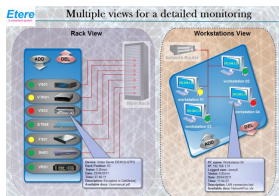
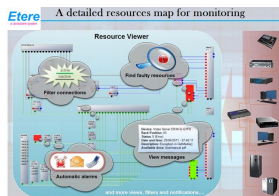


Etere SNMP Console

A centralized, automatic and real-time monitoring of broadcast system networks.



SNMP



Resources Map

For more information, please refer to the attachment.

Introduction

Nowadays, broadcast facilities are implementing challenging improvements that seem to increase system's complexity more and more, these systems requires a great capability to help manage the overall technical workload and enables engineers to find and correct problems. Etere is an integrated broadcasting solution based on a distributed architecture that allows different modules to run on different workstations interconnected by a network and integrated with the devices used by broadcast stations, making all these elements work as a single system.

In a complex scenario with several components involved, a centralized dashboard that gives the ability to monitor the system's functioning becomes crucial for the overall system management; actually, that tool will act as the "electrocardiograph" that will permit to keep the health of the system under control by listening and checking its heartbeats in real-time.

For this purpose, Etere has used SNMP technology, a standard on network monitoring, for developing Etere SNMP Console, a simple but effective assurance monitoring service able to gather SNMP messages from all SNMP-enabled devices from a module connected to the network that makes them available as graphical warnings, acoustic alarms, email messages and even sms notifications.

The use of SNMP (Simple Network Management Protocol) technology brings Etere systems with a set of rules for defining how to identify problems on devices, modules and connections which are connected to a data network. In this terms, Etere SNMP Console is a key solution for the monitoring and control of devices over an entire network, it unifies into a single user-friendly interface all tools required for the management of SNMP-enabled devices, thus simplifying, for example, the detection, location and handling of failures occurred anywhere within the network.

This paper describes how Etere SNMP Console is able to monitor all the devices on which SNMP is enabled from a central or remote interface, thus demonstrating why it is a very convenient tool highly appreciated by operators all around the world due to its capability to always keep an eye on all components involved in the broadcast chain with maximum simplicity and minimum interaction.

Etere SNMP Console

The Etere SNMP Console is a module that makes part of the Etere's solutions suite, it is a module specifically designed to ease the monitoring the functioning of not only SNMP-enabled devices but also any Etere module in general, this key feature will permit system supervisors and operators to monitor through a intuitive user interface any failure occurred anywhere within the station's network, providing useful detection and handling functionalities.

Etere SNMP Console is a windows-based software application that enables users to discover, configure and monitor in real-time SNMP-enabled devices and other Etere products, this application is designed to provide outstanding monitoring capabilities including access to any device within the network, the possibility of handling attached files for each device; and the ability to monitor alarms generated from each device within the network, all of this, from a central module.

The Etere SNMP Console will provide operators with automatic messages informing about the status, warnings and errors of all enabled devices, displaying

them with issue-specific colors and highlighting all events which requires to be solved urgently.

Etere SNMP Console notify SNMP alarms as acoustic, email or sms messages; being also possible to sent alarms directly to the Etere's customer support service that will undertake them to provide as soon as possible a cross-check service by means of the SNMP workstation. Among the most significant characteristics of Etere SNMP console the following can be mentioned:

- Tight integration for monitoring not only SNMP-enabled devices but also any Etere module (e.g.: Etere Ingest, Etere Automation, Etere Data Mover, Etere Memory, etc)
- Automatic gathering of system messages within a reliable SQL database with further filtering and archiving features
- A highly graphical interface based on a colored map of resources that describes which objects are managed by the system and how they are connected
- Acoustic and visual alarms to point out devices which are off-line or functioning incorrectly
- Alarms and warnings can be filtered differently for each user, and settings are available for each device in the network
- Notifications can be shown on screen, logged to a database and automatically e-mailed to one or more e-mail accounts
- Easy highlighting of currently used resources in real-time, indicating also which workstation and user is using that resource
- Ensured support for mostly used interfaces including SDI, Ethernet, GPI, RS422, etc

3. DETAILED FEATURES

Facility monitoring features provided by Etere SNMP Console drastically simplifies the detection, location and handling of failures occurred anywhere within the network, easing workloads and reducing downtimes for broadcasters; Etere SNMP Console will expands broadcaster's capabilities by allowing them to incorporate and monitor many different types of IT equipment such as routers, servers, etc, as well as locating monitored devices reachable over a network.

In this chapter, there will be explained all the key features of Etere SNMP Console for monitoring SNMP-enabled devices and Etere modules, going from the design of a graphical map containing all resources within the network to the configuration and visualization of the alarms gathered from said resources, all these, under a single and user-friendly interface.

3.1 Graphical interface

The Etere Resource Viewer is a software application that provides practical, real-time control and monitoring of system infrastructures over multiple network protocols, it provides a graphical monitoring and feedback according to specific user's configurations, thus reducing the complexity of network management to simple and intuitive operations.

The Etere SNMP Console enhances the service management capabilities of Etere Resource Viewer to manage a wide range of devices under a central monitoring environment thanks to a quick and flexible interface for deploying –without depth skills- an enterprise map of devices on which it will be possible to know in real-time- who's using a resource, which resources are in error, which resources have active connections or simply view its SNMP messages.

3.2 Multiple Views

With Etere you can freely set and use different views for monitoring your system, it is possible to monitor, besides the entire network, a more organized view formed by rack devices or specific workstations, being accessible in all cases, through a simple click, all the SNMP messages including key information such as the name of the device, notified status, logged date and time, problem description, rack position, IP address, etc:

The figure above illustrates how multiple views enables easy monitoring of specific SNMP-enabled devices grouped by rack or user-defined profiles; being this and

another customization features the best solution for providing a quick and effective manipulation of your system's network map.

3.3 Filtering Rules

Gathered messages can be configured by the user to filter only specific incoming traps, thus allowing to receive only those notifications which you consider "relevant" for your monitoring purposes:

As shown in the figure above, filtering profiles are managed as profiles, each profile can feature parameters to filter messages using specific criteria including by owner, by login name, by installation, by description, by workstation, by severity, by error range, by IP intervals, by action types, and additionally, it will be possible to decide the notification method (i.e.: send email, send sms or play sound).

3.4 Detailed notifications

SNMP messages besides being highlighted in the map of resources, they are also delivered as email messages, sms notifications, sound alarms or SNMP traps to other Etere SNMP Consoles, in all cases, just by making double-click on SNMP messages, the user will access detailed information on them including the device name, the notified status, date and time, rack position, IP address, error code, description and the list of workflows currently looped due to the device failure:

Notification messages of a certain device can be filtered to allow a faster and efficient monitoring, available filtering criteria include by messages type, by period or by archived status.

3.5 Attached files

Etere provides an intuitive interface for storing files of any type related to a certain resource within a SQL database, thus making them available to be consulted in case of malfunctioning of a certain device or just for reading how to use said device:

3.6 Remote Consultation

Etere also provides a well-designed and easy-to-use interface for monitoring your entire network as easy as surfing the internet, thus improving the monitoring of modules subscribed to the Etere SNMP Console to detect errors, missing heartbeats and any possible failure:

Here, the operator will be able to filter messages –in real time- by using the parameters available on the top of the page; these parameters include the message type, date range, archived status, and maximum results number. Furthermore, detailed information on each message can be accessed with just one click:

4. BENEFITS

This paper has described the Etere SNMP Console and all its features that permits to always keep an eye on all components involved in the broadcast system network with maximum simplicity and minimum interaction, this by allowing to monitor in real-time the devices on which SNMP is enabled from a central or remote interface. The key benefits derived from these features, that confirm Etere as a complete Media Enterprise Resource Management system, can be summarized in the following points:

- Integration, any SNMP-enabled device, equipment or system can be incorporated in the monitoring system.
- Software-based, no extra equipment needs to be installed in order to start monitoring your system in real-time.
- Visual indications, device alarms are gathered, filtered, archived and notified automatically via e-mail, sounds, sms or SNMP traps.
- Network security, devices are discovered and accessed only by users belonging to authenticated groups enabled for monitoring.
- Customizable views, a set of different views to monitor, besides the entire network, only certain racks or specific workstations.
- Graphical management, all components are configured, browsed and used under a fully graphical interface which is simple by full of functions.

- Multiple selection, launch multiple actions on different devices with a single click.