



EMS SmartView™

Superior Design with Real-Time
Monitor and Control

Fault Management

- Trap Collection
- Active Alarm
- Alarms sent by E-mail & SMS

Configuration Management

- Network Topology
- Network Element Discovery
- Network Element Configuration

Accounting Management

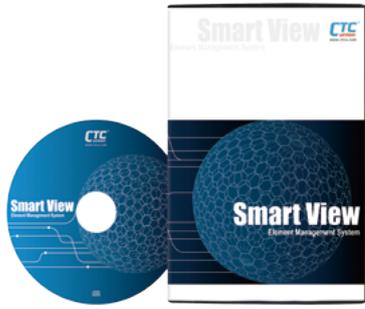
- Location, status and serial numbers of all assets can be managed and exported

Performance Management

- Device Performance is plotted over time using standard PM data such as ES UAS, etc.

Security Management

- User Privilege
- User Activity



EMS SmartView™

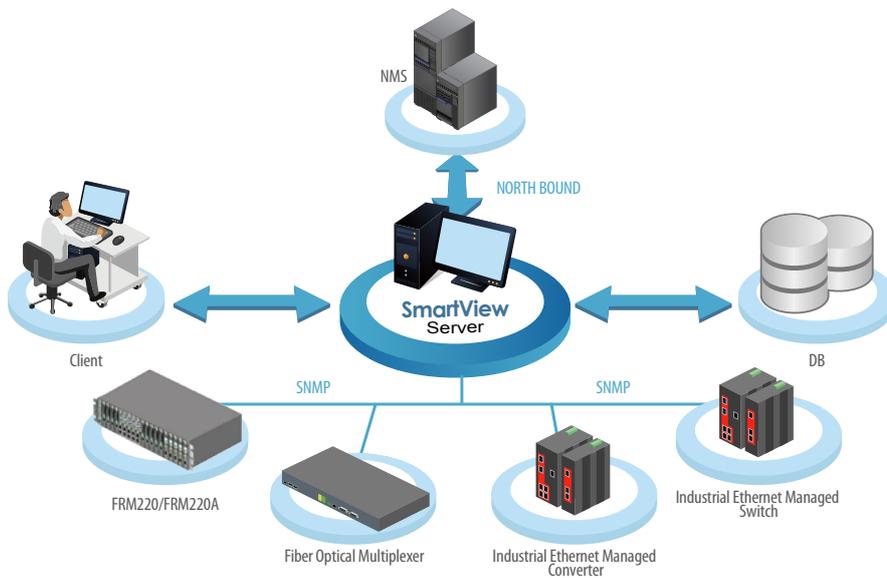
Element Management System

- Centralized Network Management Platform
- Real-time visual representations and processing of alarms
- Easy and User-Friendly Operation Interface
- Long term event storage

- 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
- Applied to CTC Union's Main Products

Network Scheme Diagram



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

Polled Network Elements

Agents

All of CTC Union's SNMP enabled products, such as FRM220/220A platform, FMUX series of fiber multiplexers and Industrial series L2 managed switch are manageable by CTC Union SmartView™ EMS management Platform.

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.

Microsoft® SQL Server for Persistent Storage

SQL Server is the place where the SmartView™ collected data, such as alarms, traps and user actions is stored for long term retrieval. SmartView™ requires Microsoft® SQL Server and is compatible with SQL Server 2005, SQL 2005 Express, SQL 2008 Server, SQL 2008 Express, SQL 2012 Server and SQL 2012 Express. (The EMS installer will install the free version Microsoft® SQL 2008 Express by default.)

Workstation-Clients

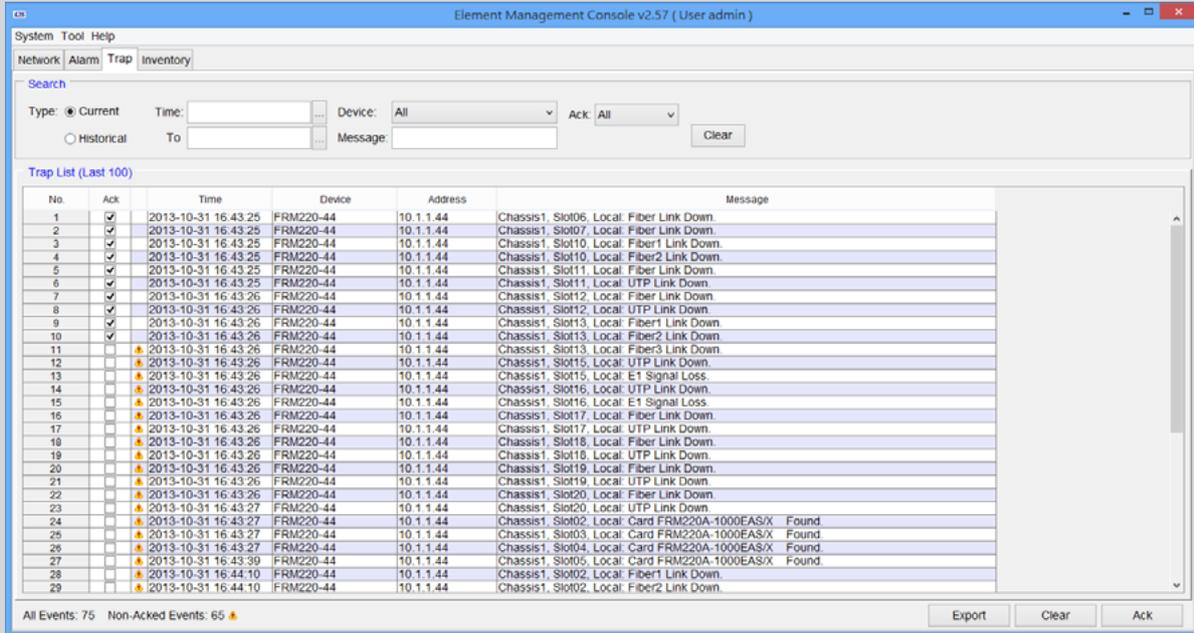
Management clients are provided with the JAVA applet GUI to monitor and control the agents at far end. They also receive the Alarm and Traps from the corresponding SNMP Agents. Multiple workstations are allowed, with a maximum of 25 concurrent logged in users.

Features at a Glance

Fault Management

Trap Collection

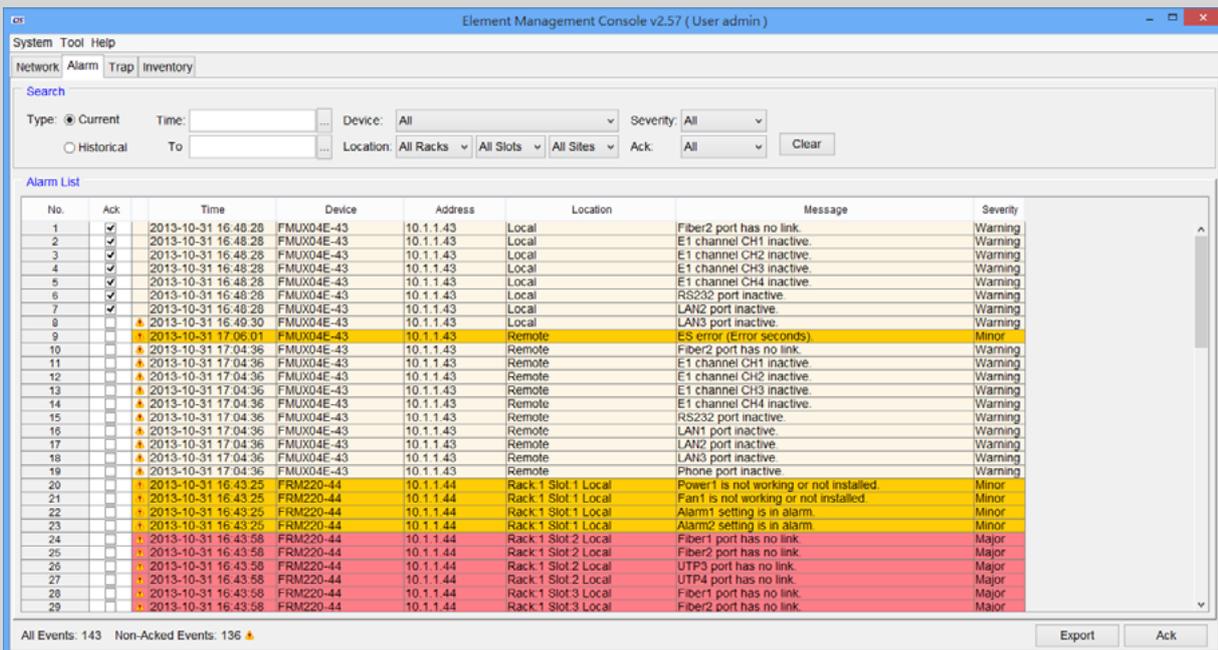
All traps will be stored in SQL database. When an SNMP agent experiences an abnormal condition it will send an SNMP trap message to SmartView™ which then receives the message, and records it in the database. Depending on preset conditions, SmartView™ may sound an audible alarm, send an email or SMS alert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



Trap Messages

Active Alarm

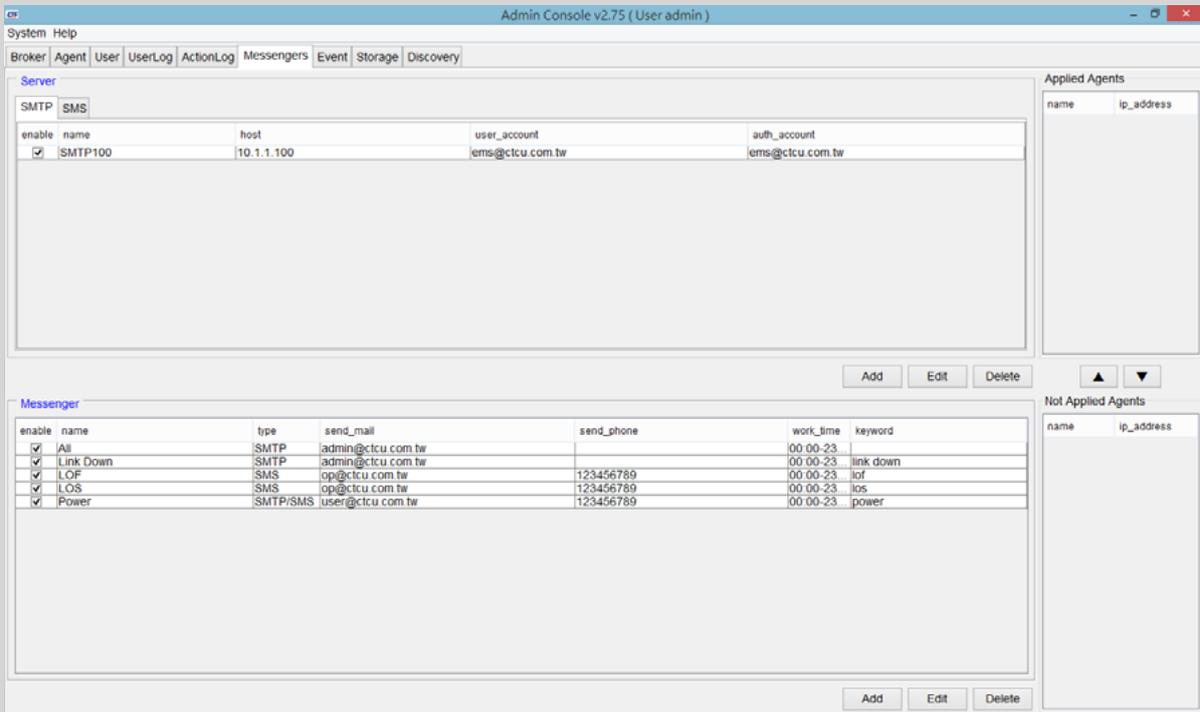
SmartView™ continuously polls all network devices under its management and will visually display all alarm conditions found. Alarms will be categorized as Major, Minor or Warning, depending on severity. Although alarms may be acknowledged, they remain actively displayed on the alarm page until they no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



Active Warnings

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 fixed in the shortest time possible.



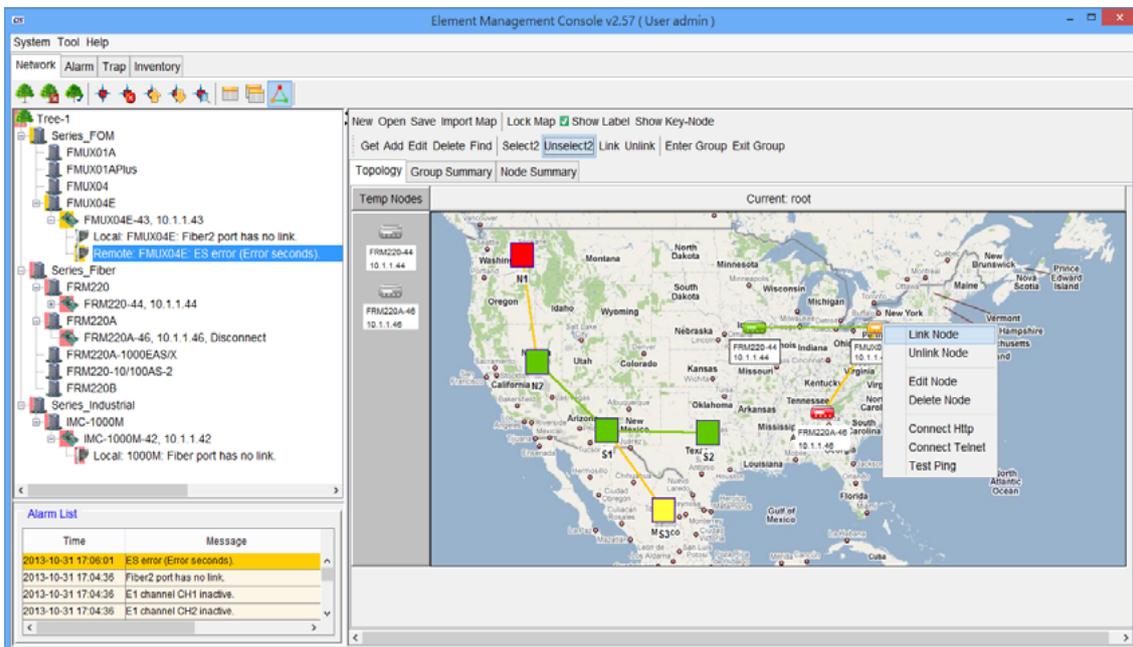
Alarms Sent by Email & SMS

Configuration Management

Network Topology

User can load maps to SQL server, load maps from SQL server or delete attached maps. Download procedure is very simple. Map area may be used to layout any objects from Root and Node panel.

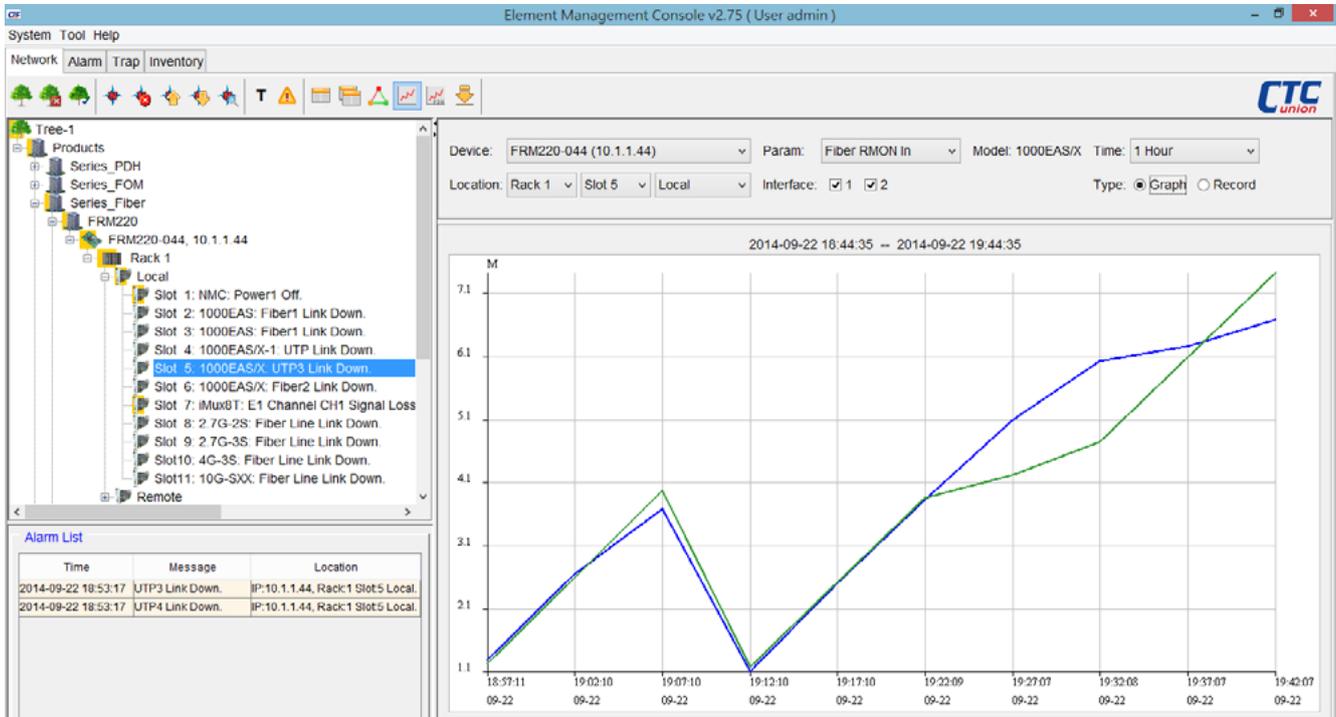
Using drag-and-drop, put any object to map area. Any label or network element location name may be added to object. Objects in red color indicate some alarm condition is present in the device. Right clicking an object brings a popup window to select Telnet or http management directly.



Network Topology

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.



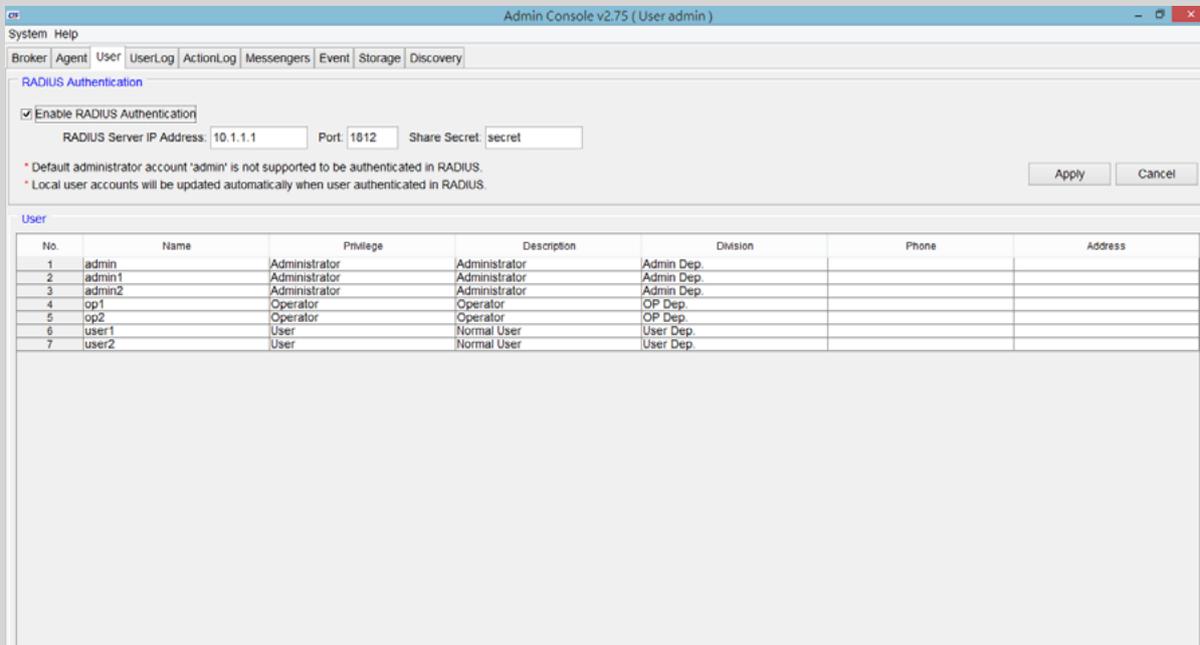
Performance Records

No.	Device	Address	Type	Location	Time	Param	Interface	Value
1	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 18:57:11	Fiber RMON In	1	1331040
2	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 18:57:11	Fiber RMON In	2	1270944
3	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:02:10	Fiber RMON In	1	2677120
4	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:02:10	Fiber RMON In	2	2621536
5	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:07:10	Fiber RMON In	1	3711872
6	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:07:10	Fiber RMON In	2	4005216
7	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:12:10	Fiber RMON In	1	1132512
8	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:12:10	Fiber RMON In	2	1210720
9	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:17:10	Fiber RMON In	1	2538752
10	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:17:10	Fiber RMON In	2	2547776
11	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:22:09	Fiber RMON In	1	3869792
12	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:22:09	Fiber RMON In	2	3887840
13	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:27:07	Fiber RMON In	1	5125632
14	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:27:07	Fiber RMON In	2	4259328
15	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:32:08	Fiber RMON In	1	6058112
16	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:32:08	Fiber RMON In	2	4776704
17	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:37:07	Fiber RMON In	1	6298752
18	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:37:07	Fiber RMON In	2	6116768
19	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:42:07	Fiber RMON In	1	6715360
20	FRM220-044	10.1.1.44	FRM220	Rack:01 Slot:05 Local	2014-09-22 19:42:07	Fiber RMON In	2	7452320

Security Management

User Privilege

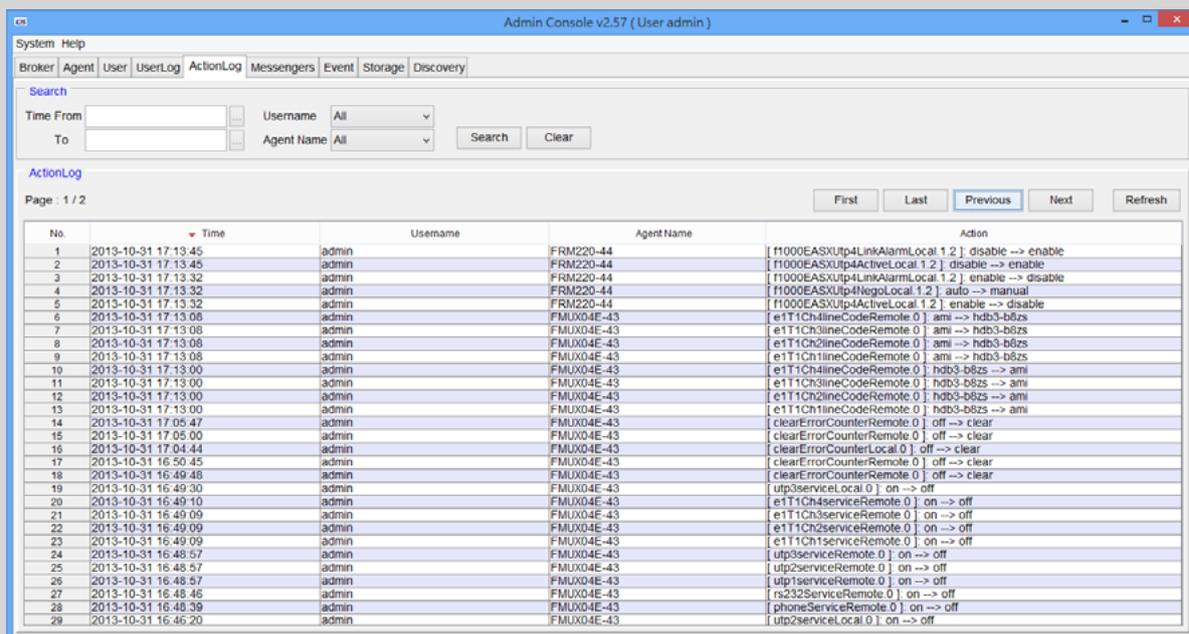
- The administrator can add necessary user logins with specific privileges, from Administrator to Operator and lastly to normal user.
- Radius Authentication. Supports authentication login provided by credentials stored on RADIUS server.



User Privilege

User Activity

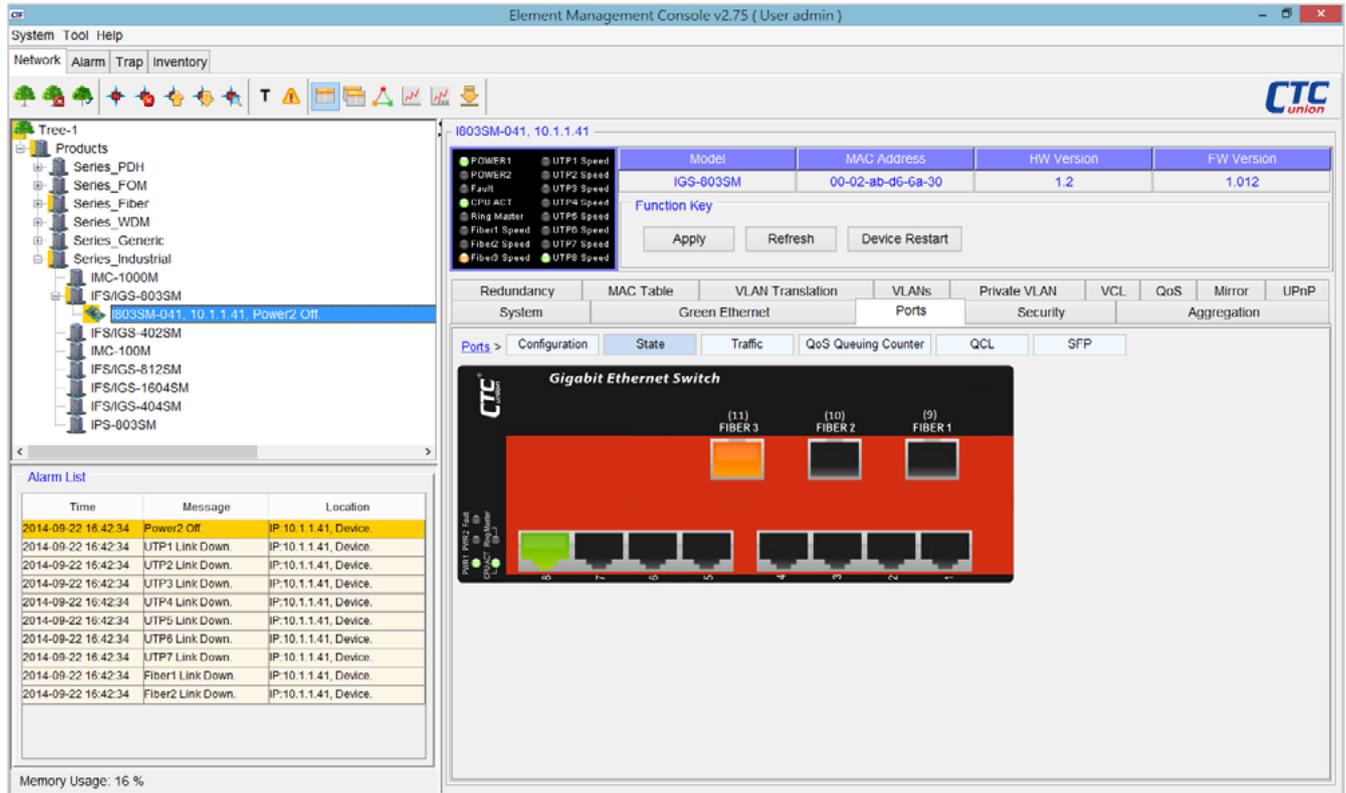
Provides viewing and clearing of the user login and configuration action logs. User client login & logouts is recorded including the client's source IP address. All activities performed on any Network Element are logged with time-stamping, the user making changes and the changes made.



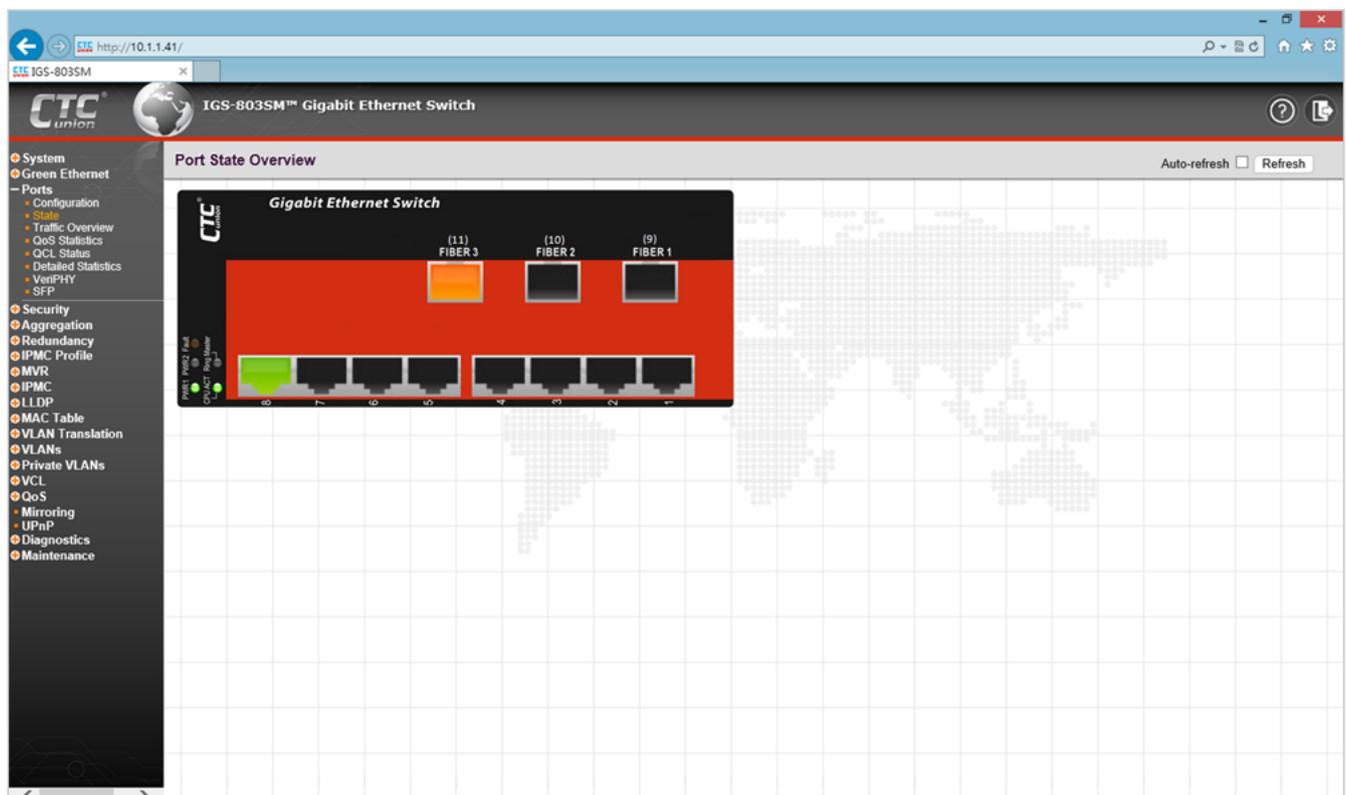
User Activity

Available Models :

Industrial Ethernet Switch & Media Converter



EMS Interface



Web Interface

Requirements

SmartView™	Hardware (minimum)	Software	Operating System
SmartView™ Server	Intel Core2 or higher processor, 4GB RAM, HD >2GB (free).	JAVA JRE. SmartView™ Kit.	Windows 2008/2012 Server, Windows Vista, Win 7/8
SQL Database Server	Intel Core2 or higher processor, 4GB RAM, HD >2GB (free).	MS-SQL Server 2008/2012	Windows 2008/2012 Server, Windows Vista, Win 7/8
Workstation-Clients	Intel Core2 or higher processor, 4GB RAM, HD >2GB (free).	JAVA JRE. SmartView™ Kit.	Windows Vista, Win 7/8
All-In-One	Intel Core2 or higher processor, 8GB RAM, HD >20GB (free).	JAVA JRE. MS-SQL Server 2008/2012. SmartView™ kit.	Windows 2008/2012 Server, Windows Vista, Win 7/8

SmartView™ Supported Industrial Product List

Product Series	Model List
Industrial Managed Ethernet Switch	IGS-404SM, IGS-803SM, IGS-812SM, IGS-1604SM, IFS-402GSM, IFS-803GSM, IFS-1604GSM
Industrial Managed PoE Switch	IGS-402SM-4PH24, IGS-803SM-8PH24, IFS-402GSM-4PH24, IFS-803GSM-8PH24
Industrial Managed GbE Converter	IMC-1000M, IMC-1000MS, IMC-100M
Industrial Managed PoE Converter	IMC-1000M-PH12, IMC-1000MS-PH12, IMC-100M-PH12
IEC61850-3 Ethernet Switch	IPS-G803SM, IPS-803GSM
EN50155 Ethernet Switch	ITP-G802SM, ITP-G800M, ITP-802GSM, ITP-802GTM, ITP-800M
EN50155 Ethernet Switch with PoE	ITP-G802SM-8PH24, ITP-G800M-8PH24, ITP-802GSM-8PH24, ITP-802GTM-8PH24, ITP-800M-8PH24
Industrial Core Switch	ICS-24S4XM, ICS-24S2XM

Ordering Information

SmartView™ Platform Server with Device Agents

Model Name	Description
SV-AGT-50	SmartView™ Platform with 50 device agents
SV-AGT-100	SmartView™ Platform with 100 device agents
SV-AGT-200	SmartView™ Platform with 200 device agents
SV-AGT-500	SmartView™ Platform with 500 device agents

SV - □□□ - □□□□
 Example: SV - AGT - 100