MetaASSIST EMS is a carrier-class user-friendly Element Management System (EMS) used for real-time planning, provisioning, monitoring and management of networks comprised of multiple MetaLIGHT® systems.

MetaASSIST EMS is designed in accordance with the ITU-T Telecommunication Management Network (TMN) Fault Configuration Accounting Performance Security (FCAPS) model recommendations for management systems supporting the following functions:
- **Fault Management**: alarm handling, event handling, testing and diagnostics
- **Configuration Management**: network discovery; element provisioning and inventory
- **Performance Management**: real-time statistics presentation
- **Security Management**: access control, access logs

The EMS is designed to support standard northbound interfaces towards higher OSS and NMS systems such as CORBA (Common Object Request Broker Architecture) and TL1.

**MetaASSIST EMS Architecture**
MetaASSIST EMS is a java-based modular and scalable Client-Server management system, providing centralized configuration and fault management for multiple distributed MetaLIGHT systems.

MetaASSIST EMS includes the EMS Server, EMS Database and a Graphical EMS Client. MetaASSIST EMS is able to manage up to 1000 assorted MetaLIGHT systems from the following list:
- **Ethernet Services**:
  - MetaLIGHT 100E
  - MetaLIGHT 50
  - MetaLIGHT 130 and 1300
- **TDM Services**:
  - MetaLIGHT 1500
  - MetaLIGHT 100E1

Each MetaLIGHT system is a separate manageable entity, which can be a single shelf in a point-to-point link, or a CO hub (e.g., MetaLIGHT 130 or MetaLIGHT 1300 with subtending CPE’s) in a point-to-multipoint architecture.

**MetaASSIST EMS Server and Database**
The MetaASSIST EMS platform is scalable to allow for future expansion, currently supporting up to 1000 MetaLIGHT systems.

MetaASSIST EMS can run on a UNIX or a PC based platform with any commercial database. Optional database redundancy can be supported.

The following information is stored in the database:
- Faults
- Configuration backup of all managed elements
- Long term performance monitoring data*
- Network level information - such as customer data*
MetaASSIST™ EMS

MetaASSIST EMS can be used as a standalone system providing element management layer (EML) functionality. Standard northbound interface supporting service configuration as well as alarm reporting can be supported allowing integration into existing Network Management Systems (NMS). Multiple NMS are supported.

MetaASSIST EMS manages MetaLIGHT systems via an IP network using Telcordia standard TL1 interface. Subtending MetaLIGHT systems are managed in-band via the High Speed Link™ (HSL™).

Network Display
MetaASSIST EMS displays multiple managed entities using a topological map of the connection between the managed entities (Point-to-point, Point-to-multipoint). This network view includes colored status indications for each entity.

MetaASSIST EMS supports customized views and event filtering allowing operators to tailor view to the precise requirements.

Configuration Management
MetaASSIST EMS enables configuration of shelves, cards, ports and services.

Configured managed entities can be either auto discovered by MetaASSIST EMS or manually added and deleted.

The Backup and Restore capability allows storage of a managed element configuration information. To ease large-scale deployment, default configurations may be downloaded to any new element.

MetaASSIST EMS provides centralized software release storage in the EMS database allowing centralized software management for all network elements.

Performance Monitoring and Reporting
MetaASSIST EMS provides the ability to view current and historical performance data, stored within the managed network elements. The information is periodically collected and stored in the EMS database.

Security
MetaASSIST EMS enforces access control through a login mechanism, based on personal user ID and password. Four levels are supported by the EMS for multiple users: level 1 - queries only (read-only), level 2 - queries and modifications (read and write), level 3 - queries, modifications and privileges operations (administrator) and a level for EMS user management.

Fault Management
MetaASSIST EMS collects equipment and services alarms, events and notifications.

Graphic representation of alarm status at network, sub-network, node/element, card and port levels, are available in a hierarchical color-coded status representation. Alarms are aggregated and displayed as a summary of all Critical, Major and Minor alarms and Warnings.

The system offers filtering and sorting capabilities according to time, severity and element name making the system easily tailored to the preferences of the user.

MetaASSIST EMS provides centralized date and time to all managed elements to synchronize event timing.

All alarms are stored in the database. The user can browse Active and Cleared alarms as well as acknowledge them.

All alarms can be reported via a northbound interface* using either TL1, CORBA or SNMP.

System Requirements
Operating system
• Solaris 8, Windows 98 (Client only), NT, 2000 and XP

Database
• Sybase, Oracle and other commercial SQL databases

* These features are not supported in the first release of the product, but in subsequent releases.

For information regarding pricing and ordering options, please contact Actelis Sales.

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