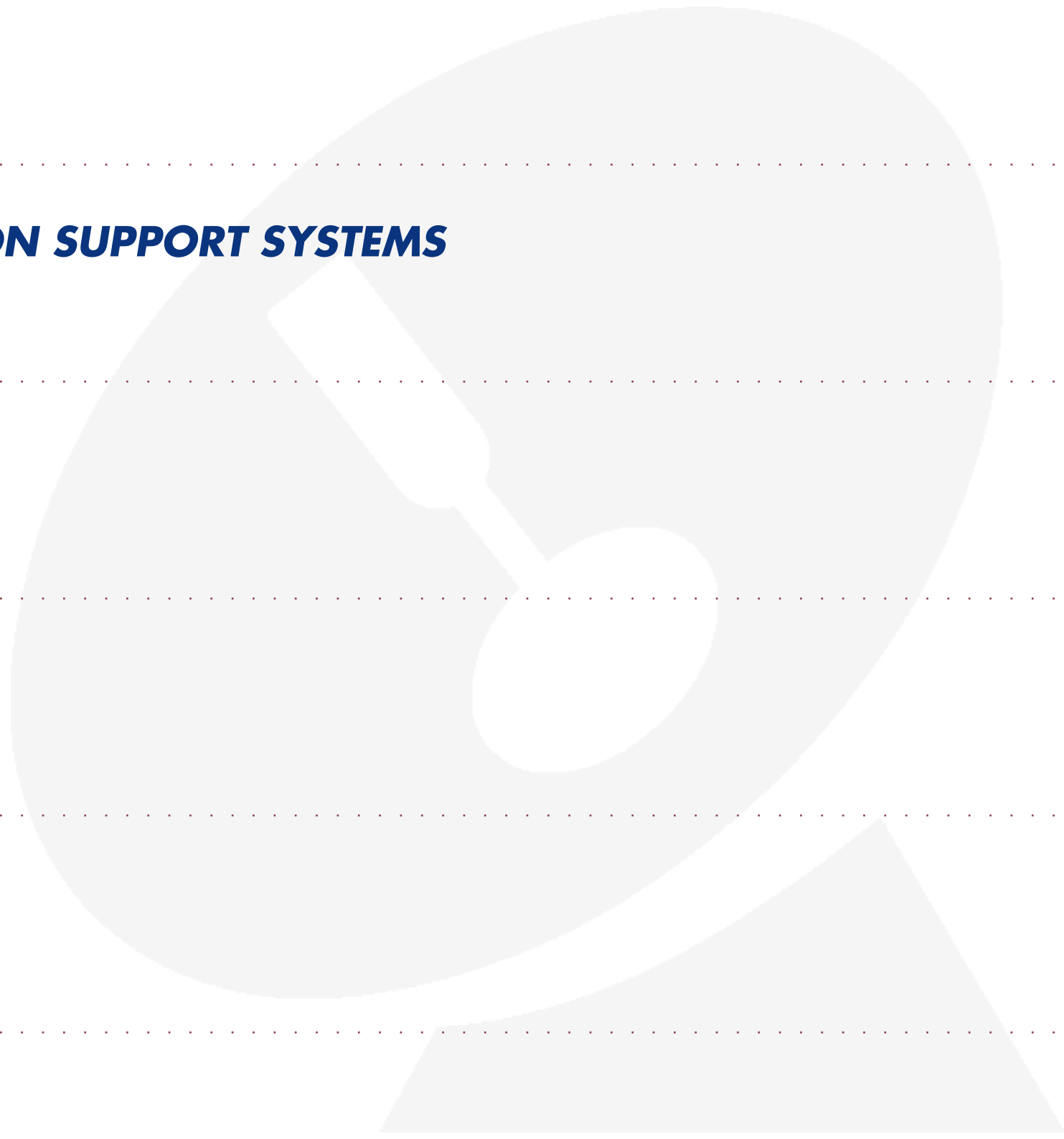


NETWORK OPERATION SUPPORT SYSTEMS

TELECOM DEPARTMENT

tecsidel



Presentation

SOLUTIONS

Tecsidel's centre for network management conceives designs and implements **solutions for solving network operation support system needs**, such as Fault Management, Performance Management, Service Assurance and Provisioning, according to the TMN model or Service Assurance and Fulfilment according to the E-TOM model.

- 1 **Fault Management**
- 2 **Performance Management**
- 3 **Service Assurance**

EXPERIENCE

We are backed by our **experience in adapting commercial network management tools** and the confidence of being a certified partner of MicroMuse and DCI, as well as having access to the information of Cisco and Hewlett Packard manufacturers. Adding support systems, also called network management systems, to the operation allows companies to **improve network resource management**, shorten detection times and failure resolution, and save costs and time when providing their services.

- 4 **Provisioning**
- 5 **TMN**
- 6 **E-TOM (TM FORUM)**

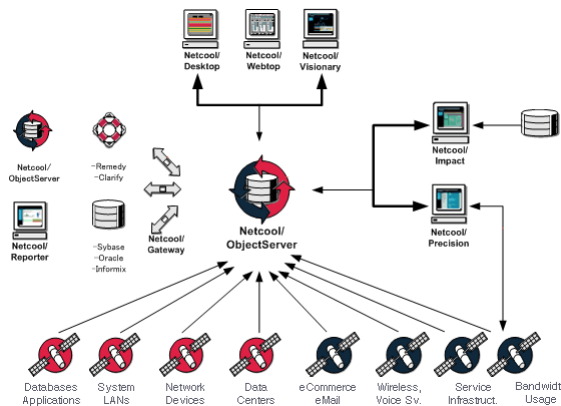
SECTORS

Tecsidel targets telecom operators and **sectors where service assurance is a key business factor**, such as utilities, infrastructure managers and the government. References, such as management of the DIAL-UP service's alarms and Ono's voice network, management of Telefónica Data's INTERLAN network alarms, management of the quality and service of Telefónica Móviles' corporate network, and the management of the provision and inventory of Hispasat's satellite based IP connections are a sample of the experienced and reliability we have acquired in implementing these solutions.

Product application

1 **MICROMUSE NETCOOL (IBM/TIVOLI)**

- Centralized alarm management
- Multiple probes (units, services, unit managers)
- Alarm manager integration
- Advanced alarm correlation



2 **LIMS (Lightweight Internet Measurement System)**

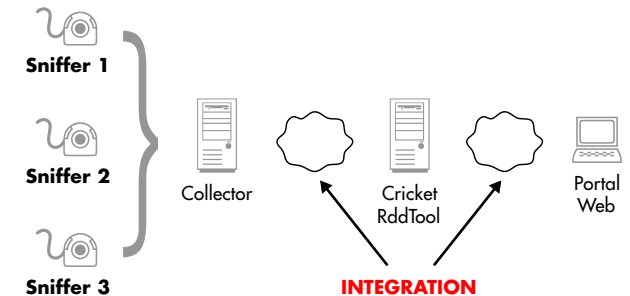
- Turnkey solution
- Ad hoc development, light and structured
- LEAs (Linux Embedded Applications Systems) environment
- Collection, storage and presentation of active quality measures for user access
- Server equipment, probes and deployment
- Covers Spanish Ministerial Order ITC/912/2006 (Quality Order)

4 **MICROMUSE PROVISO (IBM/TIVOLI)**

- Network performance management
- Service assurance

3 **T-QoSmos**

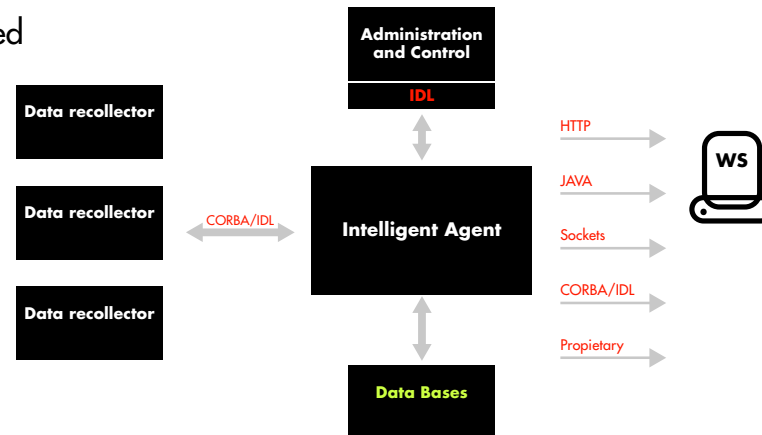
- Quality of Service control portal
- Flexible and adapted to concrete needs
- Low cost (GNU)
- Reports



Product application

5 DCI - IAP

- Intelligent agent platform
- Fast development of customized systems
- Configuration rules



6 AD-HOC DEVELOPMENTS

- Development of adapters to network element managers
- Development of adapters to network services for centralized management
- Development of gateways and interfaces between different orders of manager systems

Technology and Methodology

BASES

- PMI certifications on project management
- Monitoring of TM FORUM standards

PRODUCTS

- Tivoli/Netcool Omnibus (Object Server)
- Tivoli/Impact
- Tivoli/Netcool/ISM-ASM-SSM
- Tivoli/Netcool/Proviso
- Tivoli/Netcool/RAD
- Sun

TECHNOLOGY

- Radio network management (GSM, UMTS, LMDS, WIMAX)
- Triple play (IP) network management: cablemodem, ADSL

References

ONO

- Integration of the global alarm supervision platform (**Netcool**)
- Integration of new network and element managers

TELEFÓNICA MÓVILES

- Quality Management and corporate network service (**Proviso**)

TELEFÓNICA DATA

- INTERLAN network alarm management (**Netcool**)

ORANGE

- Enrichment of their expert event management system (**Micromuse Netcool**)
- Equipment with latest business intelligence technology

NEO SKY

- Generation of Quality and Service Events Reports (**Proviso**)
- Management of numeric pre-allocation (**IAP**)

BROADNET

- Network Management (**T-QoSmos**)

AUNA

- DIAL-UP service alarm management (**Netcool**)
- Alarm management for voice networks (**Netcool**)
- Alarm management for the ATM network (**Netcool**)
- Monitoring of IDC services by IDDEO (**Netcool**)
- Management of service Reports on WE features (**Proviso**)

Notes

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