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FOR INFORMATION

SOURCE: Post and Electronic Communications Agency (APEK), Slovenia

TITLE: Web Based Data Collection System



APEK

Post and Electronic Communications
Agency of the Republic of Slovenia

Web Based Data Collection System

*ITU World Telecommunication/ICT Indicators (WTI) Meeting
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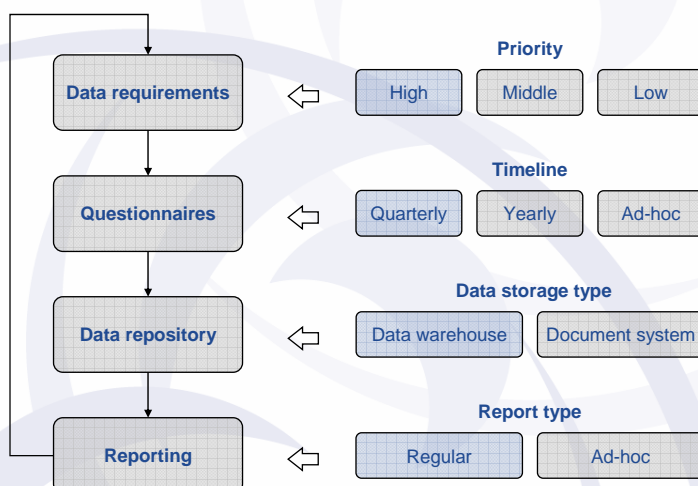
APEK

Agenda

- **Introduction of APEK**
- **Data collection cycle**
- **Major data collection issues**
- **Web based data collection system**
- **Concluding remarks**



- Apek is an independent regulator and supervisor of electronic communications and postal services market in Slovenia.
- **Main organizational units**
 - Radiocommunications division
 - Telecommunications division
 - Postal division
 - Supervision division
 - Legal division
 - Support organizational units
- In October 2007, Telecommunications Division implemented a web based data collection system to improve the process of data collection, validation and reporting.





Data requirements

- Quarterly market development reports
- Market analysis and regulation
- National authorities
 - SURS (Statistical office of the Republic of Slovenia)
 - MG, DEK (Ministry of the economy, Directorate for electronic communication)
 - Bank of Slovenia
- International authorities, groups and project teams
 - European Commission, Eurostat, ITU
 - ERG, IRG
 - NRAs
- Fee collection purposes
- Requests from consultants, associations, reporters, operators, end users, etc.



Questionnaires

- Quarterly questionnaire
 - By service clusters, i.e. Fixed telephony, Mobile telephony, Internet services, Transmission infrastructure, and Television
 - Each cluster divided to retail and wholesale part
 - Connections/users information by technologies
 - Detailed call and traffic information
 - Revenues related to access and traffic
- Yearly questionnaire
 - General section followed by service clusters sections
 - Total turnover, operational revenues, investments, network data, etc.
 - Other services related information needed on yearly basis
- Ad-hoc questionnaire
 - Certain information not collected by regular data collection process
 - Internal/external Ad-hoc requests



Data repository

- Data warehouse (quarterly data)
 - Storage for data collected through a web portal
 - Direct access to data allows relatively fast generation of reports
- Document system
 - Archive of data collected in spreadsheets and word documents
 - Inefficient access to data and high amount of time needed to make a report

Reporting

- Regular vs. Ad-hoc reports
 - Data warehouse allows running predefined queries for regular reporting or creating new queries for any Ad-hoc report (quarterly data)
 - Document system requires data to be gathered/aggregated from spreadsheets regardless of the report type



Definitions issue

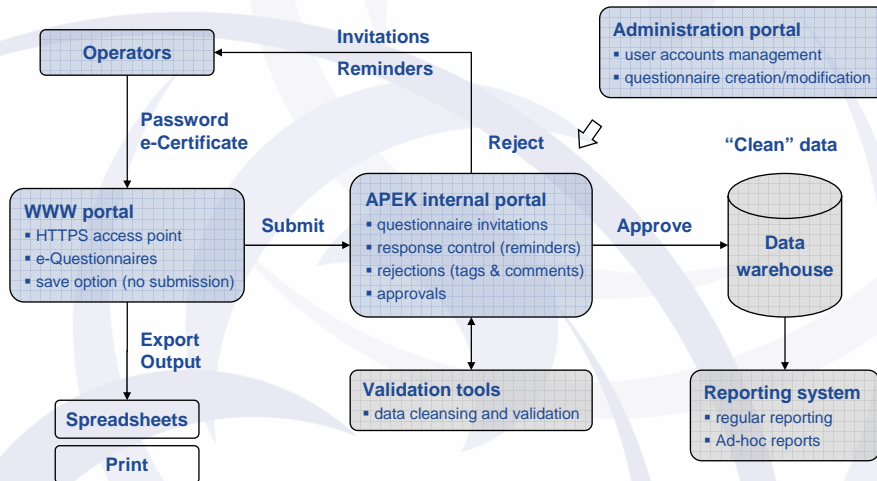
- Inconsistent definitions and terminology among different sources
- Unclear/precise definitions

Operator issue

- Additional administrative burden for operators
- Issue with operator response rates
- Incorrectly comprehended definitions

Regulator issue

- Time consuming data collection
- High amount of data to handle and manage
- Information availability for reporting purposes
- Data revisions issue (source/aggregated data files)

**Next steps**

- Minor improvements of the web based collection process/system
- Adding ability to change the questionnaire by adding/removing individual data items
- Including both yearly and Ad-hoc questionnaires to the system

Conclusions

- Data stored in a warehouse is prerequisite for efficient data validation and successful handling of increasing reporting demands
- Web based data collection system provides a convenient environment for interaction with operators (i.e. user accounts management, active questionnaire invitations, reminders and error management) and an important data source for the warehouse



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Thank you!

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