

## QuFast SHDSL MetaASSIST™ View Carrier Ethernet over Copper™

MetaASSIST™ View is a carrier-class, Java-based graphical craft application that provides management of Actelis® equipment. MetaASSIST View provides an intuitive Graphical User Interface (GUI) for complete Operation, Administration, Maintenance and Provisioning (OAM&P) of Actelis systems linked to each-other via the High Speed Link (HSL) bonded copper interface.

Actelis' MetaASSIST View includes many enhancements far beyond conventional craft applications, thereby simplifying system installation and management. Features include auto-discovery, graphical bandwidth utilization tool, comprehensive on-line help, and step-by-step procedures.

### Management Interfaces and Protocols

MetaASSIST View communicates with Actelis systems locally or remotely via a serial RS-232 Craft port, dial-up modem or through the Out-of-Band or In-Band IP connection. The management of the remote Actelis systems is carried in-band via the HSL.

### Hierarchical Presentation

MetaASSIST View provides a convenient hierarchical view of a network of interconnected Actelis systems, along with the status information for each network element and its interfaces. All connected network elements can be simultaneously configured and managed. Links to individual views of each component of the system gives the user quick and easy

access to a detailed information.

### Ease of Use

MetaASSIST View is easy to install and operate. All actions are intuitive and can be activated from the logically composed management views, optimized for common operations. And, our Online Help feature significantly reduces the training time needed for a new operator to become familiar with MetaASSIST View and ML products. Step-by-step procedures (i.e., wizards) guide the user in performing multi-task operations, such as "Initial Setup", "Software Upgrade" or "Service Creation." The result is quicker turn-up of an Actelis system(s), saving field-engineering costs and reducing system downtime.

### Flexible Architecture

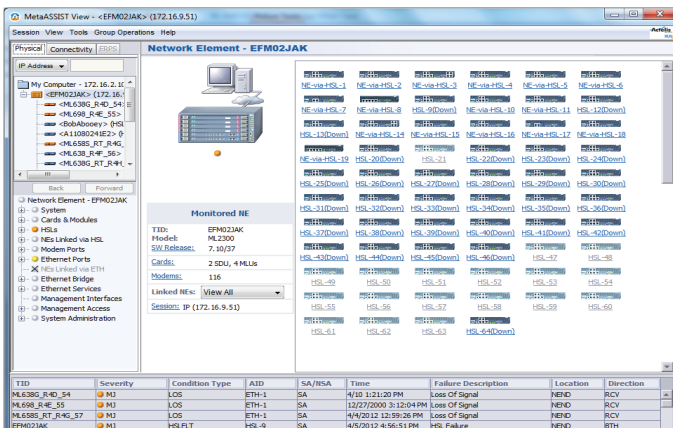
Actelis' MetaASSIST View Java-based component architecture allows it to run on multiple platforms and be easily updated to accommodate new services and protocols.

### Secure Management Access

MetaASSIST View provides secure management access via Secure Shell (SSHv2) when connected to a remote Actelis system over an insecure IP network (e.g., Internet).

### Highlights

- ◆ Actelis Systems Management Application
- ◆ Multi-platform Java-based GUI
- ◆ Hierarchical presentation
- ◆ Secure Management Access
- ◆ Configuration
- ◆ Administration
- ◆ Fault Management
- ◆ Performance Monitoring
- ◆ On-line Help and Wizards



## Features

### Fault Management

The MetaASSIST View fault management system allows easy monitoring, alarming and tracking of Actelis system faults and non-alarmed events, including:

- Real-time visual alarm display
- Color-coded alarm severity levels
- User-defined alarm severity levels
- Alarm status with periodic polling
- Environmental alarms management
- History log of active and cleared alarms
- Selective masking of Autonomous reports
- Audible Alarms (sound effects)

### Troubleshooting

The MetaASSIST View provides a convenient graphical access to various troubleshooting features of the Actelis systems, such as:

- IEEE 802.3ah EFM OAM activation & monitoring
  - Discovery
  - Remote failure indication
  - Remote Loopback operation on HSL, individual copper pairs and repeatered segment of copper pair loop
  - Ping, Trace-route
- Repeatered G.SHDSL link diagnostics
- IEEE 802.3ag and ITU Y.1731 advanced end-to-end service level OAM activation & monitoring
  - Continuity Check Messages (CCM)
  - Link Trace Messages (LTM)
  - Remote Loopback Messages (LBM)
  - Remote Defect Indication (RDI)
  - Round Trip Delay (Y.1731 only)
  - Round Trip Delay Variation - Jitter (Y.1731 only)
  - Frame Loss (Y.1731 only)
  - Frame Loss Ratio (Y.1731 only)

### Layer 1 TDR-based Troubleshooting

MetaASSIST view, using a standard TDR function originated from MLU32Ex-based CO platforms or ML600 EADs, enables operators to visually identify and locate both open and short pair fault impairments on any copper pair.

### Advanced Troubleshooting | Repeatered Pairs

MetaASSIST View provides simple and intuitive tool to troubleshoot and analyze HSL repeatered pairs. The tool makes use of Test working mode to activate the HSL pairs segment by segment.

### Configuration

The MetaASSIST View configuration management system offers a comprehensive view of the Actelis system configuration and resource availability including:

- System (node, redundancy)
- Equipment (shelf, cards and modules)
- Facilities (service ports, HSLs, modems, external clocks)
- Services (TDM service connections, Ethernet services including MEF 10 based EVCs, bridging, VLANs, QoS, STP)
- Management interfaces
- SNMP parameters
- Auto detection and real-time display of configuration changes in a multi-user environment
- Wizards for multi-step operations

### Administration

The MetaASSIST View allows users to administer various system resources including:

- User accounts and RADIUS control
- Log management
- Software control
- Configuration back-up and restore
- Date and Time management

### Performance Monitoring

The MetaASSIST View performance monitoring management system offers network managers an ability to monitor the Actelis system performance over time including:

- Retrieval and display of standard performance counters for Ethernet ports (RMON), HSL and G.SHDSL modems
- Copper pairs qualification data
- Standard Ethernet statistics end-to-end (glance view)
- Graphical Ethernet Bandwidth Utilization monitoring displays per Ethernet port and Ethernet service (EVC)

### Security

The MetaASSIST View Security management system allows users to control various security-related parameters of the Actelis systems including:

- System Access Control (login/logout, SSH parameters)
- Resource Access Control (user access privileges)
- Access Control List management

### Command Line Access and Logging

MetaASSIST View allows a user to manually enter individual TL1 commands and view the responses.

All messages exchanged between Actelis systems and MetaASSIST View are logged and can be viewed offline to assist in troubleshooting.

### Operating System

- MS Windows 98, 2000, NT, XP, 7
- Sun Solaris 8.0, 9.0 or 10.0
- Linux

### Hardware Minimum Requirements

- CPU Pentium 133MHz class or higher or one 1.34 GHz UltraSPARC processors (for Sun Solaris OS platforms)
- RAM 64MB, 128MB recommended
- Hard Disk free space 40MB on Install Disk + 50MB on System Disk
- CD-ROM

### Interfaces

- Serial RS-232 Craft/Dial-up modem port
- IP In- or Out-of-Band

### Capacity

- 100 users
- Screen Resolution 800x600, 1024x768, 1280x1024



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