

How Do I CONFIGURE SNMP

The Red Box SNMP Agent (installed and run as part of the recorder) allows network management tools to receive alarms and alerts from the recorder, and perform requests to the recorder for status and statistics information.

Configure SNMP

To configure SNMP:

1. Configure settings in the recorder.
2. Download and import the recorder MIB file.
3. Configure the listening port – if a non-standard port is needed.

Recorder Settings

To configure a recorder for SNMP:

1. Login to the recorder using a Quantify system administrator account with system configuration permissions, and go to **Configuration > Setup > SNMP**
2. Complete the settings for the **Contact Details**, **Trap Version**, and **Trap Destinations** sections (see tables on page 2).
3. If the **Trap Version** is set to **V3**, complete the **USM Profile** for the SNMP sub-system.
4. When you're done, click **Update** to apply your changes.



The screenshot shows the 'Configure SNMP' page in the Red Box Recorders web interface. The page is divided into several sections:

- Contact Details:** Includes input fields for 'Contact Name', 'Location', and 'SNMP Engine ID'.
- Trap Version:** A dropdown menu currently set to 'V1'.
- Trap Destinations:** Includes input fields for 'Community', 'Destination 1', and 'Destination 2'. There is a checkbox labeled 'Send SNMP traps to these addresses' which is currently unchecked.
- USM Profile:** Includes input fields for 'Security User Name', 'Authentication Password', and 'Privacy Password'. It also has dropdown menus for 'Security Level' (set to 'NoAuthNoPriv') and 'Authentication Protocol' (set to 'None') and 'Privacy Protocol' (set to 'None').

At the bottom of the form are 'Update' and 'Reset' buttons.

Your Red Box system may look different to the one used in this document.
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Contact Details Options	
Contact Name Location	Contact Name and Location are added to the recorder alarms and alerts. By default, only the originating recorder's IP address is reported. Neither field is mandatory, but you may find it easier to identify a recorder by configuring these, especially as part of a multi-recorder system.
SNMP Engine ID	SNMP V3 unique ID for the recorder — only required if Trap Version is set to V3 .

Trap Version & Trap Destination Options	
Trap Version	Select the SNMP trap version — V1 , V2c , or V3 . Note that if V3 is selected, you should complete the USM Profile for the SNMP sub-system, and set an SNMP Engine ID .
Community Destination	The trap destination is a combination of the IP address (Destination) and community name (Community) of the machine on which the SNMP client is running. You can specify one or two destinations.
Send SNMP Traps	Once your SNMP system is fully set up and ready to receive alarms and alerts from the recorder, tick this option to start sending SNMP traps.

MIB File

Download and import the recorder MIB file which defines the available "Get Requests", and recorder Alarms & Alerts.

Using Quantify, login to the recorder, go to **Options > Support Centre > Downloads** and click **SNMP Agent MIB Files** to download the zip file. Extract the appropriate language file you need.

Using your SNMP Management Software, import the MIB file. Please refer to your management tool documentation for details.

Listening Port

If you want/need to use a non-standard listening port for your SNMP management tool, this is set in the **SNMPAgentService.exe.config** configuration file on the recorder.

- If the Windows SNMP service is installed and set to start up automatically on the recorder server, then the Red Box SNMP Agent will not be able to bind to the default SNMP port of 161. In this case, the bind is not attempted and only a non-standard port will be bound to for listening.
- In contrast, if the Windows SNMP service is not installed on the recorder server or is disabled, then the Red Box SNMP Agent will bind to both the default port 161 and the defined port in the config file.

To define a port, open the **SNMPAgentService.exe.config** file in the **C:\LTR\Config** folder on the recorder server, and edit the **Port value**:

```
<SNMPConfig>
  <Port value="1161" />
</SNMPConfig>
```

Note that if a bind to port 161 is not possible, you also need to configure your SNMP management tool to use the non-standard port for performing GET requests. Please refer to your management tool documentation for details.

TRAP & GET

All recorder Alarms and Alerts can be trapped by your SNMP software. These are defined in the MIB files and are also summarised in the **RBR_Alarms_Alerts_Warning.xlsx** file which is available from Red Box on request.

The recorder also supports "Get Requests" from your SNMP software. These are fully defined in the recorder MIB files, and summarised below for your convenience.

Code	Type	Description
redBoxManufacturer	Text	Manufacturer name for your Red Box recorder.
redBoxVersion	Integer	Version number of the core Quantify recording software.
redBoxStatus	Integer	Current recorder status: 1: Recording — Normal recorder operation. 2: Panic — Recorder can't record new calls. ** 3: Broken — Recorder has a fault. 4: Not Licensed — Recorder has no PP, Record, or Replay licenses. 5: replayOnly — Recorder is configured for Replay only. 6: noCallstore — Recorder has no access to the local Callstore. 7: standby — Recorder is in standby mode (Primary/Secondary Pair).* 8: resumeAvailable — Secondary recorder can resume Standby mode.* 9: slaveResumingStandby — Secondary recorder resuming Standby.* 10: nasRecovery — Recorder is recovering a NAS device. SNMP Errors: 9991: snmpErrorUnknown 9992: snmpErrorWrongResponse 9993: snmpErrorPartialData 9994: snmpErrorNoData 9995: snmpErrorDidNotWrite 9996: snmpErrorNoPipe
redBoxSNMPVersion	Integer	Version number of the Red Box SNMP Agent software.
redBoxCallsBeingRecorded	Integer	The number of calls currently being recorded.
redBoxActiveAlarms	Integer	The number of Active Alarms on the recorder.
redBoxUnarchivedData	Integer	The amount of unarchived data on the recorder (as a percentage of data on the local Callstore).

* For information on Primary/Secondary recorder configuration, and Parallel Pair & Failover Pair process information, please see the Server Options & Topologies Quick Question Topic.

** The **Panic** state usually occurs as a result of no free space in the local CallStore to record any new calls. Normally this happens when the system is configured to archive calls (to a NAS Archive), but calls aren't being archived for some reason. In this state, calls can't be deleted until they've been archived, so the recorder is unable to free-up space in the local CallStore for re-use. Eventually, the recorder runs out of free space, stops recording, and enters the **Panic** state. The recorder will remain in this state until a system administrator resolves the issue.

The **Panic** state can also occur if the local CallStore is very small (below minimum supported size), even with no archiving enabled, because the recorder hasn't got enough "working capacity" for calls in progress. This minimum size varies depending on the number of concurrent calls in progress.

Refer to the Call Storage Quick Question Topic for information on CallStore and NAS operation and configuration.

Monitor, Manage, and Maintain Your Recorder

provides a number of applications and features to help you monitor, manage, and maintain your recorder. Please refer to the following Quick Question Topics for details:

- **Quantify Insight:** This set of topics covers the Quantify Insight application – by far the easiest way to monitor and maintain your Red Box recording system.
- **Maintenance:** Provides general information on monitoring your recorder, and some common tasks usually performed during maintenance work.
- **Health Checks:** Provides recommendations for performing regular health checks to monitor resources, performance, and system activity.

Troubleshooting

Here are some common issues you may encounter using SNMP:

Issue:	Network Manager Not Receiving Traps
Solution:	<p>Go to Configuration > Setup > SNMP and:</p> <ul style="list-style-type: none"> • Make sure that the Community name and Destination IP addresses are correct. • Make sure that the Send SNMP Traps to These Addresses option is ticked. <p>See "Configure SNMP" on page 1.</p>

Issue:	Network Manager Not Performing Get Requests Successfully
Solution:	<ul style="list-style-type: none"> • Check that your network manager is making the requests to the correct recorder IP address. • If the Windows SNMP service is needed, make sure that your network manager is making requests to the same port that is defined in the Red Box SNMP Agent configuration file – see "Listening Port" on page 2. • If the Windows SNMP service is running, but it's not needed, you should disable it – in the Windows Services application, right click the SNMP Trap item, click Properties, and change the Startup type to Manual or Disabled. Click Apply and stop the Windows service, then restart the Red Box SNMP service on the recorder. Please make sure that nothing is using the Windows SNMP service before doing this.

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RBRQQ1043 V1.1