



## Total Recall VoIP Recording Solutions

### Introduction

In an increasingly security conscious, litigious and results driven world, communications recording is vital to meeting your duty of care, management and legal requirements. Enterprises worldwide are seeking professional, fully featured VoIP recording solutions that are both efficient to use and won't break the ICT budget.

Total Recall has the total solution to your problem.



Our Linux based call recording servers offer the highest degree of performance, flexibility and reliability, taking advantage of the latest developments in computer technology to deliver a powerful enterprise call recording solution.

Unlike other solutions, Total Recall includes all functionality and features as standard<sup>1</sup>, meaning that there are no hidden costs or nasty surprises. All PC software is included license free, allowing you to extend the benefits and functionality of Total Recall VoIP solution to more people in your enterprise without any added expense. A wide range of channel licensing options are available to match your budget and individual recording requirements.

Are you looking to record IP communications in multiple offices? Take advantage of our 'Traffic Collectors' (Total Recall Recording Agents), which can be installed in satellite offices to feed VoIP traffic back to the Total Recall server in the main office via an existing LAN/WAN, eliminating the need for multiple recorders. Minimum server footprints mean that your Total Recall solution can be located almost anywhere in your office environment. Multiple recorders can be installed across your offices, with centralised monitoring, search and management of all your solutions made possible from one PC using the supplied Remote Manager software.

---

<sup>1</sup> Custom designed solutions are available, and may incur additional charges.

## Total Recall VoIP Recording Solutions:

### Total Recall Max



Total Recall Max is the premium VoIP call recording solution for enterprise-critical applications. Mirrored hard-drive storage and a hot-swap power supply are standard features, ensuring the integrity of your recording solution in the most demanding conditions. Total Recall Max utilises the latest Intel Core 2 Duo processors, for maximum speed and reliability.

The built-in LCD and keypad allows users to control most functions right at the server if required – although if server rooms aren't your favourite place to work then all functions can be set up with the included Remote Manager software from your PC.

Total Recall Max will record a maximum of 60 SIP VoIP channels simultaneously. For greater capacity and redundancy you can monitor, search and manage multiple Total Recall Max units with the supplied Remote Manager software.

### Total Recall Desktop Server

Are you looking at a smaller capacity VoIP call recording requirement? If space is an issue for your application, or you don't require the high levels of hardware redundancy featured in Total Recall Max, then our Desktop Server may be the product for you.



Total Recall Desktop Server will record up to 30 simultaneous SIP VoIP calls on its mirrored 200 GB hard drives, and offers all the search, monitoring and archiving features included with Total Recall Max.

### Total Recall Custom Servers

For high-capacity or unusual VoIP call recording applications we can create a customised server to meet your needs. Our custom designs are based on Sun Microsystems © servers, to ensure the performance and quality of your recording solution, as well as offering the peace of mind that arises from worldwide hardware servicing and support. [Contact us](#) for more information on our unique customised solutions.

## Total Recall VoIP Recording – Product Features

| Product →                            | Total Recall Max       | TR Desktop Server       | TR Custom Server   |
|--------------------------------------|------------------------|-------------------------|--------------------|
| Feature ↓                            |                        |                         |                    |
| Built in TFT Screen                  | ✓                      | ✗                       | ✗                  |
| Built in Keyboard                    | ✓                      | ✗                       | ✗                  |
| SIP VoIP Support                     | ✓                      | ✓                       | ✓                  |
| Analog Support                       | ✓                      | ✗                       | ✗                  |
| PRI ISDN Support                     | ✓                      | ✓                       | ✗                  |
| Maximum Channel Capacity             | 60ch SIP VoIP          | 30ch SIP VoIP           | Solution Dependant |
| Processor & Memory                   | Core 2 Duo 2.4GHz, 1GB | Core 2 Duo 2.4GHz, 1 GB | Solution Dependant |
| Remote Manager Provided License Free | ✓                      | ✓                       | ✓                  |
| ROD Support                          | ✓                      | ✓                       | ✓                  |
| Hot Swap Power Supply                | ✓                      | ✗                       | Solution Dependant |
| Mirrored Hard Drives                 | ✓                      | ✓                       | ✓                  |
| Network Archiving                    | ✓                      | ✓                       | ✓                  |
| Network Time Synchronisation         | ✓                      | ✓                       | ✓                  |
| DVD/CD Archiving                     | ✓                      | ✓                       | ✓                  |
| USB Backup                           | Pending                | Pending                 | Pending            |

### VoIP Specifications

*Interface* - SIP protocol (as per RFC3261<sup>2</sup>)

*DTMF* - RFC 2976 – SIP INFO, RFC 2833 – RTP Telephony Event

*Media* - RTP protocol as per RFC 3550, Dual Jitter Buffer

*Codecs* - G.711a, G.711u. Codec change mid-session supported

*Operational Requirements* - Silence suppression must be disabled, Media encryption must be disabled, and Signaling encryption must be disabled

*Supported SIP Services*<sup>3</sup> - Call Hold, Consultation Hold, Music on Hold, Unattended Transfer, Attended Transfer, Call Forward Unconditional, Call Forward on Busy, Call Forward on No Answer, 3-way Conference Add Party, 3-way Conference Party Joins, Find Me, Call Park, Call Pickup, Automatic Redial, Click to Dial.

### Hardware Configuration

*Processor* – Intel Core 2 Duo, 2.40 GHz (*TR Max and Desktop Server*)

*Display & Controls* – 130mm x 97mm TFT LCD. Custom Keypad Built-In (*TR Max*)

*Onboard Storage* – Mirrored, Hot Swap Seagate 200GB SATA HDD. Up to 500,000 Calls.

*Archive Drive* – Sony DVD/CD Drive

*Power* – Dual Hot Swap PSU, 320 + 320 Watts (*TR Max*)

*Network/VoIP Interface* – 2 x 8P8C RJ45 Network Ports

*CTI Interface (Optional)* – RS232 Socket

<sup>2</sup> For more information see <http://rfc.net/rfc3261.html>

<sup>3</sup> Multiple recordings may be generated for what is a single call scenario

## Software / Operating System



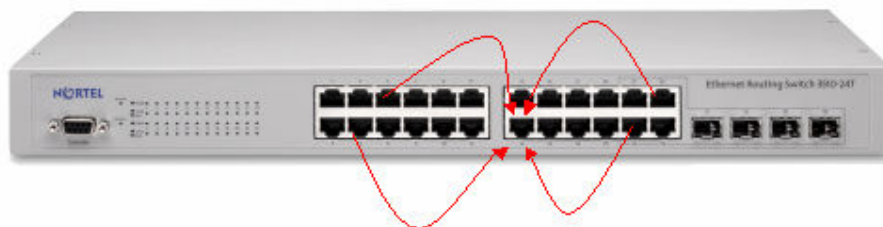
Onboard O/S – Linux Fedora Core 5

Onboard Software – Proprietary Total Recall Server Software

PC Client Software – Remote Manager (Windows 95/98/NT/2K/Me/XP). Supplied license free.

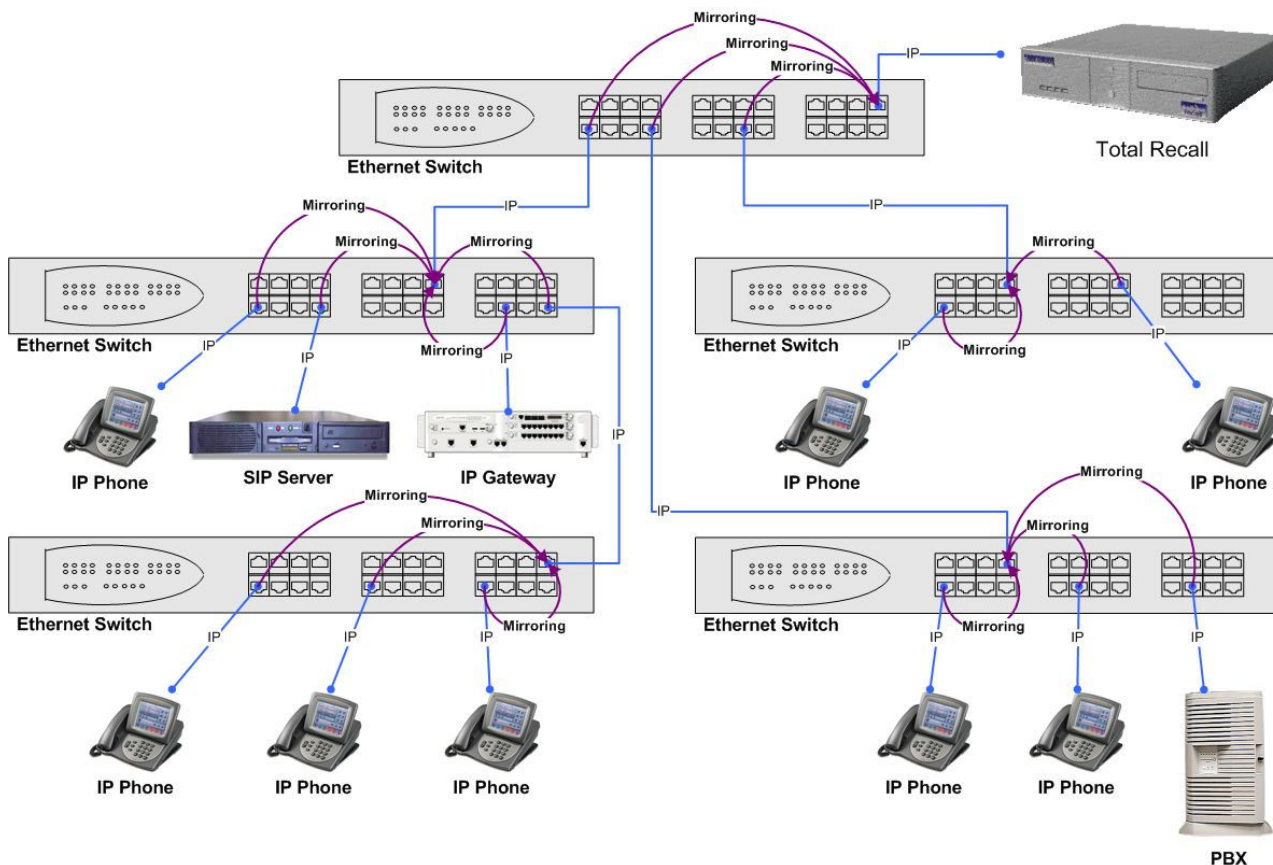
## Connecting Your Total Recall VoIP Solution

### VoIP Connectivity Diagram 1 – Port Mirroring

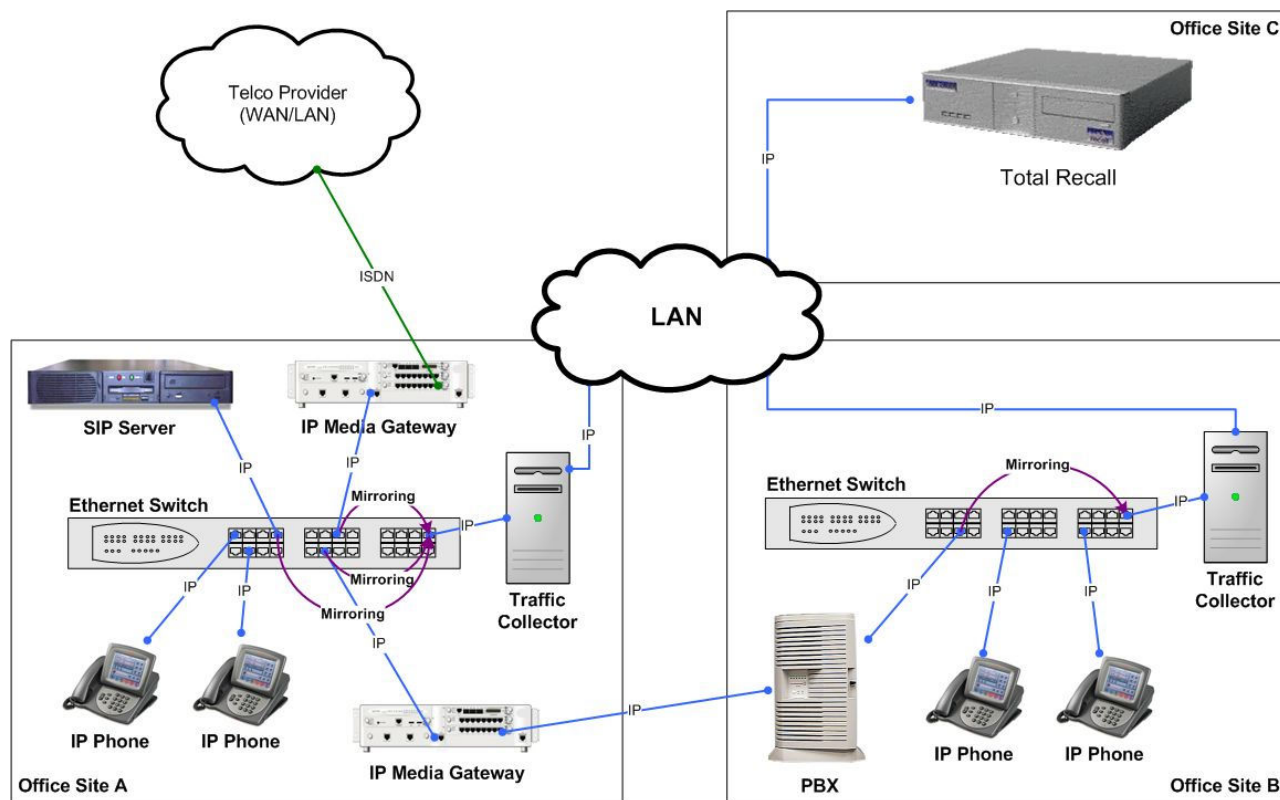


In a VOIP telephony network, voice and signalling are sent over the network in packets. Total Recall needs to be able to “see” these packets so that it can record the conversions. ‘Port Mirroring’ refers to configuring a network switch so that it will copy traffic from one or more of its ports to a ‘mirror port’. Total Recall also attaches to this mirror port in order to ‘see’, record and database SIP VoIP calls. Please note that not all switches support port mirroring, although there are alternatives, e.g. non-switched hubs & multi-port Ethernet repeaters.

Port Mirroring can be cascaded:



## VoIP Connectivity Diagram 2 – Multi-Site ‘Traffic Collector’ Scenario

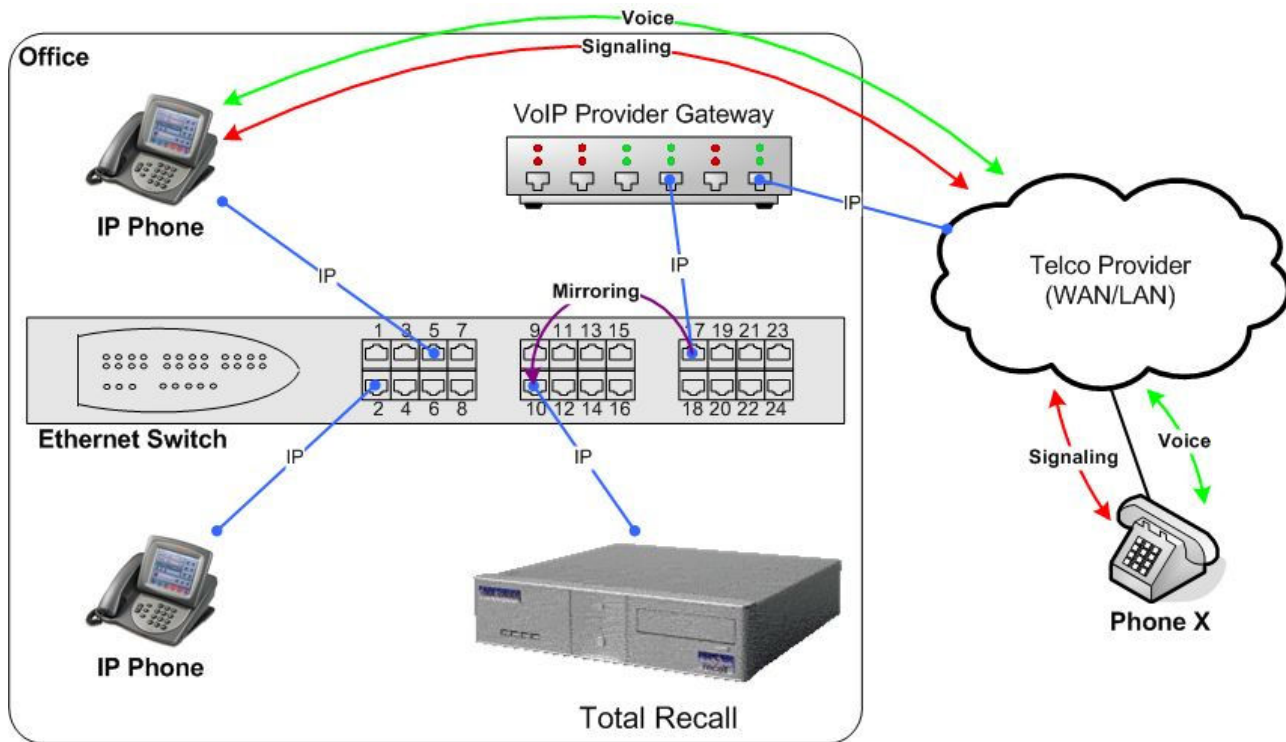


Assuming that a given network environment has the necessary available bandwidth, Total Recall can be used in conjunction with a small ‘Traffic Collector’ server to record VoIP traffic from multiple locations on one central Total Recall server. Users have the advantage of only requiring one TR Server, along with one inexpensive Traffic Collector Server per recording location. This minimises the capital expenditure required, while still providing a high quality, reliable and flexible VoIP call recording solution.

If network bandwidth is a problem for the client, it is recommended that they install one Total Recall Max server per recording location.

If your client has a multi-site VoIP telephony environment, and may benefit from a combined Total Recall / Traffic Collector call recording system, please [contact us](#) for more information.

**VoIP Connectivity Diagram 3 – Recording a Hosted VoIP PBX with Total Recall**



In this scenario, the client is utilising a hosted VoIP PBX service, a method of call service provision that is becoming increasingly popular. Total Recall can record VoIP traffic in this situation by having the call information mirrored from the VoIP provider gateway to a 'Total Recall' port on the Ethernet switch.

Total Recall SIP VoIP recording solutions rely on being able to 'see' voice and data packets on the network in order to store and database the clients calls. As long as there is a method of mirroring this data to the same Ethernet port as Total Recall, the system should be able to record it.

If you have a unique VoIP recording application then please contact us with your specific requirement; our product development is ongoing, and our software design and development team can tailor a solution that matches your needs exactly.

Do you have Total Recall?



**Total Recall Call Recording Solutions**

[www.totalrecallvr.com](http://www.totalrecallvr.com)

Unit 5/7 Millennium Court  
Silverwater 2128, NSW,  
Australia

Ph: +612 9748 2304  
Fax: +612 9748 2604  
Email: [sales@totalrecallvr.com](mailto:sales@totalrecallvr.com)