SmartView™ EMS

Managed 2,000+ Devices

- **Hierarchical Network Management to 2,000 Devices.**
- **Remote Access and Centralized Device Management**
- Real-time visual representations & processing of alarms
- Long term event storage (up to 1 year)
- Easy, User-Friendly Operation Interface

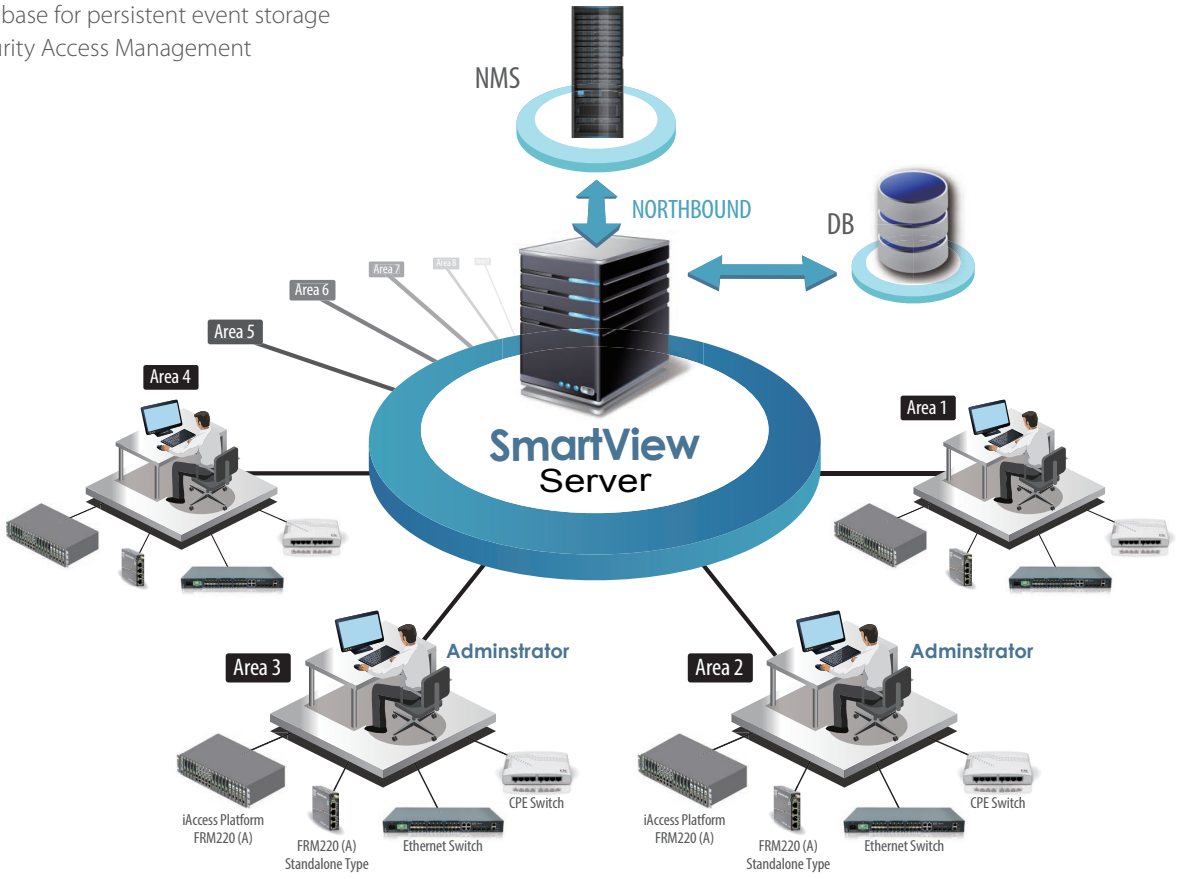
CTC Union's **SmartView™ Element Management System (EMS)** is a comprehensive management solution that monitors device performance, enables remote configuration and provisioning, and provides fault notification status.

■ Functions

- Main Functions **(FCAPS)**:
  Fault Management, **C**onfiguration Management
  Accounting Management, **P**erformance Management
  Security Management
- Remote access control for efficient configuration
- Traffic / Performance monitoring and management
- Alarm Trap and event log management
- Auto Discovery and Device Viewer
- Allow up to 25 administrators to login

■ Network Scheme Diagram

- User-Friendly Operation Interface
- Robust Client / Server architecture
- Network Monitoring and Management
- Database for persistent event storage
- Security Access Management



2019 V2.0
www.ctcu.com / sales@ctcu.com

Agents
The server handles connections with the network devices using SNMP protocol and is responsible for communicating of requests from management clients. SmartView™ Server collects information data from specific SNMP agents, stores the information into a persistent database and updates that information to the management clients.

SmartView™ Server
The server handles connection with the network devices using SNMP protocol, and is responsible for communication of requests from management clients. SmartView™ Server collects the information data from specific SNMP agents, stores the information into a persistent database and updates that information to the management clients. SmartView™ server requires 64bit Microsoft® Windows™ O.S.

Multi-Administrators
Management clients are provided with the JAVA applet GUI to monitor and control the agents at far end. They also receive the Alarm and Traps from the corresponding SNMP Agents. Multiple workstations are allowed, with a maximum of 25 concurrent logged in users.

■ Features at a Glance

Fault Management

- Trap Collection

  All traps will be stored in SQL database. When an SNMP agent experiences an abnormal condition it will send an SNMP trap message to SmartView™ which then receives the message, and records it in the database. Depending on preset conditions, SmartView™ may sound an audible alarm, send an email or SMS alert message or just simply flash the trap message on the administrative console screen.

- Active Alarm

  SmartView™ continuously polls all network devices under its management and will visually display all alarm conditions found. Alarms will be categorized as Major, Minor or Warning, depending on severity. Although alarms may be acknowledged, they remain actively displayed on the alarm page until there is no longer an alarm condition.

- Alarm Selection

  Alarm events of network element are configurable. All alarm events are warned by default, but they can be manually disabled to ignore warning messages.

- Alarms sent by E-mail & SMS

  The SmartView™ is capable of sending emails and or SMS text messages to selected administrators when critical alarms occur. Prompt notification of system problems aid in getting problems in the network devices fixed in the shortest time possible.

- Trap Forwarding and Syslog messages

  The SmartView is capable of forwarding received traps to upper network management and sending event messages to a syslog server.

Configuration Management

- Network Topology

  User can load maps to SQL server, load maps from SQL server or delete attached maps. Map area may be used to layout any objects from Root and Node panel. Using drag-and-drop, put any object to map area. Any label or network element location name may be added to object. Objects in red color indicate some alarm condition is present in the device.

- Network Element Configuration

  SmartView™ is able to provide a single point of configuration for the device elements. Most settings only require mouse clicks and by using a tab format, most scrolling is eliminated. Current settings and status are displayed along with hardware and firmware versions for each element.

- Network Element Firmware Upgrade

  SmartView™ is able to download firmware to device elements and perform configuration backup/restore.

- Network Element Time Synchronization

  SmartView™ is able to trigger a command to network elements to perform time synchronization with Smartview or a NTP server.

- Network Element Discovery

  SmartView™ has a tool for automatically discovering SNMP agents on the network. Simply enter an IP address range and the discovery program will ping every IP address looking for SNMP agents. Once discovered, the agents can be selected and brought into the broker for polling.

Accounting Management

The accounting management supports reading a factory programmed serial number specific for each line card.
The location, status and serial numbers of all assets can be managed and exported.

Performance Management

SmartView™ is able to monitor device performance parameters through polling of specific OIDs. Graphs of performance information (for example PDH PM data such as ES, UAS, etc. as well as hardware parameters such as fan speed, temperature, optical Tx/Rx power or RMON counters) can be generated on an X Y axis showing different trend data.

Security Management

- User Privilege
  - The administrator can add necessary user logins with specific privileges, from Administrator to Operator and lastly to normal user.
  - Radius Authentication. Supports authentication login provided by credentials stored on RADIUS server.

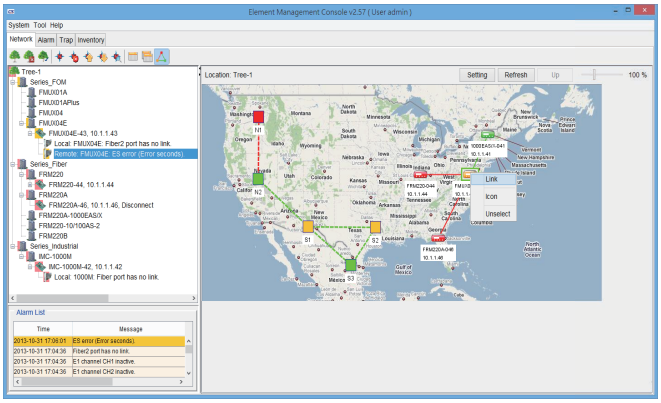
- User Role

  A user role is a group and defines privileges for users to perform management tasks. The access to network elements is also restricted by user role.

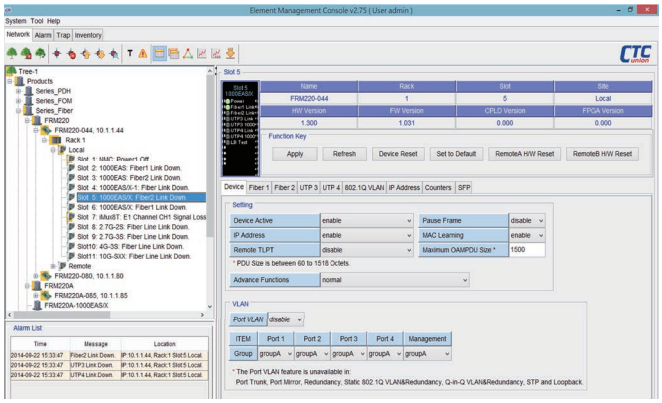
- User Activity

  Provides viewing and clearing of the user login and configuration action logs.
  User client login & logouts are recorded, including the client's source IP address. All activities performed on any Device Element are logged with time-stamping, the user making changes and the changes made.

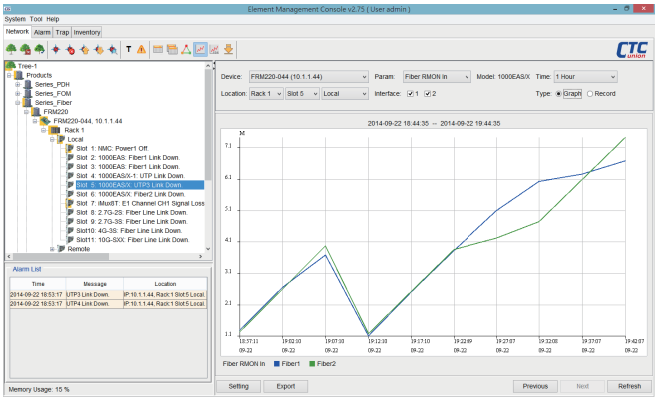
Network Topology



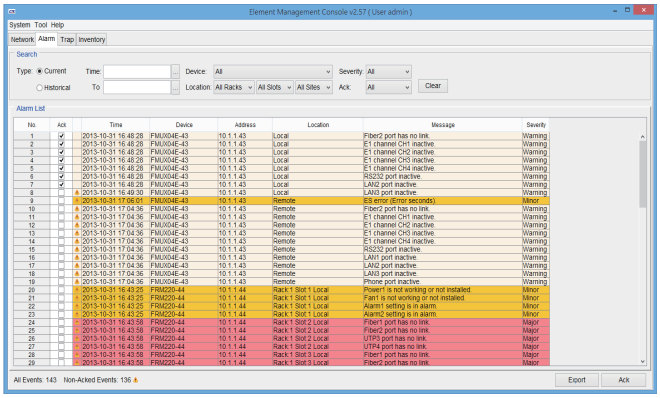
Network Element Configuration



Performance Graphics



Active Alarm



System Requirements

SmartView™	Hardware (minimum)	Software	Operating System
SmartView™ Server	Intel Core2 or higher processor, 2GB RAM, 40GB HD	JAVA JRE. SmartView™ Kit. MS-SQL Server	Windows Server 2012/2014, Win 7/8/10 (64 bit)
SmartView™ Clients	Intel Core2 or higher processor, 2GB RAM, 20GB HD	JAVA JRE. SmartView™ Kit.	Windows 7/8/10 (64 bit)
All-In-One	Intel Core2 or higher processor, 4GB RAM, 80GB HD	JAVA JRE. MS-SQL Server. SmartView™ Kit. SmartView™ Server/Client	Windows Server 2012/2014, Win 7/8/10 (64 bit)

Ordering Information (Telecom)

SmartView™ EMS Server for Max 2,000 IP address nodes

Model Name	Description
SV1-AGT-50	SmartView™ management software with 50 nodes
SV1-AGT-100	SmartView™ management software with 100 nodes
SV1-AGT-200	SmartView™ management software with 200 nodes
SV1-AGT-500	SmartView™ management software with 500 nodes
SV1-AGT-1000	SmartView™ management software with 1000 nodes
SV1-AGT-1500	SmartView™ management software with 1500 nodes
SV1-AGT-2000	SmartView™ management software with 2000 nodes