communication services determined in the referent offers of operators of electronic communication networks and services with significant market power;
- o control the tariff regimes laid down in the current concession agreements;

- resolve disputes between:
  - users and operators of electronic communication networks and service providers pursuant to the provision of the Law and provisions adopted pursuant thereto;
- create, maintain and update an electronic database containing information from the electronic communication sector and ensure that the information is available to the public;
- follow the development of the electronic communications;





- o gather data and information from electronic communication network operators and electronic communication service providers;
- o provide information for the users, operators and service providers, as well as for the international organizations and bodies;
- o adopt and implement the secondary legislation adopted pursuant to the Law;
- o adopt technical regulations on the base of the Law;
- o administer the implementation of national and international standards and technical regulations in the field of electronic communications



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## By-laws related to the telecommunications, adopted so far

- o Decision of determination the relevant markets
- o Rules for the procedure of Notification
- o Guideline on technical and financial information that should be reported
- o Numbering plan
- o Rules for Interconnection
- o Rules for access to and use of specific network facilities
- o Rules for Minimum set of leased lines
- o Rules for Unbundling the local loop (ULL)
- o Rules for carrier selection and pre-selection
- o General conditions for providing public services, tariffs and QoS parameters

- o Ex-ante regulation for SMP operators
- o Main principles:
  - Technical neutrality
  - Non-discrimination
  - Transparency
  - Electronic communications services consumer rights protection
  - Efficient use of scarce resources (numbering and spectrum)

- o Rules on the type and contents of data that the public communication networks operators and/or service providers shall be obliged to publish:
  - general conditions for access and utilisation
  - prices and tariffs and
  - parameters of quality of public communication services



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## User rights and Operator/Service Providers obligations

- o The subscriber shall have the right to obtain uninterrupted, efficient and on time provision of all public communication services which may be utilised to his terminal equipment compatible with the technological development of the operator /service provider capacities
- o The operator/service provider shall provide qualitative and uninterrupted service utilization
- o The operator/service provider shall establish a customer care service and shall publish the numbers for access to the same



- o The measurements of the service quality parameters shall cover:
  - initial connection period
  - number of subscriber line faults
  - fault repair period
  - number of unsuccessful calls
  - call set up time
  - response time for operator service
  - response time for directory enquiry services
  - public payphones in service over total number of public payphones ratio
  - subscribers objections to the amount of the bill

# QoS parameters for fixed voice telephony network operators (1/2)

	QoS parameter	Name of QoS parameter	Target value 2005	Cumulative values January-December 2005
1	Initial connection period	Number of subscriber request for new connection answered within 5 working days	98%	98.82 % (total 20.543 requests)
		Number of subscriber request for new connection answered within 7 working days	98%	99.57 % (total 17.801 requests)
2	Number of subscriber line faults	Number of notified subscriber line faults (direct subscriber line faults/all active subscriber lines ratio)	12%	8.97%
3	Fault repair period	Faults repaired within 1 working day	90%	95.51%
		Faults repaired within 2 working days	92%	99.54%
		Faults repaired within 5 working days	97%	99.98%

# QoS parameters for fixed voice telephony network operators (2/2)

	QoS parameter	Name of QoS parameter	Target value 2005	Cumulative values January-December 2005
4	Number of successful calls	Number of successful calls in Local traffic	95%	99.77%
		Number of successful calls in Transit traffic	90%	96.79%
		Number of successful calls in International traffic	96%	100%
5	Subscribers objections to the amount of the bill	Number of valid objections to the amount of the bill	0.50%	0.063374%
6	Call set up time	In national traffic		550 msec
		To mobile networks		4.500 msec
		International outgoing traffic		10 sec
7	Response time	for operator service		1.40 sec
		for directory enquiry service		18.50 sec



# QoS parameters for mobile voice telephony network operators

	QoS parameter	Target value 2005		Cumulative values January-December 2005	
		<i>Mobimak</i>	<i>Cosmofon</i>	<i>Mobimak</i>	<i>Cosmofon</i>
1	Population within service contour	98%	99%	99.5%	99.44%
2	Territory within service contour	80%	95%	93.5%	95.11%
3	TCH availability	98%	97%	99.77%	99.329%
4	Network congestion	<2%	<2%	0.03%	0.293%
5	Total dropouts	<2%	<2%	0.44%	0.619%
6	Handover dropouts	<1%	<1%	0.17%	0.128%

- o QoS for voice services over packet switched networks (popular VoIP)
  - To regulate?
    - NO
    - YES, but HOW?
- o QoS for data services (including Internet)
  - To regulate?
    - NO
    - YES, but HOW?

- o Benefits for:
  - Consumers
  - Bussiness
  - Economy
  - COUNTRY

## Regulatory aspects for QoS in the Republic of Macedonia



THANK YOU  
FOR YOUR ATTENTION!  
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