

## Simpler, Smarter Voice Recording

For organisations requiring secure, accurate and clear records of their communications, whether it be for mission critical evidence, comply with legal or company legislation, to protect against fraud, provide support for customers and employees, or for the management of quality and performance. You need a solution that can deliver against all of your infrastructure and organisational requirements. Delivering what you need, in a reliable, easy to manage and cost effective package

That is why Red Box Recorders has redefined the standard for voice recording through its smart and simple technology and services.



The Red Box Recording solution offers a software based set of products delivering voice and screen recording, audio analytics and quality / performance management applications. Based around the Red Box voice recording software that can be installed onto a customers own hardware within minutes, delivering the world's most powerful converged (TDM & VoIP) voice recording solution available on the market today. With options for software only delivery for pure IP solutions through to software kits including software and line interface cards for mixed or TDM solutions on customers own hardware, through to complete turn key systems utilising Red Box Recorders specifically selected servers. Add to this our expert engineering and professional services teams, both direct and via our selected partners, to deliver a total service to meet the demands of your organisation globally.

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With specifically developed technology to make the recording of audio and data easy, whether from traditional telephony (TDM) interfaces through to IP (VoIP) and custom data feeds, the solution offers secure, resilient, and totally portable records of all audio and associated data, to an embedded recording engine. Meaning total recording of all attributes of all communications, in a single easily managed system with no ongoing administration or support needs.

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### Real Life Scalability & Convergence

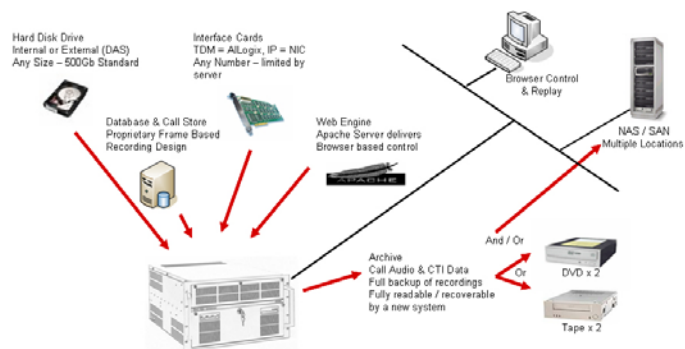
The Red Box Recorder not only offers a single software that records, stores, archives and delivers replay for 4 to 500 concurrent recordings (from mixed devices), it supports local storage, network storage and archiving plus the ability for up to 50 concurrent users to access and replay calls from a secure web based interface. This is not only the most powerful, resilient and reliable product available on the market, it will also deliver the lowest cost of ownership available when compared with other competitive solutions. Not to mention the power, heat and other environmental reductions derived from a single server delivering a total solution!



**Need a solution with more than 500 channels, multiple locations or distributed architecture?**

**Perhaps utilising the solution as a centralised or hosted solution?**

The Red Box recorder can be scaled to over a quarter of a million concurrent recording sessions by adding additional servers, as hardware and capacity require. Delivering a centralised virtual single solution for replay of all calls. With high powerful and flexible recording and archive functionality to meet compliance, disclosure and freedom of information requirements as well as delivering the ability to limit liability by offering automated deletion of records once they meet a predefined age, all configurable by group and storage location. The Red Box Recorders scalability is extensive with simplicity of architecture, management and ease of deployment, it is not only a powerful operational tool, it makes the IT and infrastructure teams job easy and a safe decision.



### Connectivity For Now And The Future

The Red Box recording solution offers connectivity to telephony and radio devices for a wide range of conventional and IP based systems, a selection of the supported systems are listed below. Red Box Recorders are constantly adding to their connectivity and integration so please contact your local representative for the latest up-dates

#### Telephony:

- Analogue Telephony
- Digital Extensions
- ISDN Basic Rate
- ISDN Primary Rate (E1)
- TI (DS1)
- PCM30
- PCM32
- VoIP SIP
- VoIP 3Com NBX (Layer 2 and 3)
- VoIP 3Com VCX
- VoIP Cisco
- VoIP Siemens
- VoIP Avaya
- VoIP Mitel
- VoIP Alcatel
- VoIP Splice COM
- VoIP Ericsson
- VoIP NorTel
- VoIP Panasonic
- VoIP NEC

#### Radio:

- Analogue
- TETRA
- TETRAPOL
- Airwave
- Motorola (Smartnet, SmartZone)
- OTE (Marconi & Ericsson)
- P31
- M/A-COM
- Rohde & Schwarz.
- IP

Recording capacity for one recording server (assuming 8 PCI / PCI-x Slots):

- 256 to 500 channels of VoIP (simultaneous recordings)
- 480 channels of E1 ISDN
- 512 channels of PCM32
- 192 channels of Digital or Analogue connectivity
- 256 channels of mixed (TDM & VoIP) inputs limited by hardware PCI / PCI-x slot capacity

### Storing Communications - Secure, Resilient and Centralised

The voice recorder will initially store voice recordings to the recording servers hard disk drive. From here recordings can be archived to multiple locations depending on the organisations requirements. Archive media recorded on one recorder / device, can be replayed on any other recorder (subject to security permissions) providing security and resilience of data across the enterprise. Each recording server can have up to two devices of the same type or can archive to multiple network locations concurrently. Add to this the ability to archive different groups of recordings to different archive locations for a totally flexible solution.

## Local devices:

- DVD – 9.4GB DVD RAM
- VXA Tape – 80GB linear metal tape
- Directly connected device (USB HDD, SCSI HDD / Array, etc.)
- A media label printer is available to print professionally indexed and sized labels to clearly identify media.

## Local archive devices can be used in the following modes:

- Single drive – one drive fitted or the second drive used specifically for replay / standby
- Sequential – drive one fills followed by drive two offering maximum unattended operation.
- Parallel – both drives are written to at the same time creating two identical copies, for resilience and duplication for off site storage etc.

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## Network Devices:

- Network Attached Storage
- Storage Area Network
- Any network mountable device can be written to by the archive process offering archives that contain all audio and meta data, in a secure red box recorders encrypted and authenticated frame file.

The Red Box Recorder offers digitised voice recording utilising uncompressed 64kbit/s for optimized audio quality or G729a, 8kbit/s offering high quality compressed audio. This can offer in excess of 122,000 channel hours of storage from a 500GB hard disk drive, providing a real life online storage in excess of 2 years, for a system of 120 channels with 5% total utilisation.

## Replay and Applications

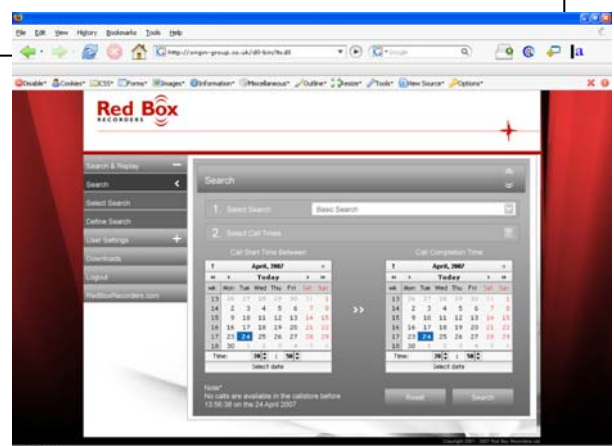
Each recording server can support up to 50 concurrent replay sessions. As standard, replay is provided via an intuitive and simple browser based interface. Calls can be replayed from any device, HDD or network location available to the system. Offline media can be loaded into any recorder or MediaServer to offer replay of calls stored on tape, DVD or network storage location.

Calls can be found using any combination of search criteria that is stored against a call. This will be dictated by the interface type and the level of integration to the telephony (or radio) system. Search criterion can include: extension, other party, CLI, date, time, annotations and duration as standard with the additional of other information such as Agent ID, Collar Number, Radio ID, Talk Group, etc through specific switch or radio integrations.

Replay can be routed direct to the users PC speakers / headset or via an optional Replay-to-Phone server, delivering replay direct to a direct dial extension, mobile phone or digital radio handset. This offers flexibility and mobility to the distribution of recordings, offering instant information to field operatives and remote workers.

## The browser based replay interface offers:

- Call Details display
- Simple easy to use CD player style controls
- Pitch corrected variable speed replay
- Loop replay
- Stereo replay
- Spoken time
- Export as WAV file
- Export as email
- Annotation of calls



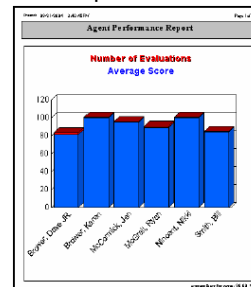


### MURAL Event Reconstruction

Red Box Recorders also offer a multiple channel replay application offering users the ability to select and sort through communications to locate the correct communications from multiple devices and sources, to correlate a single event reconstruction. The application offers multiple file output formats and functionality to make the process fast and efficient.

### Virtual Observer Quality & Performance Management

The Red Box Recorders Virtual Observer solution offers organisations the ability to assess, report and offer feedback and make management decisions based on qualitative evaluation of the organisations interactions. The system includes the ability to rapidly create customised forms, automatically select samples of calls, conduct assessments, analyse trends in quality and create scheduled (automated and custom) reports for management information and distribution. Supervisors' can put together electronic packages of information and coaching for distribution to staff, as well as live monitor audio and screens. This is a complete package to compliment voice recording and extending the benefits of Red Box Recorders throughout an organisation



### Audio Analytics for Automated Investigation and Assessment

Red Box recorders audio analytics offers customers the ability to set up profiles of phonetic criterion, on which the system can monitor all communications in near time or as a historical search. The analytics engine will deliver all recordings that match the selected criterion as a weighted listing of calls for review or assessment. This highly successful technology adds additional depth and insight into communications that can be useful in all markets from Police investigations through to marketing campaigns.

### System Requirements & Specifications

The following requirements are a minimum and any specification exceeding this will optimise the voice recorders operation:

- Microsoft Windows XP Professional operating system or Microsoft Windows 2003 Server
- 2.8GHz Intel Pentium 4 processor
- 1GB RAM
- 300 GB HDD
- AC PSU 110/230V (50 to 60Hz)
- Dual 10/100MHz Network Interface
- 2 x USB (1 x internal preferred)

The Red Box Recorder 'Turnkey' systems are available in three server specifications to suite the requirements of different customers. From the entry level RBR2610 through to the enterprise specification RBR2630 for large scales TDM or converged environments.

### RBR 2610

Ideally suited for Small to Medium Business for use in office environments, remote locations or smaller organisations equipment rooms.

With quiet operation the system is housed in a Tower based server, (WxHxD= 198x425x533mm or 7.5x16.75x21"), fitted with single power supply and RAID1, (mirrored) hard disk drives for resilience. Alternatively for equipment room installation or rack mounting the server can be supplied as a 4U Rackmount system to the same specification.

The system has TDM connectivity for two interface cards offering a maximum of 48 channels of traditional telephony or radio or 120 channels of Digital Trunks, E1, (4 Trunks) plus an additional 50 channels of VoIP.



### RBR 2620

Enterprise scale server, ideal for VoIP environments with capacity to connect to TDM circuits.

The system is housed in a 2U 19" Rackmount server, (WxHxD= 482x90x660mm / 19x3.5x26"), fitted with dual hot swap power supplies and RAID1 (mirrored) hard disk drives for resilience. The system has TDM connectivity for two interface cards offering a maximum of 48 channels of traditional telephony / radio or 120 channels of Digital Trunks, E1, (4 Trunks) plus an additional 136 channels of VoIP.



### RBR 2630

Developed for large organisations, the system can record any mixture of traditional telephony, radio and VoIP, with a capacity of up to 480 channels of converged communications in one server.

The system is housed in a 6U 19" rackmount server (WxHxD= 482x270x508mm or 19x10.5x20"), fitted with dual hot swap power supplies and RAID1, (mirrored) hard disk

drives for resilience.

The system has TDM connectivity for 8 interface cards offering a maximum of 192 channels of traditional telephony or radio or 480 channels of Digital Trunks, E1, (16 Trunks) plus an additional 256 channels of VoIP.

### Redundancy and Resilience

The Red Box Recorder can be configured to optimise availability of voice recording, offering 99.999% availability and total system resilience utilising the 'master/slave' configuration. This is a dual recorder configuration, with the secondary recorder acting as a 'slave' (standby) to the master (primary) recorder, delivering no single point of failure.

Recorder servers can be fitted with hardware options to improve availability and fault tolerance:

- Dual hot swap PSU's
- RAID 1 or RAID5 internal HDD
- Multiple NIC, etc

### Alarms and Monitoring

The Red Box Recording system offers a full audit trail detailing all user and system details, logged by username and action, whether it be a failed login, configuration change or export of a call you can be assured that all alarms and warning events, changes to configuration and replay operations are logged.

The recorder can be monitored by the simple 'Remote Monitor' application, providing the status of each recorder and a quick link to the recorders status, direct from the user's system tray

Detailed monitoring can also be done via SNMP, offering total event notification and alarms via the functionality of an SNMP management application or by directly accessing the voice recorders system status page.



### Why Red Box Recorders

- Tried and trusted recording solution
- Unique recording engine – secure, encrypted and authenticated recordings
- Converged solution – one server to meet all recording requirements
- Browser based – simple easy to use and roll out
- VoIP Simplicity – automatic detection, and tracking of recordable devices
- Embedded solution – audio and data stored together within the recorded files, offering simple architecture, ease of use and total availability of calls against all data items – always
- Referential Integrity – the only recorder on the market that stores all data about a call with the call, meaning changes to configuration tomorrow will not affect calls or their details made today.
- Smart technology – the recorder requires no administration outside of basic configuration and operational updates – no databases, mapping tables or operating system tweaks required – ever!
- Single server solution – all recording, archive and replay functionality for a total converged solution from a single software application on one server
- Reduced Cost of Ownership – one server, low administration and maintenance and unsurpassed reliability offer a high quality high value low cost solution
- Software only – simple install software deployable on any hardware platform
- Turnkey Solutions – one stop shop for all hardware and software as required
- Service – helpful, friendly and experienced team, on hand to help as and when you need

### About Red Box Recorders

Red Box brings simplicity to digital recording, with flexible solutions that are easy to specify, install and manage.

We focus on voice and data capture: Red Box software solutions cover everything from storage and event logging, to retrieval, playback and analysis.

Our latest multi-function products incorporate the smart, reliable and cost-effective technologies that businesses need, including Web-based interfaces that give worldwide access to replay, configuration and maintenance.

We have over 20 years' experience and the industry's most capable development team with a strong reputation for innovation. Little wonder, then, that Red Box solutions are used in over 120 countries



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