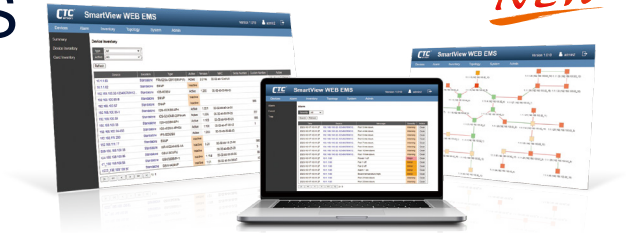


SmartView™ WEB EMS

NEW

- Web-based User Interface
- Remote Access and Centralized Device Management
- Real-time visual representations & processing of alarms
- Long term event storage (up to 1 year)

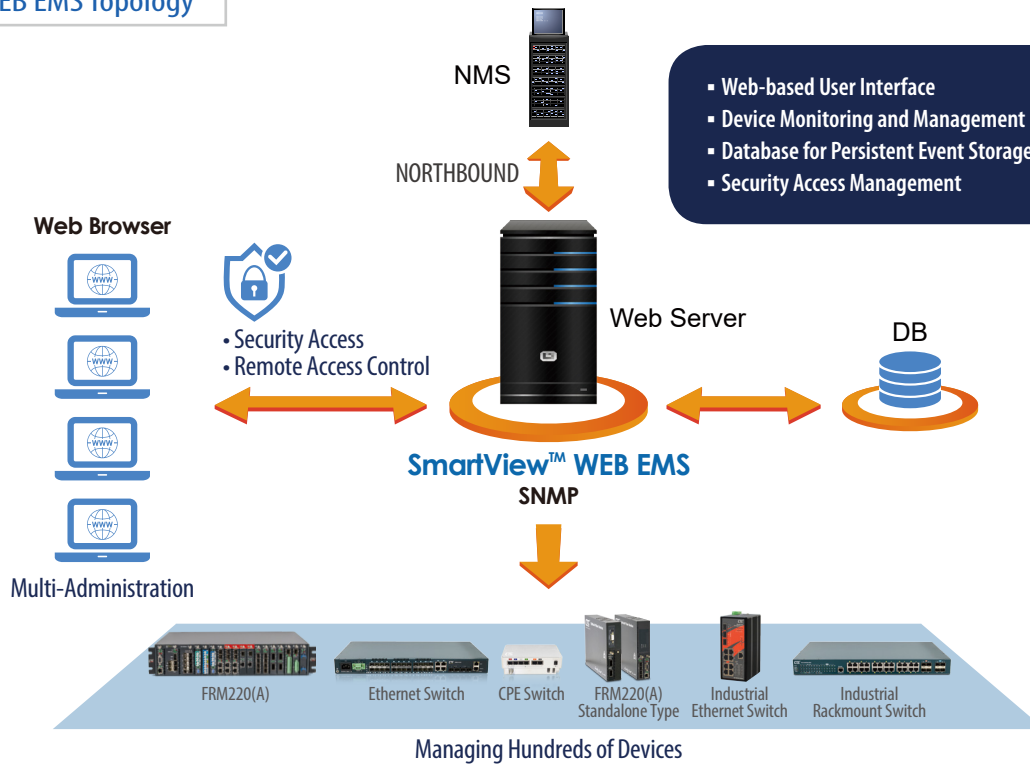


CTC Union's SmartView™ WEB EMS (Element Management System) is a comprehensive device management solution that monitors performance, enables remote configuration and provisioning and provides fault notification status for CTC Union network devices. Smartview™ Web EMS uses the Database Server for long term storage along with Web Server to provide a Web based management experience for device administrators. By utilizing a Web based platform, administrators are free to use their favorite Web browser on personal computers or on mobile devices anywhere. All devices under Smartview™ Web EMS management are accessed via the Simple Network Management Protocol or SNMP, as they are constantly polled and monitored for alarm traps. A single Smartview™ Web EMS server is capable of managing hundreds of devices.

// Features

- Main Functions (FCAPS):
 - F**ault Management,
 - C**onfiguration Management,
 - A**ccounting Management,
 - P**erformance Management,
 - S**ecurity Management
- Remote access control for efficient configuration
- Network element performance monitoring
- Alarm event and notification
- Auto discovery and device viewer
- Allow multiple concurrent operating users

WEB EMS Topology



SmartView™ WEB EMS Server

The server handles connection with the network devices using SNMP protocol, and is responsible for HTTP requests from management clients. Smartview™ Web EMS Server collects the information data from specific SNMP agents, stores the information into a persistent database and sends commands to control network elements.

Microsoft SQL Server Database

SQL Server is the place where Smartview™ Web EMS stores collected data, such as alarms, traps and user actions, for long term retrieval. Smartview™ Web EMS supports the free Microsoft SQL Server Express Edition for data storage.

Multi-Administrators

Management clients use web browser to monitor and control the devices at far end. Multiple operating connections are allowed, up to the limit of hardware and network .

// Features at a Glance

▪ **Fault Management**

Alarm Detection

SmartView™ WEB EMS 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 and be cleared when alarm condition recovered.

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.

Alarm Notification

The SmartView™ WEB EMS is capable of sending emails 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 Collection

When an SNMP agent experiences an abnormal condition, it will send a SNMP trap message to SmartView™ WEB EMS which then receives the message, and records it in the database.

Network Topology

Network elements and connections are monitored and displayed in network topology. Elements in color indicate some alarm condition is present. The screen may be zoomed in or out and a search function may be used to quickly find a device.

▪ **Configuration Management**

Network Element Configuration

SmartView™ WEB EMS 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.

Firmware Upgrade

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

Network Element Discovery

SmartView™ WEB EMS 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 polling.

▪ **Accounting Management**

Network Inventory

SmartView™ WEB EMS is able of accounting the number of network elements and line cards. Firmware version, MAC address and factory programmed serial number are displayed for each element.

Performance Management

SmartView™ is able to monitor device performance parameters through polling of specific OIDs. Graphs of performance information (for example hardware parameters such as fan speed, temperature, optical Tx/Rx power) 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.

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.

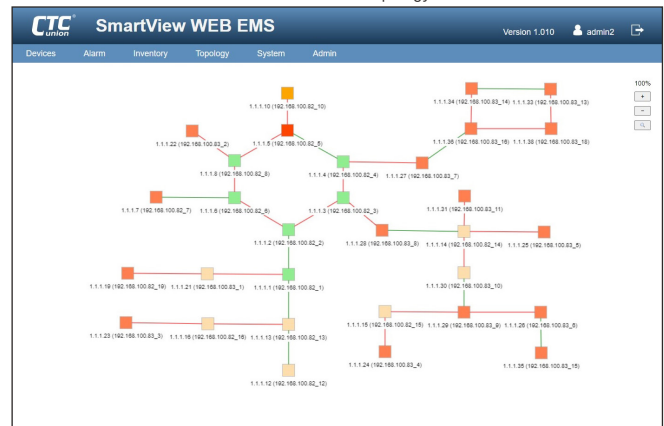
User Activity

Provides viewing and clearing of the user login and configuration action logs.

Alarm Detection

Time	Device	Message	Severity	Action
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 3 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 4 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 5 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 6 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 7 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 8 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 10 link down.	Warning	Clear
2023-10-17 10:01:27	192.168.100.82-123456789012	Port 11 link down.	Warning	Clear
2023-10-17 10:01:27	10.1.1.80	Power 1 off.	Major	Clear
2023-10-17 10:01:27	10.1.1.80	Fan 1 off.	Minor	Clear
2023-10-17 10:01:27	10.1.1.80	Fan 2 off.	Minor	Clear
2023-10-17 10:01:27	10.1.1.80	Alarm 1 on.	Minor	Clear
2023-10-17 10:01:27	10.1.1.80	Board temperature high.	Minor	Clear
2023-10-17 10:01:27	10.1.1.80	Port 21 link down.	Warning	Clear
2023-10-17 10:01:27	10.1.1.80	Port 23 link down.	Warning	Clear

Network Topology



Network Element Configuration

Port	Current	Speed
1	100M FDX	Auto
2	Down	Auto
3	Down	Auto
4	Down	Auto
5	Down	Auto
6	Down	Auto
7	Down	Auto
8	10 FDX	Auto
9 (Fiber1)	Down	Auto
10 (Fiber2)	Down	Auto
11 (Fiber3)	Down	Auto

Network Inventory

Device	Location	Type	Active	Version	MAC	Serial Number	Custom Number	Action
10.1.1.80	Standalone	FR4220A-GSW(SNMPv3)	Active	2.0114	00-50-ab-12-ef-64			Configure Delete
10.1.1.82	Standalone	SNMP	Inactive					Configure Delete
192.168.100.82-123456789012	Standalone	ICS-803SM	Active	1.200	00-50-ab-55-66-43			Configure Delete
192.168.100.82-2	Standalone	SNMP	Inactive					Configure Delete
192.168.100.87	Standalone	SNMP	Inactive			888		Configure Delete
192.168.100.88-1	Standalone	ICS-802XSM-4PH	Active	1.001	00-50-ab-40-ca-20			Configure Delete
192.168.100.89	Standalone	ICS-G2404AX-24PH-AA	Active	1.006	00-50-ab-80-0f-26		777	Configure Delete
192.168.100.90	Standalone	ICS-803SM-4PH	Active	1.109	00-50-ab-64-83-25		888	Configure Delete
192.168.100.94-055	Standalone	ICS-802SM-4PH-24	Active	1.100	00-50-ab-0f-00-03			Configure Delete
192.168.111.200	Standalone	IPS-803USM	Active	1.200	00-50-ab-55-66-43			Configure Delete
192.168.111.77	Standalone	SNMP	Inactive					Configure Delete
800-192.168.100.95	Standalone	DKR-M02-800XS-AA	Inactive	6.25	00-02-ab-14-23-06		888	Configure Delete
000-192.168.100.96	Standalone	GSW-3424PH	Inactive		00-02-ab-40-3f-29		9	Configure Delete
41.192.168.100.96	Standalone	GSW0200MP-1	Inactive	1.114	00-02-ab-30-30-30		88912	Configure Delete
4022_192.168.100.97	Standalone	GSW-3424MP	Inactive	1.01	00-02-ab-64-84-87		5553	Configure Delete

// System Requirements

Operating System:

Windows Server 2016, Win 10 Pro 64bit.

Hardware:

Intel Core I5 or Xeon E5 2.4GHz 4 cores Processors, 8GB RAM, 100GB HD

// Ordering Information

Model Name	Description
SVW1-AGT-50	SmartView™ WEB EMS management software with 50 nodes
SVW1-AGT-100	SmartView™ WEB EMS management software with 100 nodes
SVW1-AGT-200	SmartView™ WEB EMS management software with 200 nodes
SVW1-AGT-500	SmartView™ WEB EMS management software with 500 nodes