



Information Tools Developed for Telecom End-Users

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CONSUMPTION INFORMATION SYSTEM

HAKOMETAR

NEXT STEPS



OUTLINE



LEGAL BASIS

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- Electronic Communications Act (Official Gazette No 73/08, 90/11, 133/12, 80/13)
- Ordinance of the manner and conditions for the provision of electronic communications network and services (Official Gazette No 154/11, 149/13)



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Obligations implemented by the operators

General cost control

- free of charge information, upon request, about use of the service
- informing consumers on time and free of charge about the use of the contracted amount of the tariff package, tariff model and tariff option

Monitoring the overspending

 monitoring usual consumers behavior when using public communications services and notifying them as soon as possible if the cost of use of services is double the average amount of the bill for public communications services in the previous three (3) months



General limitation on the use of services

 free-of-charge barring of outgoing traffic for a billing period when monthly costs of these services exceed a certain, predetermined amount

Barring of outgoing calls, messages and services

- selective barring of outgoing calls or calls to certain types of numbers or groups of numbers
- barring the sending and/or receiving of SMS messages and MMS messages as part of special tariff services
- disconnecting the use of individual communications services (e.g. data roaming)



Premium rate services

- premium rate services operators must ensure that price and start of billing are announced at the beginning of each call before the beginning of the provision of service
- premium rate services operator must interrupt every call exceeding HRK 150,00 (approx. 20€) or when the duration of the call reaches 30 minutes, whatever is earlier
- premium rate services operator must send to the consumer a free of charge spending report for each individual SMS
 Premium rate service (one-time or subscription) used by the end user after every HRK 150,00 (approx. 20€) spent or every 30 SMS/MMS messages billed, whatever is earlier.







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Reasons for developing tool:

- rising number of customer complaints on BB speed
- non transparent advertisement
- basic requirements for a usable access to internet

•• Operator's general business terms

- minimum broadband access speed specified operators of fixed communications networks must specify and guarantee minimum broadband speed for the contracted communications services
 - ✓ minimum speed for packages with broadband access speed up to 10Mb/s - at least 50% of the maximum (advertised) broadband speed
 - ✓ minimum speed for the packages with broadband access speed above 10 Mb/s - at least 70% of the maximum (advertised) broadband speed



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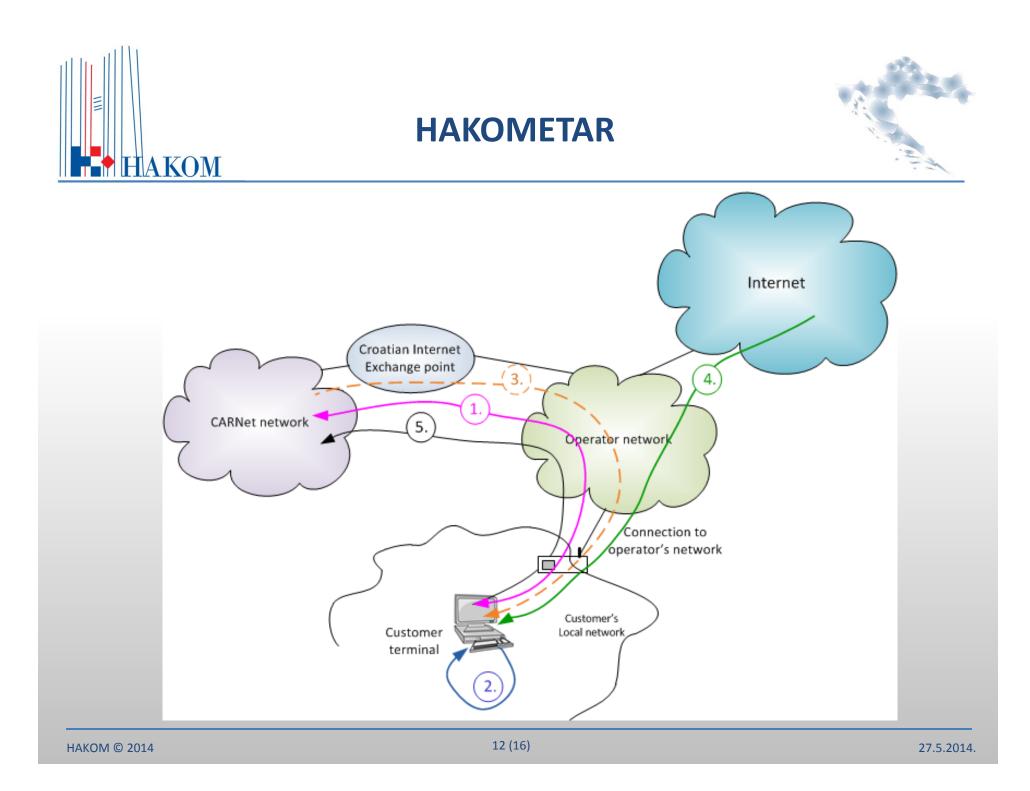
- advertisement rules for fixed and mobile networks
- procedure for measuring the speed using tool developed by HAKOM
- using results of measurements in the process of resolving complaints (resolving complaints on the quality of services are much more easier)
- consumers have a possibility to upgrade to a package that is more appropriate for the actually achievable speed or terminating the contract free-of-charge

Measurements basics:

- ✓ measure can be done during whole day
- ✓ three measurements in five days
- ✓ user complaint can be sent from application



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Web based tool for helping end users in finding best tariff or tariff options for their usage of telecommunications services (tariff simulator)

- it will allow consumers to simulate the lowest rates on the basis of recorded data on consumption per service
- consumers fill out the data (minutes, SMS, MMS, bytes ...) for all services on the market (telephone services, broadband, IPTV ...)







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CONCLUSION



Regulation

Cooperation

Information







Backup slide



- Data collected on user's computer and its environment:
 - Computer network interface wire interface is mandatory
 - IP and MAC address
 - ARP table to detect other computers in local network
 - DNS server used by consumer computer
 - Active application that are using network interface
 - Network interface load
 - Routing table
 - Processor unit load
 - Used/Available memory
 - Consumer OS
- Measurements using a reference server
- Measurements using data available on public Internet