

Management Software

-SmartView™, Central EMS, SmartConfig™

CTC Union's Industrial Network Management System is a comprehensive management tool, including SmartView Element Management System (EMS), Central EMS and SmartConfig. Whether it is for monitoring, configuration, maintenance, or troubleshooting, the management software has a tool for every task.

- Centralized Device Management
- Quick & Easy Mass Configuration
- Quick Troubleshooting
- Easy, User-Friendly Operation Interface



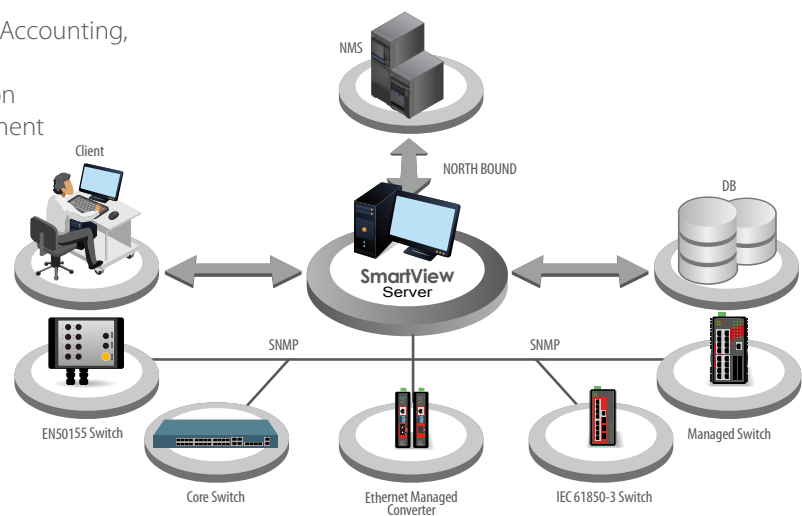
SmartView™ EMS (Element Management System)

Main Features

- Main Functions (FCAPS): Fault, Configuration, Accounting, Performance and Security Management
- Remote access control for efficient configuration
- Traffic / Performance monitoring and management
- Alarm Trap and event log management
- Long term events storage (up to 1 year)
- Auto Discovery and Device Viewer
- Allow up to 25 administrators to login

Network Scheme Diagram

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



SmartView™ Management Architecture

SmartView™ Server

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.

Microsoft® SQL Server for Persistent Storage

SQL Server is the place where SmartView™ stores collected data, such as alarms, traps and user actions, for long term retrieval. SmartView™ requires Microsoft® SQL Server and is compatible with SQL 2008 Server, SQL 2008 Express, SQL 2014 Server and SQL 2014 Express. (The EMS installer will install the free version Microsoft® SQL 2008 Express or SQL 2014 Express under Windows 10 by default).

Agents

All of CTC Union's SNMP enabled products, such as Industrial Core Switch, PoE Switch and PoE Converter are manageable by CTC Union SmartView™ EMS management Platform.

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 logins 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.

No.	Ack	Time	Device	Address	Message
1		2015-10-22 15:00:00	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:2, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
2		2015-10-22 15:00:01	IGS-803SM-041	10.1.1.41	snmpTrapOID:linkDown, ifIndex:2, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
3		2015-10-22 15:00:05	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:1, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
4		2015-10-22 15:00:05	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:2, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
5		2015-10-22 15:00:09	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
6		2015-10-22 15:00:09	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:2, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
7		2015-10-22 15:00:15	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:2, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
8		2015-10-22 15:00:15	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:1, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
9		2015-10-22 15:00:17	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
10		2015-10-22 15:00:18	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:11, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
11		2015-10-22 15:00:18	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:6, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
12		2015-10-22 15:00:19	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:11, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
13		2015-10-22 15:00:19	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkUp, ifIndex:6, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
14		2015-10-22 15:00:21	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:11, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
15		2015-10-22 15:00:21	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:6, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
16		2015-10-22 15:00:24	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkUp, ifIndex:6, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
17		2015-10-22 15:00:24	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:11, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
18		2015-10-22 15:00:25	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:3, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
19		2015-10-22 15:00:28	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkUp, ifIndex:3, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
20		2015-10-22 15:00:28	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:1, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
21		2015-10-22 15:00:29	IGS-803SM-041	10.1.1.41	snmpTrapOID:linkDown, ifIndex:1, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
22		2015-10-22 15:00:33	IGS-803SM-041	10.1.1.41	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
23		2015-10-22 15:00:33	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
24		2015-10-22 15:00:34	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:2, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
25		2015-10-22 15:00:38	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:1, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
26		2015-10-22 15:00:38	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:2, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
27		2015-10-22 15:00:43	IGS-803SM-041	10.1.1.41	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
28		2015-10-22 15:00:43	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
29		2015-10-22 15:00:44	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:2, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
30		2015-10-22 15:00:45	IGS-803SM-041	10.1.1.41	snmpTrapOID:linkDown, ifIndex:2, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
31		2015-10-22 15:00:49	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:1, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
32		2015-10-22 15:00:49	IGS-803SM-041	10.1.1.41	snmpTrapOID:linkUp, ifIndex:2, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
33		2015-10-22 15:00:51	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkUp, ifIndex:1, ifAdminStatus:up, ifOperStatus:up, snmpTrapEnterprise:0.0
34		2015-10-22 15:00:53	IGS-803SM-042	10.1.1.42	snmpTrapOID:linkDown, ifIndex:11, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0
35		2015-10-22 15:00:53	IGS-402SM-043	10.1.1.43	snmpTrapOID:linkDown, ifIndex:6, ifAdminStatus:up, ifOperStatus:down, snmpTrapEnterprise:0.0

Trap Messages

Active Alarm

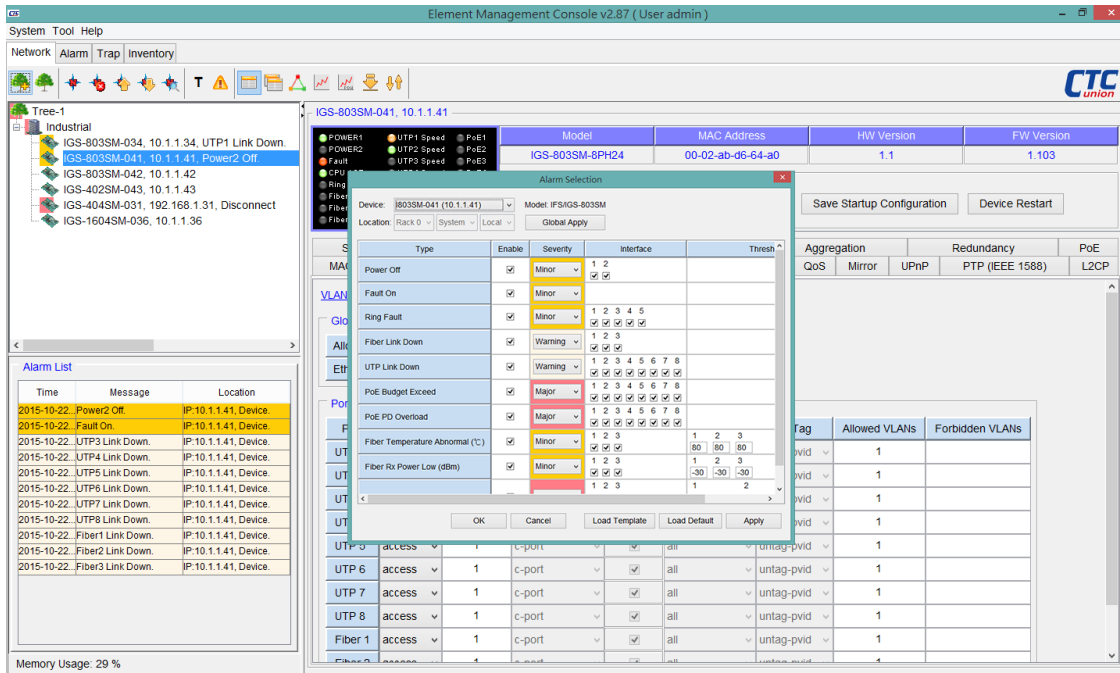
SmartView™ continuously polls all network devices under its management and will visually display all alarm conditions found. Alarms will be categorized as Major, Minor or Warning, depending on severity. Although alarms may be acknowledged, they remain actively displayed on the alarm page until there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

No.	Ack	Time	Device	Address	Location	Message	Severity
1		2015-10-22 15:49:01	IGS-404SM-031	192.168.1.31	Device	Device disconnected	Major
2		2015-10-22 15:49:00	IGS-402SM-043	10.1.1.43	Device	Fault On	Minor
3		2015-10-22 15:49:09	IGS-402SM-043	10.1.1.43	Device	Fiber5 Link Down	Warning
4		2015-10-22 15:49:09	IGS-402SM-043	10.1.1.43	Device	Power2 Off	Minor
5		2015-10-22 15:49:09	IGS-402SM-043	10.1.1.43	Device	UTP2 Link Down	Warning
6		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP4 Link Down	Warning
7		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	Fiber1 Link Down	Warning
8		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	Fiber2 Link Down	Warning
9		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	Fiber3 Link Down	Warning
10		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP1 Link Down	Warning
11		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP2 Link Down	Warning
12		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP3 Link Down	Warning
13		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP4 Link Down	Warning
14		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP5 Link Down	Warning
15		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP6 Link Down	Warning
16		2015-10-22 15:49:10	IGS-803SM-034	10.1.1.34	Device	UTP7 Link Down	Warning
17		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	Fault On	Major
18		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	Fiber1 Link Down	Warning
19		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	Fiber2 Link Down	Warning
20		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	Power2 Off	Minor
21		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	UTP3 Link Down	Warning
22		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	UTP4 Link Down	Warning
23		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	UTP5 Link Down	Warning
24		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	UTP6 Link Down	Warning
25		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	UTP7 Link Down	Warning
26		2015-10-22 15:49:11	IGS-803SM-042	10.1.1.42	Device	UTP8 Link Down	Warning
27		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	Fault On	Minor
28		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	Fiber1 Link Down	Warning
29		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	Fiber2 Link Down	Warning
30		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	Fiber3 Link Down	Warning
31		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	Power2 Off	Minor
32		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	UTP3 Link Down	Warning
33		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	UTP4 Link Down	Warning
34		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	UTP5 Link Down	Warning
35		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	UTP6 Link Down	Warning
36		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	UTP7 Link Down	Warning
37		2015-10-22 15:50:58	IGS-803SM-041	10.1.1.41	Device	UTP8 Link Down	Warning

Active Warning

Alarm Selection

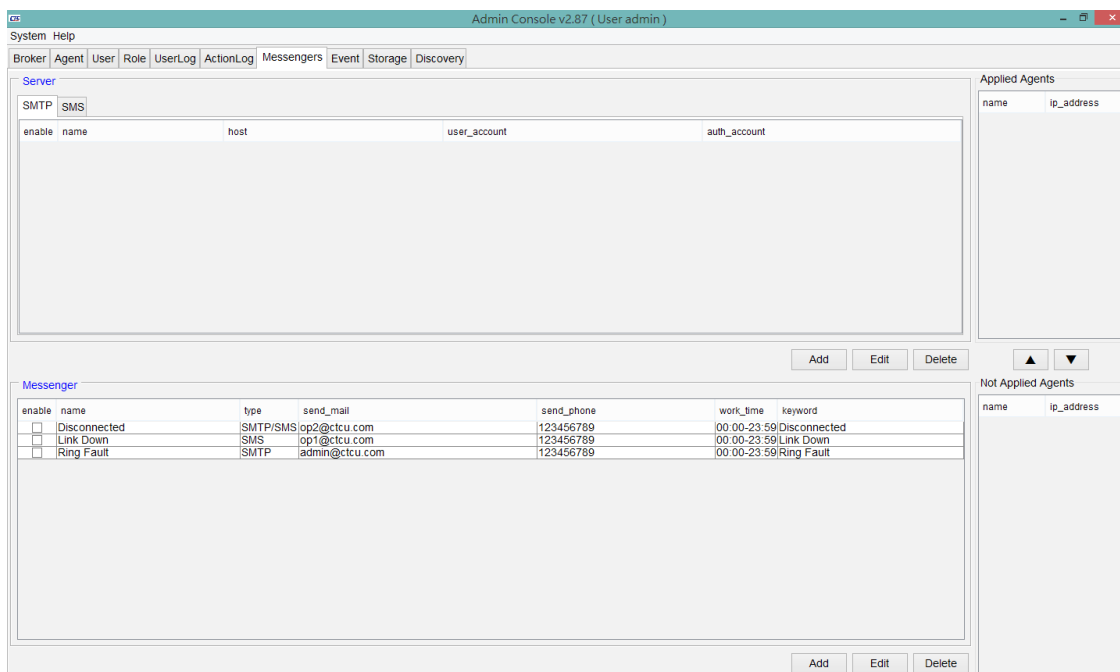
Alarm events of network element are configurable. All alarm events are warned by default, but them can be disabled to ignore warning messages.



Alarms Selection

Alarms sent by E-mail & SMS

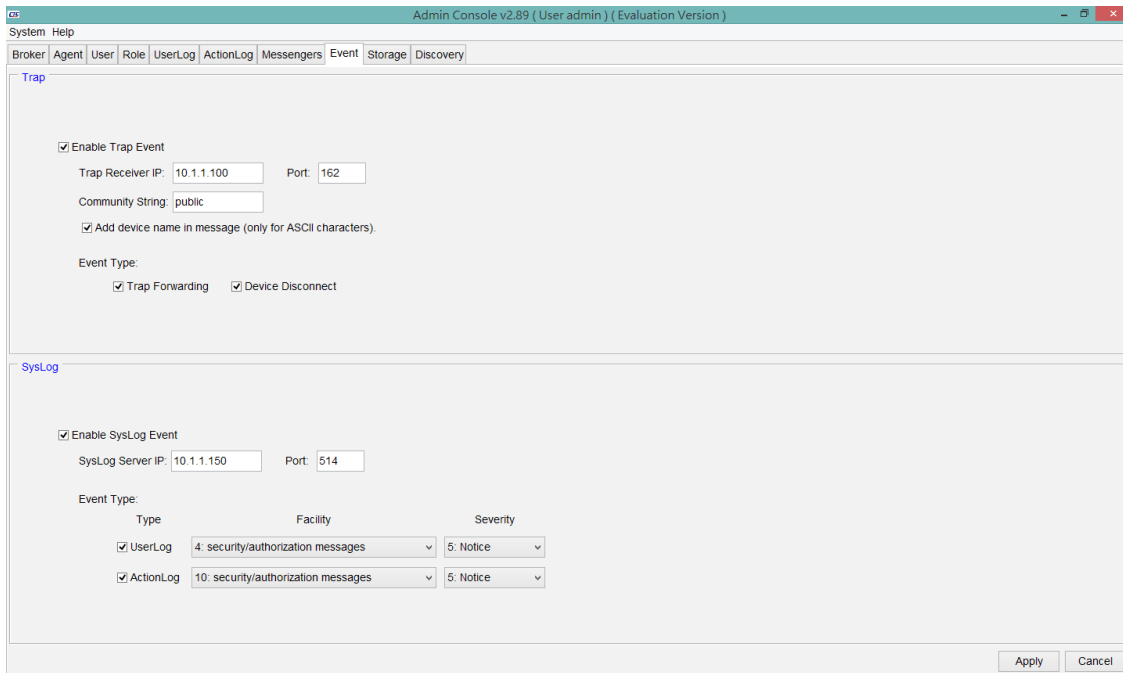
The SmartView™ is capable of sending emails and or SMS text messages to selected administrators when critical alarms occur. Prompt notification of system problems aid in getting problems in the network devices fixed in the shortest time possible.



Alarms Sent by Email & SMS

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.



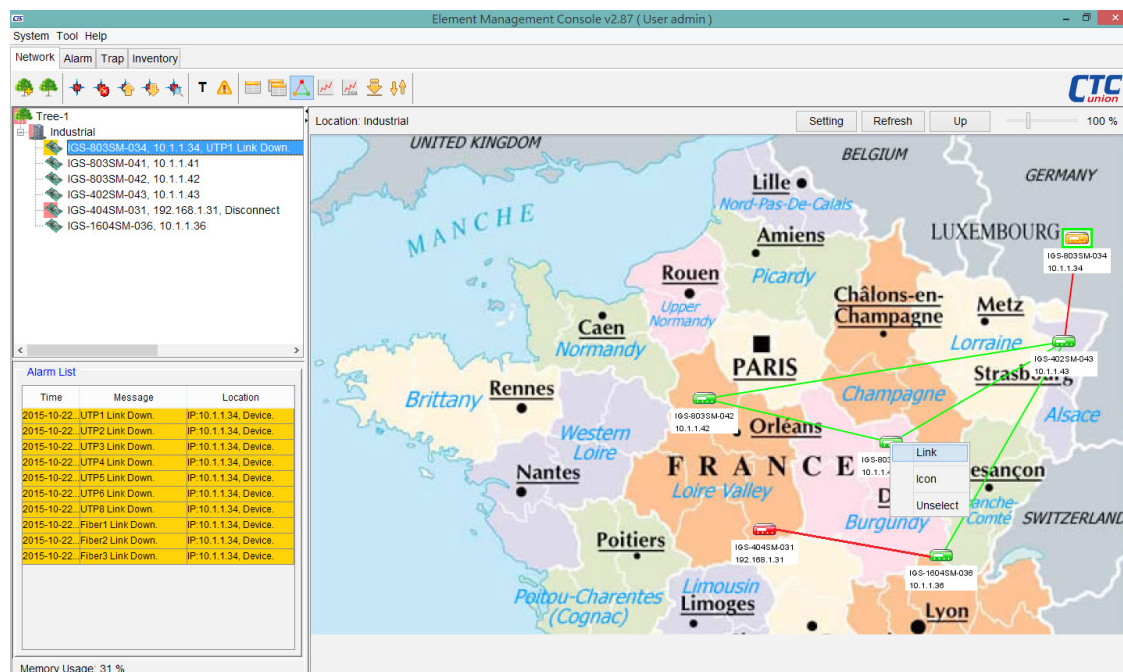
Trap Forwarding Syslog Message

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.

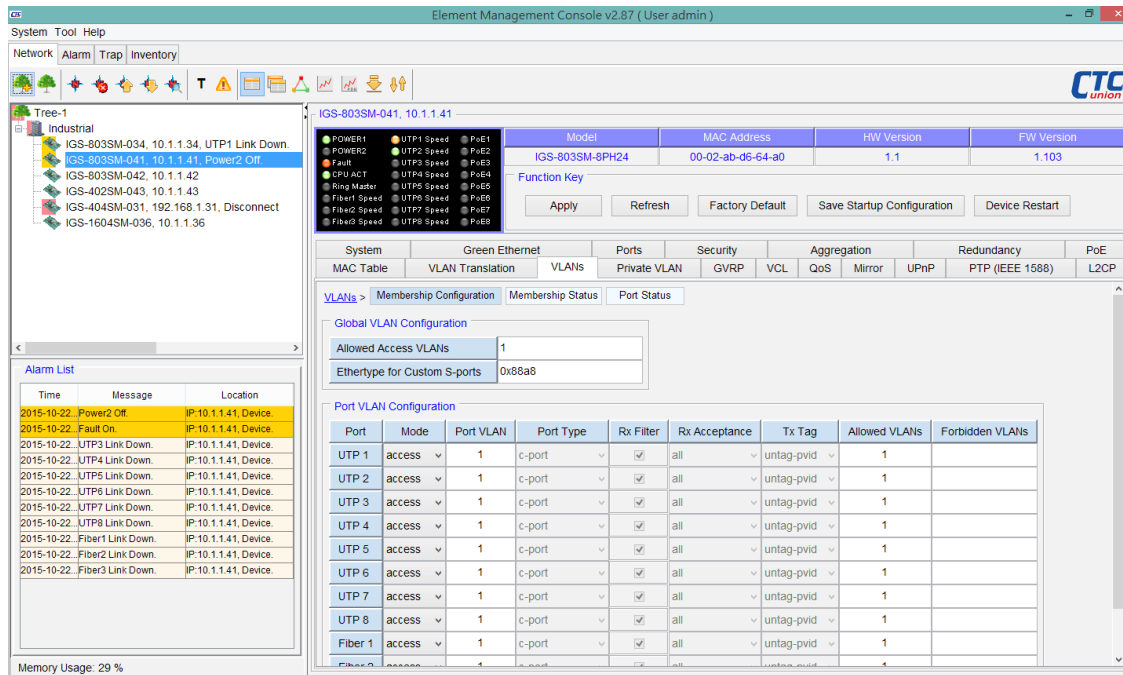
Using drag-and-drop, put any object to map area. Any label or network element location name may be added to object. Objects in red color indicate some alarm condition is present in the device. Right clicking an object brings a popup window to select Telnet or http management of the device directly.



Network Topology

Network Element Configuration

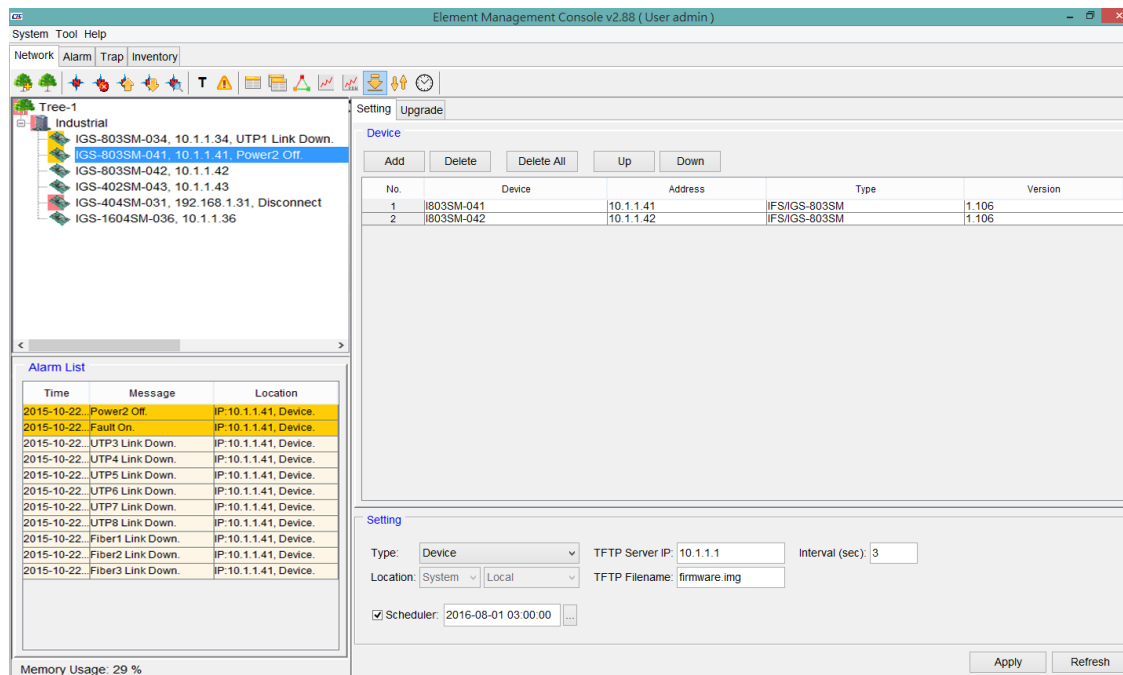
SmartView™ is able to provide a single point of configuration for the network device elements. Most settings only require mouse clicks and by using a tab format, most scrolling is eliminated. Current settings and status are displayed along with hardware and firmware versions for each element.



Network Element Configuration

Network Element Firmware Upgrade

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

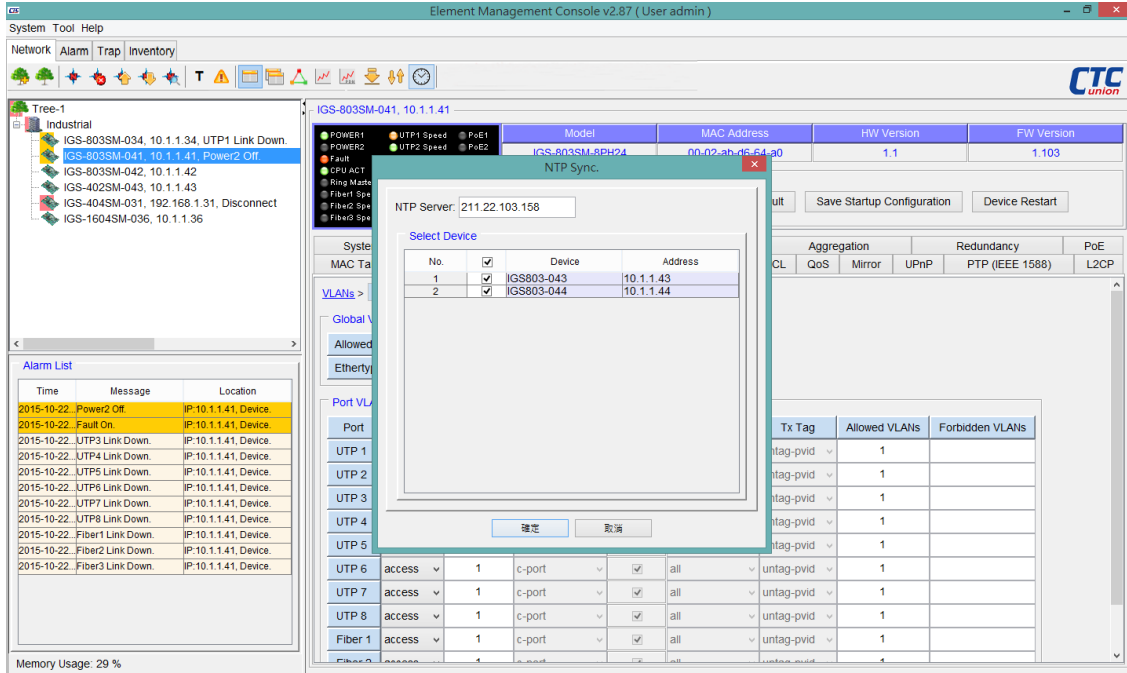


Network Element Firmware Upgrade

1 Management Software

Network Element Time Synchronization

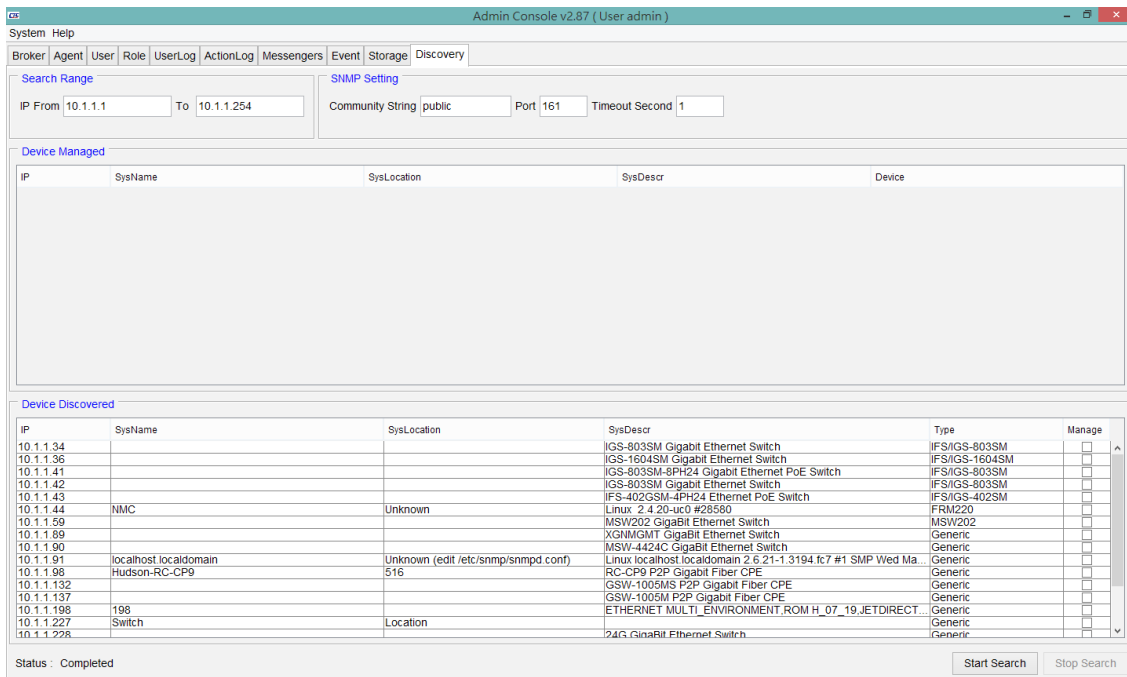
SmartView™ is able to trigger a command to network elements to perform time synchronization with Smartview or a NTP server.



Network Element Time Synchronization

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.



Network Element Discovery

- Accounting Management

The accounting management supports property overview for each network device. The location, status and version of all assets can be managed and exported.

Element Management Console v2.87 (User admin)

System Tool Help

Network Alarm Trap Inventory

Type: Inventory Time: Device: All Status: All Serial Number: Identity:
 Summary To: Location: All Racks All Slots All Sites Type: Alias: Remark: Clear

Inventory

Page: 1 / 1

No.	Device	Address	Location	Type	HW Version	FW Version	Serial Number	Alias	Status	Date
1	IGS-1604SM-036	10.1.1.36	Device	IGS-1604SM	1.1	1.103	None		Online	2015-10-22 15:36:44
2	IGS-803SM-041	10.1.1.41	Device	IGS-803SM-8PH24	1.1	1.103	None		Online	2015-10-22 15:36:41
3	IGS-803SM-042	10.1.1.42	Device	IGS-803SM	1.2	1.103	None		Online	2015-10-22 15:36:41
4	IGS-402SM-043	10.1.1.43	Device	IFS-402GSM-4PH24	1.1	1.103	None		Online	2015-10-22 15:36:40
5	IGS-803SM-034	10.1.1.34	Device	IGS-803SM	1.0	1.104	None		Online	2015-10-22 15:36:40
6	IGS-404SM-031	192.168.1.31	Device	IGS-404SM-4PH24	1.1	1.103	None		Offline	2015-10-22 15:40:19

First Previous Next Last Refresh

Export Edit Delete

Inventory List

Element Management Console v2.87 (User admin)

System Tool Help

Network Alarm Trap Inventory

Type: Inventory Time: Device: All Status: All Serial Number: Identity:
 Summary To: Location: All Racks All Slots All Sites Type: Alias: Remark: Clear

Summary

Refresh

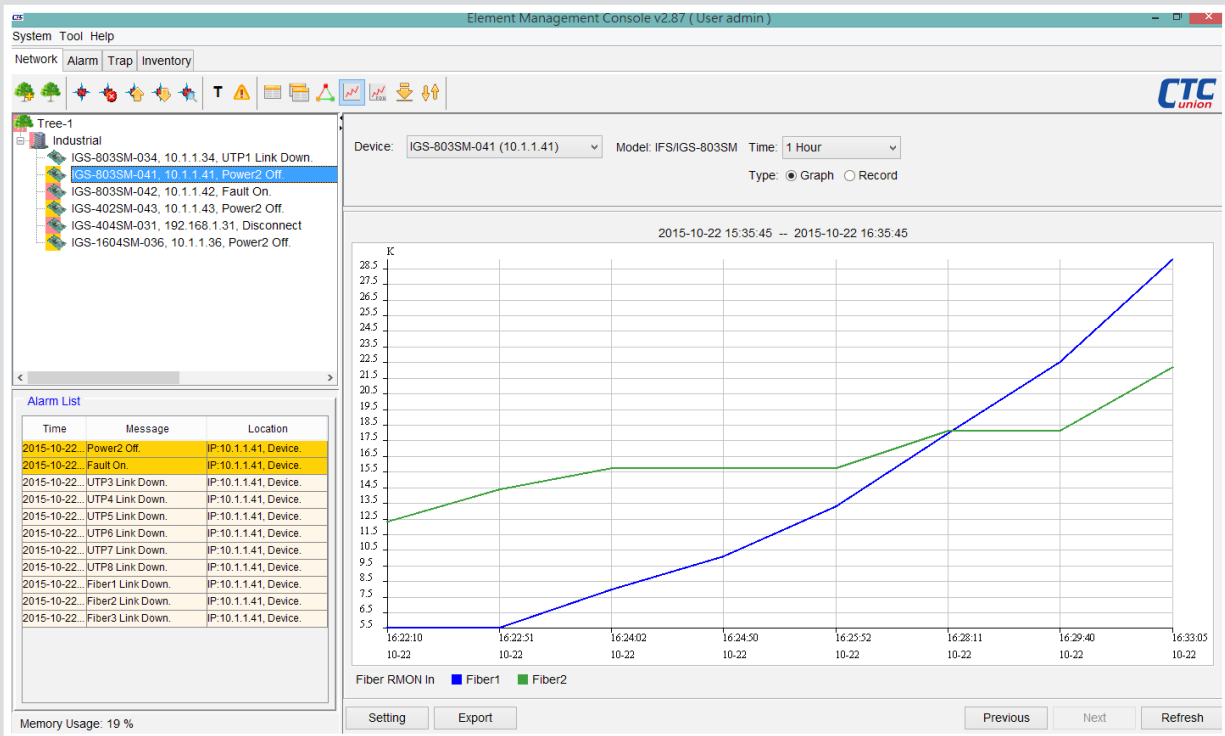
No.	Device	Type	Online	Offline	Total
1	IFS/IGS-1604SM				
2		IGS-1604SM	1	0	1
3					
4	IFS/IGS-402SM				
5		IFS-402GSM-4PH24	1	0	1
6					
7	IFS/IGS-404SM				
8		IGS-404SM-4PH24	0	1	1
9					
10	IFS/IGS-803SM				
11		IGS-803SM	2	0	2
12		IGS-803SM-8PH24	1	0	1
13					

Export

Inventory Summary

- 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 XY axis showing different trend data.



Performance Graphics

Element Management Console v2.87 (User admin)

Network Alarm Trap Inventory

Tree-1
Industrial
IGS-803SM-034, 10.1.1.34, UTP1 Link Down.
IGS-803SM-041, 10.1.1.41, Power2 Off.
IGS-803SM-042, 10.1.1.42, Fault On.
IGS-402SM-043, 10.1.1.43, Power2 Off.
IGS-404SM-031, 192.168.1.31, Disconnect
IGS-1604SM-036, 10.1.1.36, Power2 Off.

Device: IGS-803SM-041 (10.1.1.41) Model: IFS/IGS-803SM Time: 1 Hour Type: Graph Record

2015-10-22 15:56:08 -- 2015-10-22 16:56:08

No.	Device	Address	Time	Param	Interface	Value
1	IGS-803SM-041	10.1.1.41	2015-10-22 16:22:10	Fiber RMON In	1	5536
2	IGS-803SM-041	10.1.1.41	2015-10-22 16:22:10	Fiber RMON In	2	12354
3	IGS-803SM-041	10.1.1.41	2015-10-22 16:22:51	Fiber RMON In	1	5536
4	IGS-803SM-041	10.1.1.41	2015-10-22 16:22:51	Fiber RMON In	2	14422
5	IGS-803SM-041	10.1.1.41	2015-10-22 16:24:02	Fiber RMON In	1	7998
6	IGS-803SM-041	10.1.1.41	2015-10-22 16:24:02	Fiber RMON In	2	15758
7	IGS-803SM-041	10.1.1.41	2015-10-22 16:24:50	Fiber RMON In	1	10134
8	IGS-803SM-041	10.1.1.41	2015-10-22 16:24:50	Fiber RMON In	2	15758
9	IGS-803SM-041	10.1.1.41	2015-10-22 16:25:52	Fiber RMON In	1	13338
10	IGS-803SM-041	10.1.1.41	2015-10-22 16:25:52	Fiber RMON In	2	15758
11	IGS-803SM-041	10.1.1.41	2015-10-22 16:28:11	Fiber RMON In	1	18004
12	IGS-803SM-041	10.1.1.41	2015-10-22 16:28:11	Fiber RMON In	2	18156
13	IGS-803SM-041	10.1.1.41	2015-10-22 16:29:40	Fiber RMON In	1	22544
14	IGS-803SM-041	10.1.1.41	2015-10-22 16:29:40	Fiber RMON In	2	18156
15	IGS-803SM-041	10.1.1.41	2015-10-22 16:33:05	Fiber RMON In	1	29090
16	IGS-803SM-041	10.1.1.41	2015-10-22 16:33:05	Fiber RMON In	2	22222
17	IGS-803SM-041	10.1.1.41	2015-10-22 16:38:05	Fiber RMON In	1	44126
18	IGS-803SM-041	10.1.1.41	2015-10-22 16:38:05	Fiber RMON In	2	22222
19	IGS-803SM-041	10.1.1.41	2015-10-22 16:43:04	Fiber RMON In	1	59022
20	IGS-803SM-041	10.1.1.41	2015-10-22 16:43:04	Fiber RMON In	2	22222
21	IGS-803SM-041	10.1.1.41	2015-10-22 16:48:04	Fiber RMON In	1	74126
22	IGS-803SM-041	10.1.1.41	2015-10-22 16:48:04	Fiber RMON In	2	22222

Alarm List

Time	Message	Location
2015-10-22	Power2 Off.	IP:10.1.1.41, Device.
2015-10-22	Fault On.	IP:10.1.1.41, Device.
2015-10-22	UTP3 Link Down.	IP:10.1.1.41, Device.
2015-10-22	UTP4 Link Down.	IP:10.1.1.41, Device.
2015-10-22	UTP5 Link Down.	IP:10.1.1.41, Device.
2015-10-22	UTP6 Link Down.	IP:10.1.1.41, Device.
2015-10-22	UTP7 Link Down.	IP:10.1.1.41, Device.
2015-10-22	UTP8 Link Down.	IP:10.1.1.41, Device.
2015-10-22	Fiber1 Link Down.	IP:10.1.1.41, Device.
2015-10-22	Fiber2 Link Down.	IP:10.1.1.41, Device.
2015-10-22	Fiber3 Link Down.	IP:10.1.1.41, Device.

Memory Usage: 19 %

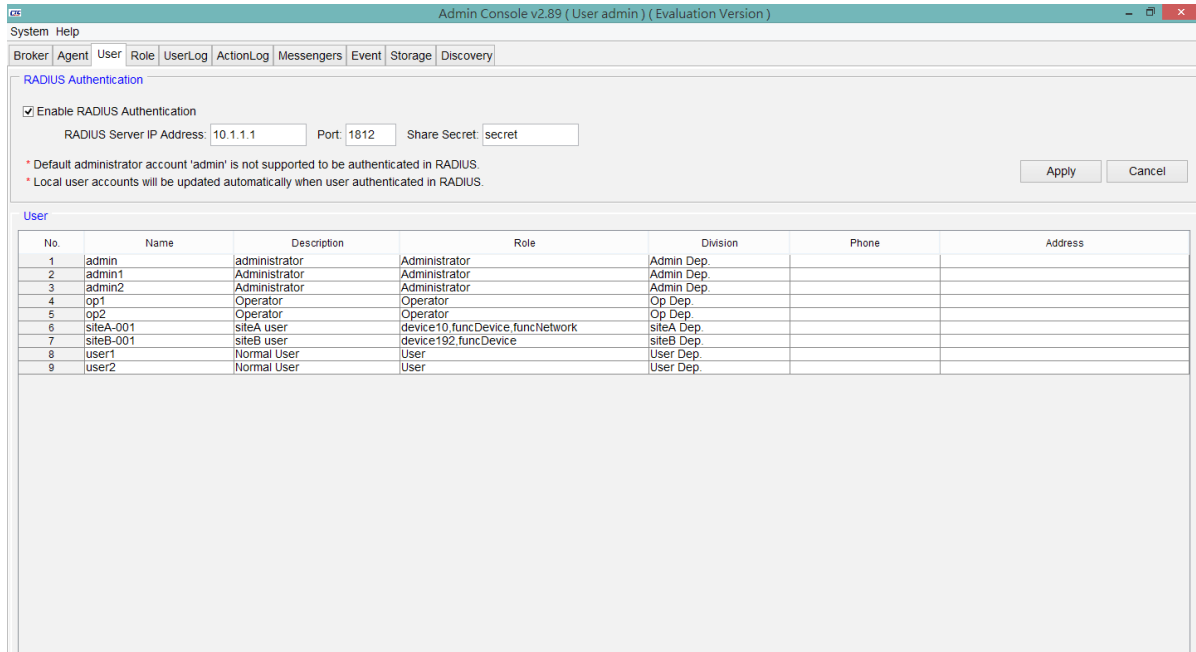
Setting Export Previous Next Refresh

Performance Records

• Security Management

User Privilege

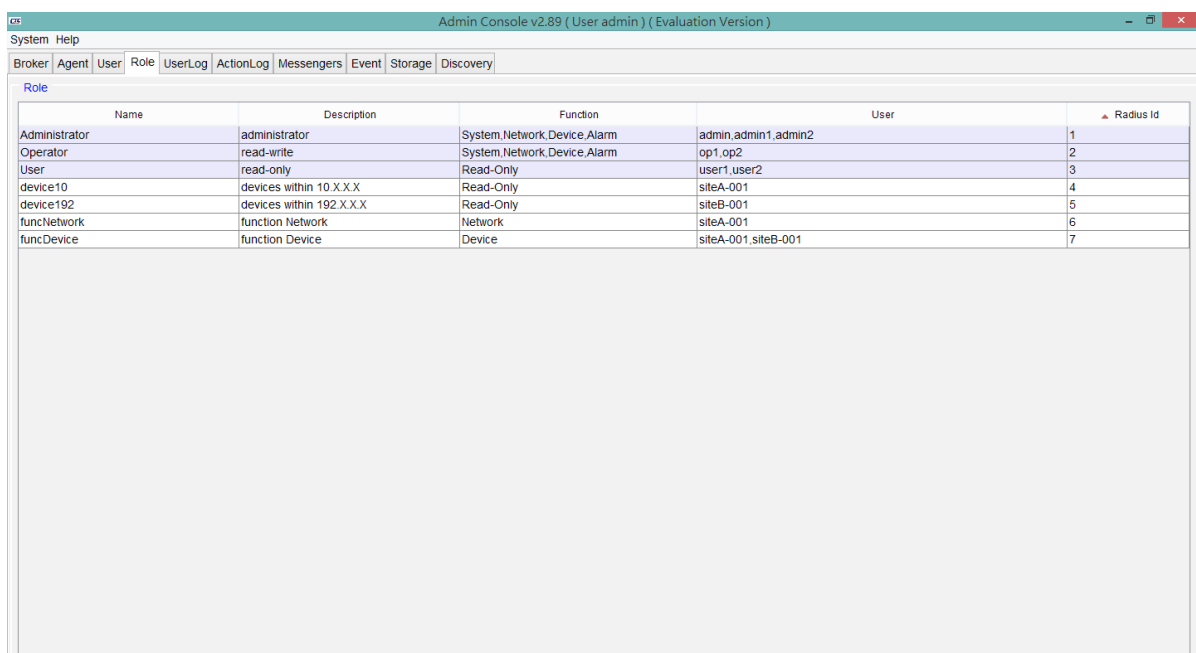
- The administrator can add necessary user logins with specific privileges, from Administrator to Operator and lastly to normal user.
- Radius Authentication. Supports authentication login provided by credentials stored on RADIUS server.



User Privilege

User 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 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 Network Element are logged with time-stamping, the user making changes and the changes made.

No.	Time	Username	Agent Name	Action
1	2015-10-22 18:06:46	admin	IGS-803SM-041	[PortSpeedMode 3] auto -> speed1Gfdx
2	2015-10-22 18:06:46	admin	IGS-803SM-041	[PortSpeedMode 4] auto -> speed1Gfdx
3	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 5] auto -> speed1Gfdx
4	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 6] auto -> speed1Gfdx
5	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 7] auto -> speed1Gfdx
6	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 8] auto -> speed1Gfdx
7	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 9] auto -> speed1Gfdx
8	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 10] auto -> speed1Gfdx
9	2015-10-22 18:06:47	admin	IGS-803SM-041	[PortSpeedMode 11] auto -> speed1Gfdx
10	2015-10-22 18:09:24	admin	IGS-803SM-042	[PortFlowCtrlEnabled 3] false -> true
11	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 4] false -> true
12	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 5] false -> true
13	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 6] false -> true
14	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 7] false -> true
15	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 8] false -> true
16	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 9] false -> true
17	2015-10-22 18:09:25	admin	IGS-803SM-042	[PortFlowCtrlEnabled 10] false -> true
18	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 3] discard -> restart
19	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 4] discard -> restart
20	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 5] discard -> restart
21	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 6] discard -> restart
22	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 7] discard -> restart
23	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 8] discard -> restart
24	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 8] restart -> restart
25	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 8] restart -> restart
26	2015-10-22 18:09:48	admin	IGS-803SM-041	[PortExcCoilMode 8] restart -> restart
27	2015-10-22 18:10:33	admin	IGS-803SM-042	[PortSpeedMode 3] auto -> speed1Gfdx
28	2015-10-22 18:10:34	admin	IGS-803SM-042	[PortSpeedMode 4] auto -> speed1Gfdx
29	2015-10-22 18:10:34	admin	IGS-803SM-042	[PortSpeedMode 5] auto -> speed1Gfdx
30	2015-10-22 18:10:34	admin	IGS-803SM-042	[PortSpeedMode 6] auto -> speed1Gfdx

User Activity

Central EMS

Main Features

- Allow central management of up to 50 SmartView™ servers
- Allow up to 25,000 devices management

Main Function

Centralized and Large Scale Network Management Platform

Central EMS provides centralized device management for large scale networks by supporting up to 50 SmartView EMS Servers and tens of thousands of network devices.

Hierarchical Network Management Architecture

Each area can deploy a proprietary SmartView EMS Server, responsible for collecting local information for up to 500 network devices, and relay to Central EMS management platform. Central EMS management platform can aggregate and manage SmartView EMS Server SNMP trap information for all regions and provide real time information and status of local and remote network devices.

Easy and rapid expansion of network management scale.

When the number of device elements is continuously expanding, operators can deploy one or more SmartView EMS Servers to cover new areas. Using Central EMS device management platform, new SmartView servers can be quickly and easily added to the expanding network.

Provides OSS (Operations Support System) Level Management Function.

Central EMS Management Platform provides Fault management, Configuration management, Accounting management, Performance management and Security management (FCAPS).

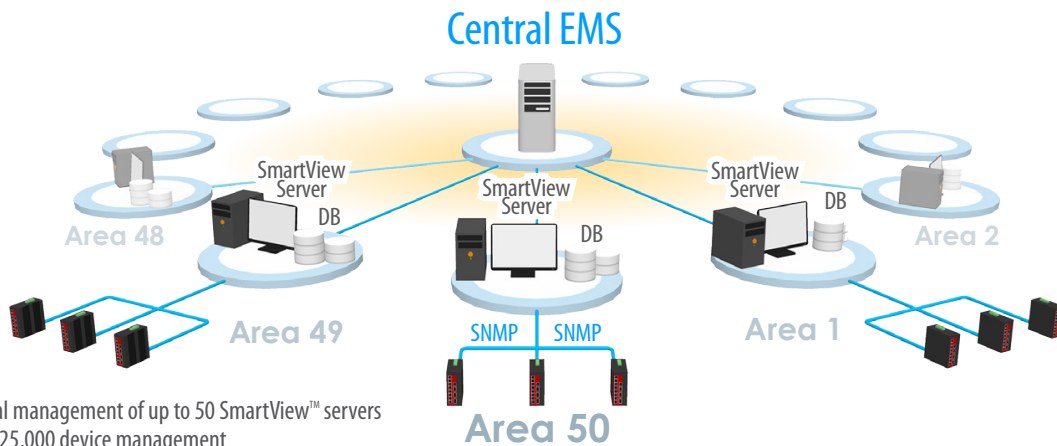
Server/Client Remote management architecture

Central EMS management platform can support 25 connections for remote operations managers at the same time.

Simple and convenient user interface

Using a user friendly GUI (Graphical User Interface), Central EMS provides a familiar point and click interface.

Architecture of Central EMS & SmartView™



- Allow central management of up to 50 SmartView™ servers
- Allow up to 25,000 device management
- Hierarchical Network Management Architecture
- Easy and rapid expansion of SmartView™ EMS

Central EMS allows central management of up to 50 SmartView™ servers

SmartConfig™ (Quick & Easy for Mass Configuration)

SmartConfig™ is a convenient configuration tool for mass deployment of CTC Union's managed industrial switch products. SmartConfig™ is designed for field engineers, to aid in mass deployments but can just as easily be used for initial configuration of a small group of switches or even a single device. It is portable, so it can easily be included on a network tools pen drive, it has been tested on all versions of Windows and the GUI is both simple and intuitive.

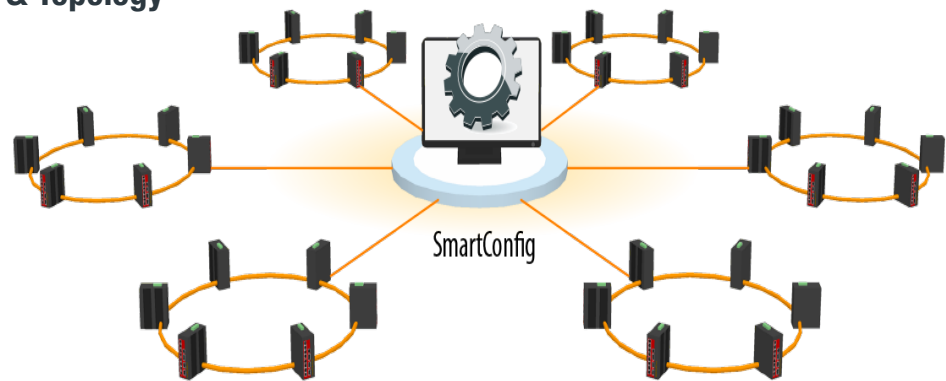
Different configurations can be saved and recalled for later use, saving valuable time in the field and minimizing downtime when expanding networks or doing field replacements.

Main Features

- Multiple device auto discovery
- Group configuration, access
- Group firmware upgrade
- Backup / restore device configuration
- IP address assignment
- Connectivity testing

SmartConfig™ Application & Topology

- Quick & Easy for mass configuration tool
- Multiple device auto discovery
- Group configuration, access
- Group firmware upgrade
- Export/Import Configuration



SmartConfig™ is a convenient configuration tool for mass deployment of switch product

Multiple device auto discovery

SmartConfig™ can discover all inter-connected devices (no initial IP setting required) using broadcast or SNMP discovery methods. The results will show a list of discovered devices on the network including their IP address, MAC address, Model name, Firmware version.

Group configuration & access

For quick access and configurations, SmartConfig™ provide an efficient way to access and configure functions of one or multiple devices.

Group firmware upgrade

SmartConfig™ supports firmware upgrade for one device or multiple devices at a time. This function helps to increase firmware upgrade efficiency and convenience.

Backup/Restore device configuration

Running-config, startup-config and default config can be both stored to your local PC and restored to the devices via SmartConfig™

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
SmartView™ Clients	Intel Core2 or higher processor, 2GB RAM, 20GB HD	JAVA JRE. SmartView™ Kit.	Windows 7/8/10
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
CentralEMS	Hardware (minimum)	Software	Operating System
CentralEMS Server	Intel Core2 or higher processor, 4GB RAM, 20GB HD	—	Windows Server 2012/2014, Win 7/8/10
Workstation-Clients	Intel Core2 or higher processor, 4GB RAM, 10GB HD	—	Windows 7/8/10
All-In-One	Intel Core2 or higher processor, 8GB RAM, 40GB HD	—	Windows Server 2012/2014, Win 7/8/10
SmartConfig™	Hardware (minimum)	Software	Operating System
SmartConfig™ Server	CPU : 2 GHz or faster Dual core RAM : 1GB, Hard Disc : 1GB	—	Windows 7/8/10

Support Product List

SmartView™ support below models:

Product Series	Model List
Industrial 10G Core Switch	ICS-G24S4X, ICS-G24S2X
Industrial SyncE Ethernet Switch	IGS-804SM-SE, IGS-1608SM-SE
Industrial Managed Ethernet Switch	IGS-2804TM, IGS-404SM, IGS+404SM, IGS-803SM, IGS+803SM, IGS-812SM, IGS-1604SM, IFS-402GSM, IFS-803GSM, IFS-1604GSM
Industrial Managed PoE Switch	IGS-402SM-4PH24, IGS+402SM-4PH24, IGS-402SM-4PU, IGS-803SM-8PH24, IGS+803SM-8PH24, IGS-1608SM-8PH, IFS-1608GSM-8PH, IFS-402GSM-4PH24, IFS-402GSM-4PU, IFS-803GSM-8PH24
IEC61850-3 Ethernet Switch	IPS-G803SM, IPS-803GSM
EN50155 Ethernet Switch	ITP-G802SM, ITP-G802TM, ITP-802GSM, ITP-802GTM
EN50155 Ethernet Switch with PoE	ITP-G802SM-8PH24, ITP-G802TM-8PH24, ITP-802GSM-8PH24, ITP-802GTM-8PH24
Industrial Managed Media Converter	IMC-1000MS
Industrial Managed Converter with PoE	IMC-1000MS-PH12

SmartConfig™ supports all CTC Union industrial managed type switches

Ordering Information

SmartView™ EMS Server for industrial product

Model Name	Description
SV2-AGT-50	SmartView™ management software with 50 nodes (by IP address)
SV2-AGT-100	SmartView™ management software with 100 nodes (by IP address)
SV2-AGT-200	SmartView™ management software with 200 nodes (by IP address)
SV2-AGT-500	SmartView™ management software with 500 nodes (by IP address)

Central EMS

Model Name	Description
CentralEMS-01	Central Element Management System