

.: www.totalrecallvr.com :.

Total Recall VR SNMP Agent

User Guide

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Related Documents:

- [1] Prolancer Pty Ltd, Total Recall VR web site. Available from: <u>http://www.totalrecallvr.com/</u>.
- [2] Prolancer Pty Ltd, Prolancer web site. Available from: http://www.prolancer.com.au/.
- [3] Prolancer Pty Ltd, Total Recall VR Overview User Guide, 16.0, May 2017
- [4] Prolancer Pty Ltd, Total Recall VR Remote Manager User Guide, 16.0, May 2017

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1. Preface

1.1. Conventions

Our guides use several conventions to highlight certain words and phrases and draw attention to specific pieces of information.

1.1.1. Notes & Warnings

We use the following visual styles to draw attention to information that might otherwise be overlooked:



Notes are tips, shortcuts or alternative approaches to the task at hand. Ignoring a note should have no negative consequences, but you might miss out on a trick that makes your life easier.



Important boxes detail things that are easily missed: configuration changes that only apply to the current session, or services that need restarting before an update will apply. Ignoring the information will not cause data loss, but may cause irritation and frustration.



Warnings should not be ignored. Ignoring warnings will most likely cause data loss.

1.1.2. Typographic Conventions

We use typographic conventions to call attention to specific words and phrases. These conventions, and the circumstances they apply to, are as follows.

Example	Meaning
Select <u>Guide</u> to display	Locate the link named "Guide" on the screen, position the cursor over the link and then depress the appropriate mouse button to follow the link.
Select Add to create a new	Locate the button or menu item named "Add" on the screen, position the cursor over the button or menu item and then depress the appropriate mouse button to initiate an action.

Enter Commission	Locate the field named "Commission" on the screen, position the cursor over the field and then depress the appropriate mouse button to select the field. Once the cursor appears in the field, enter a value.
Choose <i>Country</i>	Locate the field named "Country" on the screen, position the cursor over the field and then depress the appropriate mouse button to display the available options. Then position the cursor over the desired option and depress the appropriate mouse button to select it.
Tick <i>Active User</i>	Locate the check box named "Active User" on the screen, position the cursor over the check box and depress the appropriate mouse button to place a visual tick in the box.
Un-tick <i>Active User</i> 	Locate the check box named "Active User" on the screen, position the cursor over the check box and depress the appropriate mouse button to remove the visual tick in the box.
Enter \$30.95	Enter "\$30.95" using the keys on your keyboard.

1.1.3. Procedures

We use numbered sequence of steps to define procedures for performing certain tasks. For example:

Procedure Title

- 1. This is the first step of the procedure.
- 2. This is the second step of the procedure.
 - a. This is the first sub-step of step 2.
 - b. This is the second sub-step of step 2.
- 3. This is step three.

1.2. We Need Feedback

If you find a typographical error in this guide, or if you have thought of a way to make this guide better, we would love to hear from you.

Please submit your feedback using the feedback form on our web site: <u>http://www.prolancer.com.au/contact/feedback</u>.

If you have a suggestion for improving the guide, then try to be as specific as possible when describing your suggestion. Otherwise, if you have found an error, please include the section number and some of the surrounding text so we can find it easily.

2. Introduction

2.1. About This Guide

This guide describes the Total Recall VR SNMP Agent. The SNMP Agent makes provisions for the management and monitoring of Total Recall VR with a Network Management System (NMS) that supports the Simple Network Management Protocol (SNMP).

The guide is intended for Total Recall VR systems and network administrators. It shows how to configure and enable the Total Recall VR SNMP Agent and how to interpret Total Recall VR events.

Please keep a copy of this guide handy for quick reference.

2.2. What is Total Recall VR?



Total Recall VR is a professional audio logging and call recording system which is selfcontained, fully featured and cost-effective. Enterprises and governments worldwide use it to create electronic records of many forms of audio communication including telephone, 2-way radio, broadcast radio, public address, room microphones and much more.

Total Recall VR is the ideal solution for:

- Recording business telephone conversations;
- Recording agent calls in contact centres;
- Logging emergency response communication;
- Logging business operations communication;
- Logging radio broadcasts;
- Logging public announcements;
- Creating audio records of meetings, legal proceedings, public enquiries and similar events; and
- Creating compliance records to meet duty of care and legal requirements.

Total Recall VR captures all audio in digital format and stores it in a proprietary, secure and tamper proof file format in its on-board hard drive storage. The file format preserves

the originality of the audio that it stores and has a number of built-in mechanisms that aid quick and reliable detection of tampering. However, for ease of access, Total Recall VR client applications can generate copies of recordings in a number of popular and everyday formats such as Microsoft's Wave (.wav) and MPEG Layer-3 (.mp3).

Storing audio by itself does not help when looking for one recording in a store that can hold hundreds of thousands of recordings. That is why, in addition to audio, Total Recall VR captures and then stores information related to each recording and audio source in its database such as start time, end time and duration of recordings, calling and called numbers on telephone calls, DTMF digits during calls, user configurable notes and much more. This information is the backbone of a powerful search capability which can pin point a single recording in a set of hundreds of thousands of recordings which reside either on the on-board hard drives of a Total Recall VR or in one of many types of offsystem archives of recordings.

In addition to the audio recorder and the on-board storage, each Total Recall VR system comes with a built-in media player with comprehensive player controls (start, stop, fast-forward, rewind ...). The player can play audio stored in files directly on the system or stream audio to a remote client application which then outputs the sound to the PC speakers of the PC that it runs on.

While audio recording, storage and re-play are the main functions of Total Recall VR, every Total Recall VR offers many more advanced, professional-grade features. For example:

- Ability to capture audio from different types of audio sources (analogue, VoIP, RoIP, AoIP and ISDN), at the same time hybrid recording.
- Live and real-time monitoring (listening) of recordings in progress on the system itself or on a remote PC with the aid of a PC client application.
- Feature-rich archiver which can create searchable archives of recordings on CD, DVD or BD discs, USB keys or drives and network drives, either automatically or on-demand.
- Automated self-cleaning mechanism that removes obsolete recordings automatically and on regular intervals to keep the system operating endlessly.
- Automated transcoder which compresses audio to free space on the on-board hard drives.
- SNMP agent capable of generating SNMP alarms (traps).
- SMDR integration for a number of popular PBXes.
- Fully internationalised user interface; all menus and software available in multiple languages.
- Role based access control.
- On-board LCD display and control keypad on selected models.
- A number of PC client applications with unrestricted use license.

When audio records are critical to your operations, Total Recall VR delivers. It is professional, reliable and fully self-contained solution for audio logging and call recording that comes at an affordable price.

The Total Recall VR Overview [1] guide contains a comprehensive description and overview of Total Recall VR.

2.3. What is an SNMP Agent?

It is beyond the scope of this manual to explain SNMP Agents in detail.

In summary, SNMP Agents expose management data on managed systems (Total Recall VR in this case) as variables which an NMS can access using the SNMP. In addition, SNMP Agents can send asynchronous notifications (a.k.a. traps) and/or acknowledged asynchronous notifications (a.k.a. inform messages) to an NMS.

The Total Recall VR SNMP Agent is compatible with SNMPv1, SNMPv2c and SNMPv3. It can generate SNMP v1 and v2c traps and inform messages.

3. Start Here

3.1. Total Recall VR MIB Files

The Total Recall VR MIB files are supplied on the software CD that is included in the box with your Total Recall VR system. The file is located in the MIB folder on the CD as shown on the subsequent screen capture.

- MIB							—	×
F Home Share View								^ 🔮
H S V Pin to Quick Copy Paste access		Move Copy to to to	New folder	Lusy access	Prope	Tties	Select none	
Clipboard		Organize		New		Open	Select	
\leftarrow \rightarrow \checkmark \uparrow \square \Rightarrow This PC \Rightarrow Re	movab	ele Disk (D:) > 10.10.0 > MIB				~ 0	Search MIB	Ą
Desktop '	^	Name ^		Date modified		Туре	Size	
Documents		PROLANCER-SMI.txt		11/12/2015 10:47	7	TXT File	3 KB	
🕂 Downloads		PROLANCER-TRVR-MIB.txt		11/12/2015 10:47	7	TXT File	10 KB	
b Music								
Pictures								
📑 Videos								
🛀 OS (C:)								
🛖 Removable Disk (D:)								
3rd-party								
10.10.0								
📕 JavaRmiApi								
Manuals								
📙 MIB								
RemoteManager								
RoDClient								
SupervisorClient	~							
2 items 2 items selected 11.9 KB								i== 🖿

Figure 1: Total Recall VR MIB Files Location on the Software CD

If you have misplaced the software CD that came with your Total Recall VR, then go to <u>http://www.totalrecallvr.com/downloads</u> to download the MIB files.

3.2. Total Recall VR Configuration

You must configure and enable the SNMP Agent in order to use it with your NMS. The configuration includes:

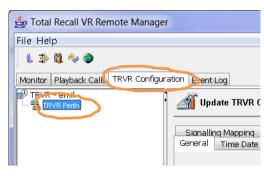
- SNMP Agent (use Remote Manager [4]).
- SNMP Traphost(s) (use Remote Manager [4]).
- Signalling Mapping and Internal Dial Plan (use Remote Manager [4]).
- Extension Event Policies (use Remote Manager [4]).

3.2.1. SNMP Agent

The SNMP Agent is disabled by default. To configure and enable the SNMP Agent:

Configure & Enable the SNMP Agent

1. Select the **TRVR Configuration** tab and select a Total Recall VR:



Note that you can only select a Total Recall VR if the connection icon is: 🗟. If the icon is: 🗟, then Remote Manager is not able to connect to the Total Recall VR.

2. Navigate to the **SNMP** tab:

👙 Total Recall VR Remote Manager				_ D X
File Help				
1, ⇒ 11 ↔ ⊗			January 2	26, 2013 2:47:21 PM
Monitor Playback Calls TRVR Configura	tion Event Log			
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	General Time Date Signalling Mapping	Call Network E Internal Dial Plan	tensions License Archive ROD A	Analoq VoIP ISDN gents PBX SNMP
	Enable SNMP			
	Agent Configura			
	IP Addres	S	192.168.130.101	
	UDP Port		161	
		Community		
	Read-writ	e Community		
	Traphosts			
	Traphost	Community	Trap Typ	e i
		Add Edit	Remove	
			Restore Previou	us Apply

- 3. Tick *Enable SNMP*.
- 4. Select *IP Address*. This will be the IP address that the SNMP Agent will use to communicate with your NMS.

If your Total Recall VR is a Classic Desktop, then you must select the IP address that is assigned to the LAN 1 interface.

We also recommend that you use the LAN 1 interface on other Total Recall VR models for SNMP communication as well. This allows use of the LAN 2 interface for recording VoIP calls.

- 5. Enter *UDP Port*. This is the UDP port that the SNMP Agent will use to communicate with your NMS. By default this is the standard SNMP port, 161.
- 6. Optionally, enter passwords for the read-only and the read-write communities in *Read-only Community* and *Read-write Community* respectively.

If you do, then make sure to use the correct password when configuring your NMS to talk to Total Recall VR.

For example:

👙 Total Recall VR Remote Manager		
File Help		
1, 🔿 🗱 🍫 🏈		January 26, 2013 2:59:34 PM
Monitor Playback Calls TRVR Configura	tion Event Log	
TRVR - emil	Jupdate TRVR Configuration	
	General Time Date Call Network	
	Signalling Mapping Internal Dial	Plan Archive ROD Agents PBX SNMP
	📝 Enable SNMP	
	Agent Configuration	
	IP Address	192.168.130.101 💌
	UDP Port	161
	Read-only Community	private
	Read-write Community	public
	Traphosts	
	Traphost Comm	unity Trap Type
	Add	Edit Remove
		Restore Previous Apply

7. Select **Apply** to update the SNMP Agent configuration and start the agent.

The SNMP Agent will now respond to your NMS if your NMS forwards SNMP queries to the IP address and port set in step 4 and 5 respectively. For example:

IReasoning MIB Browser			State of the local division of the local div	_ D X
File Edit Operations Tools Bookmarks	Help			
Address: 192.168.130.101 - Advanced OI	D: .1.3.6.1.2.1.1.1.0	▼ (Operations: Get	🔻 🌈 Go
SNMP MIBs	Result Table			
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sysDescr =				
sysObjectID sysUpTime				\mathcal{P}
sysContact				i i i i i i i i i i i i i i i i i i i
sysName				⊯
sysServices				
interfaces				
ip 🔽				
Name sysDescr OID .1.3.6.1.2.1.1.1				
MIB RFC1213-MIB				
Syntax DISPLAYSTRING (SIZE (0255)) Access read-only				
Status mandatory =				
DefVal Indexes				
Descr A textual description of the entity. Th				
should include the full name and versi- identification of the system's hardware				
software operating-system, and netwo				
software. It is mandatory that this on				
.iso.org.dod.internet.mgmt.mib-2.system.sysDescr.0				

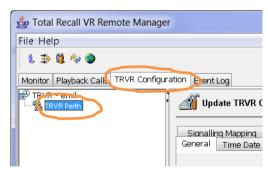
Figure 2: SNMP Agent Response to an SNMP Query

3.2.2. SNMP Traphost(s)

If you wish to receive SNMP events (traps and/or inform messages) from Total Recall VR, then you need to configure one or more traphosts.

Configure SNMP Traphosts

1. Select the **TRVR Configuration** tab and select a Total Recall VR:



Note that you can only select a Total Recall VR if the connection icon is: 🗟. If the icon is: 🗟, then Remote Manager is not able to connect to the Total Recall VR.

2. Navigate to the **SNMP** tab:

👙 Total Recall VR Remote Manager					
File Help					
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	Enable SNMP Agent Configuration				
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	UDP Port		161		
	Read-only Comm	unity	private		
	Read-write Comn	nunity	public		
	Traphosts				
	Traphost	Community		Trap Type	
		Add Edit	Remo	ve	
			Resto	re Previous	Apply

3. Select Add to display the Traphost Configuration dialog:

👙 Traphost Configuration								
Traphost 192.168.120.63								
Community								
Trap Type SNMP V2c Inform 💌								
OK Cancel								

4. Enter *Traphost*. The format of the value can be:

[<transport>:]<ip address>[:<port>]

For example:

• 192.168.3.186

Specifies a traphost at IP address 192.168.3.186 which expects SNMP communication on port 162 via UDP.

• tcp:192.168.3.186

Specifies a traphost at IP address 192.168.3.186 which expects SNMP communication on port 162 via TCP.

• udp:192.168.3.186:162

Specifies a traphost at IP address 192.168.3.186 which expects SNMP communication on port 162 via UDP.

- 5. Optionally, enter *Community* for SNMP v1 and v2c transactions (tarps).
- 6. Select *Trap Type* based on what is expected by the traphost.
- 7. Select **OK** to add the traphost to the list. Remote Manager does not update the configuration of the Total Recall VR at this stage.
- 8. Optionally, repeat steps 3 to 7 to add additional tarphosts.
- 9. Select **Apply** to update the SNMP Agent configuration.

This will also re-start the agent which will result in events to the traphosts. For example:

File Ed	dit Operations Tools Bookma	rks I	Help				
Address: 1	192.168.130.101 • Advanced	OID:	.1.3.6.1.4.1	.31448.1.1.1.1.0	 Opera 	ations: Get	🔻 🌈 Go
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Figure 3: Traps Generated by Total Recall VR

3.2.3. Signalling Mapping & Internal Dial Plan

The Total Recall VR Remote Manager User Guide [4] explains the concept of Total Recall VR Extensions. In addition it explain how Total Recall VR uses its configuration (in particular Signalling Mapping and Internal Dial Plan) to classify identifiers for the source and the destination of recordings as Total Recall VR Extensions.

Total Recall VR Extensions are fundamental to extension events. If a recording is not assigned a Total Recall VR Extension, then extension events will not be generated.

Consequently, it is important to configure Signalling Mapping and Internal Dial Plan correctly. For details on how see the Total Recall VR Remote Manager User Guide [4].

3.2.4. Extension Event Policies

Total Recall VR can generate one or all of the following extension specific events in the form of an Event Log entry and an SNMP trap:

- 1. Call Start Event every time when recording starts on a specified extension.
- 2. Call End Event every time when recording ends on a specified extension.
- 3. Quiet Extension when there is a lack of activity (new recordings) on a specified extension for a specified period of time.

The extension event policies define what events, if any, to generate for specific extensions. By default, Total Recall VR does not generate any extension events.

To enable extension events you must create one or more extension event policies:

Create Extension Event Policy

1. Select the **TRVR Configuration** tab and select a Total Recall VR:

👙 Total Recall VR Rei	mote Manager								
File Help 1 → 1 → 1 → 0 → 0 →									
TPUR emil	Update TRVR C								

Note that you can only select a Total Recall VR if the connection icon is: 🗟. If the icon is: 🗟, then Remote Manager is not able to connect to the Total Recall VR.

2. Navigate to the **Extension** tab and select the **Event Policies** tab:

👙 Total Recall VR Remote Manager				-	- D X
File Help					
1. ⇒ 11. 🗇 🎯				January 26	6, 2013 3:24:48 PM
Monitor Playback Calls TRVR Configurati	on Event Log				
TRVR - emil	🎒 Update TR	VR Configuratio	n		
	Signalling Mapp General Time I Recording Policie	Date Call Netv s Event Policies			nts PBX SNMP nalog VoIP ISDN
	Extension Even				
	Extension	Call Start Event	Call End Event	Quiet Extensi	Quiet Extensi
	2000	Enabled	Enabled	Enabled	1
		Add	Edit	emove	
			F	Restore Previous	Apply

3. Select **Add** to display the Extension Event Policy dialog:

dd Extension Eve	ent Policy
Extension	2001
Call Start Event	
Call End Event	
Quiet Extension Event	✓
Quiet Extension Period	60
ОК	Cancel

4. Enter *Extension*.

This can be a specific Total Recall VR Extension as determined by Total Recall VR.

Or, it can be a regular expression which matches one or more Total Recall VR Extension as determined by Total Recall VR. For example: 21[0-9]{2} will match extensions 2100 to 2199.

- 5. Optionally, tick *Call Start Event* if you wish to receive an event every time recording start for the specified extension.
- 6. Optionally, tick *Call End Event* if you wish to receive an event every time recording ends for the specified extension.

- 7. Optionally, tick *Quiet Extension Event* if you wish to receive an event if new recordings are not detected on the specified extension for a specified period of time.
- 8. If you tick *Quiet Extension Event*, then enter *Quiet Extension Period* (in minutes).
- 9. Select **OK** to add the policy to the list of policies. Remote Manager does not actually update the configuration of the Total Recall VR at this stage. It only remembers the new policy.
- 10. Optionally, repeat steps 3 to 9 to create additional policies.
- 11. Select **Apply** to update the configuration of the Total Recall VR.

The new or amended policies become active immediately. Events will be sent to SNMP traphosts, if configured. For example:

🚯 iReasoning MIB Browser				
File Edit Operations Tools Bookmarks Help				
Address: 192.168.130.101	.1.3.6.1.4.1.31448.1.1.1.1.0	▼ Operations: Get ▼ 🔗 Go		
SNMP MIBs	Result Table Trap Receiver ×			
MIB Tree iso.org.dod.internet	Operations Tools			
🚊 📙 mgmt	🔊 🔇 🎦 🏹			
ia ib-2 ia ib-2 ia ib-ia system	Description	Source Time Severity		
sysObjectID	trapOID: .iso.org.dod.internet.private.enterprises.prolanc			
sysUpTime	trapOID: .iso.org.dod.internet.private.enterprises.prolanc			
SysContact ≡	trapOID: .iso.org.dod.internet.private.enterprises.prolanc trapOID: .iso.org.dod.internet.private.enterprises.prolanc			
sysLocation		192.168.130 2013-01-26 15		
sysServices				
⊕- <mark>u</mark> at ⊕-bip	A.Y.			
🖶 🚡 icmp		7 minutes 11 seconds SNMP Version: 2		
tcp ⊕ • • • • • • • • • • • • • • • • • • •	Trap OID: .iso.org.dod.internet.private.enterprises.prolan Variable Bindings:	cer.prolancerModules.trvrMIB.trNotifications.quietExt		
🖶 🗓 egp	variable bindings:			
Name sysDescr	Name: .iso.org.dod.internet.mgmt.mib-2.system.syst			
OID .1.3.6.1.2.1.1.1	Value: [TimeTicks] 17 minutes 11 seconds (103165)	/		
MIB RFC1213-MIB Syntax DISPLAYSTRING (SIZE (0255))	Name: snmpTrapOID			
Access read-only Status mandatory	Value: [OID] quietExtension			
DefVal	Name: .iso.org.dod.internet.mgmt.mib-2.system.sys1	Name.0		
Indexes Descr A textual description of the entity. Th	Value: [OctetString] Unknown			
should include the full name and versit	Name: .iso.org.dod.internet.mgmt.mib-2.system.sysI	Location.0		
identification of the system's hardware software operating-system, and netwo	Value: [OctetString] Unknown			
software. It is mandatory that this onl printable ASCII characters.				
printable ASCII characters.	Value: [OctetString] 2000	. ,		
	Description: "The system detected lack of activity (new ca	ulls) on the specified extension."		
	< III	4		
.iso.org.dod.internet.private.enterprises.prolancer.Modules.trvrMIB.trObjects.trNoticeArgs.0				

Figure 4: Extension Event as Received by a Traphost

In addition, extension events appear in the Total Recall VR log. For example:

불 Total Recall VR	Remote Manager	X
File Help		
1, 🖆 🗓 🍫 🏈	January 26, 2013 3:36:0	05 PM
	Calls TRVR Configuration Event Log	
TRVR - emil	Event Log	
G C Log	2013-01-26 15:23:26,059 INFO RMI TCP Connection(19)-192.168.120.63 - ExtensionEventNotifier (re)configuring. 2013-01-26 15:23:07,278 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:23:07,278 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:23:07,278 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:27:07,278 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:27:52,388 INFO Transcoder Timer - Namecoding started. 2013-01-26 15:27:52,389 INFO Transcoder Timer - Namecoding started. 2013-01-26 15:27:52,989 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:27:52,989 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:29:09,728 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:30:07,381 WARN Extension Event Notifier Worker - The system detected lack of activity (new calls) on the specified extension - 2000 2013-01-26 15:30:27,368 INFO RMI TCP Connection(19)-192.168.120.63 - Remote user emil updating ExtensionConfiguration 2013-01-26 15:30:27,368 INFO RMI TCP Connection(19)-192.168.120.63 - Writing settings to ./tmp/xmi/ExtensionConfiguration 2013-01-26 15:30:27,368 INFO RMI TCP Connection(19)-192.168.120.63 - Writing settings to ./tmp/xmi/ExtensionConfiguration.xml 2013-01-26 15:30:27,368 INFO RMI TCP Connection(19)-192.168.120.63 - ExtensionEventNotifier (re)configuring. 2013-01-26 15:30:27,368 INFO RMI TCP Connection(19)-192.168.120.63 - ExtensionEventNotifier (re)configuring. 2013-01-26 15:30:27,378 INFO RMI TCP Connection(1	•

Figure 5: Extension Event in the System Log

4. Total Recall VR Events

4.1. Event Types

Total Recall VR can generate 3 types of events as SNMP v1 and v2c traps:

Information

Information events are standard system events and do not require any further action.

🖄 Warnings

Warnings are events that may indicate possible future problems, and should be investigated – for example, failure to archive and power failures.

🔇 Errors

Errors are events that must be investigated immediately, such as database rebuild failures and hardware issues.

The PROLANCER-TRVR-MIB contains the SNMP object identifiers (OIDs) for all traps. In general the root of all trap OIDs is "PROLANCER-TRVR-MIB::trNotifications" or .1.3.6.1.4.1.31448.1.1

In addition to the traps that are defined in the PROLANCER-TRVR-MIB, the SNMP Agent generates a SNMPv2-MIB::coldStart trap on start-up and a NET-SNMP-AGENT-MIB:nsNotifyShutdown on shutdown.

Event	Туре	Description	Suggested Action
RECORDER_INIT	٩	The system is initialising and preparing for normal operation.	
RECORDER_FINI	٩	The system is shutting down. Recording ceased and the system is preparing to power down.	
START_RECORDING	٩	The system is now recording.	
STOP_RECORDING	4	The system stopped recording. This can be due a recovery operation (such as database rebuilding) or due to recording period configuration.	
PURGING_STALE	٩	The system is removing recordings, which are older than the lifetime specified in the configuration, to free disk and/or database space.	
PURGING_LOCKED	⚠	The system is removing LOCKED recordings to free disk and/or database space.	If necessary, review your locking strategy and train users to lock recordings only when needed.
PURGING_UNLOCKED	٩	The system is removing unlocked recordings to free disk and/or database space.	
QUICK_REBUILD	۸	The system is performing a quick check of the database after a dirty shutdown.	Wait for the activity to complete. If normal activity does not commence after the check, attempt a full rebuild of the database.
FULL_REBUILD		The system is rebuilding its	Wait for the activity to

4.2. Event Table

Event	Туре	Description	Suggested Action
		database. This activity may take some time. Recording is not possible while the activity is in progress.	complete. If normal operation does not commence after the rebuild, you may need to replace the disks.
DB_CORRUPT	8	The system database is corrupt or in a state which prevents normal operation.	Attempt a full rebuild of the database. If that fails, you may need to service the system.
START_ARCHIVE	٩	The system started a new archiving session.	
STOP_ARCHIVE	٩	The system completed an archiving session.	
ARCHIVE_REMINDER	⚠	The hard disk occupancy has reached a level (set in the system configuration) which triggers a reminder to archive recordings.	Perform a manual archive.
MEDIA_FULL	⚠	The system attempted to archive recordings onto a disc; however, it found that the disc in the disc drive is full.	Insert a new disc in the disc drive.
MEDIA_BAD	⚠	The system attempted to archive recordings onto a disc; however, it detected an unsupported media or media that has problems.	Replace the disc in the disc drive.
SHARE_FULL	A	The system attempted to archive recordings onto a Network Share; however, it found that there is no free disk space on the share.	Free up space on the share, or configure a new share.
SHARE_ACCESS	⚠	The system attempted to archive recordings onto a Network Share; however, it found that cannot connect to the share, or it cannot write to the share.	Check the configuration on the system and the share make sure that the share allows the system write access.
FILTER_REMINDER		It is time to clean or replace the air intake filter.	Clean or replace the air filter to prevent overheating.
LICENSE_EXPIRED		The channel license has expired.	Renew your channel license.
NO_CHANNEL	⚠	The system is not able to start a new recording because all recorder channels are busy.	Review the channel capacity and/or purchase a license for more channels.
LONG_CALL	♪	The system stopped recording a VoIP call because it exceeded the maximum call duration specified in the configuration.	Increase the maximum call duration and/or make sure that there are no networking problems which prevent the recorder from "seeing" all VoIP signalling messages.
CALL_START	4	Recording started on the specified extension. The trap carries the extension number in the PROLANCER-TRVR- MIB::trObject::trNoticeArgs element.	
CALL_END	٩	Recording ended on the specified extension. The trap carries the extension number in the PROLANCER-TRVR- MIB::trObject::trNoticeArgs	

Event	Туре	Description	Suggested Action
		element.	
QUIET_EXTENSION	♪	The system detected lack of activity (new calls) on the specified extension for a configured period of time. The trap carries the extension number in the PROLANCER-TRVR- MIB::trObject::trNoticeArgs element.	
USB_ACCESS	A	The system attempted to archive recordings onto a USB stick or disk drive; however, it found that cannot mount the device, or it cannot write to the device.	Check the USB stick or disk drive.
USB_FULL	⚠	The system attempted to archive recordings onto a USB stick or disk drive; however, it found that there is no free disk space on it.	Free up space on the USB disk, or attach a new USB stick or disk drive.
USB_RESERVED_DIRNA ME	٩	The system attempted to archive recordings onto a USB stick or disk drive; however, it found that there is a file with the same name as the name for the directory that is used to create system archives.	Remove the file or directory named "trvr-archive" from the USB stick or disk drive
PURGING_ARCHIVED	Â	The system is removing recordings after completing an archive.	This may be desired behaviour as users can opt to remove recordings after archiving them. If it is not, then review your archiving practices.

5. Glossary

Our guides use certain terms and abbreviations.

5.1.1. Terms

Extensions

Extensions are a Total Recall VR concept that helps identify the source and the destination of recordings. Extensions can be numbers or any free format text. For example calling and called numbers can be classified as extensions if they match an entry in the Internal Dial Plan.

Extension Mapping

Extension mapping is a process used by the Total Recall VR to convert raw identifies of sources and destinations of recordings to user friendly identifiers. For example, when recording VoIP calls the 'From' and 'To' identifiers may be rather cryptic, say 'ext122@sip.myenterprise.com'. The extension mapping process can convert this identifier to '122' or 'Extension 122'.

Remote Manager

A powerful JavaTM based client application for Total Recall VR systems. It installs on WindowsTM PCs and can be used to securely configure and manage multiple Total Recall VR systems over a TCP/IP network. In addition, it can be used to monitor recordings in progress in real time as well as search for and then play past recordings.

Total Recall VR

The system that is the subject of this manual.

5.1.2. Abbreviations



Most definitions courtesy of "Wikipedia, the free encyclopaedia".

IP: Internet Protocol

A data-oriented protocol used for communicating data across a packet-switched internetwork.

IP is a network layer protocol in the internet protocol suite and is encapsulated in a data link layer protocol (e.g., Ethernet). As a lower layer protocol, IP provides the service of communicable unique global addressing amongst computers.

LAN: Local Area Network

A computer network covering a small geographic area, like a home, office, or group of buildings.

NMS: Network management System

A combination of hardware and software used to monitor and administer a computer network or networks.

SNMP: Simple Network Management Protocol

The Internet-standard protocol for managing devices on IP networks. It is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

TCP: Transmission Control Protocol

One of the core protocols of the Internet protocol suite, often simply referred to as TCP/IP. Using TCP, applications on networked hosts can create connections to one another, over which they can exchange streams of data using Stream Sockets.

TRVR: Total Recall VR

A professional voice logging and call recording system.

UDP: User Datagram Protocol

UDP is one of the core protocols of the Internet protocol suite. Using UDP, programs on networked computers can send short messages sometimes known as datagrams (using Datagram Sockets) to one another. UDP is sometimes called the Universal Datagram Protocol.

[End of Document]