

MONITORING AND OSS ICTS

Tecsidel designs and implement solutions to solve needs related to the monitoring and operation support (OSS) which require both services related to information and telecommunication systems (ICTs) and infrastructures and resources in which they are anchored. In the network management context (NMS, Network Management Systems), Tecsidel mainly focus its solutions to the fulfillment of the set-up, control and supervision processes of fault and performance management.

OSS and NMS solutions provided by Tecsidel, are based both in own software and in third-party products (IBM Netcool, Comarch, Witbe) or Open Source included it the binder tQoS/MOS, and take into account the guidelines of the standards related to the five functional areas known as FCAPS (Fault-Configuration-Accounting-Performance-Security) of the TMN model (Telecommunica-

tion Management Network) established by the ITU (International Communication Union) and eTOM model (Enhanced Telecom Operation Map) design by the TMF (Telecommunication Management Forum).

GOVERNANCE AND MONITORING OF SERVICES AND INFRASTRUCTURES IT (ETSIM)

ETSIM (Enterprise Telecommunication Services and Infrastructure Monitoring) is a Tecsidel solution conceived to monitor and measure the quality and use of telecommunication services from different places and workstations of large and medium-sized companies. It integrates products TRAMS and LIMS of Tecsidel, considering two standards in its application:

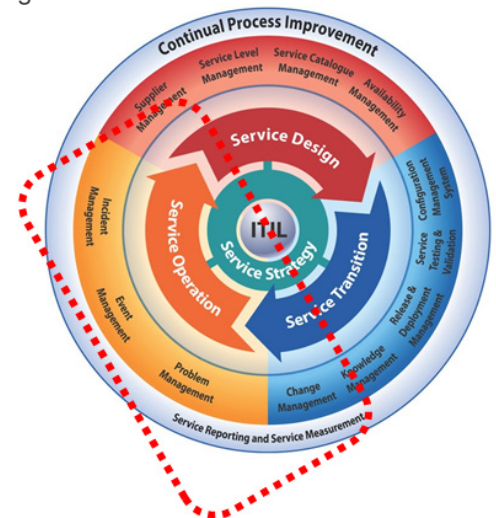
ISO/IEC standard 38500-2008

This standard aim is to provide a principle framework to be applied by the or-

ganization managers when assessing, managing and monitoring the use of information technologies (IT) with the purpose to be effective, efficient and acceptable.

ITIL V3

It is focused in the operation and service improvement (the last two volumes of ITIL v3). ITIL (Information Technology Infrastructure Library) is a framework of reference of good practices in the IT government.



ANALYSIS, CLASSIFICATION AND MONITORING OF IP TRAFFIC (TRAMS)

The product TRAMS (Traffic Monitoring System) of Tecsidel can be used for characterizing with quantitative data of IP traffic the use of the network by applications/nodes/users, and also to detect abnormal situations in such use (attacks, abuses, errors in applications, etc.). This optimizes the IP network planning (dimensioning and security policies, QoS and traffic control), improves the network operation (management, availability, performance and evaluation of the effectiveness of the applied policies) and reveals which contents users consume or exchange through the network.

MEASUREMENT OF THE USER EXPERIENCE AND QUALITY IN COMMUNICATIONS IP (LIMS)

The LIMS system (Lightweight IP Measurement System), conceived and developed by Tecsidel, allows to measure continuously in real time from multiple end points the quality parameters E2E (end to end) of any IP communication network, in agreement with standard ETSI EG 202 057, used in the Spanish

Ministerial Order ITC/912/2006. Amongst these parameters we can highlight the following:

- Availability of connection to IP nodes.
- Speed (bitrate) of connection IP (bits per second) in both directions.
- Instantaneousness (latency) of the connection.
- Jitter (variance of the latency between consecutive IP packets).

This ensures that the network managers engaged in such communications can undertake

- Continuous measurement of network quality parameters from multiple end points.
- Quick and even early detection of errors and network performance dropouts (congestion).
- Analysis of tendencies of quality indicators in medium and long term.
- Analysis of network capability.
- Comparison based in objective data between service qualities offered by different CSP's.
- Verification of compliance with SLAs (Service Level Agreement) associated to service contracts provided through an IP network.

REPORTING, PLATFORM FOR REPORTS XLS (ISSBO)

ISSBO constitutes an efficient reporting platform of easy implementation and use. It is based in the direct feeding and 'on-line' of the sheets of an Excel book through HTML flows that incorporate the information extracted from the database to consult. The computer running Excel does not require any specific software to access such databases or direct connectivity with them.

SW OSS OPEN SOURCE (T-QOSMOS)

t-QoSMOS (Tecsidel Quality of Service Monitoring Open Source binder) is a compilation of applications Open Source elaborated by Tecsidel. It is mainly focused on the monitoring of the service quality of the telecommunication networks, and includes products such as Zabbix, OTTRS, Talend Open Studio, Nagios and Cacti amongst others, applied in alignment with the Assurance processes of eTOM of the TMF and management functions of Failure and Performance of the TMN functional model.