VadaTech ATCA/MicroTCA

ScorpionWare® SNMP Trap Listener

Interface Reference Manual

February 30th, 2010

Version 1.0

vadatech inc
THE POWER OF VISION

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Revision History

Doc Rev	Description of Change	Revision Date
1.0.0	Preliminary document for VadaTech SNMP Trap Listener	02/30/2010

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1 Overview

ScorpionWare® SNMP Trap Listener is one of the VadaTech System Management Software Tools used to Monitor AdvancedTCA and MicroTCA platforms. Telecom, Military and Aerospace projects are increasingly using AdvancedTCA and MicroTCA platforms. Integration and testing of these complex platforms are one of the stumbling blocks to integrators and add delays to final deployment. ScorpionWare® provides an easy to use Graphical User Interface with several features for monitoring, trouble shooting and easy integration of these platforms.

ScorpionWare® SNMP Trap Listener lets you monitor received SNMP notifications in the main window. The software can send information about received SNMP notifications in e-mail, Trap forwarding or twitter messages to any number of recipients, as well as log it to the system log files. The software provides advanced filtering capabilities that let you configure filters for capturing only those SNMP notifications that match the specified criteria.

ScorpionWare® SNMP Trap Listener employs the client/server architecture in a sense that the notification receiving module (server) is separated from the application's GUI (client). The server module, which runs as a service/daemon application even when no user is logged on the operating system, receives SNMP notifications from the network and processes them according to applied configuration. Trap Listener client, which runs on the same computer as Trap Listener server, is a regular GUI application that, when started, connects to the server and lets you view and manage received SNMP notifications, as well as control and configure both parts of the application.

1.1 Applicable VadaTech Products

Interface to all Vadatech ATCA and MicroTCA Shelf and Carrier Managers.

1.2 Document References

- Vadatech MCH Getting Started Guide
- VadaTech SNMP Trap Handler User Manual

1.3 Acronyms Used in this Document

Term or Acronym	Description
MicroTCA	Micro Telecommunication Computing Architecture
Shelf	An electronic assembly consisting of the Subrack, Backplane, Modules, cooling Devices, power subsystems, etc. Also historically known as a chassis. Shelves are usually mounted in Frames.
Shelf Manager	The entity responsible for managing the cooling in a MicroTCA Shelf. It also routes messages between the System Manager Interface and the Shelf-Carrier Manager Interface, provides interfaces to system repositories, and responds to event messages.
System Manger	A level of management functionality above the Shelf Manager charged with the management of an entire system, whatever that may mean in a specific Implementation
System Manager Interface	The communication interface between Shelf Manager and System Manager
MicroTCA Carrier Hub (MCH)	An assembly providing MicroTCA Carrier functions needed to support up to twelve Hub (MCH) AdvancedMCs including MCMC, optional ShMC, optional Fabric switch, and clock.

Table 1: Acronyms

2 Installation

The SNMP Trap Listener Tool is available along with the ScorpionWare® package for Linux and Windows Operating Systems for 64-bit and 32-bit architectures.

2.1 Linux

The ScorpionWare® Linux package requires Fedora 10 or later.

To install the x86_64 or i386 RPM package

```
#rpm  --install sysmanager-x.x.x.x.86_64.rpm
#rpm  --install sysmanager-x.x.x.x.i386.rpm
```

If an earlier version of ScorpionWare® is already installed, then use the upgrade option.

```
#rpm  --upgrade sysmanager-x.x.x.x.86_64.rpm
#rpm  --upgrade sysmanager-x.x.x.x.i386.rpm
```

2.2 Windows

The ScorpionWare® Windows packages are available for 64-bit and 32-bit architectures running Windows XP or Vista.

3 MCH SNMP Trap Setup

The UTC001 MCH must be configured to send out SNMP Traps. The SNMP Trap daemon must be enabled on the UTC001.

Please refer to the VadaTech SNMP Trap Handler User Manual document on how to configure the Vadatech MCH to send out SNMP Traps.

3.1 Starting the Tool

3.1.1 Linux

After completing the installation on the remote PC running Linux, ScorpionWare® can be started by issuing the following from the Linux prompt:

```
# snmptraplistner
```

3.1.2 Windows

After installing the ScorpionWare® Windows package the SNMP Trap Listener short cuts are available in the Windows Start Menu and Desktop.

3.2 Session

When the ScorpionWare® SNMP Trap listener is started the Session Configuration screen allows the user to configure a session by name.

3.2.1 Configuration

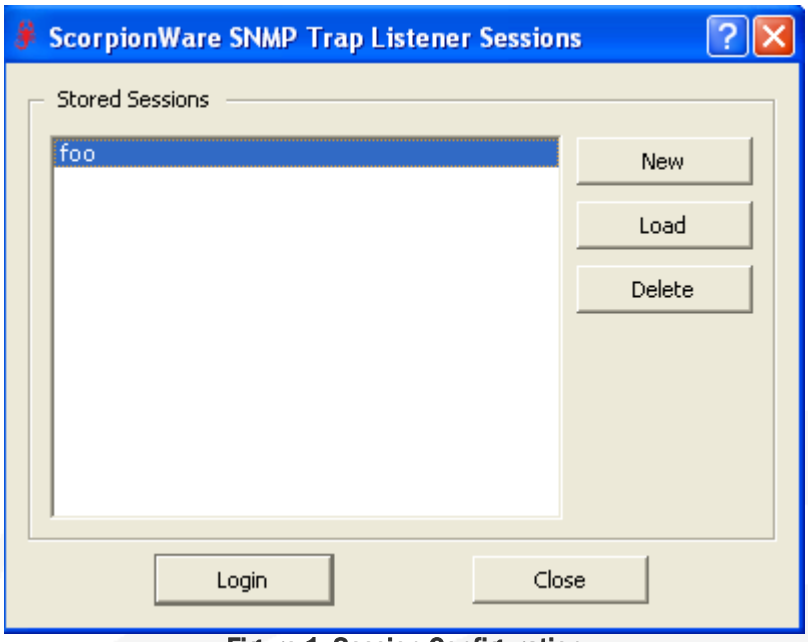

Figure 1: Session Configuration

The **Session Configuration** dialog allows the user to configure, save and load SNMP Trap Listener sessions.

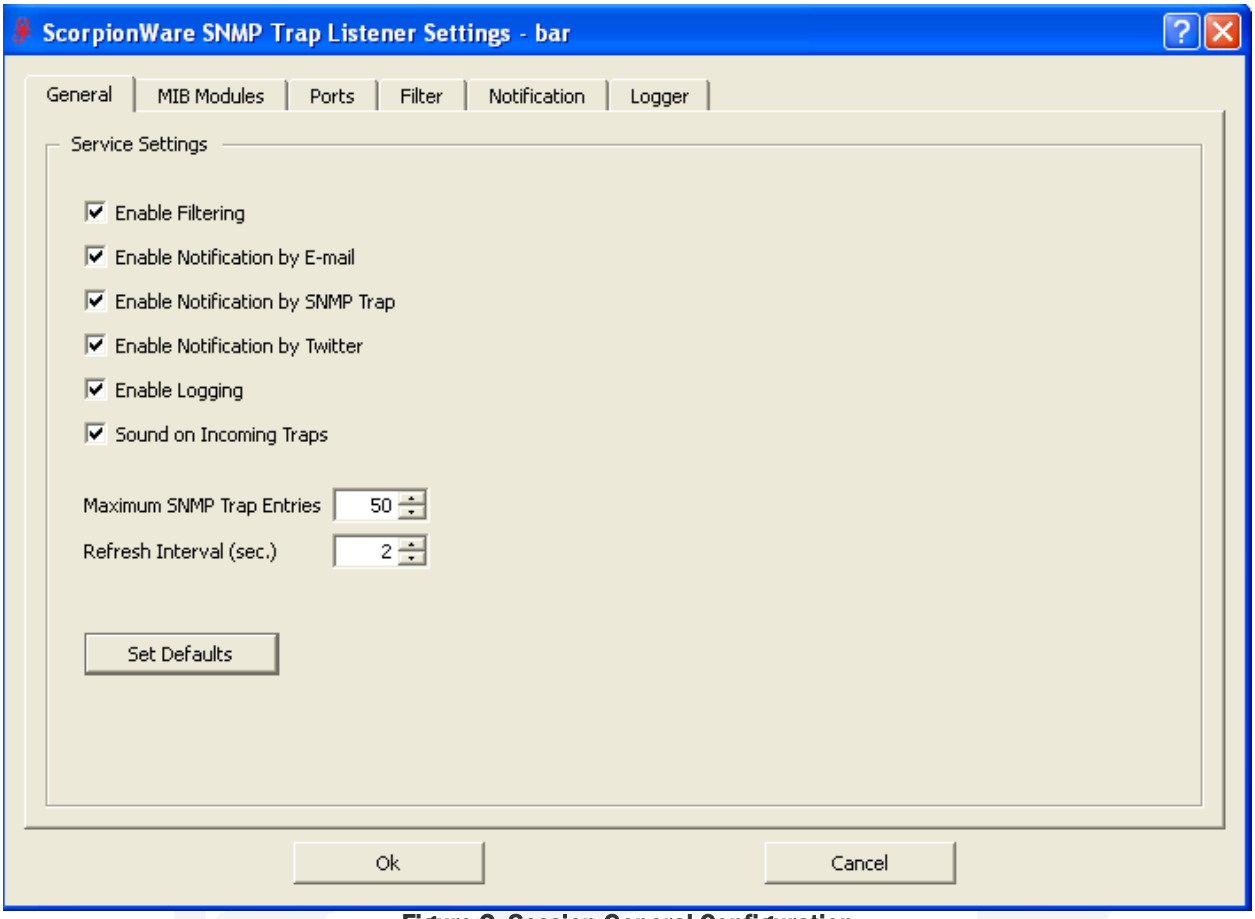

Figure 2: Session General Configuration

When a new session is created, the SNMP Trap Listener allows the user to configure the session:

3.2.1.1 General

The following general service settings are available:

- Enable filtering
- Enable notification by e-mail, SNMP Traps, Twitter
- Enable logging
- Enable sound on incoming traps

The user can also configure the maximum SNMP Trap entries and the trap refresh interval.

3.2.1.2 MIB Modules

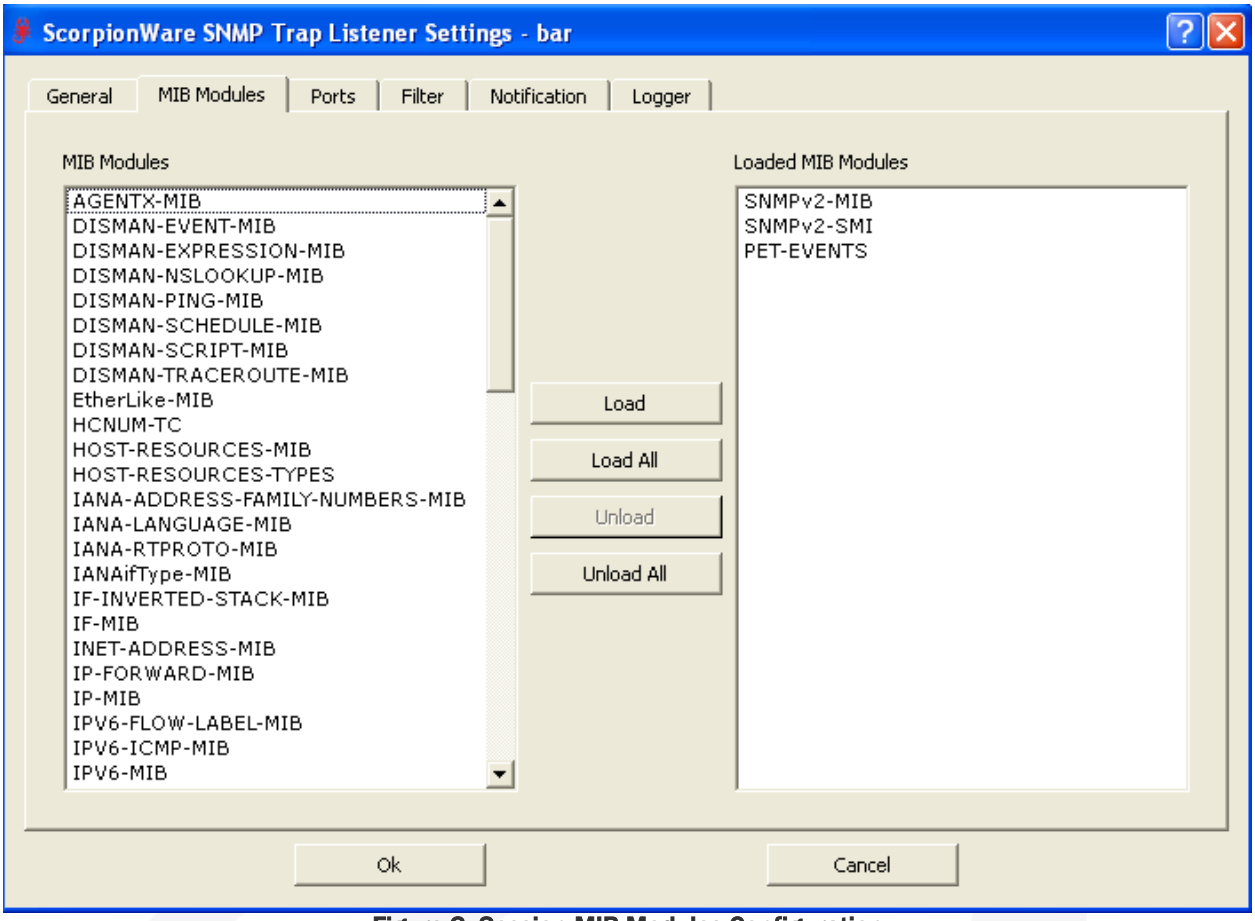

Figure 3: Session MIB Modules Configuration

The MIB module configuration tab allows the user to load the MIB modules that will be used for Trap entry translation. By default the SNMPv2-MIB, SNMPV2-SMI and PET-EVENTS MIB modules are pre-loaded by the tool.

3.2.1.3 Listener Ports

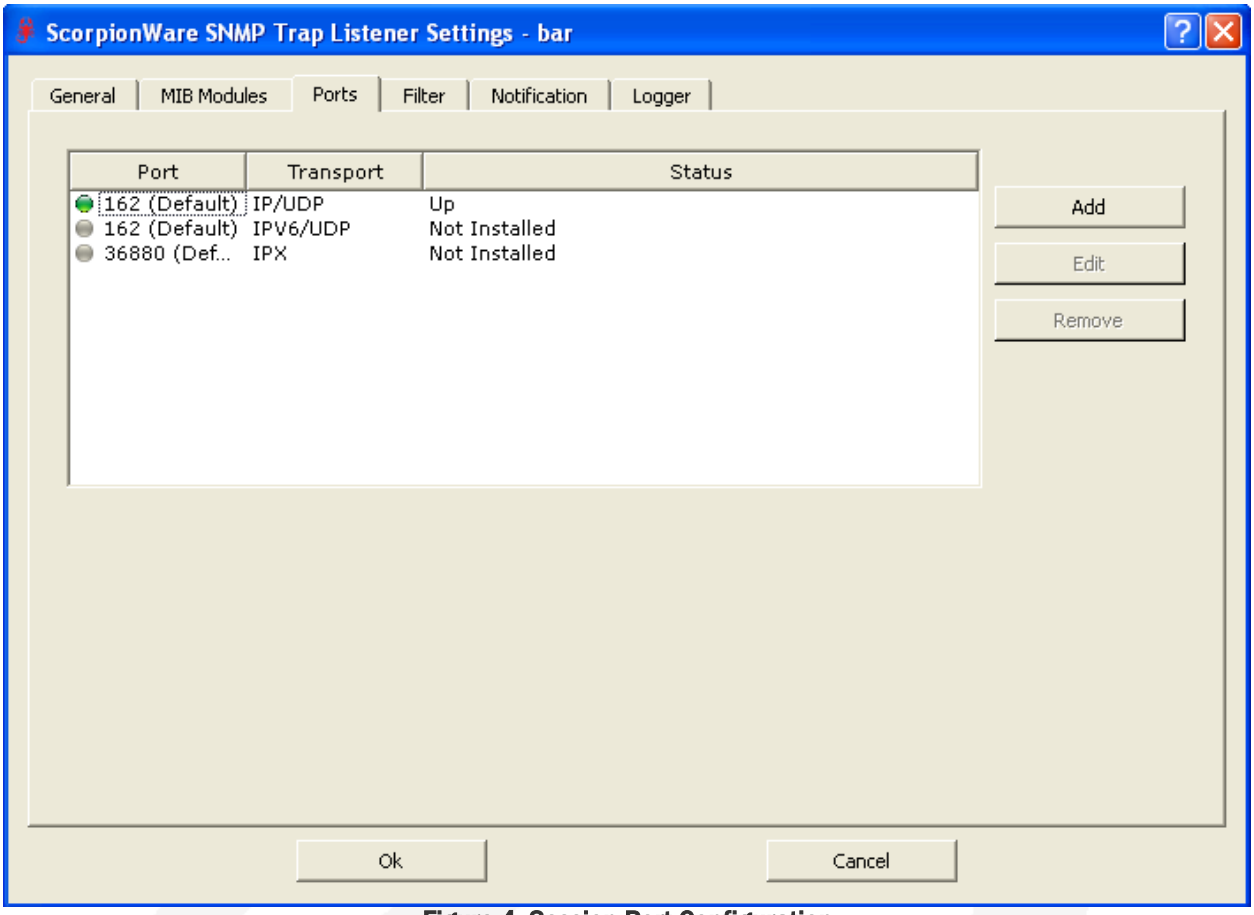

Figure 4: Session Port Configuration

The Port configuration allows the user to setup the ports to listen on incoming traps. By default the SNMP Trap Listener will always listen on Port 162. New ports can be added using the add option.

Port Status:

Status Color	Description
	Port Active/Up
	Port Inactive/Not Installed
	Port Connection Error

3.2.1.4 Filtering

This option is not available in SNMP Trap Listener v1.1.

3.2.1.5 Notification

The SNMP Trap Listener allows three methods of notification:

- E-mail
- SNMP-Trap forwarding
- Twitter

3.2.1.5.1 E-Mail Notification

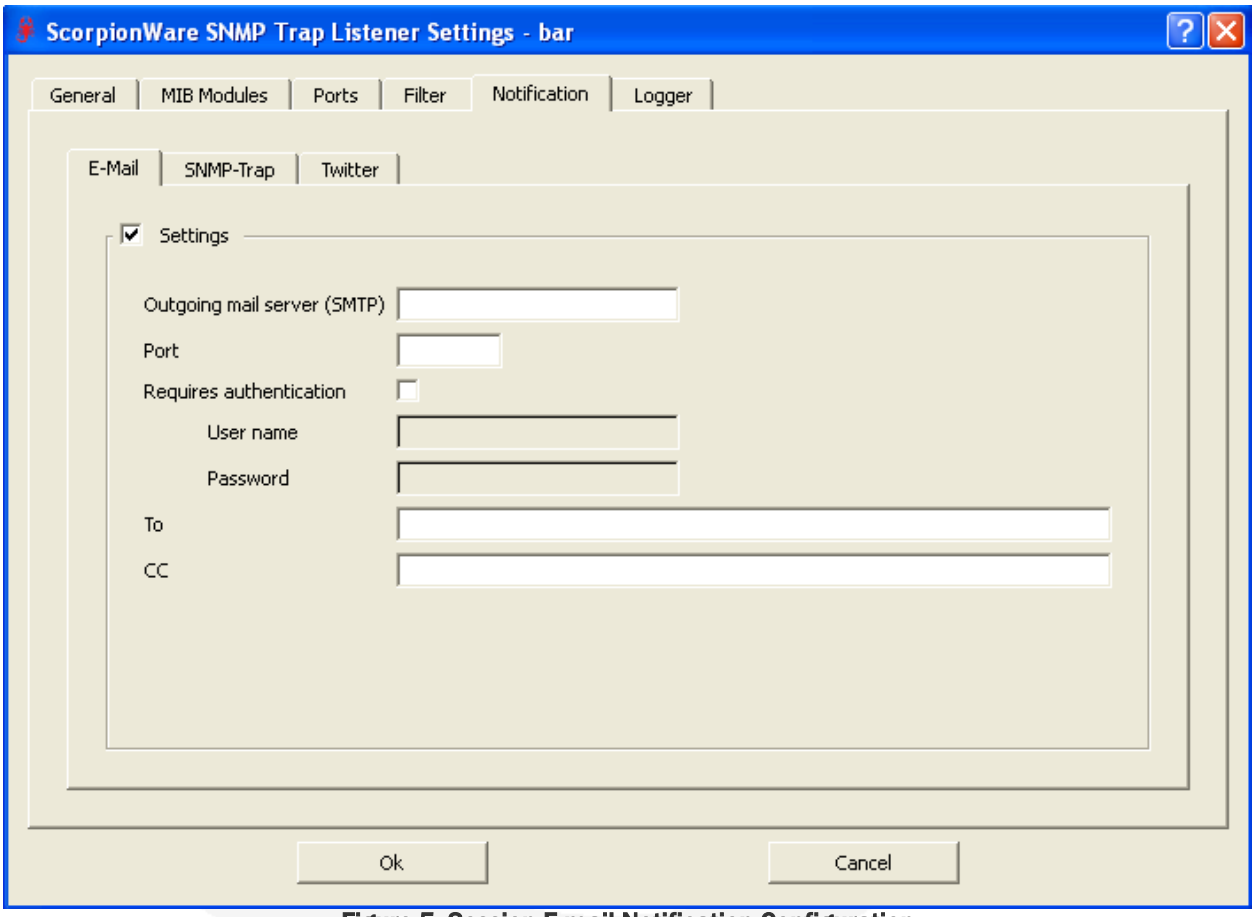

Figure 5: Session E-mail Notification Configuration

Traps can be forwarded via e-mail to a group of users. The user must configure the mail server, port and authentication details.

3.2.1.5.2 SNMP-Trap Forwarding

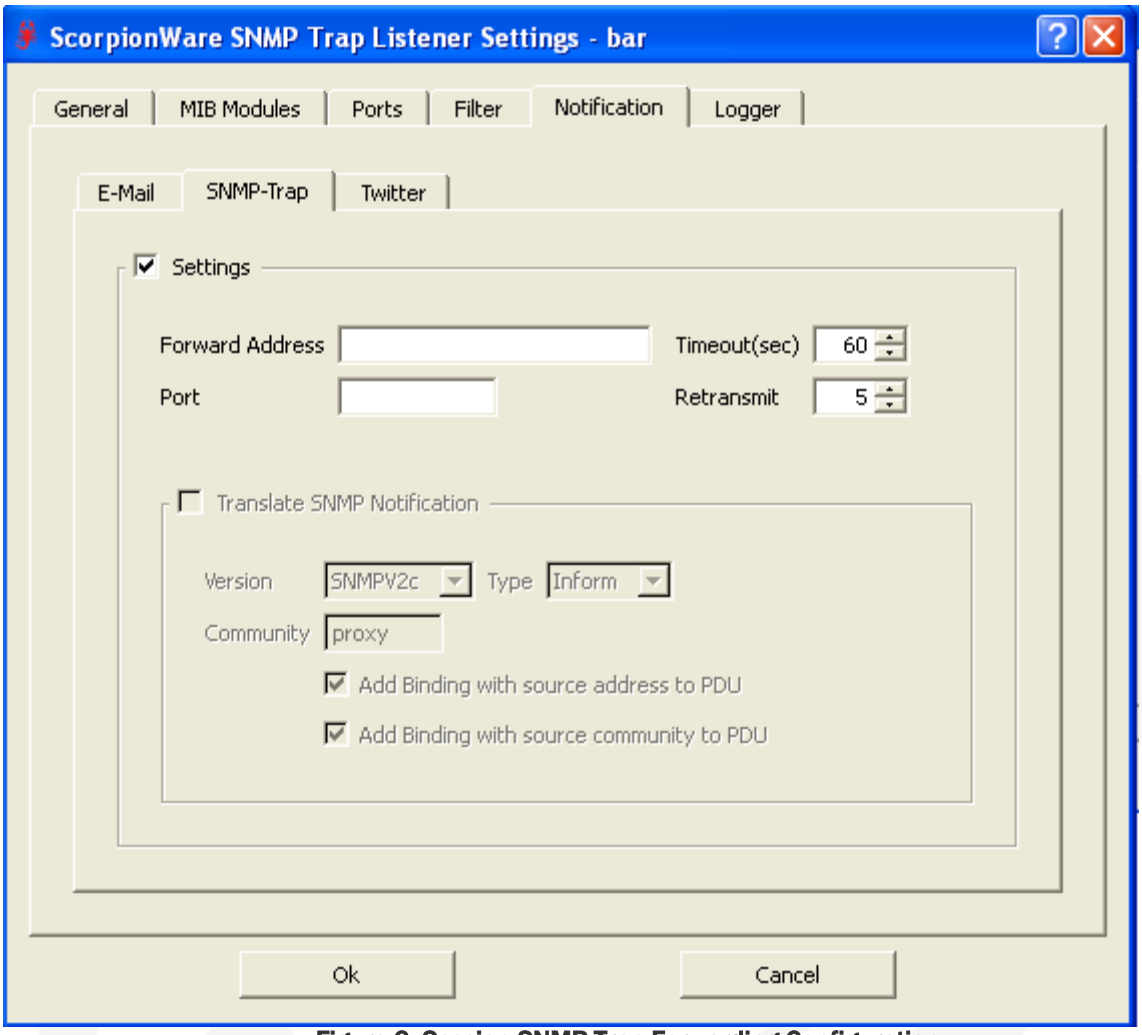

Figure 6: Session SNMP-Trap Forwarding Configuration

SNMP-Trap Forwarding option allows the user to forward the incoming traps to a forward address via a specified port.

The incoming Traps can be converted to a specified Trap Version and Type. Trap translation feature is not available in SNMP Trap Listener v1.1.

3.2.1.5.3 Twitter

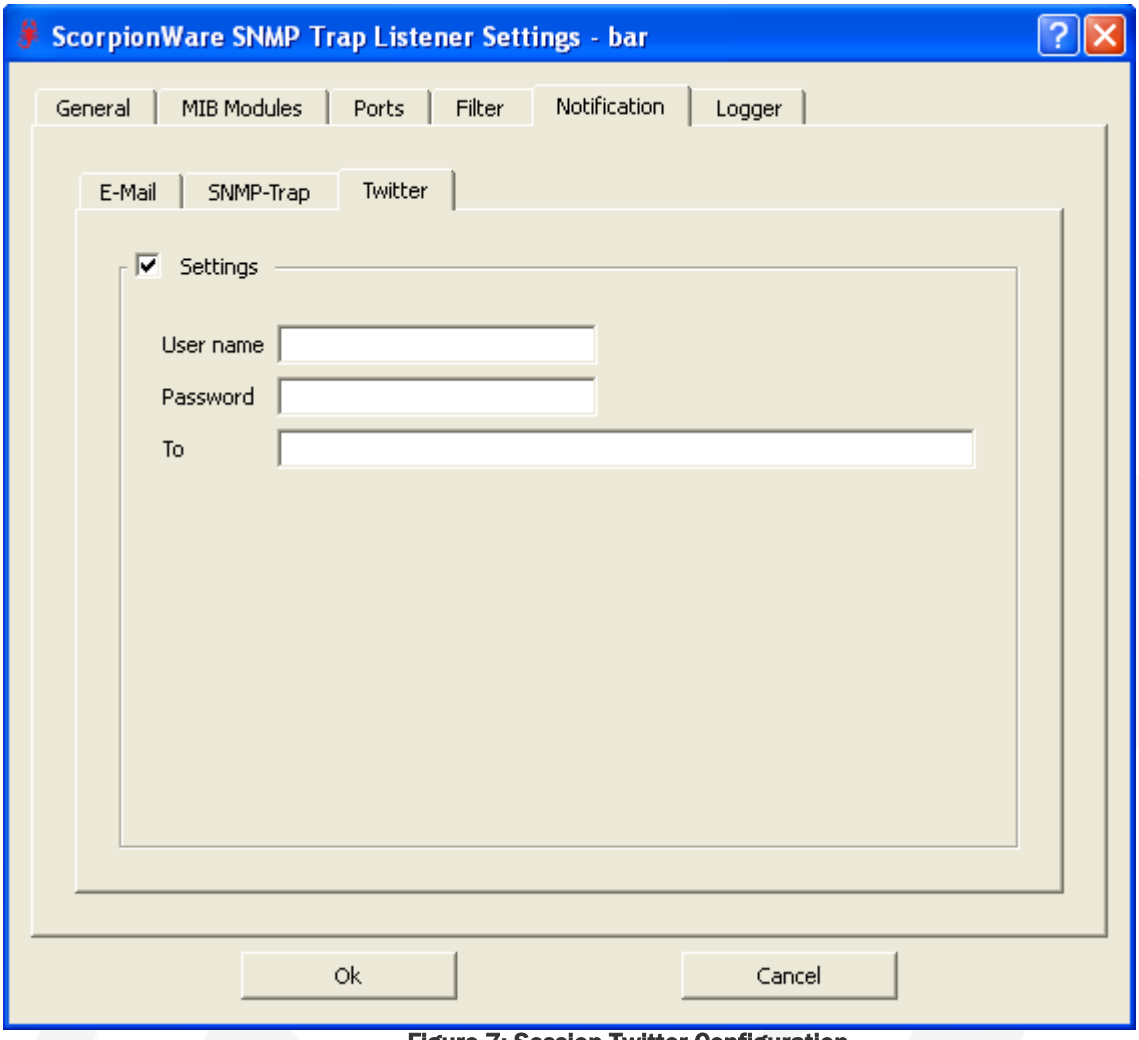

Figure 7: Session Twitter Configuration

Users can configure a Twitter account and setup the SNMP Trap listener to forward the SNMP Traps as short messages to the account or group.

3.2.1.6 Logging

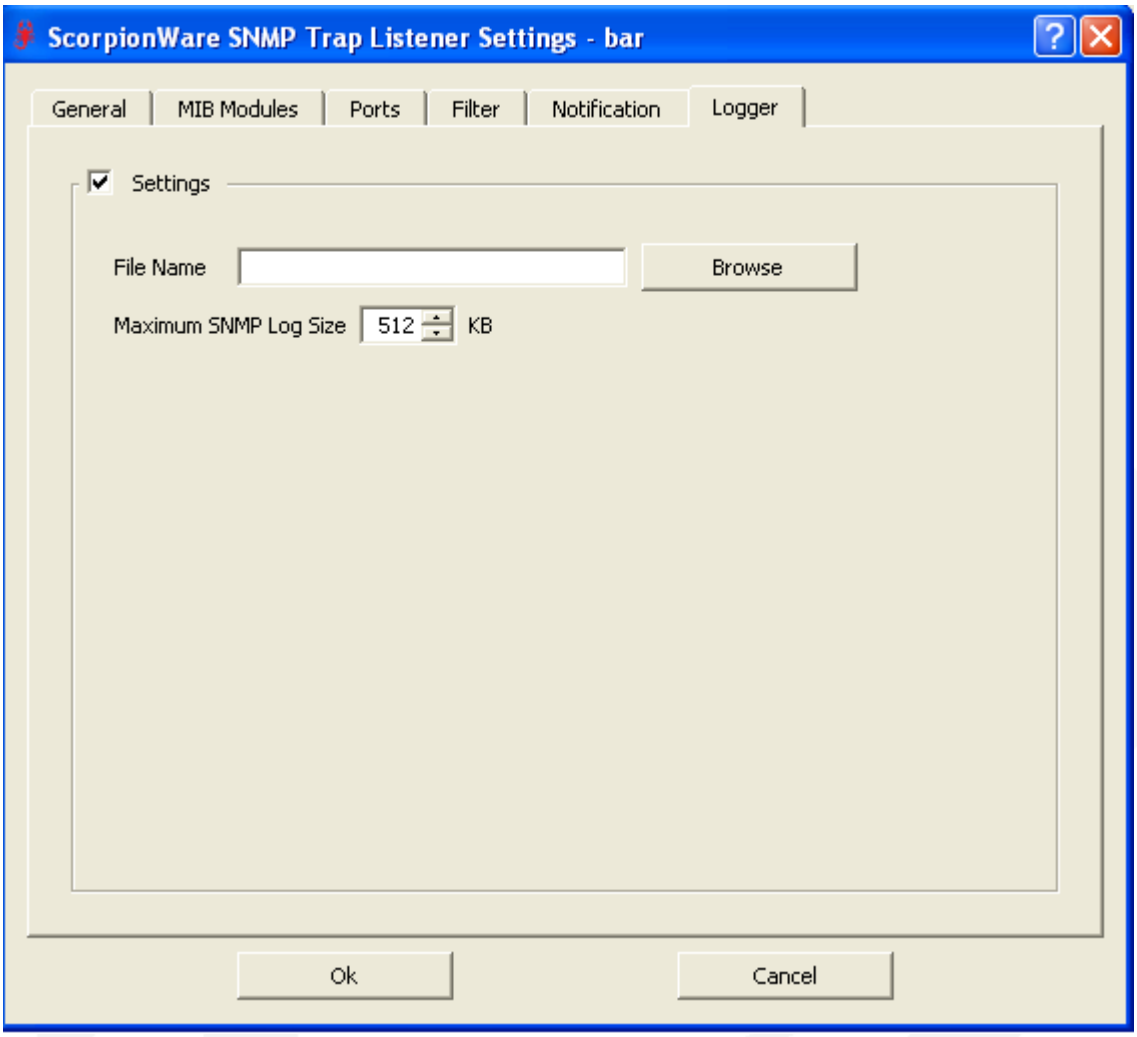

Figure 8: Session Logging Configuration

The user can specify a log file to log all the incoming SNMP Traps.

3.3 Trap Listener Main Window

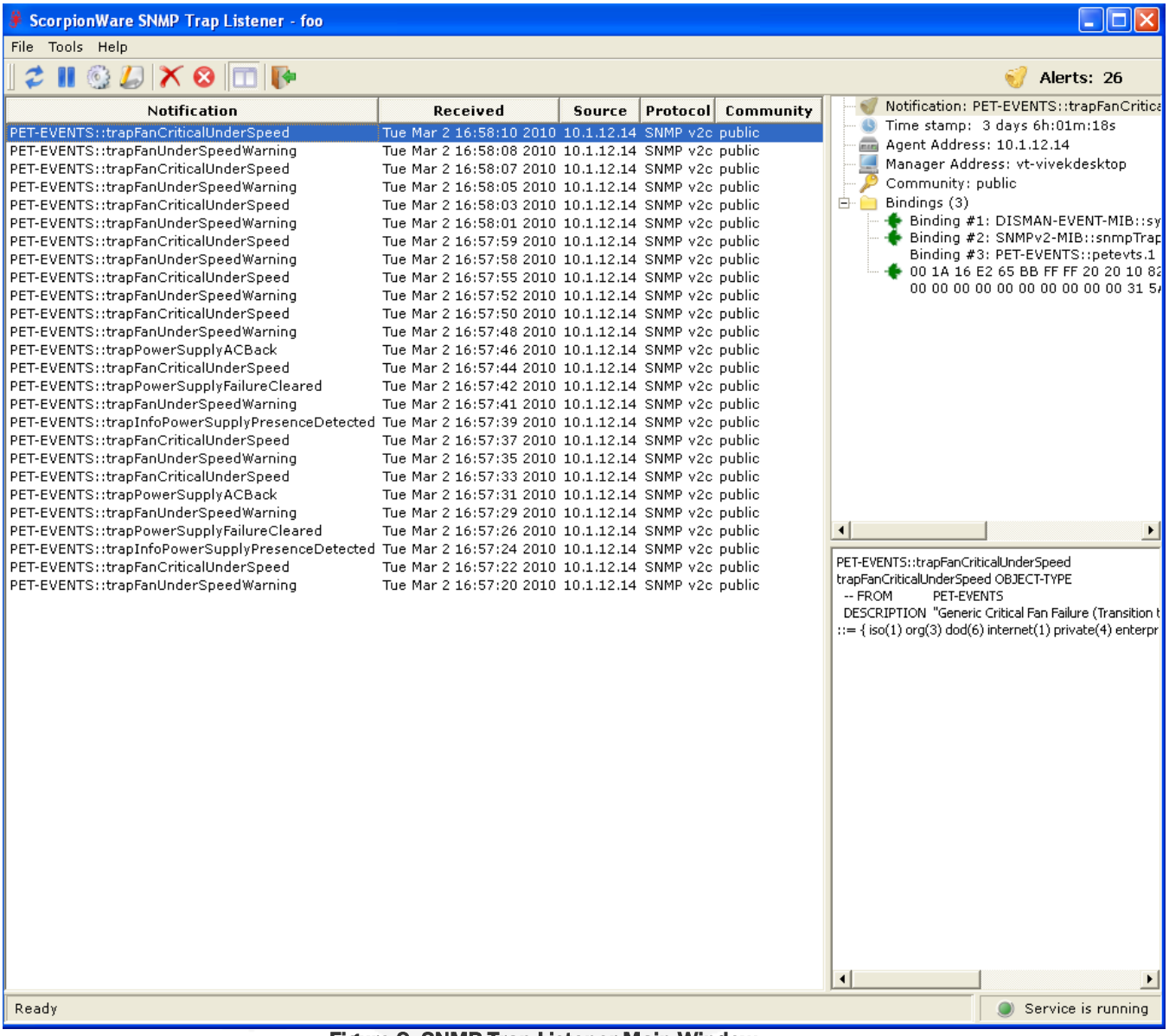

Figure 9: SNMP Trap Listener Main Window

The SNMP Trap Listener main window is divided into the following sections –

Menu bar - Menu bar is the bar near the top of the application window that contains names of the program menus. It contains the menus such as File, View, Tools, etc.

Toolbar - The toolbar contains a group of buttons that provide quick access to a series of commands. To display or hide the details, use the **Tools/Details Window** command. You can get a brief description of a task behind each toolbar button either in a tooltip, or in the Status bar, by placing the mouse cursor on the toolbar button (without clicking).

Working area - The working area is the area between the toolbar and the status bar. The Trap Listener main window is used for viewing received SNMP Trap and Inform notifications. It consists of the Trap List window panel, displaying the list of received SNMP notifications and the Trap Details Window panel, showing detailed information about SNMP notification messages.

Status bar- The Trap Listener status bar contains the following fields:

- The leftmost field displays the operating status of the Trap Listener.
- The right most field displays if the service is running or is stopped.

3.3.1 Trap List Panel

The Trap Listener panel occupies the left part of the Trap Listener main window and displays a list of received SNMP Trap and Inform notifications. By default, Trap List window panel displays SNMP notifications that are logged in the SNMP daemon log file. If the Open SNMP Listener Log File option is used, you can also display the contents of the log file in the Trap List window panel.

The Trap List window panel is updated every time a new SNMP Trap or Inform notification is received and the notification information is written to the log file.

Notification - Displays the basic information about the received SNMP Trap or Inform notification, including the type of notification (“Trap” or “Inform”) and its name (e.g., “linkUp”) as resolved through loaded MIB modules.

Received - Shows the date and time of notification reception.

Source - Shows the IPv4, IPv6 or IPX address or the hostname of the SNMP entity that issued the notification.

Protocol - Shows the SNMP protocol version of the received Trap or Inform (e.g., “SNMPv2c”).

Community - Displays the community name included in the received SNMPv1 or SNMPv2c notification message (e.g., “public”).

Enterprise - Displays the name or OID of the enterprise (organization) associated with the SNMP notification message (If this information is available).

Binding Count - Displays the number of variable bindings included in the SNMP notification message.

3.3.2 Trap Details Panel

The Trap Details window panel, when displayed, occupies the right part of Trap Listener main window (with the Trap List window panel being displayed on the left). The Trap Details window panel shows detailed information about the received SNMP notification messages. This trap information is translated using the MIB files currently loaded using the MIB Modules configuration.

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