

August 19, 2019

Configure MiVoice Business 9.0 SP2 and MiVoice Border Gateway/SRC 10.1 for use with Red Box Recorder Quantify 5.0.7.172

Description: This document provides a reference to Mitel Authorized Solutions providers for configuring the Mitel MiVB to connect to Red Box Recorder Quantify.

Environment: MiVoice Business 9.0 SP2 (9.0 SP2.2.16), MiVoice Border Gateway 10.1.0.257, Mitel 69xx MiNET 01.04.00.090, Mitel 69XX SIP and Mitel 68XX SIP 5.1.0.1024

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Mitel Technical Configuration Notes – Configure MiVoice Business for use with Red Box Recorder Quantify. Aug 2019 – HO1169

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Configure MiVoice Business 9.0 SP1 for use with Red Box Recorder Quantify

Overview

This document provides a reference to Mitel Authorized Solutions providers for configuring the Mitel MiVB and MBG to connect with Red Box Recorder Quantify. The different devices can be configured in various configurations depending on your VoIP solution. This document covers a basic setup with required option setup.

Interop History

Version	Date	Reason
1	April 13, 2011	Initial Interop (MCT) with Mitel MCD 4.2 and Mitel MBG/SRC 6.1.8 with Red Box Recorder 2A_SP1
2	December 18, 2012	MAT interoperability tests with Mitel MCD 5.0 and Mitel MBG/SRC 7.1.30 with Red Box Recorder 2C_SP2
3	March 20, 2013	Re-test the issues with not recorded parties against SIP trunk MBG software 7.1.31.
4	January 24, 2014	MAT interoperability tests with Mitel MiVoice Business 6.0 SP3 and Mitel MBG/SRC 8.0.17 with Red Box Recorder Quantify 3B Build 423
5	December 18, 2016	Interoperability tests with Mitel MiVoice Business 7.2 SP1 PR1 and Mitel MBG/SRC 9.3.1.6 with Red Box Recorder Quantify
6.	August 02, 2019	Interoperability tests with Mitel MiVoice Business 9.0 SP2 SP2 and Mitel MBG/SRC 10.1.0.257 with Red Box Recorder Quantify 5.0.7.172.

Interop Status

The Interop of Red Box Recorder Quantify has been given a Certification status. This Red Box Recorder Quantify will be included in the SIP CoE Reference Guide. The status Red Box Recorder Quantify achieved is:



Software & Hardware Setup

This was the test setup to generate a basic SIP call between Service Provider Red Box Recorder Quantify and the MiVB.

Note – Although this testing was performed on the below tested variants, the scope of this testing can be extended to other product variants that work with the same firmware. The list of components for which this testing can be considered applicable is given in the "Additional Applicable Variants" column of the following table –

Manufacturer	Tested Variants	Software Version	Additional Applicable Variants
Mitel	MiVoice Business	Release 9.0 SP2 (9.0 SP2.1.22)	NA
Mitel	MiVoice Border Gateway	10.1.0.257	NA
Mitel	69XX MiNET 69XX SIP and 68XX SIP	01.04.00.090 5.1.0.1024	NA
Red Box	Recorder Quantify	5.0.7.172	NA
Red Box	Mitel CTI Server	5.0.1.172	NA
Red Box	Mitel SRC RAM	5.0.0.172	NA

SRC CRE Feature Matrix

The following table lists various features of SRC. Red Box Recorder provides support for these features as listed in the table:

SRC Feature	Supported by CRE (Yes/No)
Support for Static Taps	No
Support for Dynamic Taps	Yes
Submitting separate query commands to SRC	No
SIP Support	Yes
Tone Injection/Recording Indicator Beep	No
SRC Clustering	Yes
SRC Load balancing	Yes
Support for Transcoded Taps (G.729)	Yes
Support for Encrypted Taps	Yes, Minet native
MIVB Resiliency/Call Survival	Yes
MiTAI Call Information	Yes
IP Console Support	Yes
Indirect Call Recording (as of SRC 1.3)	Yes
PKM Support	Yes

Tested Features

This is an overview of the features tested during the Interop test cycle and not a detailed view of the test cases.

Feature	Feature Description	Issues
Commissioning	Enrollment of Certificates during installation	V
Synchronization	When the components in the network restart, their status information is correctly exchanged and synchronized	V
Event Handling	There is a mechanism of some sort within the CRE that allows the tester to view the current status of devices, as reported by the SRC	V
Tap Management	Tap resources are set and managed correctly	√
License Failure	Alarm notification when there are insufficient licenses available	V
Fault Tolerance	CRE responds correctly during various fault scenarios	\checkmark
3300 Resiliency/Call Survival	In the case of an MIVB failure, SRC servers proxy the voice stream and any taps in progress at the time of MIVB failure are maintained and should be recorded.	V
MiTAI Call Information	Proper handling of MIVB MITAI event information	V
SIP Trunks	Recording of SIP trunk calls through MBG	V

\Lambda - Issues found

Device Limitations and Known Issues

This is a list of problems or unsupported features when Service Provider Red Box Recorder Quantify is connected to the MiVB.

Feature	Problem Description
Call Hold	When the call is put on hold, call recording is split in to two. This is the known behavior on Redbox
	Recommendation: Contact Redbox for more details
The support of cluster_info_event command	Currently, Red Box Recorder does not support cluster_info_event command
	Recommendation: Configure clustering manually though MiSslTunnel.ini as instructed in this manual later in this document
Station based and SIP trunking SRC recording	Station based and SIP trunking SRC recording can't coexist. Only one can be setup on Redbox. The customer needs to evaluate the requirements before choosing one of these
	Recommendation: Known limitation. Contact Redbox for more details
SIP Trunk Recording	The individual extensions should be setup for Monitoring on Redbox though SIP trunk recording is enabled. SIP trunk recording doesn't work without enabling monitoring for these extensions.
	Recommendation: This is a known issue. Contact Redbox for more details

Network Topology

The typical implementation of Mitel Secure Recording Connector (SRC) call recording is that we have number of telephones that are registered to Mitel MiVoice Business 9.0 SP2 through SRC/MBG. Since phones are pointed and essentially connected to SRC/MBG directly, we call this method as "direct call recording". In this configuration, SRC/MBG relays the audio streams and sets up the voice taps to the recorder (CRE).

The diagram below shows how the testing network is configured for direct call recording (i.e. when SRC protocol 1.1 is in use).



Figure 1 – Network Topology

As per new features in SRC protocol 1.3, it is possible to make voice recordings even for the telephone sets that are not registered with SRC directly. In other words, we can make the recordings if the phones are "classically" connected to PBX (see Figure 2 below). This is so-called "indirect call recording".

NOTE: Recording of devices that are directly connected to Mitel MiVoice Business 9.0 SP2 can be accomplished with the following restrictions:

- SRC and CRE protocol version >= 1.3
- CRE requests "report_remote_devices" in registration message.
- SRC is configured such that MiVB has "indirect call recording" option enabled.
- MIVB supports this feature only if MIVB version is >= 5.0 SP2
- Only 69xx telephone sets with MiNET protocol support this feature.

When recording remote devices, the tap RTP stream comes directly from the device itself and thus the following restrictions apply:

• Only the native codec will be sent, the CRE cannot specify a codec override in the add_tap request.

• Only taps by "stream_id" can be used. The tap will automatically be deleted when the stream ends.

• A maximum of 3 simultaneous taps are supported.

• If the CRE is connected to multiple SRC's (clustered) and those SRC's are, in turn, connected to the same monitored MIVB, the CRE should be prepared to receive multiple device and stream events for the same remote device. Each SRC will report the same remote device. It is important that the CRE pick one SRC to send any add_tap requests to and not send add_tap to multiple SRC's. If multiple add_tap's are sent, multiple RTP streams will be received (max 3) and will be difficult for the CRE to sort out.



Figure 2 – Network topology for SRC protocol 1.3

Configuration Notes

This section is a description of how the SIP Interop was configured. These notes should give a guideline how a device can be configured in a customer environment and how Red Box Recorder Quantify with MiVB 9.0 SP2 and MBG was configured in our test environment.

Disclaimer: Although Mitel has attempted to setup the interop testing facility as closely as possible to a customer premise environment, implementation setup could be different onsite. YOU MUST EXERCISE YOUR OWN DUE DILIGENCE IN REVIEWING, planning, implementing, and testing a customer configuration.

MiVB Configuration Notes

The following steps show how to program a MiVB to interconnect with Red Box Recorder.

Configuration Template

A configuration template can be found in the same Mitel Knowledge Management System (KMS) article as this document. The template is a Microsoft Excel spreadsheet (.csv format) **solely** consisting of the SIP Peer profile option settings used during Interop testing. All other forms should be programmed as indicated below. Importing the template can save you considerable configuration time and reduce the likelihood of data-entry errors. Refer to the MiVB documentation on how the Import functionality is used.

Network Requirements

- There must be adequate bandwidth to support the voice over IP. As a guide, the Ethernet bandwidth is approx. 85 Kb/s per G.711 voice session and 29 Kb/s per G.729 voice session (assumes 20ms packetization). As an example, for 20 simultaneous SIP sessions, the Ethernet bandwidth consumption will be approx. 1.7 Mb/s for G.711 and 0.6Mb/s. Almost all Enterprise LAN networks can support this level of traffic without any special engineering. Please refer to the MiVB Engineering guidelines for further information.
- For high quality voice, the network connectivity must support a voice-quality grade of service (packet loss <1%, jitter < 30ms, one-way delay < 80ms).

Assumptions for MiVB Programming

The SIP signaling connection uses UDP on Port 5060.

Figure 2 – License and Option Selection

Class of Service Assignment

The Class of Service Options Assignment form is used to create or edit a Class of Service and specify its options. Ensure options HCI/CTI/TAPI Monitor Allowed and HCI/CTI/TAPI Call Control Allowed are Set to "Yes" and applied to all trunks and telephone sets involved in call recording. Classes of Service, identified by Class of Service numbers, are referenced in the Trunk Service Assignment form for SIP trunks.

Many different options may be required for your site deployment but ensure that "Public Network Access via DPNSS" Class of Service Option is configured for all devices that make outgoing calls through the SIP trunks in the MiVB.

- Public Network Access via DPNSS set to Yes
- Campon Tone Security/FAX Machine set to Yes
- Busy Override Security set to Yes



Figure 3 – Class of Service

SIP Peer Profile

The recommended connectivity via SIP Trunking does not require additional physical interfaces. IP/Ethernet connectivity is part of the base MiVB Platform. For SIP trunking recording one should set up SIP trunks through MBG. This document does not intent to cover detailed steps to configure SIP trunking on MIVB and MBG. Refer MIVB, MBG and Redbox configuration documents for detailed steps to configure SIP trunks.

The SIP Peer Profile should be configured with the following options:

For SIP trunk calls to get recorded enable **Use P-Call-Leg-ID Header** under. Refer Fig below for your reference.

						Admin Group Alarm Status:	Clear 🗆 ?	1
Local_93	ź≣	SIP Peer Profile on Local_93		Search DN			Show form on Loo	al_93 (Login Nod 🗸
Liceal_93 Licenses LANWAN Configuration Voice Network System Properties Hardware Trunks PARE BD Ranges for CPN Substitution SIP Pare Public Called Party Inward Daling Modification SIP Pare Public Called Party Inward Daling Modification URINumber Translation Users and Devices Integrated Directory Services Voice Mail Call Routing Music On Hold Emergency Services Management Procervit Masagement		SIP Peer Profile on Local (9) Art Crears Development SIP Peer Profile Min 9125 min 9127 Mone Redmin Basic Call Routing Calling Lin Prefer From Header for Caller Prefer From Header for Caller Prefer From Header for Caller Require Neidelike Provisional Re Signal Princy (I enabled) on E Suppress Redirection Indefers Suppress Redirection Indefers Suppress Redirection Indefers Use Flack Retry Time for dBill Use PLacent Jean Header Use PLacent Jean Header Use PLacent Jean Header Sup Passertiel Identify Header Use PLacent Jean Header Suppress Redirection Indefers Suppress Redirection Indefers Sup	MVIE125 MVIE127 Mone RedBIVIB e ID SDP Options Signature and o sponses on Outgoing Catts mergency Catts	Search DY Y MBC92 MBC92 MBC92 Header Manyoration Timers Key Press	No No No Event Profile information	6 1 4 9 No () Yes 9 No () Yes	Show form on Lev Press. P0 90 1800 90	al 93 (Login Rodix) Expert. Deta tri 1 1 1 5ave Cancer
Maintenance and Diagnostics		Use P.Preferred Identity Heade Use Restricted Character Set F Use To Address in From Header Use user-phone Use user-phone for Diversion F	r or Authentication r on Outgoing Calls Header		() () () () () () () () () () () () () (

MiVoice Border Gateway Configuration Notes

Secure Recording Connector (SRC) is a software solution that facilitates the recording of Mitel encrypted voice streams by third-party Call Recording Equipment (CRE), e.g. Red Box Recorder Quantify. Typically, the SRC server is positioned on the LAN between the MIVB and the telephone sets to be recorded. It accepts requests from an authorized CRE to establish taps in the voice stream. These taps are separate (mirrored) streams from the SRC to the Red Box Recorder Quantify.

Certificate Management

Before normal operation can be established, the CRE must undergo a commissioning stage. During commissioning, Red Box Recorder Quantify enrolls with the SRC to establish a trust relationship.

NOTE: This commissioning step is a one-time requirement between each Red Box Recorder Quantify and each SRC.

When Red Box administrator creates file MiSslTunnel.ini and reboots the server (see the creation of INI files for <u>Red Box Recorder</u> later), it triggers sending the Certificate Signing Request to MBG/SRC.

At MBG/SRC, under Certificate Management, review the Request and accept the certificate. Refer **Figure 5.**

🕅 Mitel	Mitel Standard Linux	
Applications MiVoice Border Gateway	MBG client certificates	
Remote proxy services	In this panel, you can manage all Certificate Signing Requests (CSRs) in the queue of this server, and any signed certificates issued by this server's Certificate Authority (CA).	
ServiceLink Blades Status	To approve or reject a request, click on the Request ID, and use the resulting page. Before you approve a CSR, you should establish the individual's identity by some means (by a phonecall at the very least), or you will defeat the purpose of this exe The following are the details of your Certificate Authority's signing certificate.	ercise.
Administration Web services Backup	Issuer Subject: Childo S Holdy, CHIME Restores, DOF Voly, CHIMERE BOOD CHIERDINGDRESS-SECURY@WREA.com Subject: Childo S Object: Childo S OKT Not Before Jun 21 11:03 / 2015 OKT Not affer Jun 18 11:03 / 2029 OKT	
View log files	Queued CSRs	
Event viewer	There are no pending CSRs in the queue at this time.	
System information	Approved Certificates	
System monitoring System users Shutdown or reconfigure Virtualization	Certificate ID Subject 0558ex2013475429-b1ff-3730956x20b2 CMPAR60x-RRID-2 2321b318-409a+832-8650-f3835957x605 CMPAR60x-RRID-1	
Security	Revoked Certificates	
Remote access	Certificate ID Subject SteCh052.d02.udc1.b71.5522.d02.d02.d02.d02.d02.d02.d02.d02.d02.d	
Port forwarding	580ee493-68d1-46a7-a40e-1c9f50bb32e5 CC-=RedGex-RBRD-1 CC=RedGex-RBRD-1	
Syslog		
Web Server MBG client certificates	Mitel Standard Linux 10.6.16.0 MVVice: Border Gateway 10.0.037 (© Mitel Network Corporation	



When Red Box Recorder is successfully connected to MBG/SRC, you must verify that the server's ID is unique and the negotiated SRC protocol is 1.1 (or 1.3 if you intend using indirect call recording). To do this, navigate to Recording Status page and review the status as in **Figure 6**.

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🕅 Mitel 🛛	Mitel Standard Linux	
Applications MiVoice Border Gateway Remote proxy services	System status Service configuration System configuration Administration	
ServiceLink Blades Status Administration Web services Backup View log files Event viewer System information System monitoring System users Shutdown or reconfigure	Page updated: Mur Aug 05 2019 18:50:30 GMT+0530 (India Standard Time) This page displays the current status of MBG and any Call record equipment currently registered. CRE id 85-RedBox-RBRID-2 Protocol version 10 IP address 192.168.10.113 CRE id 91-RedBox-RBRID-2 Protocol version 1.6	
Virtualization Security Remote access Port forwarding Syslog Web Server	IP address 192.188.10.113 CRE id 113-RedBox-RBRID-1 Protocol 1.6 version 1.0	
MBG client certificates Configuration Networks E-mail settings Google Apps DHCP Date and Time Hostnames and addresses	IP address 192.168.10.25 CRE id 117-RedBox-RBRID-1 Protocol 1.6 version 192.168.10.25 Active connections Sets in a call 4 0	
Domains IPv6-in-IPv4 Tunnel SNMP Ethernet Cards Review configuration Miscellaneous Support and licensing Help	litel Standard Linux 10.6.16.0 liVoice Border Gateway 10.1.0.257 Mitel Networks Corporation	

Figure 6 – CRE identification

MBG/SRC Global Settings

When configuring SRC of Mitel MiVoice Border Gateway (MBG), verify the tap license availability. To do this:

- Login to MBG and click Mivoice Border Gateway -> System status -> Dashboard
- Ensure that MBG/SRC has enough tap licenses as shown below -

13

🕅 Mitel	Mitel Standard Linux				admin@mbg.
Applications MiVoice Border Gateway Remote proxy services	System status • Service configuration •	System configuration Administration	•		
ServiceLink Blades Status	Page updated: Mon Aug 05 2019 18:59:19 GMT+0530 (India	Standard Time)			
Administration Web services Backup	MBG status				
View log files		Enabled	Enabled	Start Courtesy down Stop	
Event viewer		Network profile	LAN mode	Security profile	Legacy
System monitoring		Daisy-chain mode	No	WAN IPs	
System users		Set-side streaming addresses	192.168.10.92	LAN IPs	192.168.10.92
Virtualization		Icp-side streaming addresses	192.168.10.92	Third IPs	
Security		Calls in progress	Minet: 0, SIP: 0, Trunk: 0	Calls per hour	MiNet: 0, SIP: 0, Trunk: 0
Remote access		Active MiNet/SIP connections	1	Load average (5 min)	0.08
Syslog		MiNet support	MiNet: TCP/PSK, TCP/TLS	SIP support	Enabled: UDP, TCP, TCP/TLS
Web Server		WebRTC support	Disabled	Call recording support	Enabled
Configuration	Chustering status				
Networks					
E-mail settings Google Apps		If you wish to create a cluster of servers, with this no	de as the master (authoritative) node, then click on the	"Create" button below.	
DHCP		Create a cluster	Create		
Date and Time Hostnames and addresses		If you wish to join a cluster of servers, with this node	as a slave node, then click on the "Join" button below.		
Domains		Join a cluster	Join		
IPv6-in-IPv4 Tunnel	C License information				
Ethernet Cards					
Review configuration		Availability and usage	License type Total local Total local in us	e	
Miscellaneous Support and licensing			Teleworker licenses 25 0		
Help			SIP Trunk licenses: 25 0	_	
			Transcoding licenses: 25 0		
		Virtualization support	Yes	Expiry	Feb 5, 2020
		IPv6 support	Licensed Enabled		
			105 NO		
_					
M	tel Standard Linux 10.6.16.0				
M	Voice Border Gateway 10.1.0.257				
•	Mitel Networks Corporation				

Figure 7 – MBG/SRC tap license review

You will also need to verify that Call Recording is enabled for all devices connected to MBG/SRC. To do this:

- Click System Configuration tab (see Figure 9 for details)
- Ensure that current value for "Restrict MiNET devices" is set to False. It allows authenticating of all MiNET phones at MBG/SRC before connecting them to MIVB.

NOTE: When this step is completed, all phones that need to be monitored and recorded must be pointed to MBG/SRC's IP address as their primary MIVB. This applicable to direct call recording only (SRC Protocols 1.0 and 1.1).

• Ensure that "Call recording support" is enabled. If Call recording is disabled, click Edit button and set it to True.

NOTE: If you keep this value at False, then you must navigate to Devices tab to enable Call recording for every single phone individually.

NOTE: Since Red Box Recorder does not record G.722.1 voice steams and this codec is the default for MiNET telephones, you may also force all MiNET sets to use either G.711 or G.729 codec. For that, configure the setting as shown in **Figure 8**.

🕅 Mitel	Mitel Standard Linux				admin@mbg.sipcoe.com	Status: Major	
Applications MVoice Border Gateway Remote proxy services	System status * Service configuration * System	ystem configuration • Administration •					
ServiceLink Blades Status	Page updated: Mon Aug 05 2019 19:05:43 GMT+0530 (India Pr	Settings Port ranges					0
Administration Web services Backup Varu log files Execution System marketing System users Studion or reconfigure Virtualization Security Bachos access Per Graveding Security	Milet options.	letwork profiles P blocking P Translations Aver tathack addresses Sandwidth management Connectors Connectors TOP TOP		DSCP setting for voice DSCP setting for voice DSCP setting for voice Rotax set RTP checks Device _{to} decire local streaming	Expedies forwarding Expedies forwarding Expedies forwarding		
In the Samer Mild Citer conflictes Mild Citer conflictes Statustics Statustics Coople Apps Dick O Date and Title Mitterames and Adresses Dick O Date and Title Adresses Date in Other Mitter Cards Review confliguestion Miscellaneous	NTML applicate 5 Sec Restrict M Tone Injection Enabled	TCAPSK TCAPSK TCAPSK TCAPSK TCAPSK TCAPS TCAPS TCAPS TCAPS TCAPS TCAPS TCAPS TCAPSK TC	≈ û ≪ û ≪ û ≈ û	Code segont Force an allocate RTP homesize Prog before reflected calculate Relevo faillable challed Relevo faillable chal	Reinforder to 729, 0.711 (action and p-lans) * Optimine * Optimine *		

Figure 8 – MBG/SRC call recording status

Navigate to Configuration->**MIVBs** and identify the default, "working" MIVB where to forward calls from Minet and SIP telephones. See **Figure 10**.

NOTE: If you are going to use indirect call recording as of SRC protocol 1.3, modify the setting for the selected PBX to enable this option.

Col Micel Micel Standard Linux System status - Service configuration - Administration - Admining - Administration - Administration - Administration -													
Control Mitteel		System :	status 🕶	Service configuration +	System configuration + Administratio	m = <							
	Page updated To test conne	t Mon Aug 0 stivity to you mation	ICPs MiNet devices SIP users SIP trunking	Standard Time) exclution test on configured hostnames, see the Dag	prostics page								
	+ Default for	Default for SIP	WebRTC Application integration	Hostname or IP address	Туре	Installer password	SIP capabilities	Indirect call	Associated				
CO Mittel	MiNet		SIP adaptation					recording capable					
	٥	0	Trust store	192 166 10 125	MiVoice Business			*	×	1	8		
	0	0	MIVB127	192 168 10 127	M/Voice Business		UDP TCP	×	×	1	8		
	•	0	MIV82	192 168 10 94	MiVoice Business			~	×	1	î		
Kasten Kasten			MVB1	192.168.10.93	MiVoice Business		UDP	~	×	1	8		

Figure 9 – MiVBs configuration

NOTE: Alternative way to configure MBG/SRC is not to identify default MIVB (**Figure 9**) and do keep enabled the connection restrictions. Then, you need to modify settings for every single phone individually (under Services->**MINET** devices) in order to set the Configured MIVB.

Red Box Recorder Configuration Notes

The installation and initial configuration of Red Box Recorder is out of scope of this Configuration Guide. Contact the professional services' specialists at Red Box Recorders for this matter.

We assume that the Red Box Recorder software was installed properly and is up and running.

In these Notes, we are going to describe only the basic settings that need to be configured in Red Box Recorder to make it working with Mitel MiVoice Business 9.0 SP2. Many other features are not described here.

To connect Red Box Recorder and MiVoice Business, one must configure the basic connection settings in two files at Red Box Recorder server:

MitelCTIServer.ini MiSslTunnel.ini

Then, when connection between Red Box Recorder and Mitel MIVB is established, we must configure several settings in Red Box Recorder's web interface.

Configuring MitelCTIServer.ini

Firstly, navigate to the location where Red Box Recorder files are installed, e.g. C:\LTR\Config and open MitelCTIServer.ini. Ensure that two sections are set as shown below:

[MitelSRC] SRCRecording=1 SRCCallStarts=1 SRCCallEnds=1

[MiTAI Server] NumConnections=1

Address1=192.168.10.93

; The below parameter needs to be set if you want to enable SIP trunking recording. Restart the services or reboot the system for the parameter to take into effect.

[Peer Names]

Count=1

PeerName.0=RedMIVB <Trunk name in MIVB>

NOTE: Address 192.168.10.93 represents the IP address of Mitel MiVoice Business.

Save the file when you are done.

NOTE: Later, when you create the list of monitored extensions, this file will be updated with the section [**MonitorDevices**].

Configuring MiSslTunnel.ini (For Clustered MBG/SRC)

In the folder C:\LTR\Config, create a new INI file with the name MiSslTunnel.ini. Ensure that MiSslTunnel.ini contains the following lines:

```
;$max_line=5973$encoded=1$
[Primary]
ca=PrimaryCA
connect_to=192.168.10.92:6810
listen=127.0.0.1:0
ssl_in=0
ssl_out=1
use_cert=1
```

```
[ca_list]
ca.0=PrimaryCA
count=1
```

```
[general]
log_verbosity=0
redboxVersion=1
version=0
```

```
[tunnels]
count=1
tunnel.0=Primary
```

Log files (**debugXxx.xml**) will be saved in folder **C:\LTR\Logs**. Reboot Red Box Recorder server upon creation of MiSsITunnel.ini and MitelCTIServer.ini. When Red Box Recorder is fully booted up, navigate to MBG/SRC and approve the security certificate as per section Certificate Management.

If certificate approval was completed successfully, after couple of minutes, the parameter **state** in MiSsITunnel.ini should be changed from 0 to 4.

Web page configurations

After successful and complete installation of Red Box Recorder software, the home page of the web browser, e.g. Internet Explorer (IE), has been changed so that next time you start the IE you will see the web page as in Figure 13.

Copyright 2001 - 2013 Red Box Record	rs Ltd
Quantify. The easiest, most capable voice recording suite.	
Utername admin Password	

Figure 10 – The home web page to launch the Red Box Recorder application

Enter a user name and password to login to the application. The default credentials are admin and recorder respectively.

Selection of monitored extensions

In Red Box Recorder Quantify, we must define which extensions should be monitored and recorded by the recorder.

After successful login, click main navigation button at the top of the screen and click Configuration as shown in Figure 14.

RED BOX		Options 💌 Logout
Management Satu Setup Events Maintenance Al Image: Status Setup Blacklisting Filter Management Filters Image: Status Setup Image: Status Setup	Cropp	

Figure 11 – Navigate to the Configuration settings

On the Configuration page, navigate to Management and select Recording as shown in Figure 15.

RED BOX		Options 🛩 Logout
Status Setup Events Maintenance All Image: Status Setup Events Maintenance All Image: Status Image: Setup Image: Setup Image: Setup Image: Setup Blacklisting Filter Management Filters	Groups Recording Alarms Users	Options V Logout
Start		~

Figure 12 – Navigate to Recording configuration page

By default, all phones that are registered through MBG/SRC as well as internal extensions are listed in this screen.

Tick all required extensions from the list and click Update. See Figure 16 for details.

Annagement Status Setup Events Recording:	s Maintenance All			Options 🕶 Lo
Show Only: Search: e.g. 5201	Recording:	Enabled Disabled All		
Device Text: *	Channel Name:	Recording Enabled:		
2222	2222 Minet	•		
3001	3001 3001			
3002	3002			
3003	3003			
3004	Teleworker Teleworker			
3333	3333 Minet	~		
3501	3501_nj			
4005	4005 Minet TW			
4567	nishant			
9999	9999 SIP TW	~		
404040				
◀ of 20 devices enabled for record	ting.		Polata 🛛 💓 Barat	>

Figure 13 – Add the extensions for monitoring and recording

As soon as you complete the extension assignment, the new icons will appear in the Monitoring page. They represent the monitored extensions.

Click the main navigation button and select Monitoring to view the status of monitored extensions. Like in Figure 17, we can see various extensions in this screen. The green color of icon "4005 Minet TW" indicates that this extension is currently in an active call and recording is in progress.

If you click magnifying glass or headset icons, you can also view the recordings in the lower portion of this screen and listen to them as required.

					<u>}</u>				Options 🔻	Logout
Group Overview 🗶 Cha	annel Overview 🗶	+								
All channels	•	Channel Overview	2 0	of 11 Active Channels						^
2222 Minet	0.0	3001 3001	0.0	3333 Minet	0.0	4005 Minet TW	00	7077	G	0
9999 SIP TW	0.0	Abhishek 5555	0.0	Abhishek 6666	0.0	Abhishek SIP	0.0	User1 Polycom	G	0
User1 YeaLink	0.0									
										~

Figure 14 – View the monitored extensions and available recordings

Navigate to Configuration->Status->Recorder Status to check the recorder status. Ensure there are no active warnings and alarm messages.

Also on this page you can find the Recorder ID and current brief performance overview. Like in Figure 18, we can see that there are two calls were recording and recorder utilization is 10%.

Management Status Setup Events Maintenance All Recorder Status							
	Date and Time	Alarm Detaila					
	12 Jan 2017 17:01:22	Unable to monitor Mitel device 5555. Check device configuration.					
	Item	Status					
	Recorder ID	8045					
	Recorder Statu	is Recording					
	System Type	Standalone					
	Active Alarms	1					
	Unarchived Dat	ta 0 %					
	Recorder Utilizati	ion					
	Calls Being Recor	rded 2					
	No Archive Devices are licensed.						

Figure 15 – Recorder Status page

Recordings review and playback

Once configured, Red Box Recorder starts voice recording every time when monitored extensions begin new conversation over the phone. To review and playback the recorded conversations, click the main navigation button and then click Replay button. Click Search Range bar and identify the dates when the recordings should be reviewed for.

Now, when we click Start Search button, the Results field will be filled with the recordings for all monitored extensions for the selected days. Sometimes it is inconvenient. To narrow down this list, we can add some specific criteria.

To do this, click Add Criteria bar and select the criteria to filter the list. As an example in Figure 19, we set Extension as a search criteria.

Click OK to confirm your selection.

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REDBOX		Options 🕶 📔 Logout
Search Unitided Search Extension: ABC 2222 Add Criteria Start Search Start Search	V (unsaved) Search Range: 4 13/01/	2017 00:00 to 13/01/2017 23:59
Call Start Time: Call End Time: Call End Time: 13 Jan 2017 18:55:23 0 3 Jan 2017 18:55:23 0 13 Jan 2017 18:55:25 0 13 Jan 2017 18:55:29 0 13 Jan 2017 18:55:26 13 Jan 2017 18:55:39 0 13 Jan 2017 18:55:39 0 13 Jan 2017 15:15:28 13 Jan 2017 15:16:28 0 13 Jan 2017 15:15:28 0 13 Jan 2017 15:15:24 13 Jan 2017 15:16:28 0 0 13 Jan 2017 15:13:48 0	Call Identifier Called Name Called Name Called Number Called Number Called Name Called Nam	Calis to 51 H 4 H
4		, ~

Figure 19 – Setting the search criteria (extension)

Now, we need to enter the extension number for which we would like to review the recordings. Type an extension number in the search bar as shown in Figure 20 (e.g. 2222) and click Start Search.

The list of available recordings will be shown in the field below. The recordings with black triangles on the left represent the already previewed recordings.

RECORDERS										Options 🔻 Logo
Search										~~
Untitled Search			(unsaved)	Search Range:	13/01/201	7 00:00 to	13/01	/2017 23:59		
Futurnian APC 2000	2		v C							
Extension: ABC 2222			• E	2						
+ Add Criteria	💙 Sta	rt Search								
Devile										
Results		101							_	/~~
wav lie					1 martine and the second se		100	1 Marca and a state	Calls 1 t	∞5114 ∢ ≽
Flag Call Start Time: 👻	Call End Time: Callir	g Digits: Call Duration:	Extension:	Other Party:	Call Direction:	Trunk Nam	Grou	Channel Name:	Dialled Digits:	Called Number:
13 Jan 2017 18:57:23		00:00:00	2222		Unknown			2222 Minet		
13 Jan 2017 18:54:56	13 Jan 2017 18:55:39	00:00:44	2222	4005	Unknown			2222 Minet		
13 Jan 2017 15:18:06	13 Jan 2017 15:19:34	00:01:29	2222	3333	Unknown			2222 Minet		
13 Jan 2017 15:15:28	13 Jan 2017 15:16:28	00:01:00	2222	3333	Unknown			2222 Minet		
13 Jan 2017 15:12:44	13 Jan 2017 15:13:48	00:01:05	2222	3333	Unknown			2222 Minet		`
<]				>
Media Player										\sim
	5 4 4 1 1	▶ 2		10, 20 (/				
		<i>y</i> , ,								
13 Jan 2017 18:54:56	00:00:39 18:55:35	13 Jan	2017 18:55:39	Audio Effects:						
discourse and the second				Auto Volum	e					
				Silence Sup	pression					
				Audio Boos	1					
- Annothing and a second		in the second				-				
				Stereo						



Enabling Indirect Call Recording

To configure Indirect call recording in Red Box Recorder, we have to enable this feature in MBG/ SRC and to add couple parameters in the configuration files of Red Box Recorder.

As of MBG/SRC, see Figure 10 on how to enable Indirect call recording for the selected MiVoice Business (MiVB).

For the Red Box Recorder's configuration, navigate again to the location where Red Box Recorder files are installed, e.g. C:\LTR\Config and open MitelCTIServer.ini.

Eventually, the file should look like in the example below:

[MitelSRC] SRCRecording=1 SRCCallStarts=1 SRCCallEnds=1

[MiTAI Server] NumConnections=1

Address1=192.168.10.93

[Heartbeat] DeviceID=123 Period=60 AllowedFailures=0 Now, open and edit file **MiSslTunnel.ini**.

In this file, we need to add just one line - remote devices=1. See the file example below:

; Note: To use remote devices, SRC must support protrocol ver 1.3 ; Note: Only one certificate (ca) is needed per SRC, even if making multiple connections to it.

```
;$max_line=5973$encoded=1$
[Primary]
ca=PrimaryCA
connect_to=192.168.10.92:6810
listen=127.0.0.1:0
ssl_in=0
ssl_out=1
use_cert=1
remote_devices=1
```

Don't forget to reboot Red Box Recorder server upon after making the changes to MiSsITunnel.ini and MitelCTIServer.ini.

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Glossary

MiVoice Business	MiVB
MiVoice Border Gateway	MBG
MiNET Interface	MINET
Mitel Solutions Alliance	MSA
Personal Ring Group	PRG
Knowledge Management System	KMS
Class of Service	COS
Automatic Call Distribution	ACD