

Configuring StoreGazer to Send SNMP Traps

Overview

Using the 4690 Event and Action files, StoreGazer can be configured to respond to system events in a number of ways. Currently, messages can be logged to the database to be viewed by the StoreGazer Client. Emails can also be sent to a pre-defined recipient. The latest version of StoreGazer has the ability to generate SNMP traps when a system event occurs. This document describes how to configure StoreGazer to send these traps and provides the necessary information to configure an enterprise console to receive and process this new data.

SNMP stands for Simple Network Transfer Protocol. SNMP uses a connectionless-based communication method to relay information from a system or device (Agent) to a server (Manager). This information is formed into a message called an SNMP trap.

The trap consists of an ordered set of fields, with each field containing a specific piece of data, such as controller node, severity, and terminal number. These fields are defined in a file called a Management Information Base, or MIB. For SNMP traps to work correctly, both the Agent and the Manager must have access to the field definitions contained in the MIB, or the data will be inaccessible.

Each trap is “protected” by a community string. This string serves (loosely) as a password in the V1 and V2 implementations of SNMP. When a Manager receives a trap, the community string will determine if the manager receives and takes action on a trap, or ignores it altogether. By default, the community string is the word “public”, but it can (should) be changed to ensure that only the desired servers act on the trap.

V1 and V2 traps differ slightly in format. The version used is solely up to the user’s discretion. V1 has been found to be the more common of the two, but both are provided for compatibility. V3 offers a more sophisticated encryption mechanism, but it has yet to be standardized. V3 is not currently supported by StoreGazer.

Contact Information

For assistance in configuring StoreGazer to work with SNMP, or for any other questions regarding the StoreGazer product (Database, Server, Client, or 4690), please contact:

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4690 Configuration

The 4690 operating system does not include SNMP functionality for third-party applications. SNMP traps are sent to the end-user using a mechanism similar to the way email is handled. The 4690 will send a request to the StoreGazer Server for a trap to be generated, and the StoreGazer Server will form the data into a trap and send it.

To configure the 4690 controller to send a trap when a system event occurs, simply add new entries into the 4690 Event and Action files.

In the EVNTFILE.DAT, create a new event rule, or use an existing event rule, to specify which system events should result in sending an SNMP trap. The event rule format has not changed, and there are no special considerations required for SNMP.

In the ACTNFILE.DAT, create a new action rule. The “Type” of action will be specified as either SNMPV1 or SNMPV2, depending on which trap version is desired. The rule must also include a parameter “Category”, which is a user-defined category name, used to determine which servers and communities are used when sending the Trap. Any other parameters specified in the action rule will be ignored. Following are two sample action rules, one for a V1 trap and one for a V2 trap.

ACTNFILE.DAT:

```
# Create a V1 trap, using the General category.
# This action can be used by any system event
[Action = 100]
Type = SNMPV1
Category = General

# Create a V2 trap, using the Network category.
# This action should only be used for network-related events.
[Action = 101]
Type = SNMPV2
Category = Network
```

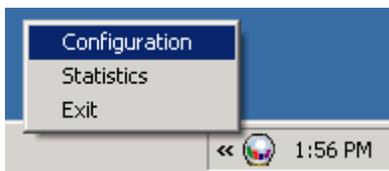
StoreGazer Server Configuration

The server is responsible for receiving the data from the 4690 controller, forming that data into an SNMP trap, and sending that trap to a defined list of servers. For the trap to be properly generated, the following files must exist in the StoreGazer Server directory. They are available on the EDJ website.

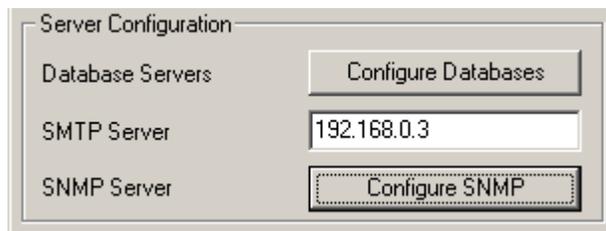
EDJ-SMI.smi
EDJ-StoreGazer-MIB.mib
SNMPv2-SMI.mib

These files define the format of the trap. For the enterprise console (OpenView, Tivoli, etc) to correctly interpret the trap, the two EDJ files will need to be included in the MIB list on the console server. This task should be performed by one of the server administrators for that system.

After starting the EDJ StoreGazer Server application, right-click on the crystal ball in the system tray and select the Configuration menu item.



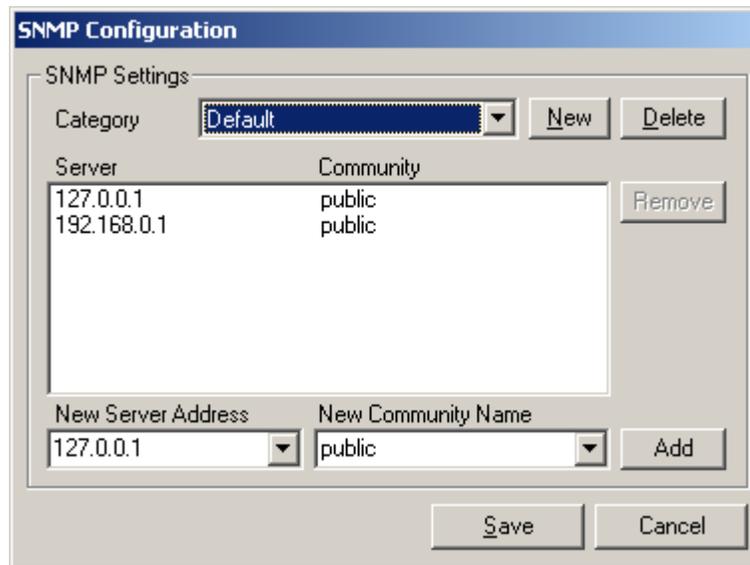
On the StoreGazer Server Configuration screen, click the “Configure SNMP” button.



The SNMP Configuration screen will be initially blank. Click the New button to create a new category of SNMP traps. Specify a name for this category and press the OK button.



Next, use the two boxes at the bottom to provide server addresses and community names. Click the Add button to add this pair to the list of servers.



The image shows a dialog box titled "SNMP Configuration". It has a "SNMP Settings" section with a "Category" dropdown menu set to "Default", and "New" and "Delete" buttons. Below this is a table with two columns: "Server" and "Community". The table contains two rows: "127.0.0.1" with "public" and "192.168.0.1" with "public". A "Remove" button is to the right of the table. At the bottom, there are two input fields: "New Server Address" with "127.0.0.1" and "New Community Name" with "public", and an "Add" button. At the very bottom are "Save" and "Cancel" buttons.

Server	Community
127.0.0.1	public
192.168.0.1	public

Using the above illustration, when an SNMP trap arrives with the category “Default”, a trap will be sent to 127.0.0.1 using the “public” community string, and a trap will be sent to 192.168.0.1, also with a “public” community string.

Click the Save button to commit these changes. The StoreGazer Server is now ready to generate traps when it receives a request from the 4690.

Enterprise Console Configuration

The EDJ-SMI.smi and EDJ-StoreGazer-MIB.mib files will be required by the enterprise console application, so the StoreGazer traps to be properly interpreted. An administrator in charge of configuring the SNMP manager application should know how to incorporate these definitions into the existing trap database. If additional assistance is required in integrating the EDJ trap definitions with the current configuration, contact the vendor of the enterprise console solution for support.