Remote Worker via MBG

04/2023
AMT/PTD/PBX/0161/3/3/EN
IMPLEMENTATION MANUAL

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1 INTRODUCTION

1.1 DEFINITION

Cluster: MITEL MiVoice 5000 telephony systems comprising physical devices (Mitel Mitel 5000 Gateways, Mitel 500, MiVoice 5000 Server or C2IC) or virtual devices (MiVoice 5000 Server) connected to a central MiVoice 5000 Server, called Cluster Server.

Cluster Server: physical or virtual MiVoice 5000 Server systems dedicated to global Cluster control. This system can be duplicated.

1.2 REFERENCE DOCUMENTS

Related documents are available at Mitel.com.

1.3 GLOSSARY

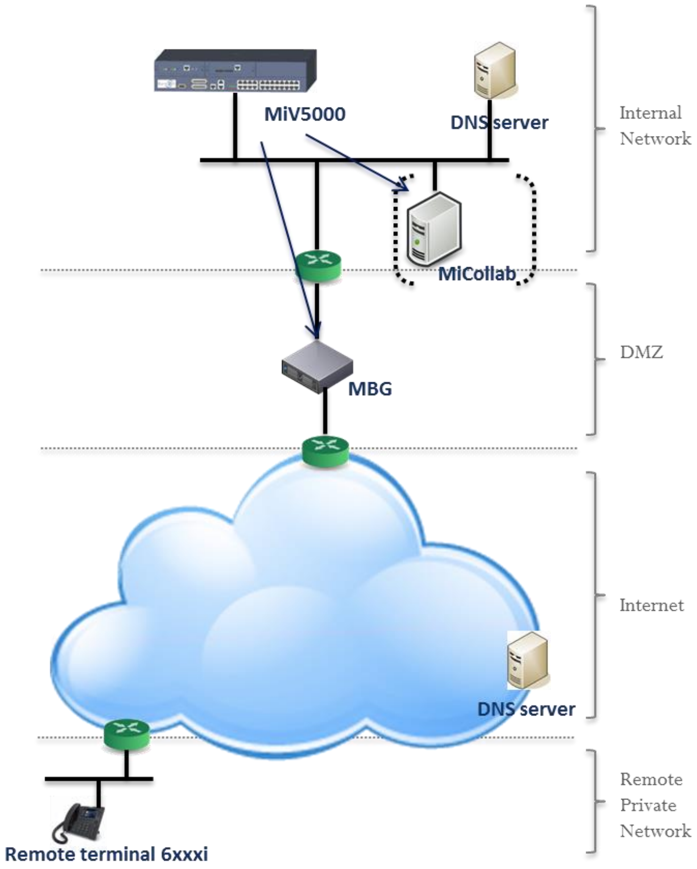
MBG	:	MiVoice Border Gateway
RCS	:	Redirection & Configuration Server
AMC	:	Applications Management Center (Licence server)
ICP	:	IP Communication Platform (iPBX)

1.4 RESTRICTIONS

The Remote Worker feature described in this document applies to MiVoice 6800 SIP and 6900 IP phones only.

2 GENERAL ARCHITECTURE

Sample architecture:



The aim is for a remote 6800 SIP or 6900 IP phone to have almost the same functions as a similar phone installed on the company's local area network.

The connection from the remote phone connected to the Internet is then routed via an MBG to the local area network (LAN).

Since the MBG allows the public address to be associated with the local address of the iPBX, the phone retrieving its configuration files behaves like a local phone on the site.

Depending on the architecture, the MBG may be:

- A stand-alone external device located in the DMZ
- Integrated (embedded) in the MiCollab server
- Clustered with MiCollab on the local area network

It is provisionned according to the architecture:

- Either manually (standalone (MBG)
- Or by the MiCollab server.

When MiV5000 is provisioning a MiCollab server located in the DMZ, the firewall must allow access to MiV5000.

MBG domain name resolution is handled by a public DNS server.

Security is provided by a key generated in the iPBX and is embedded in the path of the URL allowing the phones to download their settings.

In a multi-site configuration, the MBG can only connect to one MiVoice 5000 iPBX, all remote worker phones must be declared on this iPBX.

3 DEPLOYMENT

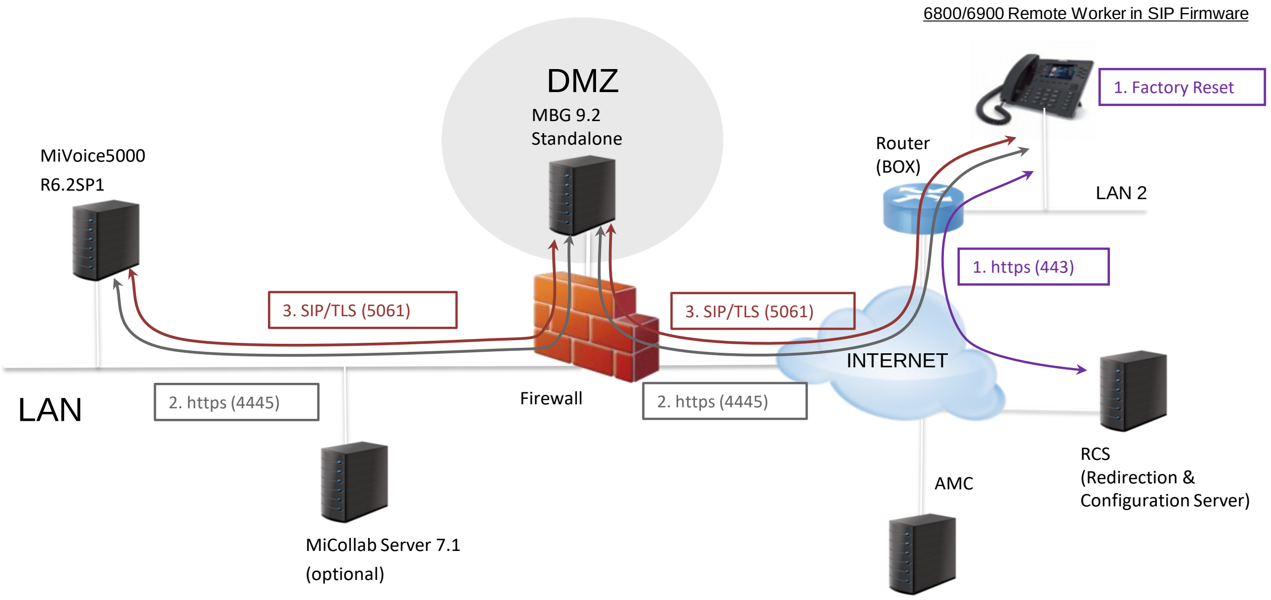
Preliminary operations:

The public URL to be reached is entered either manually by the remote worker or via an RCS server.

After a factory reset, the phone connects to the encrypted URL for deployment.

The phone downloads the configuration files from the iPBX via the MBG. File types: aastra.cfg, mac.cfg, software.

The phone restarts and sends its REGISTER.



4 SUMMARY OF THE DIFFERENT DEPLOYMENT STEPS FOR REMOTE WORKERS

The procedure can be broken down into three:

- Generic configuration, by the installer
- Preparing the deployment, by the installer and the network administrator for each phone
- Deploying the phones, by the remote workers or the network administrator.

The chronological order to be respected:

Generic configuration (Chapter 5)

Configuring the firewall

Generating a hash key on MiVoice 5000

Declaring an RCS server (used to configure remote terminals for access to the iPBX attached to MiVoice 5000)

MBG configuration

- Licence
- Configuring the network profile
- Configuration at the MiVoice 5000 IP access point
- SIP settings common to all Remote Worker phones

Additional MBG settings

Configuring the login/authentication with an MBG on MiVoice 5000

On the MBG Interface:
On the MiVoice 5000 web admin:
Configuring the MBG in white list

Configuring TMA on MiVoice 5000

- Configuring the application
- Defining and configuring the download server for remote worker phones

Preparing the deployment (Chapter 6)

Declaring SIP devices (6800 SIP and 6900 IP phones)

Standalone MBG

Integrated MBG or MBG in Cluster mode with MiCollab

Specific configuration of a MiCollab softphone client

Preparing the Remote Worker csv file from the Generic Provisioning file

Remote Worker management by TMA

- Prerequisite - Preparing the "csv" file from the provisioning file
- Deploying from the download server:
    - Prerequisites
    - Deployment by integrated TMA
    - Deployment by TMA managed from MiVoice 5000 manager

Display/inventory of remote worker phones

Deploying terminals (Chapter 7)

Configuring the remote phone for access to the MiVoice 5000 configuration server

- Using an RCS server
- without RCS server

Activating a remote phone

All these steps are described in order and in detail in the following paragraphs.

5 GENERIC CONFIGURATION

5.1 CONFIGURING THE FIREWALL

To allow traffic from the LAN/DMZ to the Internet, the following configuration must be made on the ports:

Port Range	Direction	Description
TCP 4445 (HTTPS)	Internet -> DMZ (MBG)	https connection between 68xxi and MBG (download configuration files, XML features)
TCP 4445 (HTTPS)	DMZ (MBG) -> LAN	https connection between MBG and MiV5000 (download configuration files, XML features)
TCP 5061 (SIP/TLS)	Internet -> DMZ (MBG)	SIP connection between 68xxi and MBG
TCP 5061 (SIP/TLS)	DMZ (MBG) -> LAN	SIP connection between MBG and MiV5000
UDP 20000 to 31000	Internet -> DMZ (MBG) DMZ (MBG) -> LAN	Range of SRTP ports configured in MBG settings

Configuring the remote access ports (Box)

The ports must be open on the remote router (Box).

In general, no configuration is required as outgoing flows are naturally allowed by the boxes.

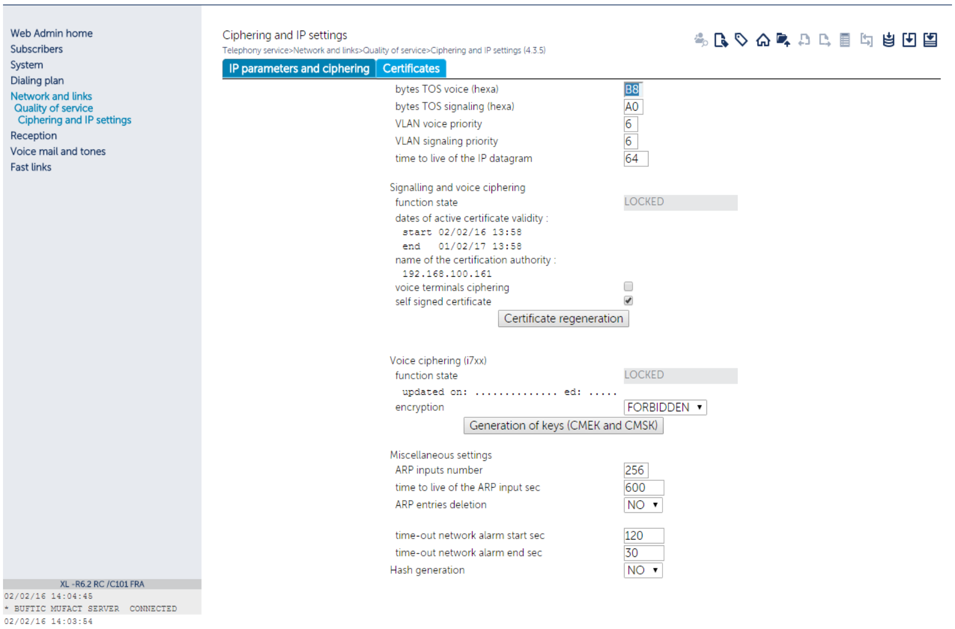
Port Range	Direction	Description
TCP 4445 (HTTPS)	Lan (BOX) -> Internet	https connection between 68xxi and MBG (download configuration files, XML features)
TCP 5061 (SIP/TLS)	Lan (BOX) -> Internet	SIP connection between 68xxi and MBG
UDP 40000 to 51000	Lan (BOX) -> Internet	Range of SRTP ports configured in 68xxi settings

5.2 GENERATING THE HASH KEY

The hash key must be generated by MiVoice 5000. It is then integrated into the URL configuration path.

This key is unique and is controlled by the PBX to allow the phone to download the files.

Menu **NETWORK AND LINKS>Quality of service> Encryption and IP parameters**



Ciphering and IP settings

Telephony service>Network and links>Quality of service>Ciphering and IP settings (4.3.5)

bytes TOS voice (hexa)	B8
bytes TOS signaling (hexa)	A0
VLAN voice priority	6
VLAN signaling priority	6
time to live of the IP datagram	64
Signalling and voice ciphering	
function state	LOCKED
dates of active certificate validity :	
start 02/02/16 13:58	
end 01/02/17 13:58	
name of the certification authority :	
192.168.100.161	
voice terminals ciphering	□
self signed certificate	☑
Voice ciphering (i7xx)	
function state	LOCKED
updated on: .... ed:	
encryption	FORBIDDEN
Miscellaneous settings	
ARP inputs number	256
time to live of the ARP input sec	600
ARP entries deletion	NO
time-out network alarm start sec	120
time-out network alarm end sec	30
Hash generation	NO

XL -R6.2 RC /C101 FRA

```
02/02/16 14:04:45
* BUFTIC MUFACT SERVER  CONNECTED
02/02/16 14:03:54
```

- In the **Generate hash** field, select **YES**.

IMPORTANT NOTE: A warning message "regenerating the hash will affect all deployed remote worker phones" is displayed if the operator requests for hash regeneration.

- Then enter the password of the current Webadmin account.
-

The **File download path**: field is set to read only.

The aim is for the administrator to be able to copy/paste it in the URL used to access the phone configuration files.

5.3 CONFIGURING THE REMOTE PHONE FOR ACCESS TO THE IPBX ATTACHED TO MIVOICE 5000

Since the phone is remote, it is not possible to automatically provide the URL of the MBG to be reached.

Two methods are possible:

- Using an RCS server
- Configuring the URL directly on the phone from the phone’s web interface.

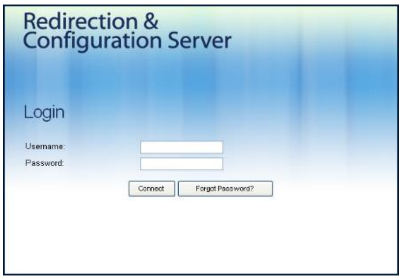
6900 phones, factory delivered with Minet firmware, must be upgraded to SIP firmware. The SIP firmware can be downloaded either beforehand by the installer, or directly via the RCS server (for all the phones in the installation, or individually by Mac file).

5.3.1 USING AN RCS SERVER

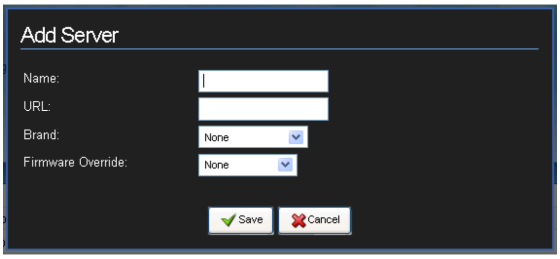
The RCS server can be easily used to deploy 6800 SIP and 6900 IP phones but requires an access account.

5.3.1.1 Opening an RCS access account

Note: refer to the document on opening an RCS account.



RCS server login screen.



Name:

URL:

Brand: None

Firmware Override: None

5.3.1.2 Configuring access to the MiVoice 5000 configuration server with RCS server

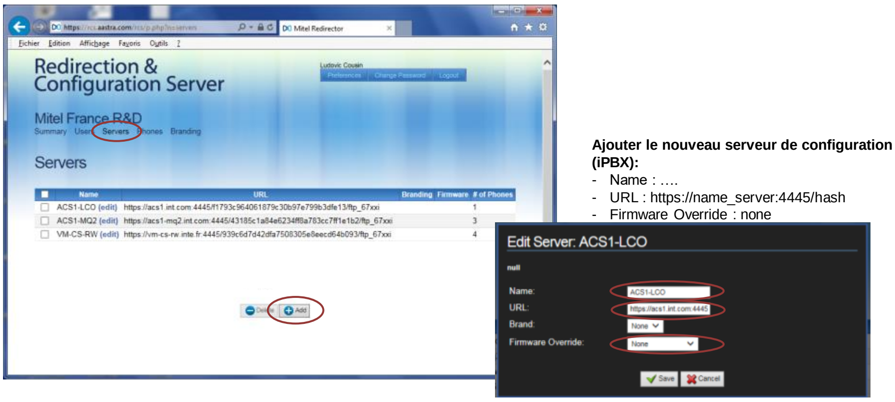
The redirection and configuration service (RCS) is a service that facilitates the deployment of 6800 SIP and 6900 IP phones (refer to the RCS documentation for details).

RCS server access URL: **https://rcs.aastra.com/rcs/login.php**

From the RCS welcome screen

- In the **Servers** menu, enter the information to reach the MBG:
    - **Name**: MBG name or public address
    - **URL (HTTPS path)**: Access path, including:
        - The host, represented either by the FQDN or by the MBG's public IP address and associated port (4445)
        - The URL hash key enabling the phones to download their configuration file. See the value in Section 5.2.

      Example: https://name_server:4445/hash
- Click **Save**.



☐	Name	URL	Branding	Firmware	# of Phones
☐	ACS1-LCO (edit)	https://acs1.int.com:4445/f1793c964061879c30b97e799b3dfe13/ftp_67xxi			1
☐	ACS1-MQ2 (edit)	https://acs1-mq2.int.com:4445/43185c1a84e6234ff8a783cc7ff1e1b2/ftp_67xxi			3
☐	VM-CS-RW (edit)	https://vm-cs-rw.inte.fr:4445/939c6d7d42dfa7508305e8eecd64b093/ftp_67xxi			4

Ajouter le nouveau serveur de configuration (iPBX):
- Name : ….
- URL : https://name_server:4445/hash
- Firmware Override : none

Edit Server: ACS1-LCO

null

Name: ACS1-LCO
URL: https://acs1.int.com:4445
Brand: None
Firmware Override: None

✓ Save ✗ Cancel

Firmware override:

- If the installation has a lot of 6900 phones, it is interesting to automatically upgrade the 6900 phones from the Minet version to SIP. This update will also apply both to 6800 and 6900 phones.

- Take SIP firmware 5.0.0 minimum.

There will be as many different URLs as there are MiVoice 5000 Servers on which remote workers are declared.

⚠ **IMPORTANT NOTE: An MBG can only be associated with one MiVoice 5000 iPBX for the Remote Worker function.**

5.3.2 CONFIGURING THE URL DIRECTLY ON THE PHONE

See Section 7.1.2.

5.4 CONFIGURING THE MBG

Accessing the MBG interface

https://mbg_address/server-manager

Configuration on the MBG comprises several phases:

- Declaring the MBG licences
- Configuring the network profile

  Menu **MiVoice Border Gateway, System configuration>Network profiles** tab
- Restarting the MBG

  Menu **MiVoice Border Gateway**, **System Status** tab
- Configuring the MiVoice 5000 IP access point

  Menu **MiVoice Border Gateway, Service Configuration>ICPs** tab
- SIP settings common to all MBG Remote Worker phones

  Menu **MiVoice Border Gateway, System configuration>Settings** tab
- Additional settings specific to Remote Worker

  Menu **Configurations Overrides** tab.
- Configuring the connection/authentication between the MBG and the iPBX

Most configurations are the same regardless of whether the MBG is stand-alone, embedded in MiCollab or clustered.

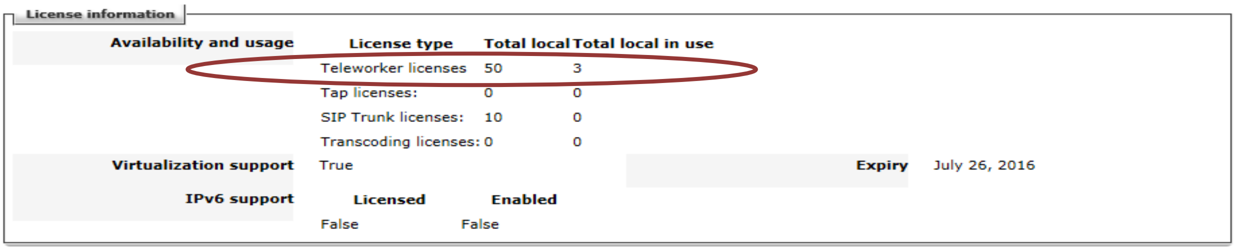
Others are not and in these cases, the architecture will be clarified at the beginning of the paragraph.

This chapter describes the configuration on the MBG only for the Remote Worker function. Refer to the MBG documentation for further details on its use and administration.

5.4.1 LICENCES

Teleworkers licences are required for the MBG.

Menu **MiVoice Border Gateway**, **System>Dashboard** tab.

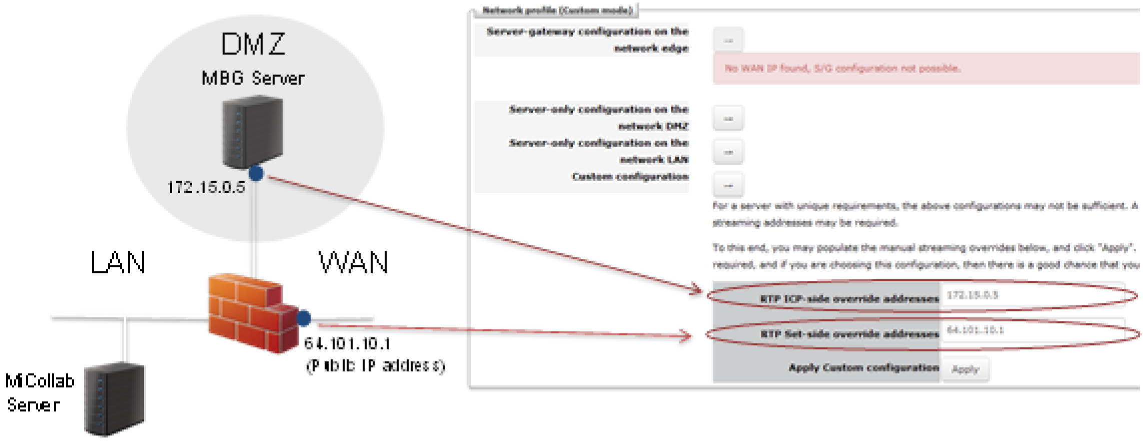


License information

Availability and usage	**License type**	**Total local**	**Total local in use**
	Teleworker licenses	50	3
	Tap licenses:	0	0
	SIP Trunk licenses:	10	0
	Transcoding licenses:	0	0
Virtualization support	True	**Expiry**	July 26, 2016
IPv6 support	**Licensed**	**Enabled**	
	False	False	

5.4.2 CONFIGURING THE NETWORK PROFILE

Menu **MiVoice Border Gateway**, **Network>Profiles** tab



Network profile (Custom mode)

Server-gateway configuration on the network edge ...

No WAN IP found, S/G configuration not possible.

Server-only configuration on the network DMZ ...

Server-only configuration on the network LAN ...

Custom configuration ...

For a server with unique requirements, the above configurations may not be sufficient. A streaming addresses may be required.

To this end, you may populate the manual streaming overrides below, and click "Apply". required, and if you are choosing this configuration, then there is a good chance that you

RTP ICP-side override addresses	172.15.0.5
RTP Set-side override addresses	64.101.10.1
Apply Custom configuration	Apply

- Enter the **RTP ICP-side override addresses**:

  TBC: MBG server address

- Enter the **RTP Set-side override addresses**:

  TBC: Public address

- Click **Apply** to apply the settings.

ICP => **I**P **C**ommunication **P**latform = MiVoice5000

Then restart the MBG service. See the following sections.

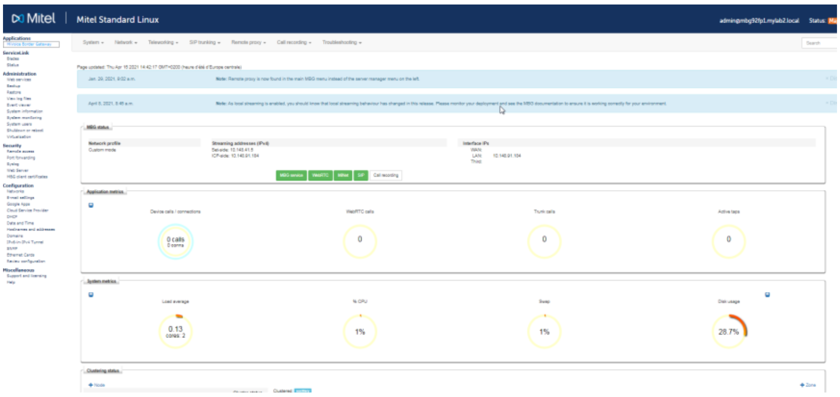
5.4.3 RESTARTING THE MBG

✓ **Common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs**

From Menu **MiVoice Border Gateway**, **System>Dashboard** tab:

In the **MBG Status** area:

- Click **MBG service**.
- Click **Stop**.
- Click **Start** to restart it.



Page updated: Thu Apr 15 2021 14:42:17 GMT+0200 (heure d'été d'Europe centrale)

Jan. 29, 2021, 9:02 a.m. **Note:** Remote proxy is now found in the main MBG menu instead of the server manager menu on the left.

April 8, 2021, 8:45 a.m. **Note:** As local streaming is enabled, you should know that local streaming behaviour has changed in this release. Please monitor your deployment and see the MBG documentation to ensure it is working correctly for your environment.

MBG status

Network profile: Custom mode

Streaming addresses (IPv4): Set-side: 10.148.41.5 ICP-side: 10.148.91.184

Interface IPs: WAN: LAN: 10.148.91.184 Third:

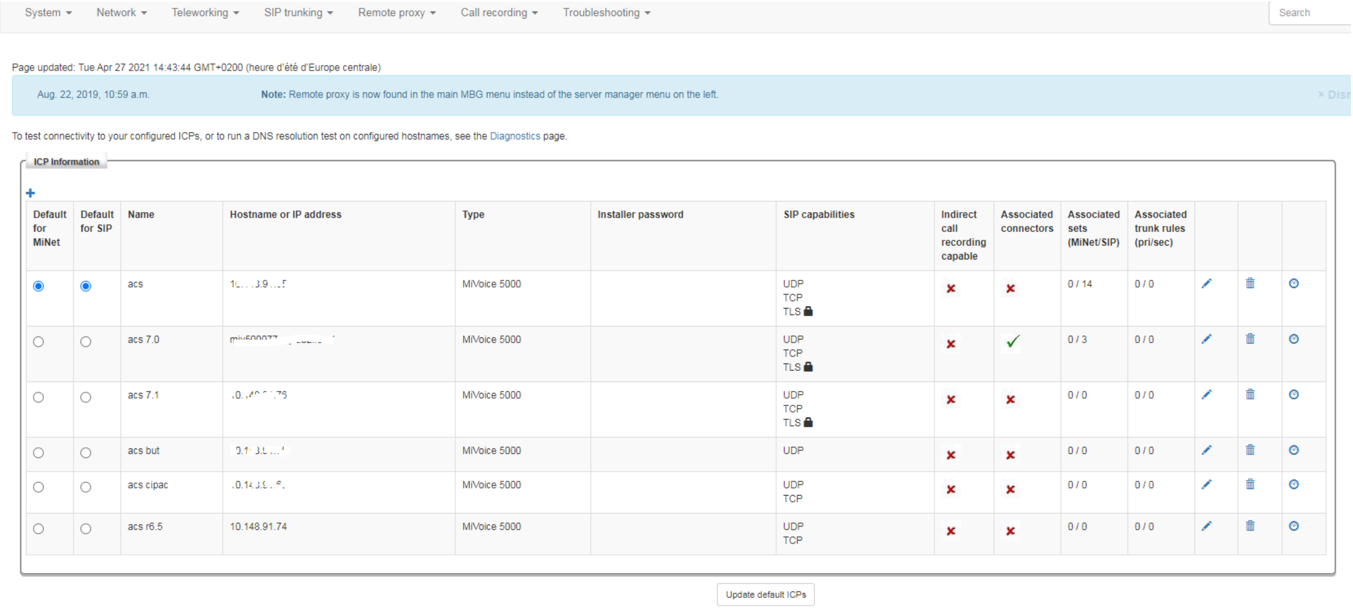
5.4.4 CONFIGURATION AT THE MIVOICE 5000 IP ACCESS POINT

✓ **Common to standalone MBGs, MBGs embedded in MiCollab or clustered MBGs**

Menu **MiVoice Border Gateway**, **Network>ICPs** tab

From the list, select the iPBX in question.

- Click the Pencil icon (modify).



Page updated: Tue Apr 27 2021 14:43:44 GMT+0200 (heure d'été d'Europe centrale)

Aug. 22, 2019, 10:59 a.m. **Note:** Remote proxy is now found in the main MBG menu instead of the server manager menu on the left.

To test connectivity to your configured ICPs, or to run a DNS resolution test on configured hostnames, see the Diagnostics page.

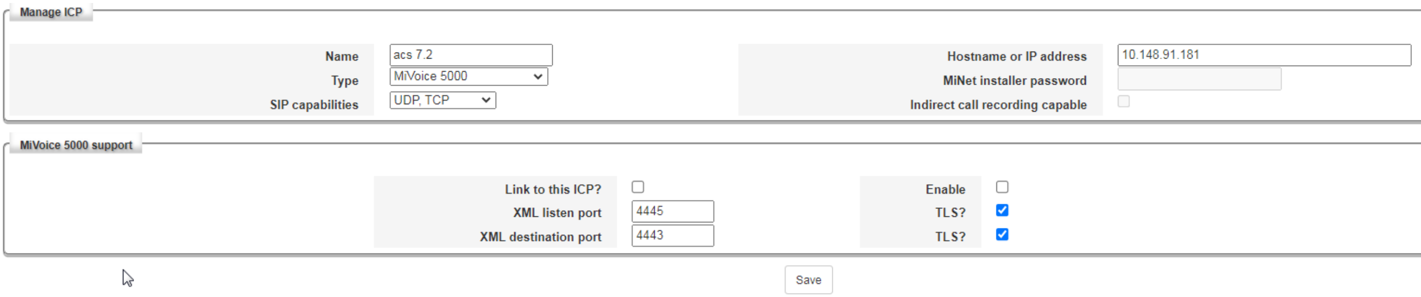
ICP Information

Default for MiNet	Default for SIP	Name	Hostname or IP address	Type	Installer password	SIP capabilities	Indirect call recording capable	Associated connectors	Associated sets (MiNet/SIP)	Associated trunk rules (pri/sec)			
●	●	acs	[redacted]	MiVoice 5000		UDP TCP TLS 🔒	✗	✗	0 / 14	0 / 0	✎	🗑	⊙
○	○	acs 7.0	[redacted]	MiVoice 5000		UDP TCP TLS 🔒	✗	✓	0 / 3	0 / 0	✎	🗑	⊙
○	○	acs 7.1	[redacted]	MiVoice 5000		UDP TCP TLS 🔒	✗	✗	0 / 0	0 / 0	✎	🗑	⊙
○	○	acs but	[redacted]	MiVoice 5000		UDP	✗	✗	0 / 0	0 / 0	✎	🗑	⊙
○	○	acs cipac	[redacted]	MiVoice 5000		UDP TCP	✗	✗	0 / 0	0 / 0	✎	🗑	⊙
○	○	acs r6.5	10.148.91.74	MiVoice 5000		UDP TCP	✗	✗	0 / 0	0 / 0	✎	🗑	⊙

Fill in the following fields:

Manage ICP area

Name: iPBX name


Manage ICP

Name	acs 7.2	Hostname or IP address	10.148.91.181
Type	MiVoice 5000	MiNet installer password	
SIP capabilities	UDP, TCP	Indirect call recording capable	□

MiVoice 5000 support

Link to this ICP?	□	Enable	□
XML listen port	4445	TLS?	☑
XML destination port	4443	TLS?	☑

Manage ICP area

Hostname or IP address: MiVoice 5000 IP address

Type: MiVoice 5000

SIP capabilities: UDP, TCP, TLS > SIP connection between MBG and MiVoice 5000 in TLS (5061)

MiVoice 5000 support area

XML listen port: Public port on which the MBG is listening (default value: 4445).

XML destination port: MiV5000 port (4445 not configurable in MiVoice 5000).

5.4.5 SIP SETTINGS COMMON TO ALL REMOTE WORKER PHONES

✓ **Common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs**

Menu **MiVoice Border Gateway, System>Settings** tab

Configure the following fields for RTP security options:

SIP Support:

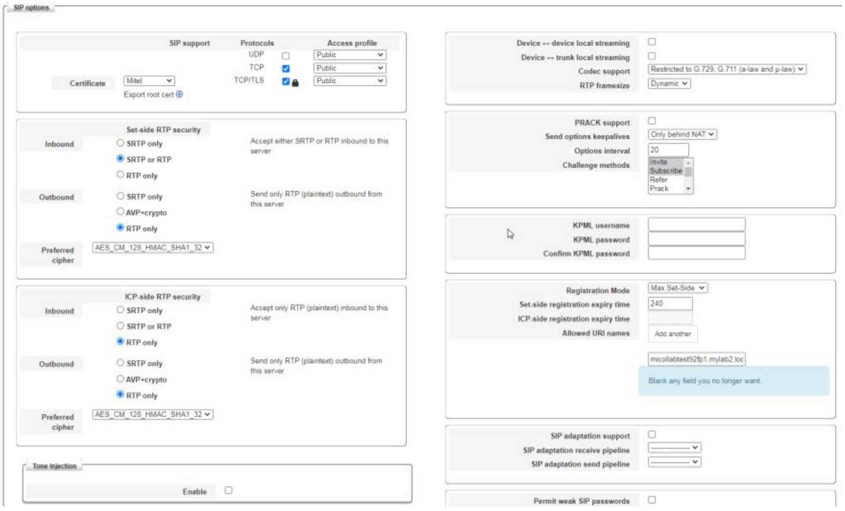
- UDP: Disable
- TCP: Public
- TCP/TLS: Public

- Set-side RTP security inbound: SRTP only
- Set-side RTP security outbound: SRTP only
- ICP-side RTP security Inbound: SRTP or RTP
- ICP-side RTP security Outbound: AVP+crypto

The recommended encryption key is:

- AES_CM_128_HMAC_SHA1_80 (default is _32)

There is also an option for the TLS certificate, which must be from Mitel.



SIP options

SIP support	Protocols		Access profile
	UDP	□	Public
	TCP	☑	Public
Certificate: Mitel Export root cert	TCP/TLS	☑	Public

Set-side RTP security

Inbound: ○ SRTP only ● SRTP or RTP ○ RTP only — Accept either SRTP or RTP inbound to this server

Outbound: ○ SRTP only ○ AVP+crypto ● RTP only — Send only RTP (plaintext) outbound from this server

Preferred cipher: AES_CM_128_HMAC_SHA1_32

ICP-side RTP security

Inbound: ○ SRTP only ○ SRTP or RTP ● RTP only — Accept only RTP (plaintext) inbound to this server

Outbound: ○ SRTP only ○ AVP+crypto ● RTP only — Send only RTP (plaintext) outbound from this server

Preferred cipher: AES_CM_128_HMAC_SHA1_32

Tone Injection

Enable □

Device ↔ device local streaming □

Device ↔ trunk local streaming □

Codec support: Restricted to G.729, G.711 (a-law and μ-law)

RTP framesize: Dynamic

PRACK support □

Send options keepalives: Only behind NAT

Options interval: 20

Challenge methods: Invite, Subscribe, Refer, Prack

KPML username

KPML password

Confirm KPML password

Registration Mode: Max Set-Side

Set-side registration expiry time: 240

ICP-side registration expiry time

Allowed URI names: Add another

micollabtest92fp1.mylab2.loc

Blank any field you no longer want.

SIP adaptation support □

SIP adaptation receive pipeline: ------------

SIP adaptation send pipeline: ------------

Permit weak SIP passwords □

5.4.6 CONFIGURING THE CONNECTION/AUTHENTICATION BETWEEN THE MBG AND THE IPBX

✓ **Common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs**

5.4.6.1 Principle

The connection between the MBG and the MiVoice 5000 must be created in order to:

- Obtain the SIP devices **Set-side username, Set-side password** and **Icp-side username** defined in the MBG. These parameters will be used for deployment by TMA.
- Synchronise MiVoice 5000 when a "set-side password" has been changed in the MBG.

The principle of authentication with the MBG consists in:

- Starting the web service
- Adding a new client in the MBG
- Declaring a new SIP device in MiVoice 5000.

5.4.6.2 Detailed procedure

⚠ **Warning**:

This procedure takes place sequentially using the MBG and MiVoice 5000 Webadmin menus alternately.

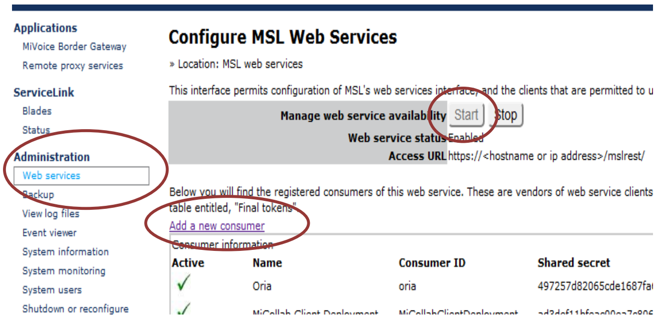
The order of the sequences must be respected.

*On the **MBG Interface**:*

The user must create via Menu **Administration>Web services, Add a new consumer** tab a user account that MiVoice 5000 will use to authenticate itself.

An account contains two pieces of data that are essential for the authentication stage:

- the account ID (40-character string maximum) > **Name** and **Consumer ID** fields
- Its secret code (40-character string maximum) automatically generated and displayed by the MBG. > **Shared secret** field.



Applications
- MiVoice Border Gateway
- Remote proxy services

ServiceLink
- Blades
- Status

Administration
- Web services
- Backup
- View log files
- Event viewer
- System information
- System monitoring
- System users
- Shutdown or reconfigure

Configure MSL Web Services

» Location: MSL web services

This interface permits configuration of MSL's web services interface, and the clients that are permitted to u

Manage web service availability: Start Stop

Web service status: Enabled

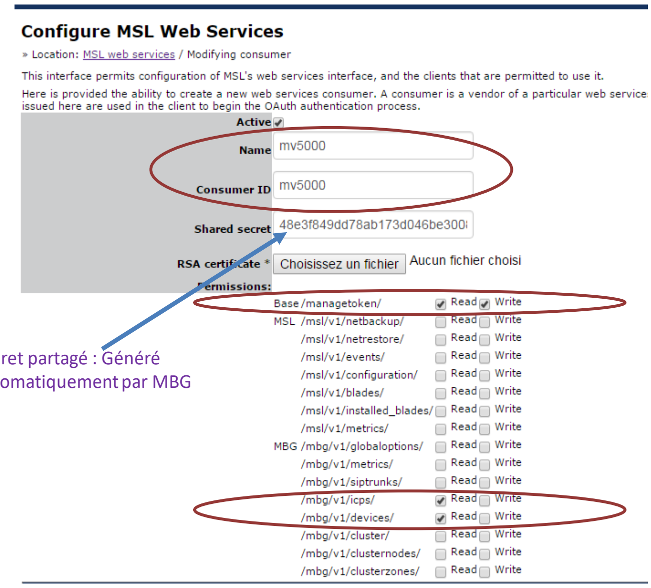
Access URL: https://<hostname or ip address>/mslrest/

Below you will find the registered consumers of this web service. These are vendors of web service clients table entitled, "Final tokens"

Add a new consumer

Consumer information

Active	Name	Consumer ID	Shared secret
✓	Oria	oria	497257d82065cde1687fa
✓	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806



Configure MSL Web Services

» Location: MSL web services / Modifying consumer

This interface permits configuration of MSL's web services interface, and the clients that are permitted to use it.

Here is provided the ability to create a new web services consumer. A consumer is a vendor of a particular web service issued here are used in the client to begin the OAuth authentication process.

Active: ☑

Name: mv5000

Consumer ID: mv5000

Shared secret: 48e3f849dd78ab173d046be300

RSA certificate *: Choisissez un fichier Aucun fichier choisi

Permissions:

Base	/managetoken/	☑ Read	☑ Write
MSL	/msl/v1/netbackup/	□ Read	□ Write
	/msl/v1/netrestore/	□ Read	□ Write
	/msl/v1/events/	□ Read	□ Write
	/msl/v1/configuration/	□ Read	□ Write
	/msl/v1/blades/	□ Read	□ Write
	/msl/v1/installed_blades/	□ Read	□ Write
	/msl/v1/metrics/	□ Read	□ Write
MBG	/mbg/v1/globaloptions/	□ Read	□ Write
	/mbg/v1/metrics/	□ Read	□ Write
	/mbg/v1/siptrunks/	□ Read	□ Write
	/mbg/v1/icps/	☑ Read	□ Write
	/mbg/v1/devices/	☑ Read	□ Write
	/mbg/v1/cluster/	□ Read	□ Write
	/mbg/v1/clusternodes/	□ Read	□ Write
	/mbg/v1/clusterzones/	□ Read	□ Write

Démarrer le service Web
Ajouter un nouveau client >**Add a new consumer**

Secret partagé : Généré automatiquement par MBG

On the MiVoice 5000 web admin:

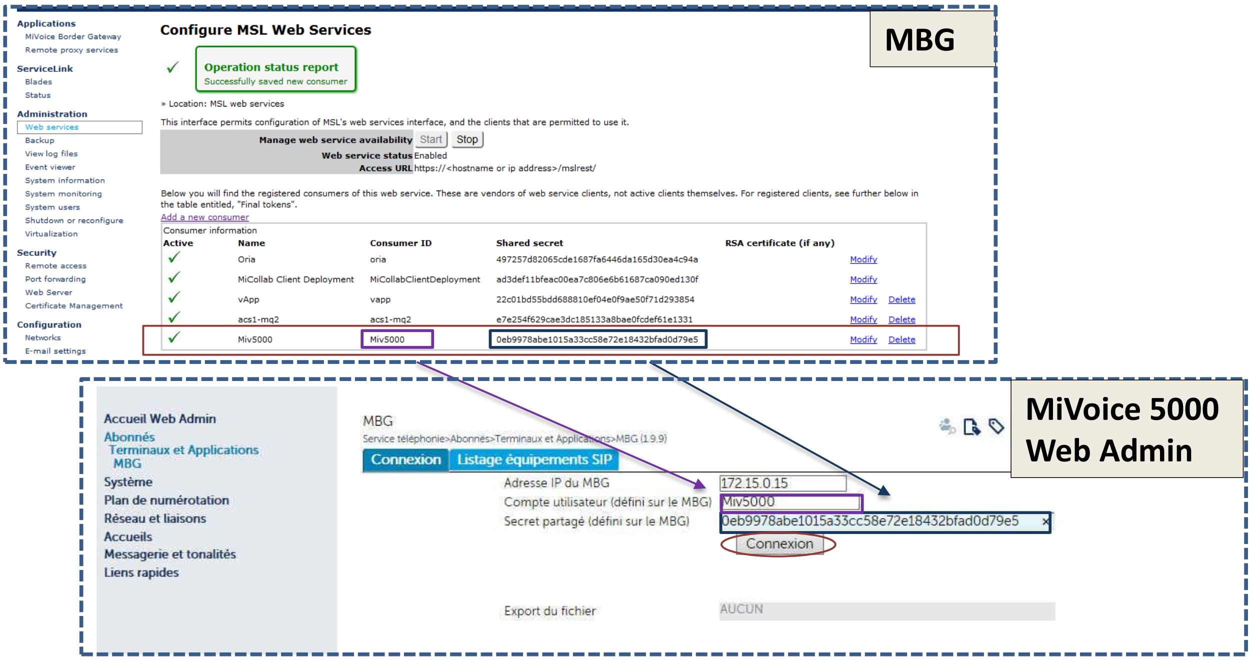
Menu **Subscribers>Terminals and Applications>MBG**

Enter the following settings:

- MBG IP address
- User account ID (defined on the MBG)
- Shared secret code associated with the account (defined on the MBG)
- Press Enter.

The **Login** button then appears.

- Click the **Login** button.



Configure MSL Web Services

✓ Operation status report
Successfully saved new consumer

» Location: MSL web services

This interface permits configuration of MSL's web services interface, and the clients that are permitted to use it.

Manage web service availability: Start Stop
Web service status: Enabled
Access URL: https://<hostname or ip address>/mslrest/

Below you will find the registered consumers of this web service. These are vendors of web service clients, not active clients themselves. For registered clients, see further below in the table entitled, "Final tokens".

Add a new consumer

Consumer information

Active	Name	Consumer ID	Shared secret	RSA certificate (if any)		
✓	Oria	oria	497257d82065cde1687fa6446da165d30ea4c94a		Modify	
✓	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806e6b61687ca090ed130f		Modify	
✓	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854		Modify	Delete
✓	acs1-mq2	acs1-mq2	e7e254f629cae3dc185133a8bae0fcdef61e1331		Modify	Delete
✓	Miv5000	Miv5000	0eb9978abe1015a33cc58e72e18432bfad0d79e5		Modify	Delete

MBG

Service téléphonie>Abonnés>Terminaux et Applications>MBG (1.9.9)

Adresse IP du MBG: 172.15.0.15
Compte utilisateur (défini sur le MBG): Miv5000
Secret partagé (défini sur le MBG): 0eb9978abe1015a33cc58e72e18432bfad0d79e5

Connexion

Export du fichier: AUCUN

The MBG and iPBX must be synchronised (same time).

⚠ **IMPORTANT NOTE: For a MiVoice 5000 Server iPBX the OS version must be at least 6.7, or the latest version of the OS patches must be installed.**

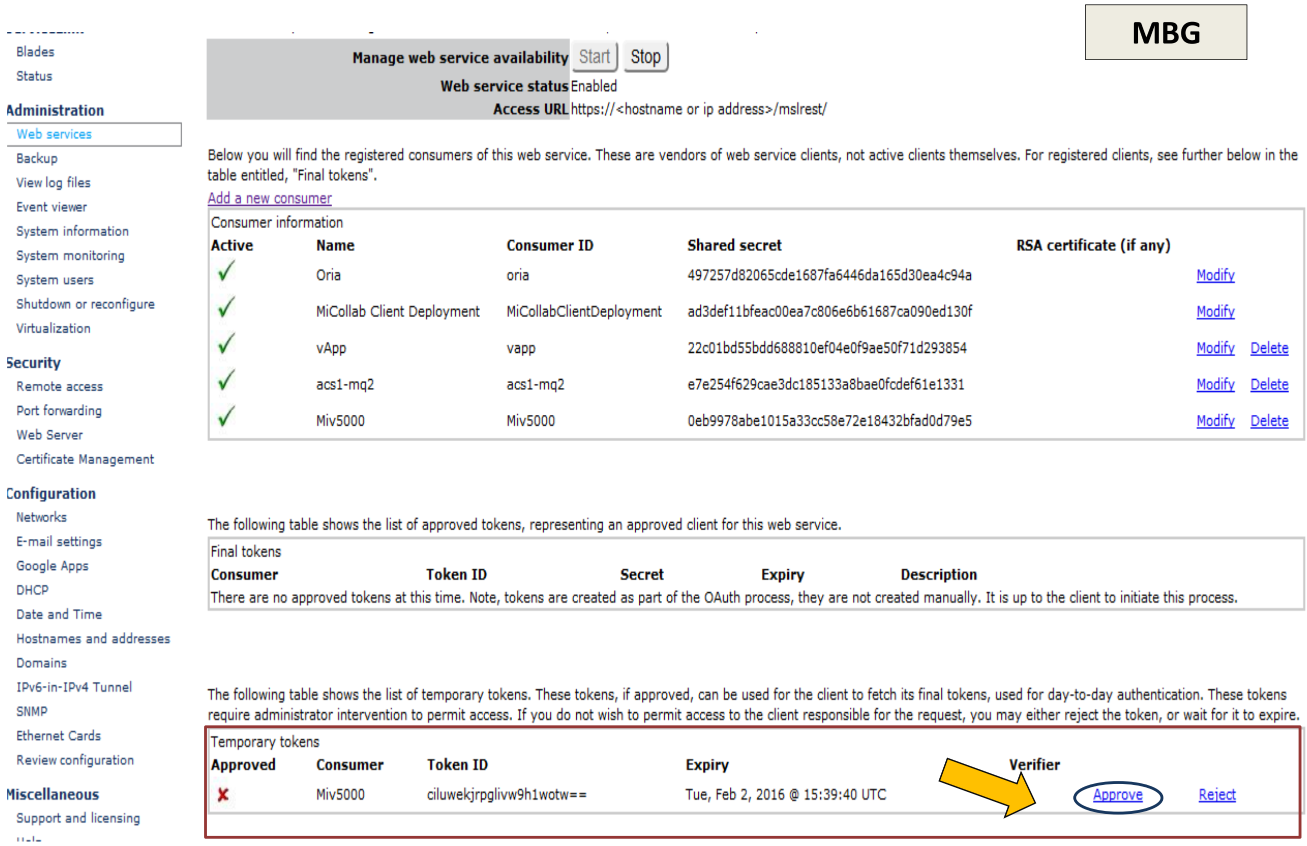
*On the **MiVoice 5000 web admin**:*

press the **Login** button. Menu **Telephony Service>Subscribers>Terminals and Applications>MBG** then displays the **Verification Code** field.

*On the **MBG Interface**:*

A temporary authentication token has been created by MiVoice 5000 on the MBG (valid for one hour). It appears in Menu **Administration>Web services> "Temporary token"**.

- The administrator must then approve this temporary token via the **Approve** link.



Manage web service availability

Web service status Enabled

Access URL https://<hostname or ip address>/mslrest/

Below you will find the registered consumers of this web service. These are vendors of web service clients, not active clients themselves. For registered clients, see further below in the table entitled, "Final tokens".

Add a new consumer

Consumer information

Active	Name	Consumer ID	Shared secret	RSA certificate (if any)		
✓	Oria	oria	497257d82065cde1687fa6446da165d30ea4c94a		Modify	
✓	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806e6b61687ca090ed130f		Modify	
✓	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854		Modify	Delete
✓	acs1-mq2	acs1-mq2	e7e254f629cae3dc185133a8bae0fcdef61e1331		Modify	Delete
✓	Miv5000	Miv5000	0eb9978abe1015a33cc58e72e18432bfad0d79e5		Modify	Delete

The following table shows the list of approved tokens, representing an approved client for this web service.

Final tokens

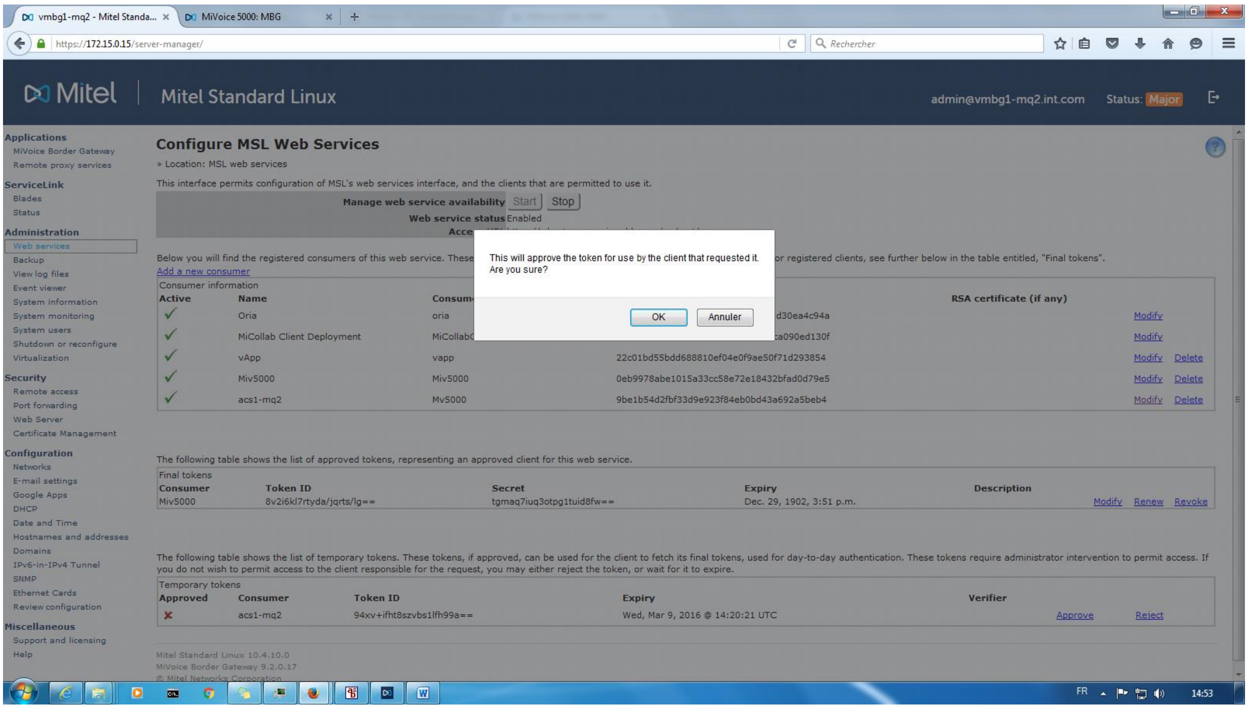
Consumer	Token ID	Secret	Expiry	Description
There are no approved tokens at this time. Note, tokens are created as part of the OAuth process, they are not created manually. It is up to the client to initiate this process.				

The following table shows the list of temporary tokens. These tokens, if approved, can be used for the client to fetch its final tokens, used for day-to-day authentication. These tokens require administrator intervention to permit access. If you do not wish to permit access to the client responsible for the request, you may either reject the token, or wait for it to expire.

Temporary tokens

Approved	Consumer	Token ID	Expiry	Verifier		
✗	Miv5000	ciluwekjrpglivw9h1wotw==	Tue, Feb 2, 2016 @ 15:39:40 UTC		Approve	Reject

- Click **OK**.



Configure MSL Web Services

» Location: MSL web services

This interface permits configuration of MSL's web services interface, and the clients that are permitted to use it.

Manage web service availability Start Stop

Web service status Enabled

Acce

Below you will find the registered consumers of this web service. These … or registered clients, see further below in the table entitled, "Final tokens".

Add a new consumer

Consumer information

Active	Name	Consum		RSA certificate (if any)	
✓	Oria	oria	d30ea4c94a		Modify
✓	MiCollab Client Deployment	MiCollab	ca090ed130f		Modify
✓	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854		Modify Delete
✓	Miv5000	Miv5000	0eb9978abe1015a33cc58e72e18432bfad0d79e5		Modify Delete
✓	acs1-mq2	Mv5000	9be1b54d2fbf33d9e923f84eb0bd43a692a5beb4		Modify Delete

This will approve the token for use by the client that requested it.
Are you sure?

OK Annuler

The following table shows the list of approved tokens, representing an approved client for this web service.

Final tokens

Consumer	Token ID	Secret	Expiry	Description	
Miv5000	8v2i6kl7rtyda/jqrts/lg==	tgmaq7iuq3otpg1tuid8fw==	Dec. 29, 1902, 3:51 p.m.		Modify Renew Revoke

The following table shows the list of temporary tokens. These tokens, if approved, can be used for the client to fetch its final tokens, used for day-to-day authentication. These tokens require administrator intervention to permit access. If you do not wish to permit access to the client responsible for the request, you may either reject the token, or wait for it to expire.

Temporary tokens

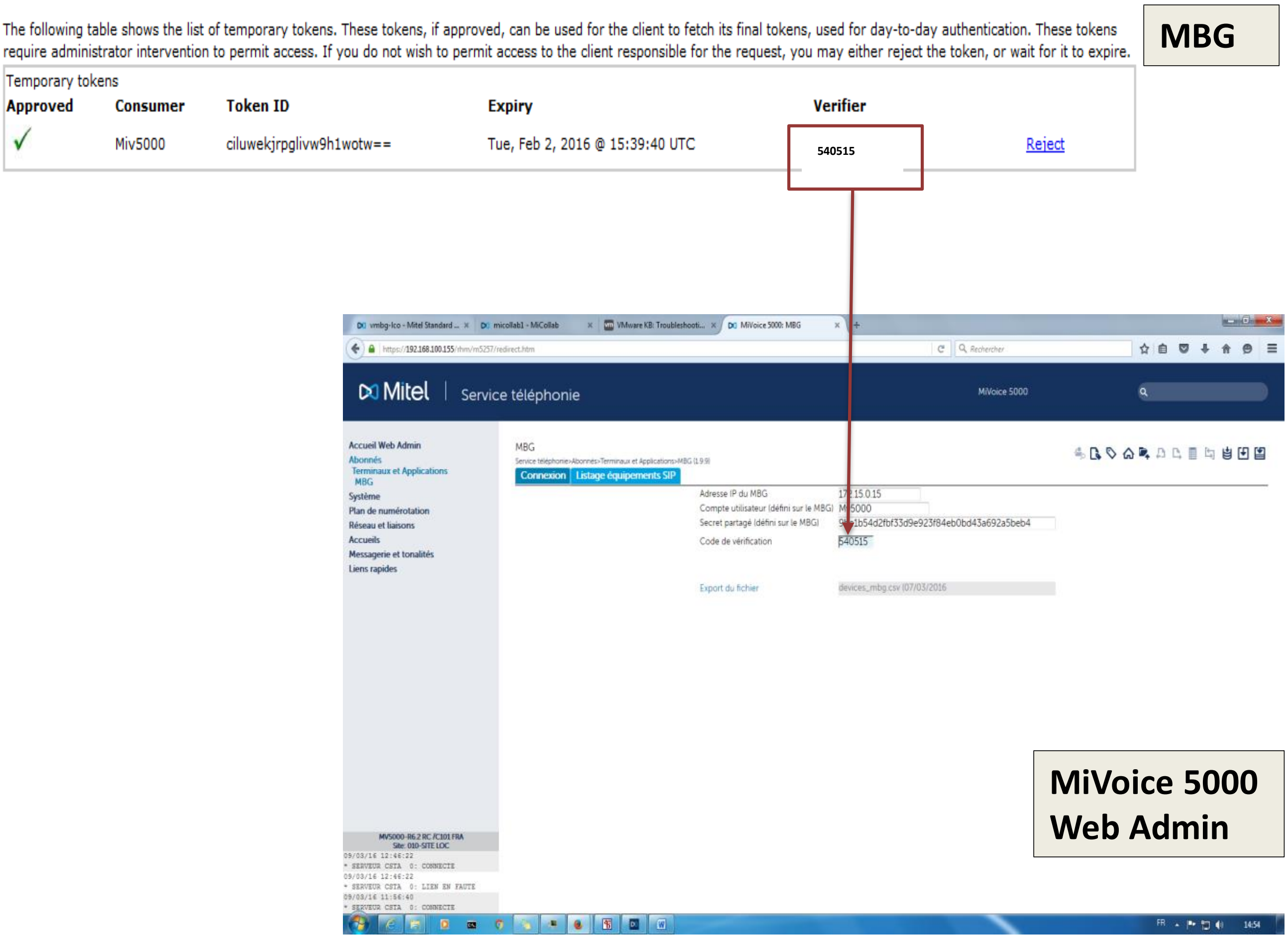
Approved	Consumer	Token ID	Expiry	Verifier	
✗	acs1-mq2	94xv+ifht8szvbs1lfh99a==	Wed, Mar 9, 2016 @ 14:20:21 UTC		Approve Reject

Mitel Standard Linux 10.4.10.0
MiVoice Border Gateway 9.2.0.17
© Mitel Networks Corporation

When the temporary token is approved, a **Verifier** code is generated. This code must be entered in MiVoice 5000 Webadmin as **Verifier Code**.

*On the **MBG Interface**:*

*T*he operator must copy the **Verifier** code associated with this temporary token and paste it into the **Verifier Code** field in Menu **Telephony Service>Subscribers>Terminals and Applications>MBG**.



MBG

The following table shows the list of temporary tokens. These tokens, if approved, can be used for the client to fetch its final tokens, used for day-to-day authentication. These tokens require administrator intervention to permit access. If you do not wish to permit access to the client responsible for the request, you may either reject the token, or wait for it to expire.

Temporary tokens

Approved	Consumer	Token ID	Expiry	Verifier	
✓	Miv5000	ciluwekjrpglivw9h1wotw==	Tue, Feb 2, 2016 @ 15:39:40 UTC	540515	Reject

MiVoice 5000 Web Admin

MBG

Service téléphonie>Abonnés>Terminaux et Applications>MBG (1.9.9)

Adresse IP du MBG: 17[illegible].15.0.15

Compte utilisateur (défini sur le MBG): M[illegible]5000

Secret partagé (défini sur le MBG): 9[illegible]1b54d2fbf33d9e923f84eb0bd43a692a5beb4

Code de vérification: 540515

Export du fichier: devices_mbg.csv (07/03/2016

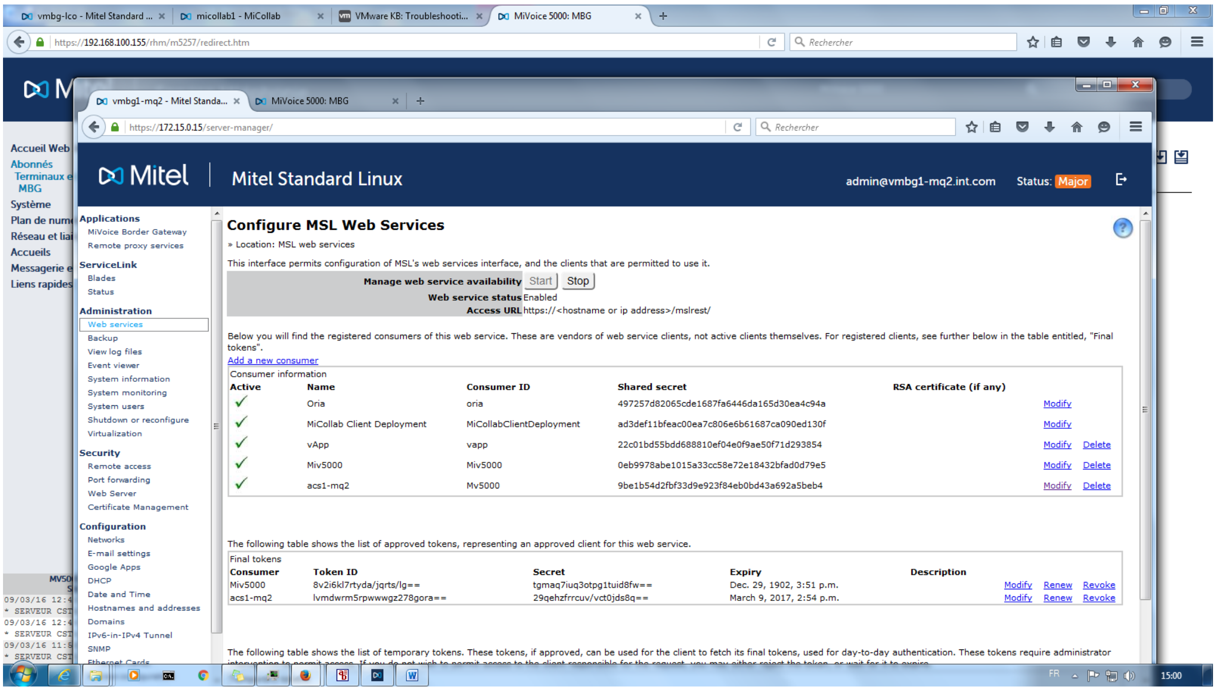
MV5000-R6.2 RC /C101 FRA
Site: 010-SITE LOC

```
09/03/16 12:46:22
* SERVEUR CSTA  0: CONNECTE
09/03/16 12:46:22
* SERVEUR CSTA  0: LIEN EN FAUTE
09/03/16 11:56:40
* SERVEUR CSTA  0: CONNECTE
```

*On the **MiVoice 5000 web admin**:*

When the **Verifier Code** field is entered on MiVoice 5000, MiVoice 5000 confirms the authentication token to the MBG.

The MBG then assigns to MiVoice 5000 a final authentication token (a Token ID pair and the associated secret code with a validity period of one year).



Configure MSL Web Services

» Location: MSL web services

This interface permits configuration of MSL's web services interface, and the clients that are permitted to use it.

Manage web service availability Start Stop

Web service status Enabled

Access URL https://<hostname or ip address>/mslrest/

Below you will find the registered consumers of this web service. These are vendors of web service clients, not active clients themselves. For registered clients, see further below in the table entitled, "Final tokens".

Add a new consumer

Consumer information

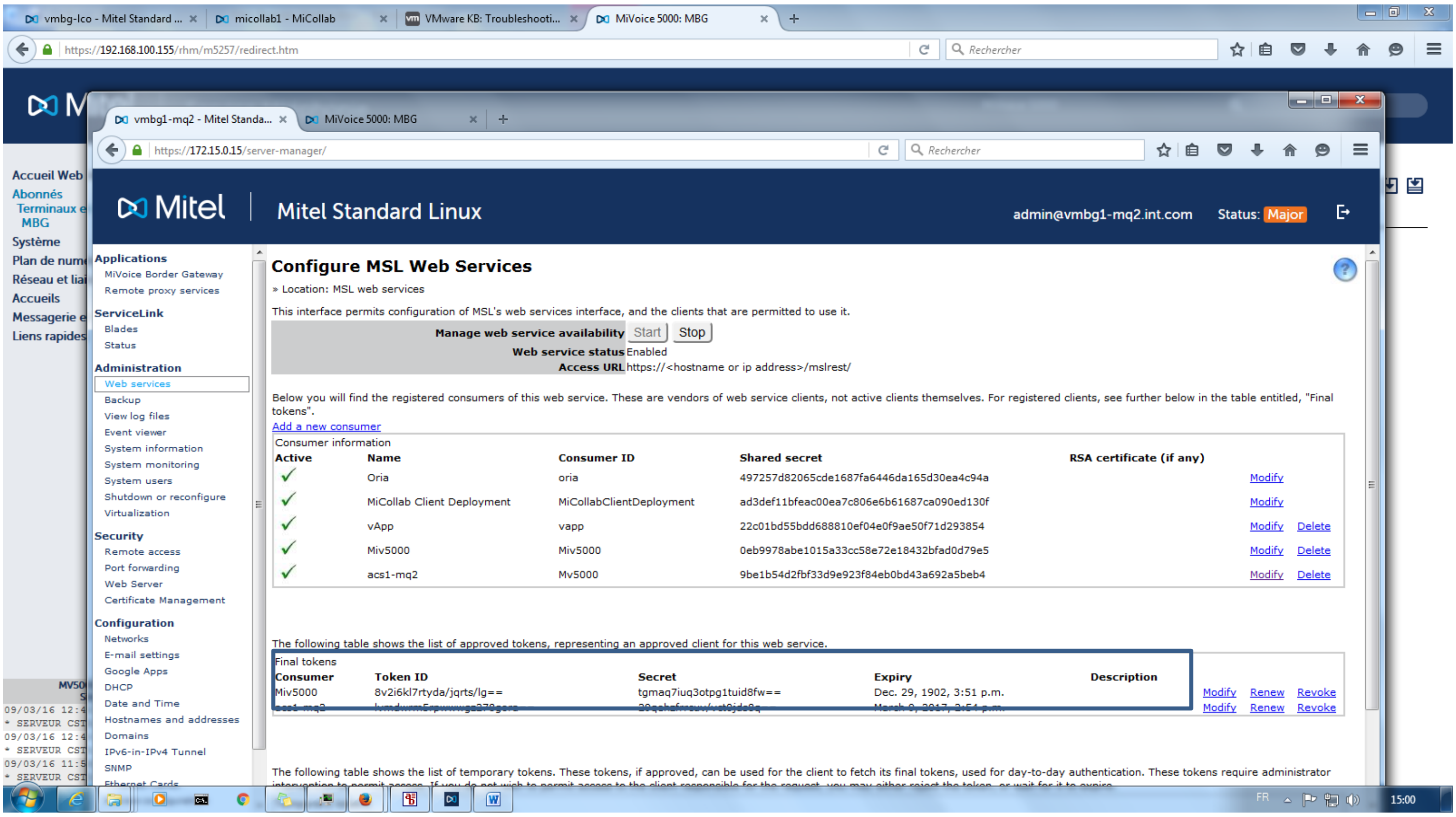
Active	Name	Consumer ID	Shared secret	RSA certificate (if any)		
✓	Oria	oria	497257d82065cde1687fa6446da165d30ea4c94a		Modify	
✓	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806e6b61687ca090ed130f		Modify	
✓	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854		Modify	Delete
✓	Miv5000	Miv5000	0eb9978abe1015a33cc58e72e18432bfad0d79e5		Modify	Delete
✓	acs1-mq2	Mv5000	9be1b54d2fbf33d9e923f84eb0bd43a692a5beb4		Modify	Delete

The following table shows the list of approved tokens, representing an approved client for this web service.

Final tokens

Consumer	Token ID	Secret	Expiry	Description			
Miv5000	8v2i6kl7rtyda/jqrts/lg==	tgmaq7iuq3otpg1tuid8fw==	Dec. 29, 1902, 3:51 p.m.		Modify	Renew	Revoke
acs1-mq2	lvmdwrm5rpwwwgz278gora==	29qehzfrrcuv/vct0jds8q==	March 9, 2017, 2:54 p.m.		Modify	Renew	Revoke

The following table shows the list of temporary tokens. These tokens, if approved, can be used for the client to fetch its final tokens, used for day-to-day authentication. These tokens require administrator



Configure MSL Web Services

» Location: MSL web services

This interface permits configuration of MSL's web services interface, and the clients that are permitted to use it.

Manage web service availability	Start Stop
Web service status	Enabled
Access URL	https://<hostname or ip address>/mslrest/

Below you will find the registered consumers of this web service. These are vendors of web service clients, not active clients themselves. For registered clients, see further below in the table entitled, "Final tokens".

Add a new consumer

Consumer information

Active	Name	Consumer ID	Shared secret	RSA certificate (if any)		
✓	Oria	oria	497257d82065cde1687fa6446da165d30ea4c94a		Modify	
✓	MiCollab Client Deployment	MiCollabClientDeployment	ad3def11bfeac00ea7c806e6b61687ca090ed130f		Modify	
✓	vApp	vapp	22c01bd55bdd688810ef04e0f9ae50f71d293854		Modify	Delete
✓	Miv5000	Miv5000	0eb9978abe1015a33cc58e72e18432bfad0d79e5		Modify	Delete
✓	acs1-mq2	Mv5000	9be1b54d2fbf33d9e923f84eb0bd43a692a5beb4		Modify	Delete

The following table shows the list of approved tokens, representing an approved client for this web service.

Final tokens

Consumer	Token ID	Secret	Expiry	Description			
Miv5000	8v2i6kl7rtyda/jqrts/lg==	tgmaq7iuq3otpg1tuid8fw==	Dec. 29, 1902, 3:51 p.m.		Modify	Renew	Revoke
acs1-mq2	[illegible]	[illegible]	March 9, 2017, 3:54 p.m.		Modify	Renew	Revoke

The following table shows the list of temporary tokens. These tokens, if approved, can be used for the client to fetch its final tokens, used for day-to-day authentication. These tokens require administrator intervention to permit access. If you do not wish to permit access to the client responsible for the request, you may either reject the token, or wait for it to expire.

*On the **MiVoice 5000 web admin**:*

Once the final authentication token is obtained from the MBG,

Menu **Telephony Service>Subscribers>Terminals and Applications>MBG** shows the final token ID and expiry date.

When the connection is set up:

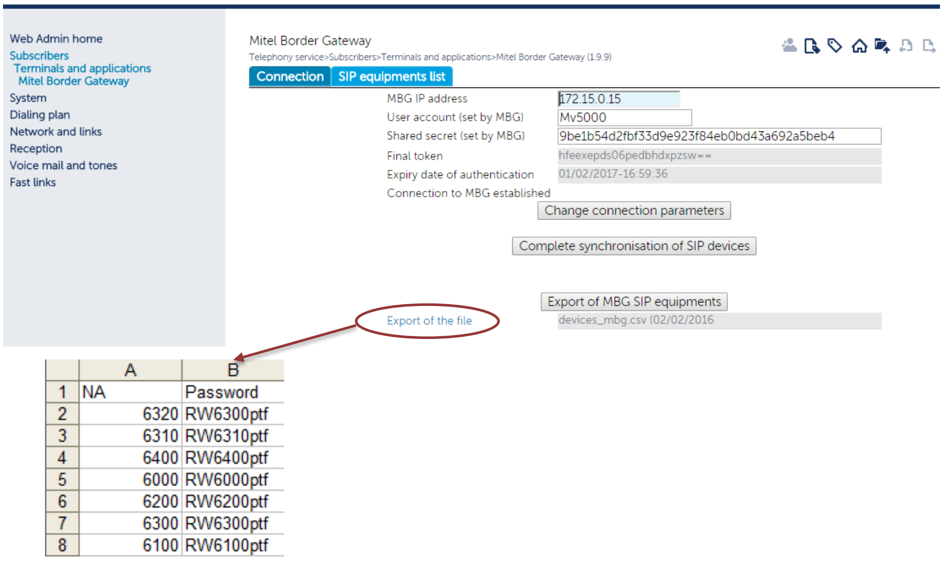
The different buttons can then be used to:

- **Change the login settings:** For deleting all settings so authentication can be restarted if a user account or an MBG is changed.
- **Synchronise SIP devices:** For importing the SIP devices attached to the local iPBX and declared in the MBG.
- **Export SIP devices from the MBG:** for creating the file **devices_mbg.csv**.
- **Export of the file**: for exporting the file **devices_mbg.csv** to the local PC ; useful for MAC files.

The file **devices_mbg.csv** contains several columns derived from the values defined in the MBG (see Section 6.1):

- **Login**: **Set-side username** (Remote Worker login value)
- **NA**: **Icp-side username** (Remote Worker subscription number)
- **Password**: **Set-side password** (MD5 password between the phone and MBG)

Then see Chapter 6.4 for information on how to use this file.


Web Admin home
Subscribers
Terminals and applications
Mitel Border Gateway
System
Dialing plan
Network and links
Reception
Voice mail and tones
Fast links
Mitel Border Gateway
Telephony service>Subscribers>Terminals and applications>Mitel Border Gateway (1.9.9)
Connection
SIP equipments list
Change connection parameters
Complete synchronisation of SIP devices
Export of MBG SIP equipments
Export of the file

MBG IP address: 172.15.0.15

User account (set by MBG): Mv5000

Shared secret (set by MBG): 9be1b54d2fbf33d9e923f84eb0bd43a692a5beb4

Final token: hfeexepds06pedbhdxpzsw==

Expiry date of authentication: 01/02/2017-16:59:36

Connection to MBG established

devices_mbg.csv (02/02/2016

	A	B
1	NA	Password
2	6320	RW6300ptf
3	6310	RW6310ptf
4	6400	RW6400ptf
5	6000	RW6000ptf
6	6200	RW6200ptf
7	6300	RW6300ptf
8	6100	RW6100ptf

5.5 CONFIGURING THE MBG IN WHITE LIST

✓ **Common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs**

As the MBG concentrates the flow of all remote users, the MBG IP address must be put in the iPBX White list to avoid unwanted automatic listing of the MBG by the iPBX.

On the iPBX Webadmin

From Menu **Telephony Service>Network & Links>Quality of Service>SIP Security**

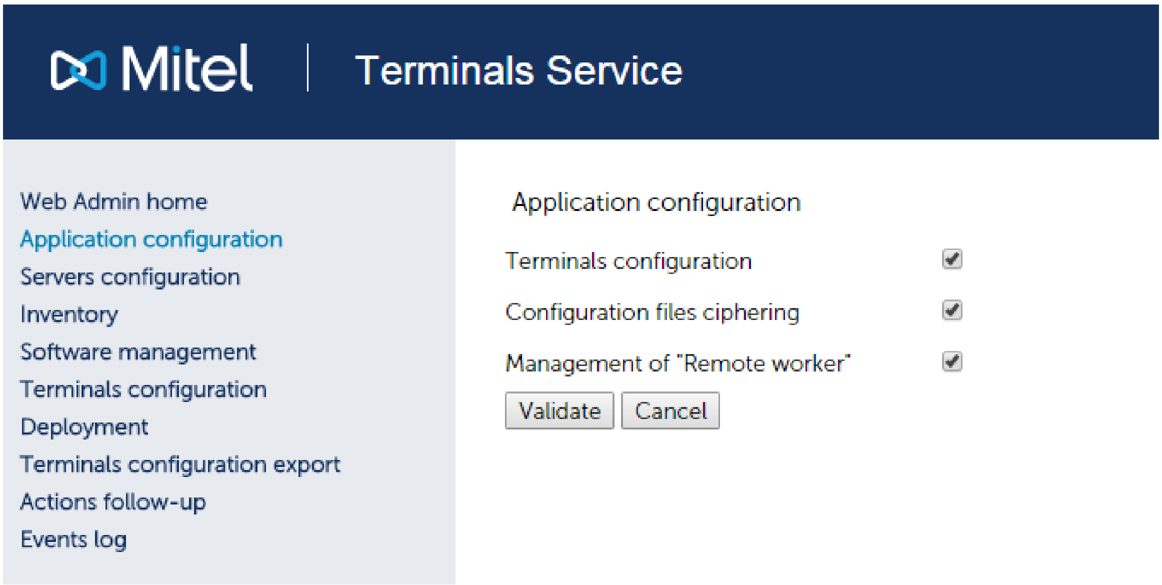
Define the MBG address in the White list.

See iPBX Operating Manual – AMT/PTD/PBX0080.

5.6 CONFIGURING TMA (PHONE SERVICE)

Application configuration menu

- Tick the boxes indicated:



Application configuration

Terminals configuration ☑

Configuration files ciphering ☑

Management of "Remote worker" ☑

File encryption is not mandatory but is highly recommended.

For the integrated TMA, the integrated (= "local") FTP server is automatically set as soon as the **Remote worker management** box is ticked.

5.7 DEFINING THE DOWNLOAD SERVER FOR REMOTE WORKERS

The aim is to define the download servers dedicated to Remote Worker phones.

For an integrated TMA:

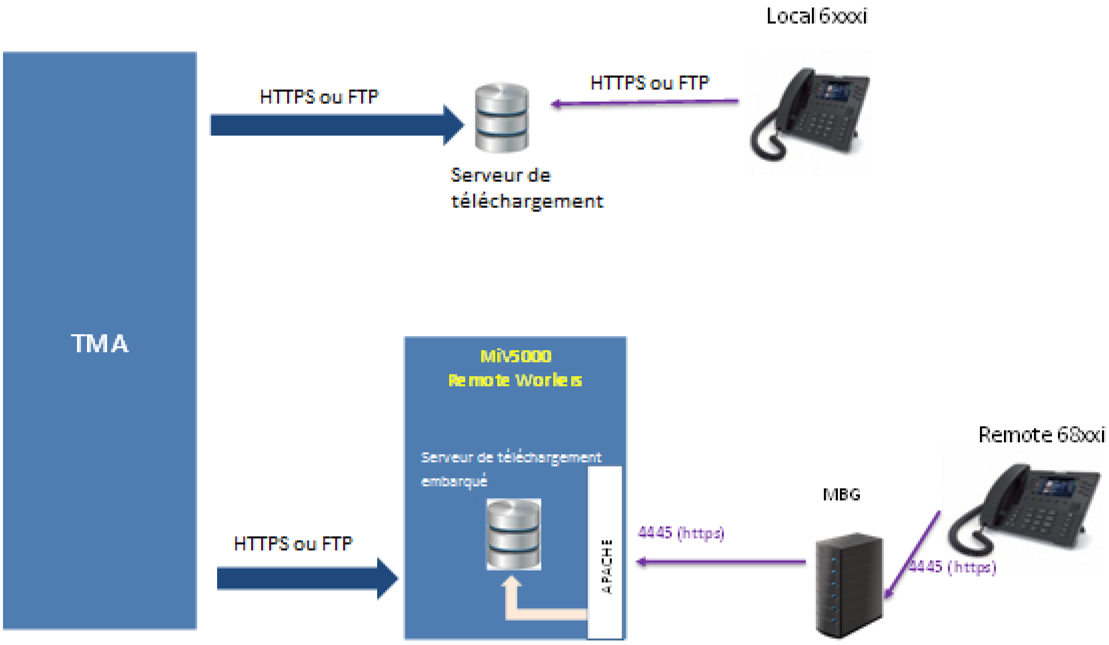
The local FTP server is automatically added for the Remote Worker phones (see previous section).

⚠ **IMPORTANT NOTE: The iPBX integrating this embedded FTP server must be the same one on which the Remote Worker subscriptions are declared.**

For the centralised TMA/TMA-EP in MiVoice 5000 Manager:

Define the server(s) dedicated to the Remote Worker phones.

Note: If the same server is to be used for local and remote phones, it must be declared twice (once for remote phones and once for local phones).



5.7.1 Configuring the download server for remote workers

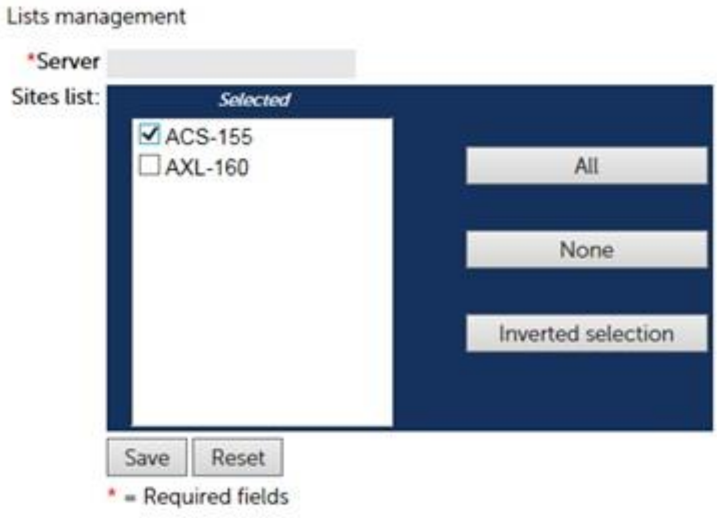
The following information is required:

- Name
- IP address (must match the PBX on which the remote workers are defined)
- Port: value fixed at 21
- List sites on which the Remote Workers attached to the given download server are declared
- Login/password information for 6xxxi phones, entered by default with the values of the embedded FTP server (FTP account mngt_ftp_67xxi)

Once this information is validated, the server will appear on the "List of Remote Workers Servers" table.

From the **Server configuration** menu:

- Click **Add a new server** in the Remote Worker area.
- Fill in all necessary fields as indicated above.
- Define the list of iPBX sites attached to this server for the Remote Workers (using the **Modify the list of sites in the previous screen** button).



Lists management

*Server

Sites list: Selected

☑ ACS-155
□ AXL-160

* = Required fields

- Select only the site to which the Remote Workers are attached.
- Save and confirm.

Once this information has been validated, the download server appears on the **Server List** table.

- **Modify server** allows you to modify the server settings.
- **Delete server** allows you to delete the server.

6 PREPARING THE DEPLOYMENT

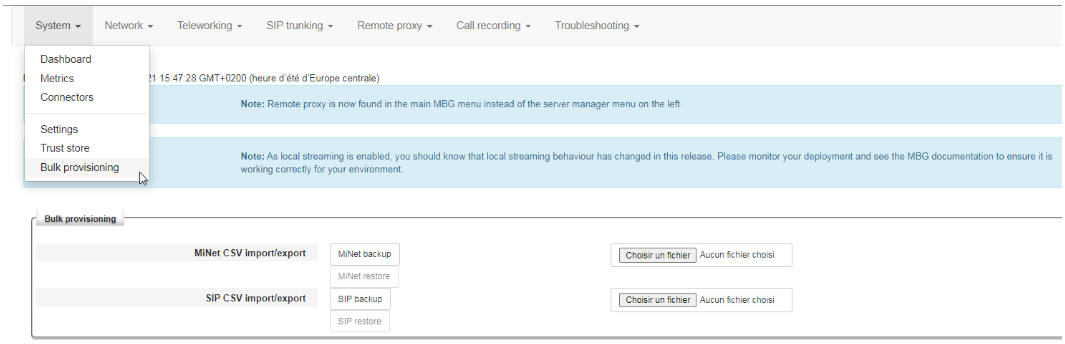
6.1 DECLARING SIP DEVICES (6800 SIP AND 6900 IP PHONES)

✓ **Not common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs (see the various sections below)**

6.1.1 STANDALONE MBG

This configuration must be carried out for each 68xxi phone in Remote Worker mode.

Equipment can also be created by downloading a CSV file > Menu **System>Bulk provisioning**.



21 15:47:28 GMT+0200 (heure d'été d'Europe centrale)

Note: Remote proxy is now found in the main MBG menu instead of the server manager menu on the left.

Note: As local streaming is enabled, you should know that local streaming behaviour has changed in this release. Please monitor your deployment and see the MBG documentation to ensure it is working correctly for your environment.

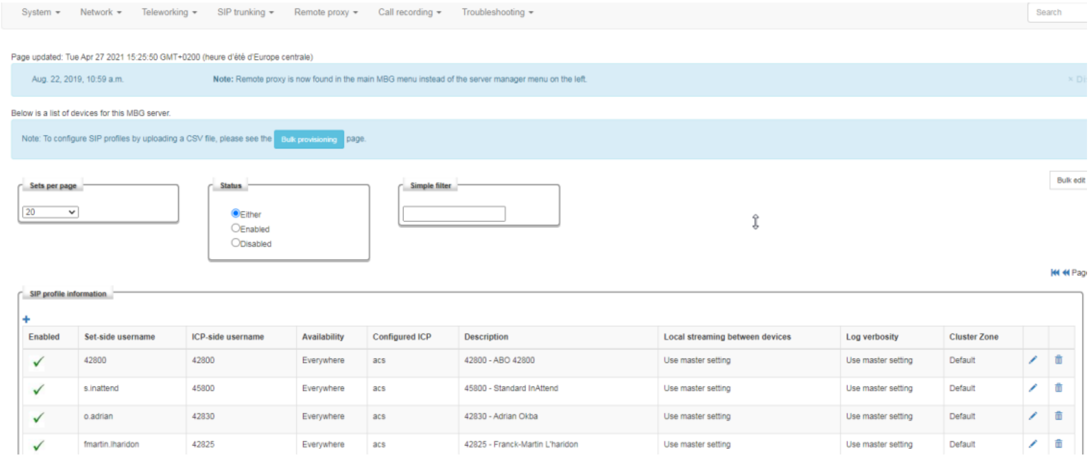
Bulk provisioning

MiNet CSV import/export MiNet backup MiNet restore Choisir un fichier Aucun fichier choisi

SIP CSV import/export SIP backup SIP restore Choisir un fichier Aucun fichier choisi

Configuring Remote Worker phones

Menu **MiVoice Border Gateway**, **Teleworking> SIP** tab



Page updated: Tue Apr 27 2021 15:25:50 GMT+0200 (heure d'été d'Europe centrale)

Aug. 22, 2019, 10:59 a.m. **Note:** Remote proxy is now found in the main MBG menu instead of the server manager menu on the left.

Below is a list of devices for this MBG server.

Note: To configure SIP profiles by uploading a CSV file, please see the Bulk provisioning page.

Sets per page: 20

Status: ● Either ○ Enabled ○ Disabled

Simple filter:

SIP profile information

+

Enabled	Set-side username	ICP-side username	Availability	Configured ICP	Description	Local streaming between devices	Log verbosity	Cluster Zone		
✓	42800	42800	Everywhere	acs	42800 - ABO 42800	Use master setting	Use master setting	Default	✎	🗑
✓	s.inattend	45800	Everywhere	acs	45800 - Standard InAttend	Use master setting	Use master setting	Default	✎	🗑
✓	o.adrian	42830	Everywhere	acs	42830 - Adrian Okba	Use master setting	Use master setting	Default	✎	🗑
✓	fmartin.lharidon	42825	Everywhere	acs	42825 - Franck-Martin L'haridon	Use master setting	Use master setting	Default	✎	🗑

In the **SIP profile information** area, click + on the top left side of the SIP profile information area.

In the next window, configure the settings as shown below:

Configured ICP:

- **ICP** => **I**P **C**onnection **P**oint = MiVoice5000

Set-side username:

- Remote Worker login value

Set-side password:

- MD5 password between the phone and MBG

Icp-side username:

- Remote Worker subscription number

Icp-side password:

- MD5 password for the MiVoice 5000 subscription

Description:

- Name considered for the device used, for example, for listing.

Fill in all the fields then click **Save**.

Repeat the procedure for the following SIP devices.

6.1.2 INTEGRATED MBG OR MBG IN CLUSTER MODE WITH MICOLLAB

The 6800 SIP and 6900 IP phone Remote Worker only work in SSO mode.

When the MBG is clustered with MiCollab, the SIP devices are provisioned by MiCollab server. The following identification is performed for all Remote Worker subscribers:

Menu **MiVoice Border Gateway**, **Teleworking> SIP** tab

In the **SIP profile information** area, click +.

Configure the following fields as indicated:

Set-side username: Login

Set-side password: Randomly generated by the MiCollab server.

6.2 SPECIFIC CONFIGURATION OF A MICOLLAB SOFTPHONE CLIENT

- ✓ **Common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs**

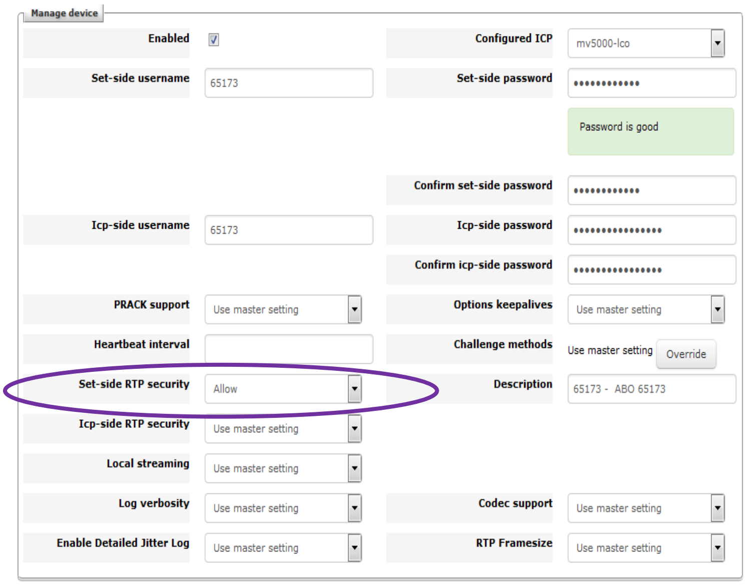
This case only concerns users with a Remote Worker 6800 SIP or 6900 IP phone and a Micollab Softphone in remote access.

For this subscription, the remote phone must be logged in before the Micollab Softphone.

As encryption is not currently available on MiCollab Softphone Clients, the following configuration is required:

On the MBG:

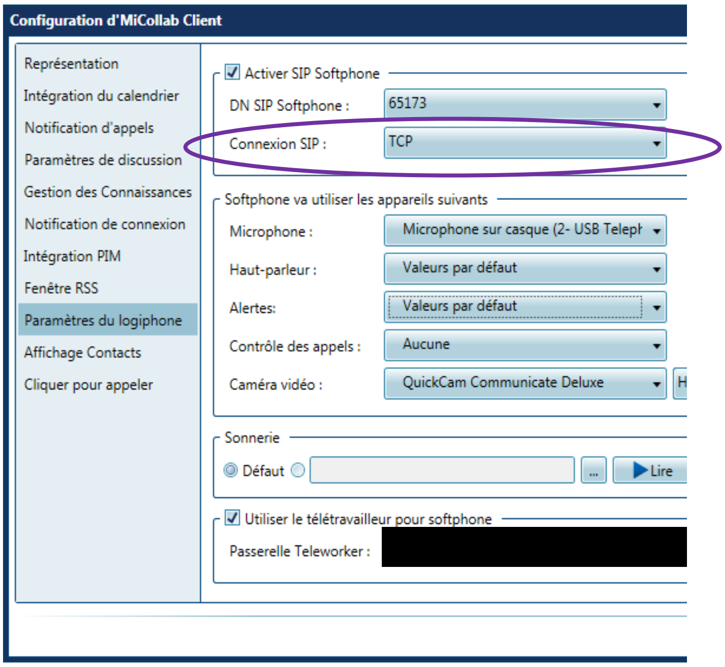
Allowed but not required



Manage device

Enabled	☑	Configured ICP	mv5000-lco
Set-side username	65173	Set-side password	••••••••••••
			Password is good
		Confirm set-side password	••••••••••••
Icp-side username	65173	Icp-side password	•••••••••••••••
		Confirm icp-side password	•••••••••••••••
PRACK support	Use master setting	Options keepalives	Use master setting
Heartbeat interval		Challenge methods	Use master setting Override
Set-side RTP security	Allow	Description	65173 - ABO 65173
Icp-side RTP security	Use master setting		
Local streaming	Use master setting		
Log verbosity	Use master setting	Codec support	Use master setting
Enable Detailed Jitter Log	Use master setting	RTP Framesize	Use master setting

On the MiCollab Softphone Client:



Configuration d'MiCollab Client

☑ Activer SIP Softphone

DN SIP Softphone : 65173

Connexion SIP : TCP

Softphone va utiliser les appareils suivants

Microphone : Microphone sur casque (2- USB Teleph

Haut-parleur : Valeurs par défaut

Alertes: Valeurs par défaut

Contrôle des appels : Aucune

Caméra vidéo : QuickCam Communicate Deluxe

Sonnerie

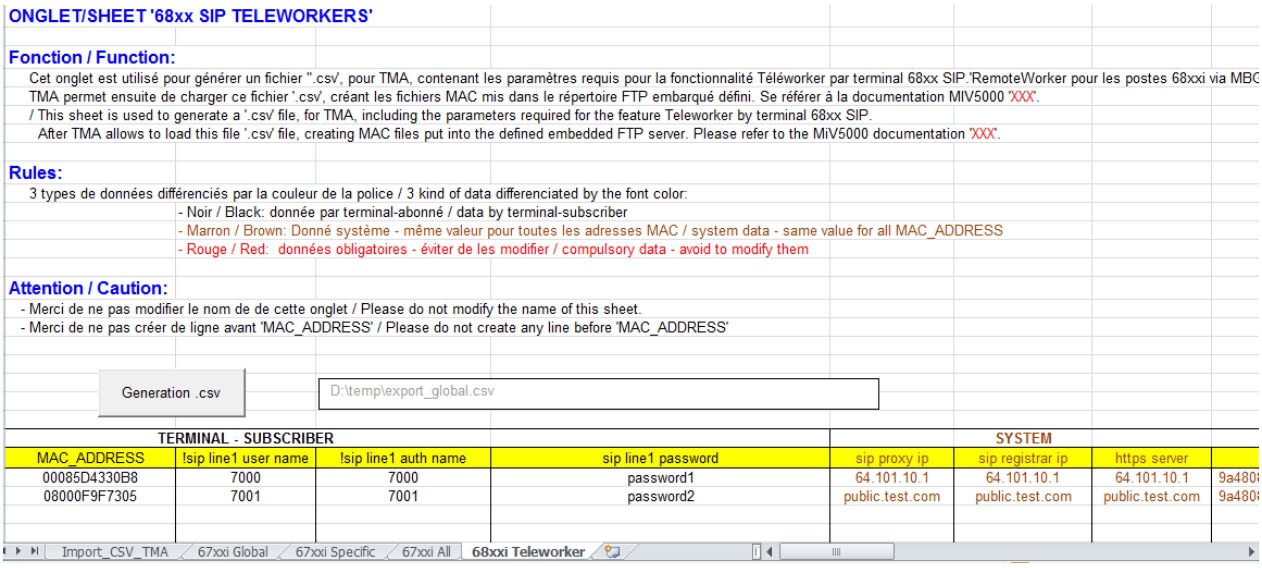
● Défaut ○

☑ Utiliser le télétravailleur pour softphone

Passerelle Teleworker : [redacted]

6.3 PREPARING THE REMOTE WORKER CSV FILE FROM THE GENERIC PROVISIONING FILE

The file **TMA_provisionning_6xxxi@version.xls** is available on Mitel’s extranet.



ONGLET/SHEET '68xx SIP TELEWORKERS'

Fonction / Function:

Cet onglet est utilisé pour générer un fichier ".csv', pour TMA, contenant les paramètres requis pour la fonctionnalité Téléworker par terminal 68xx SIP.'RemoteWorker pour les postes 68xxi via MBG
TMA permet ensuite de charger ce fichier '.csv', créant les fichiers MAC mis dans le répertoire FTP embarqué défini. Se référer à la documentation MIV5000 'XXX'.
/ This sheet is used to generate a '.csv' file, for TMA, including the parameters required for the feature Teleworker by terminal 68xx SIP.
After TMA allows to load this file '.csv' file, creating MAC files put into the defined embedded FTP server. Please refer to the MiV5000 documentation 'XXX'.

Rules:

3 types de données différenciés par la couleur de la police / 3 kind of data differenciated by the font color:

- Noir / Black: donnée par terminal-abonné / data by terminal-subscriber
- Marron / Brown: Donné système - même valeur pour toutes les adresses MAC / system data - same value for all MAC_ADDRESS
- Rouge / Red: données obligatoires - éviter de les modifier / compulsory data - avoid to modify them

Attention / Caution:

- Merci de ne pas modifier le nom de de cette onglet / Please do not modify the name of this sheet.
- Merci de ne pas créer de ligne avant 'MAC_ADDRESS' / Please do not create any line before 'MAC_ADDRESS'

D:\temp\export_global.csv

TERMINAL - SUBSCRIBER				SYSTEM			
MAC_ADDRESS	!sip line1 user name	!sip line1 auth name	sip line1 password	sip proxy ip	sip registrar ip	https server	
00085D4330B8	7000	7000	password1	64.101.10.1	64.101.10.1	64.101.10.1	9a480
08000F9F7305	7001	7001	password2	public.test.com	public.test.com	public.test.com	9a480

- Fill in the **68xxi Teleworker** tab according to the rules below (also listed in this file).
- Then generate the file in csv format (using the **Generate .CSV** button).

The other tabs are for Global and Specific data for all 6xxxi SIP Phones. For more information, refer to the 6xxxi Operating Manual - AMT/PTD/TR/0043.

Rules for Remote Workers (outlined in the file):

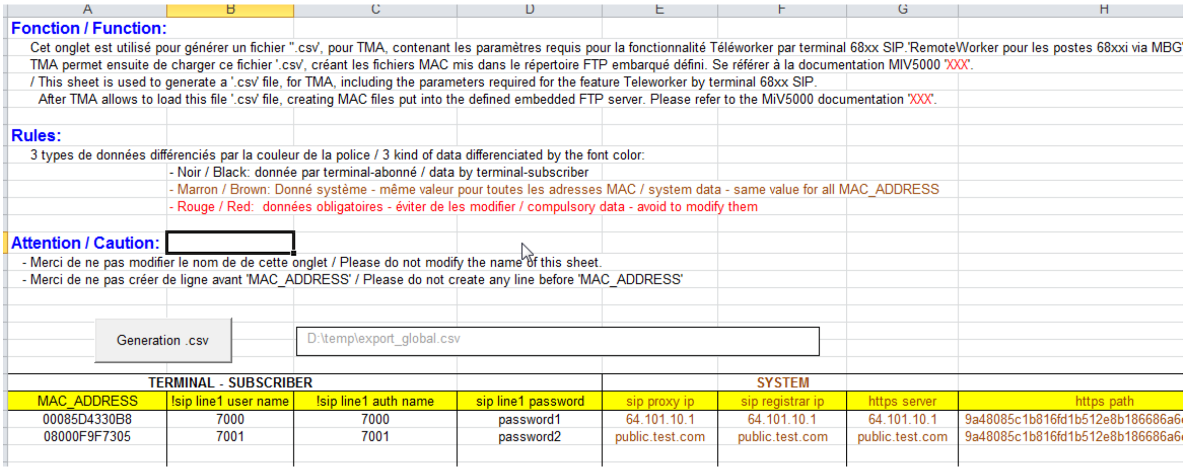
3 types of data must be differentiated by font colour:

Black: Data to be entered for each Remote Worker phone

Brown: System data to be entered for all MAC addresses

Red: Mandatory date that should not be modified

Example:



Fonction / Function:

Cet onglet est utilisé pour générer un fichier ".csv', pour TMA, contenant les paramètres requis pour la fonctionnalité Téléworker par terminal 68xx SIP.'RemoteWorker pour les postes 68xxi via MBG'
TMA permet ensuite de charger ce fichier '.csv', créant les fichiers MAC mis dans le répertoire FTP embarqué défini. Se référer à la documentation MIV5000 'XXX'.
/ This sheet is used to generate a '.csv' file, for TMA, including the parameters required for the feature Teleworker by terminal 68xx SIP.
After TMA allows to load this file '.csv' file, creating MAC files put into the defined embedded FTP server. Please refer to the MiV5000 documentation 'XXX'.

Rules:

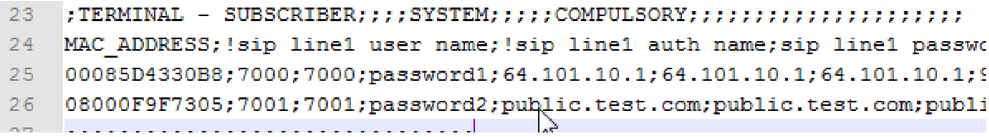
3 types de données différenciés par la couleur de la police / 3 kind of data differenciated by the font color:
- Noir / Black: donnée par terminal-abonné / data by terminal-subscriber
- Marron / Brown: Donné système - même valeur pour toutes les adresses MAC / system data - same value for all MAC_ADDRESS
- Rouge / Red: données obligatoires - éviter de les modifier / compulsory data - avoid to modify them

Attention / Caution:

- Merci de ne pas modifier le nom de de cette onglet / Please do not modify the name of this sheet.
- Merci de ne pas créer de ligne avant 'MAC_ADDRESS' / Please do not create any line before 'MAC_ADDRESS'

TERMINAL - SUBSCRIBER				SYSTEM			
MAC_ADDRESS	!sip line1 user name	!sip line1 auth name	sip line1 password	sip proxy ip	sip registrar ip	https server	https path
00085D4330B8	7000	7000	password1	64.101.10.1	64.101.10.1	64.101.10.1	9a48085c1b816fd1b512e8b186686a6
08000F9F7305	7001	7001	password2	public.test.com	public.test.com	public.test.com	9a48085c1b816fd1b512e8b186686a6

Cliquer sur le Bouton
Generation .csv



```
;TERMINAL - SUBSCRIBER;;;;SYSTEM;;;;;COMPULSORY;;;;;;;;;;;;;;;;;;;;
MAC_ADDRESS;!sip line1 user name;!sip line1 auth name;sip line1 passwo
00085D4330B8;7000;7000;password1;64.101.10.1;64.101.10.1;64.101.10.1;9
08000F9F7305;7001;7001;password2;public.test.com;public.test.com;publi
```

Full list:

Data to be entered for each Remote Worker

- **MAC_ADDRESS:** MAC address of Remote Worker's 6800 SIP or 6900 IP phone
- **!sip line1 user name:** Subscriber login (from the MBG file devices_mbg.csv)
- **!sip line1 auth name:** Subscriber login (from the MBG file devices_mbg.csv)
  - In SSO mode: Subscriber's login
  - Without SSO mode: Subscriber's number
- **sip line1 password:** Set-side password (from MBG file devices_mbg.csv)

System data to be entered for all MAC addresses

- sip proxy ip: Public address or name of MBG
- sip registrar ip: Public address or name of MBG
- **https server: Public address or name of MBG**
- **https path: MiVoice 5000 hash value**
- keyboard script: iPBX access URL for Remote Worker stations

6.4 REMOTE WORKER MANAGEMENT BY TMA

6.4.1 PREREQUISITES

The CSV file is available (created from the Provisioning file). See Section 6.3.

6.4.2 DEPLOYING FROM THE DOWNLOAD SERVER

6.4.2.1 Principle

The action consists in sending the following from the TMA **Deployment** menu to the download server dedicated to Remote worker phones:

- The certificate CA_Mitel.pem must be deposited (in the field **Other file, template, certificate …)**
- Specific data file(s) mac.cfg generated while importing a csv file (**Remote workers (cs) file** field)

Note: **The "Specific (csv) file" menu is greyed out because it cannot be used to manage remote workers; this menu can only be used to send specific files to a download server for non-Remote Worker phones.**

6.4.2.2 Deployment by integrated TMA

The integrated FTP server must be active.

The action only consists in generating the remote Worker file and sending the certificate:

For other files, the integrated FTP server already contains the correct phone software release and the associated global data file.

From the **Deployment** menu:

- Select the "local" server from the list of "Remote Workers" FTP servers.
- From the **Remote Workers (csv) file** field, import the Remote Worker’s "csv” file from the provisioning file defined in Section 6.3.
- Import the certificate file from the **Other file, template, certificate …)** field.
- Click **Validate**.

The action is taken immediately.

The progress of the action can be seen from the **Actions display** and **Events log** menu.

At the end of the action, the message **Deployment completed** is displayed.

6.4.2.3 Deployment by TMA managed from MiVoice 5000 manager

From the **Deployment** menu

- Choose a server from the list of Remote Worker servers.
- If possible, choose a software release from the "Software version" list.
- If necessary, import a global data file.
- From the **Remote Workers (csv) file** field, import the Remote Worker’s "csv” file from the provisioning file defined in Section 6.3.
- Import the certificate file from the **Other file, template, certificate …)** field.
- Click **Validate**.

The action is taken immediately.

The progress of the action can be seen from the **Actions display** and **Events log** menu.

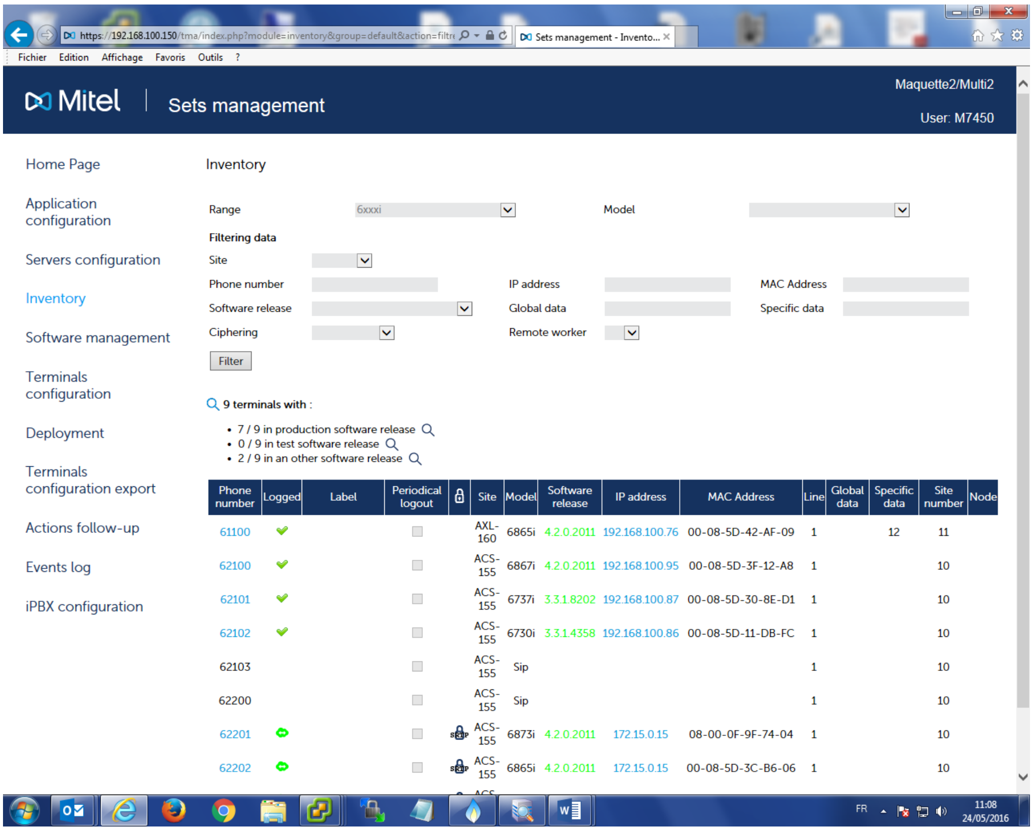
At the end of the action, the message **Deployment completed** is displayed.

6.5 DISPLAY/INVENTORY OF REMOTE WORKER PHONES

Once the deployment action has been successfully completed, the list of Remote Worker phones can be viewed from the TMA main menu; select the **Inventory** menu.

In the **Inventory** menu, **Remote worker management** tab, the list of remote workers phones is displayed for each site.

For an integrated TMA: There is only one “local” site.



https://192.168.100.150/tma/index.php?module=inventory&group=default&action=filtre
Sets management - Invento...
Fichier Edition Affichage Favoris Outils ?
Mitel
Sets management
Maquette2/Multi2
User: M7450
Home Page
Application configuration
Servers configuration
Inventory
Software management
Terminals configuration
Deployment
Terminals configuration export
Actions follow-up
Events log
iPBX configuration
FR
11:08
24/05/2016

Inventory

Range: 6xxxi
Model:

Filtering data

Site:
Phone number:
IP address:
MAC Address:
Software release:
Global data:
Specific data:
Ciphering:
Remote worker:

Filter

9 terminals with :

- 7 / 9 in production software release
- 0 / 9 in test software release
- 2 / 9 in an other software release

Phone number	Logged	Label	Periodical logout	🔒	Site	Model	Software release	IP address	MAC Address	Line	Global data	Specific data	Site number	Node
61100	✓		□		AXL-160	6865i	4.2.0.2011	192.168.100.76	00-08-5D-42-AF-09	1		12	11	
62100	✓		□		ACS-155	6867i	4.2.0.2011	192.168.100.95	00-08-5D-3F-12-A8	1			10	
62101	✓		□		ACS-155	6737i	3.3.1.8202	192.168.100.87	00-08-5D-30-8E-D1	1			10	
62102	✓		□		ACS-155	6730i	3.3.1.4358	192.168.100.86	00-08-5D-11-DB-FC	1			10	
62103			□		ACS-155	Sip				1			10	
62200			□		ACS-155	Sip				1			10	
62201	↔		□	SRTP	ACS-155	6873i	4.2.0.2011	172.15.0.15	08-00-0F-9F-74-04	1			10	
62202	↔		□	SRTP	ACS-155	6865i	4.2.0.2011	172.15.0.15	00-08-5D-3C-B6-06	1			10	

The ↔ icon concerns Remote Worker phones and indicates that the phone is deployed and connected.

Possible actions: Display or delete

Display: “Remote worker management” window

List of MAC addresses of remote worker phones that have been deployed.

One or more terminals can be deleted, which implies deleting the specific file locally and on the FTP server

Delete: Removing all specific files associated with the terminals described in the list locally and on the download server.

A **Filter** function is also available.

7 DEPLOYING REMOTE WORKER PHONES

✓ **Common to standalone MBGs , MBGs embedded in MiCollab or clustered MBGs**

The administrator retrieves the MAC address of the 6800 SIP or 6900 IP phone meant for the remote user.

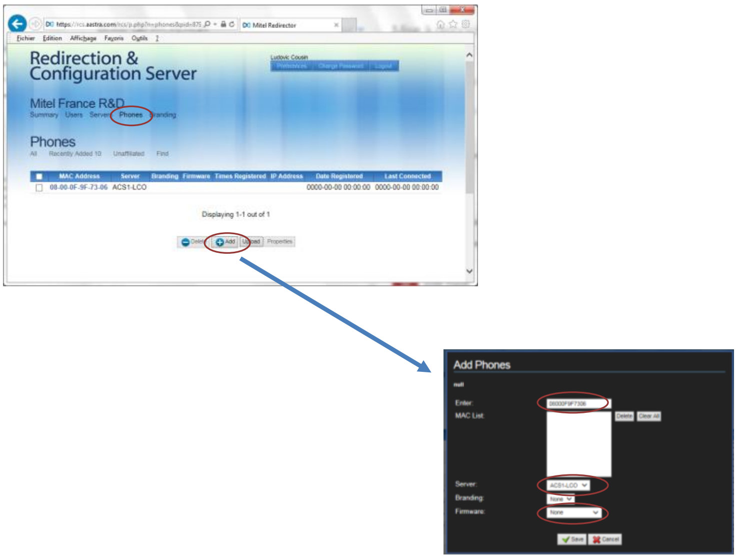
7.1 CONFIGURING THE ATTACHED IPBX FOR EACH REMOTE WORKER PHONE

7.1.1 WITH RCS

RCS server access URL: https://rcs.aastra.com/rcs/login.php

From the RCS welcome screen

- In the **Phones** menu, fill in the different fields as follows:
- the MAC addresses of each phone attached to the IPBX defined below.
- Enter the (iPBX) configuration server name.
- Branding: **None**
- Firmware override:
  - ○ The 6900 phone can be upgraded from Minet firmware to SIP firmware through this operation.
  - ○ Take SIP firmware 5.0.0 minimum.
- Click **Save**.


https://rcs.aastra.com/rcs/p.php?n=phones&pid=875
Mitel Redirector
Fichier Edition Affichage Favoris Outils ?
Redirection & Configuration Server
Ludovic Cousin
Preferences Change Password Logout
Mitel France R&D
Summary Users Servers Phones Branding
Phones
All Recently Added 10 Unaffiliated Find
Delete Add Upload Properties
Add Phones
null
Delete Clear All
Save Cancel

☐	MAC Address	Server	Branding	Firmware	Times Registered	IP Address	Date Registered	Last Connected
☐	08-00-0F-9F-73-06	ACS1-LCO					0000-00-00 00:00:00	0000-00-00 00:00:00

Displaying 1-1 out of 1

Enter: 08000F9F7306

MAC List:

Server: ACS1-LCO

Branding: None

Firmware: None

The remote station, after a factory reset (in SIP mode) will connect to the RCS server and automatically retrieve the address of the MBG associated with the iPBX in question.

7.1.2 WITHOUT RCS SERVER

The configuration must be carried out by the administrator or by the user (according to the instructions given by the administrator) for each Remote Worker phone.

First, perform a factory reset of the phone via Menu **Reinit** >**Reset to factory settings**.

Log on to the phone’s web interface: **https:\\IP address of the 6800 SIP or 6900 IP Phone (in SIP mode)**.

In the **Configuration server** menu:

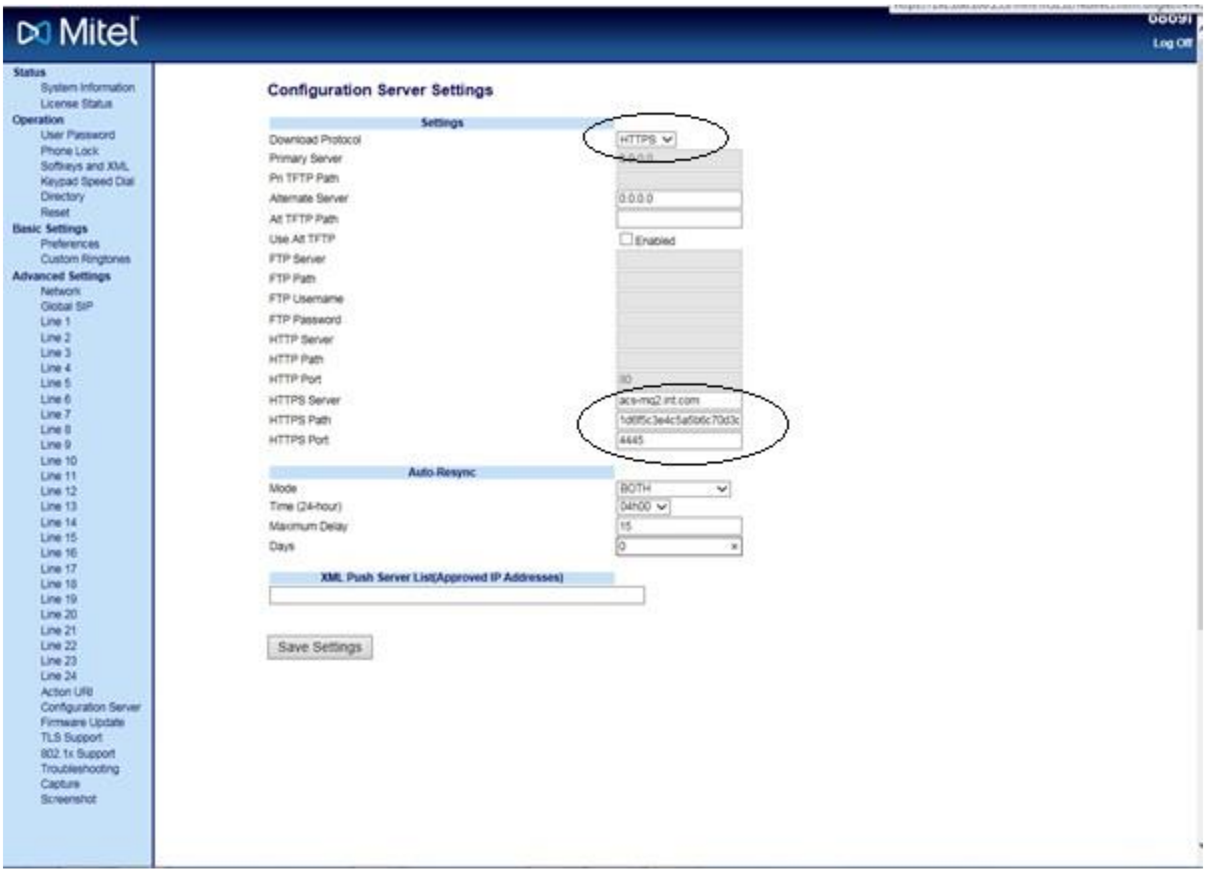
Fill in the following values:

- **Download protocol**: HTTPS
- **HTTPS server**: MBG name or public address
- **HTTPS path**: Access path including the URL hash key enabling the phones to download their configuration file. See the value in Section 5.2.

  Example: **https://name_server:4445/3f52a279885152701d8f2f39d9bcfc36/ftp_67xxi**
- **HTTPS port**: The corresponding port for Link **4445**.

Save the settings then simply restart the phone. It may be necessary to disable the DHCP options.

The remote phone, after a reboot, will then connect to its iPBX via the MBG and retrieve its configuration files.



Configuration Server Settings

Settings	
Download Protocol	HTTPS
Primary Server	0.0.0.0
Pri TFTP Path	
Alternate Server	0.0.0.0
Alt TFTP Path	
Use Alt TFTP	□ Enabled
FTP Server	
FTP Path	
FTP Username	
FTP Password	
HTTP Server	
HTTP Path	
HTTP Port	80
HTTPS Server	acs-mq2.int.com
HTTPS Path	1d0f5c3e4c5a5b6c70d3c
HTTPS Port	4445

Auto Resync	
Mode	BOTH
Time (24-hour)	04h00
Maximum Delay	15
Days	0

XML Push Server List(Approved IP Addresses)

8 CONFIGURING THE EMERGENCY NUMBER FOR FIXED REMOTE WORKERS

IMPORTANT:

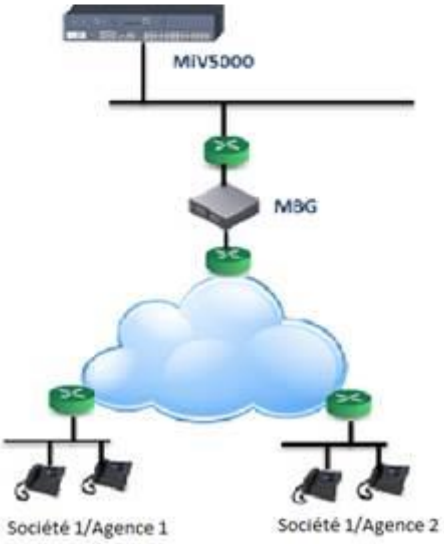
For this section, also see Mitel Gateways and MiVoice 5000 Server - Operating Manual for the configuration of the numbering plan, abbreviated numbers and special numbers for emergency calls. This documents is available on Mitel's website.

8.1 PRINCIPLE

For a remote worker, a call to an emergency number must be made to the right service in relation to their location.

Example: If 18 is dialled by the remote worker, the call is made to the public fire brigade number for the area concerned.

If the remote workers are located at different sites and connected via an MBG, IP-based location is not suitable because in this case all subscribers are seen with the same IP address.



To solve this problem, abbreviated numbers are used. Abbreviated numbers are defined according to administrative hierarchies.

For each hierarchy, abbreviated numbers can be defined with different public numbers.

To apply this mechanism to special numbers, the special number configuration must be changed in the special number menu.

For example, if a user dials 119, either 00130964718 or 00130964719 will be called, depending on the subscriber's administrative hierarchy (location).

In this way, a group of people with the same administrative hierarchy can call the same emergency service number by simply dialling the same special number.

The main steps for making emergency calls to different public numbers based on location are as follows:

- It is all about grouping together, in the same administrative hierarchy, subscribers from one or more sites with the same geographic location.
- Create different administrative hierarchies by the agencies' geographic region.
- Assign an identical administrative hierarchy for each subscription of the same agency (Company1/Agency 1 in the example).
  This administrative hierarchy must correspond to the location of the subscribers' agency.
- Define short codes according to the administrative hierarchy.

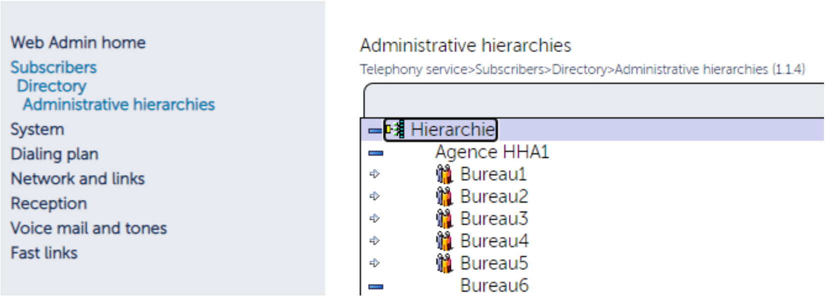
- Configure the special numbers (emergency numbers) for the abbreviated number and assign them respectively according to administrative hierarchy. E.g.:
    - Configure the special numbers with the prefix of the abbreviated number (Example: * 3529) combined with the previously declared number of the emergency service to be called (00130964018).
- Declare the public call number of the required emergency services of each geographic region in the external record directory and assign them the same abbreviated number with the corresponding administrative hierarchy of the region concerned.

In this way, a group of people with the same administrative hierarchy can call the same emergency service number by simply dialling the same special number.

8.2 CONFIGURATION

- Group together, in the same administrative hierarchy, subscribers from one or more agencies with the same geographic location.

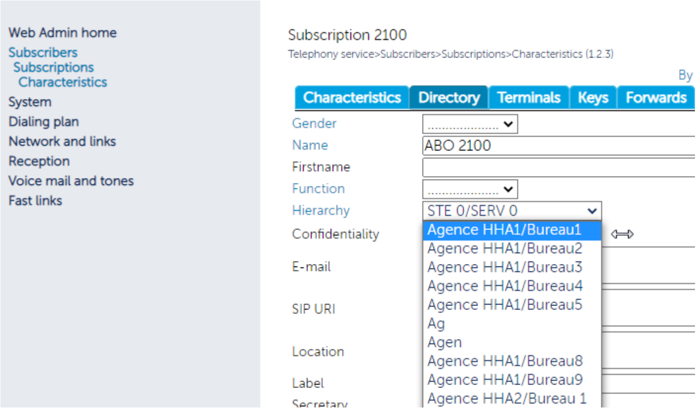
Menu **Subscribers>Directory>Administrative hierarchies**.



Administrative hierarchies

Telephony service>Subscribers>Directory>Administrative hierarchies (1.1.4)

- Hierarchie
    - Agence HHA1
        - Bureau1
        - Bureau2
        - Bureau3
        - Bureau4
        - Bureau5
        - Bureau6



Subscription 2100

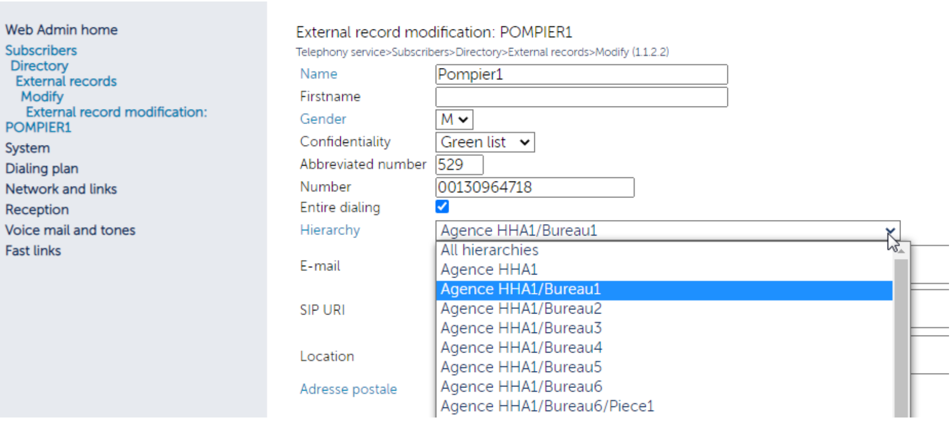
Telephony service>Subscribers>Subscriptions>Characteristics (1.2.3)

Gender	....
Name	ABO 2100
Firstname	
Function	....
Hierarchy	STE 0/SERV 0
Confidentiality	
E-mail	
SIP URI	
Location	
Label	
Secretary	

Agence HHA1/Bureau1
Agence HHA1/Bureau2
Agence HHA1/Bureau3
Agence HHA1/Bureau4
Agence HHA1/Bureau5
Ag
Agen
Agence HHA1/Bureau8
Agence HHA1/Bureau9
Agence HHA2/Bureau 1

- Declare the public call number of the required emergency services of each geographic region in the external record directory and assign them the same abbreviated number with a different administrative hierarchy.

Menu **Subscribers>Directory> External records**



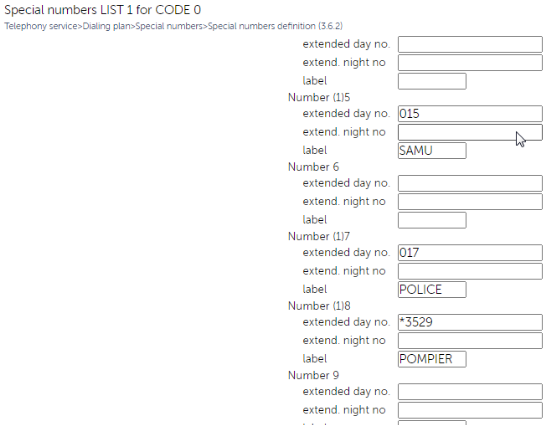
External record modification: POMPIER1

Telephony service>Subscribers>Directory>External records>Modify (1.1.2.2)

Name	Pompier1
Firstname	
Gender	M
Confidentiality	Green list
Abbreviated number	529
Number	00130964718
Entire dialing	☑
Hierarchy	Agence HHA1/Bureau1
E-mail	
SIP URI	
Location	
Adresse postale	

All hierarchies
Agence HHA1
Agence HHA1/Bureau1
Agence HHA1/Bureau2
Agence HHA1/Bureau3
Agence HHA1/Bureau4
Agence HHA1/Bureau5
Agence HHA1/Bureau6
Agence HHA1/Bureau6/Piece1

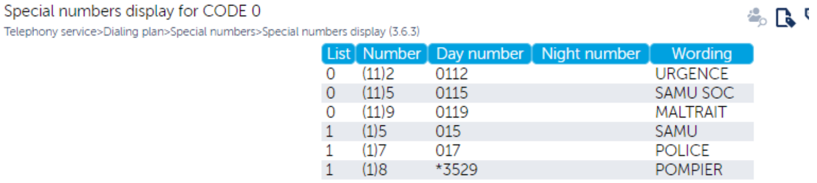
- Configure the special numbers with the prefix of the abbreviated number (Example: * 3529) combined with the previously declared number of the emergency service to be called (00130964718).
- To apply this mechanism to special numbers, change the special number configuration (11) 19 in the above special number menu as illustrated below.
- Changing the special number with the abbreviated number concerned (*3529)



Special numbers LIST 1 for CODE 0

Telephony service>Dialing plan>Special numbers>Special numbers definition (3.6.2)

extended day no.	
extend. night no	
label	
Number (1)5	
extended day no.	015
extend. night no	
label	SAMU
Number 6	
extended day no.	
extend. night no	
label	
Number (1)7	
extended day no.	017
extend. night no	
label	POLICE
Number (1)8	
extended day no.	*3529
extend. night no	
label	POMPIER
Number 9	
extended day no.	
extend. night no	

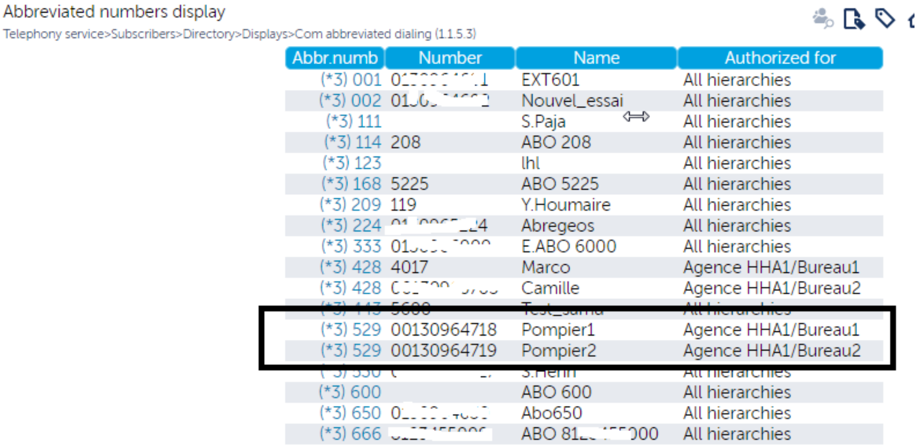


Special numbers display for CODE 0

Telephony service>Dialing plan>Special numbers>Special numbers display (3.6.3)

List	Number	Day number	Night number	Wording
0	(11)2	0112		URGENCE
0	(11)5	0115		SAMU SOC
0	(11)9	0119		MALTRAIT
1	(1)5	015		SAMU
1	(1)7	017		POLICE
1	(1)8	*3529		POMPIER

In the directory, the same abbreviated number is associated with two public numbers corresponding to two locations.



Abbreviated numbers display

Telephony service>Subscribers>Directory>Displays>Com abbreviated dialing (1.1.5.3)

Abbr.numb	Number	Name	Authorized for
(*3) 001	[illegible]	EXT601	All hierarchies
(*3) 002	[illegible]	Nouvel_essai	All hierarchies
(*3) 111		S.Paja	All hierarchies
(*3) 114	208	ABO 208	All hierarchies
(*3) 123		lhl	All hierarchies
(*3) 168	5225	ABO 5225	All hierarchies
(*3) 209	119	Y.Houmaire	All hierarchies
(*3) 224	[illegible]	Abregeos	All hierarchies
(*3) 333	[illegible]	E.ABO 6000	All hierarchies
(*3) 428	4017	Marco	Agence HHA1/Bureau1
(*3) 428	[illegible]	Camille	Agence HHA1/Bureau2
(*3) 443	5600	Test_samu	All hierarchies
(*3) 529	00130964718	Pompier1	Agence HHA1/Bureau1
(*3) 529	00130964719	Pompier2	Agence HHA1/Bureau2
(*3) 530	[illegible]	S.Henn	All hierarchies
(*3) 600		ABO 600	All hierarchies
(*3) 650	[illegible]	Abo650	All hierarchies
(*3) 666	[illegible]	ABO 81[illegible]000	All hierarchies

This configuration can be repeated as many times as the emergency numbers are different in each location: Fire brigade, hospital, police, etc.).

9 OTT MODE CONFIGURATION FOR CLIENT AND USER PORTAL WEB APPLICATIONS ACCESS

9.1 PRINCIPLE

This configuration allows remote workers to access applications via the Internet in OTT mode and without VPN:

- MiVoice 5000 User Portal via MiVoice 5000 Manager,
- MiVoice 5000 Manager WebClient,
- Embedded MiVoice 5000 User Portal.

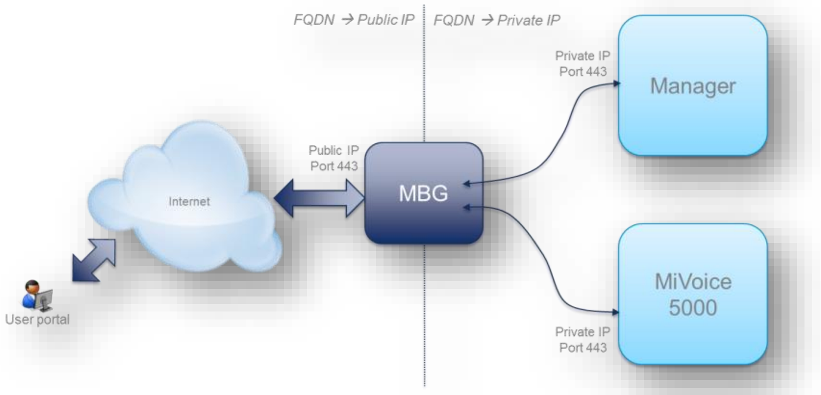
Note: Concerning Manager User Portal, the functionality is also available for users declared on sites in version < 8.0 (and ≥ 6.5).

The principle is to authorize access to these applications through the MBG.

Access is via the Internet and in https via an MBG Controller session in OTT mode.

Via the Internet, the FQDN of Mivoice 5000 Manager must be resolved to the IP address of the MBG when on the INTERNET.

Access to the User portal in OTT mode



The User Portal (MiVoice 5000 Manager or integrated in the MiV5000) is accessible from anywhere via the Internet thanks to the FQDN allowing the remote worker to program the keys of the remote terminal.

The URL is identical in local mode or in OTT mode.

The MBG is used as a proxy to allow access from the Internet. The MBG's local IP address must be declared as a trusted proxy in the MiVoice 5000 Manager or Web Admin.

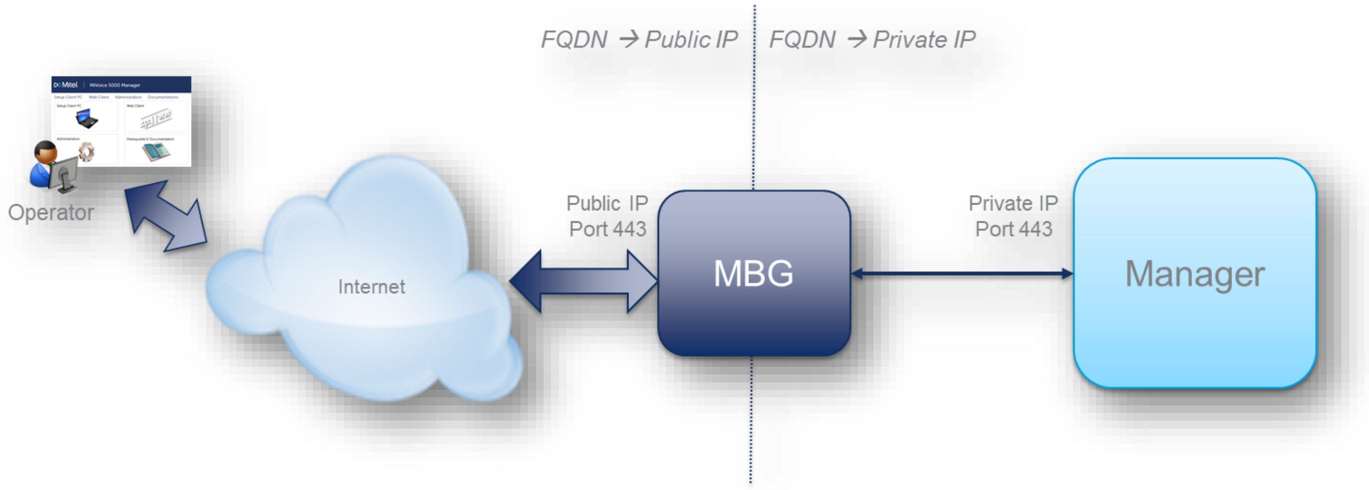
The embedded User Portal uses HTTPS port 443.

Access to the User Portal is compatible with all versions of MiVoice 5000 (R6.5 and later)

Access in SSO mode to the User Portal is not available for the embedded User Portal. Only available for the MiVoice 5000 Manager User Portal.

Note: In the current version, stream separation is not compatible with the embedded User Portal.

Access to the MiVoice 5000 Manager Web Client in OTT mode



The Web Client (MiVoice 5000 Manager or integrated into the MiV5000) is accessible for the remote worker, from anywhere via the Internet thanks to the FQDN.

The URL is identical in local mode or in OTT mode.

The MBG is used as a proxy to allow access from the Internet. The MBG's local IP address must be declared as a trusted proxy in the MiVoice 5000 Manager or Web Admin.

For Web Admin admin access, the associated users and accounts must be declared in the Proxy configuration.

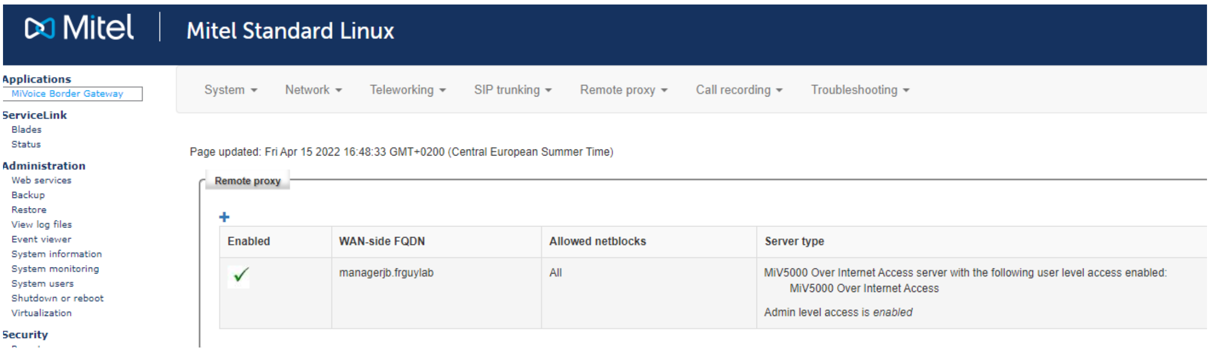
9.2 SUMMARY OF THE DIFFERENT STEPS

9.2.1 MBG CONFIGURATION

In the **Remote proxy/Domain List** menu:

- Click on **+**,
- Enter the WAN-side FQDN of the MiVoice 5000 Manager (in the case of the Web Client or User Portal) or of the MiVoice 5000 Server (in the case of the on-board User Portal) for resolution on the MBG
- Select the MiV5000 **Over Internet Access** service and tick the **Enabled** box.

Example: Case of the MiVoice 5000 manager.

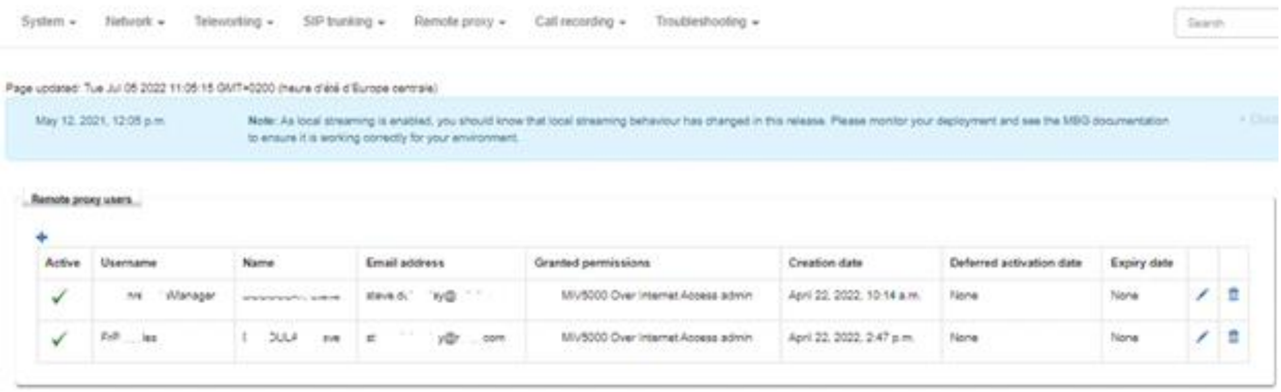


Page updated: Fri Apr 15 2022 16:48:33 GMT+0200 (Central European Summer Time)

Enabled	WAN-side FQDN	Allowed netblocks	Server type
✓	managerjb.frguylab	All	MiV5000 Over Internet Access server with the following user level access enabled: MiV5000 Over Internet Access Admin level access is *enabled*

In the **Remote proxy/Users** menu:

- Declare users and create associated accounts for Web Admin admin access.



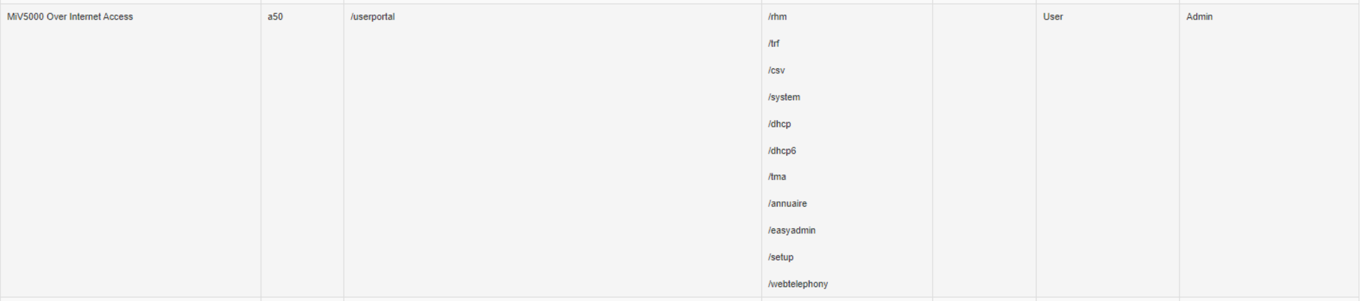
Page updated: Tue Jul 05 2022 11:05:15 GMT+0200 (heure d'été d'Europe centrale)

May 12, 2021, 12:05 p.m. **Note:** As local streaming is enabled, you should know that local streaming behaviour has changed in this release. Please monitor your deployment and see the MBG documentation to ensure it is working correctly for your environment.

Active	Username	Name	Email address	Granted permissions	Creation date	Deferred activation date	Expiry date		
✓	[redacted]	[redacted]	[redacted]	MiV5000 Over Internet Access admin	April 22, 2022, 10:14 a.m.	None	None	✎	🗑
✓	[redacted]	[redacted]	[redacted]	MiV5000 Over Internet Access admin	April 22, 2022, 2:47 p.m.	None	None	✎	🗑

In the **Remote proxy/Proxy applications** menu

- View the list of URLs of the **MiV5000 Over Internet Access service**



MiV5000 Over Internet Access	a50	/userportal	/rhm /trf /csv /system /dhcp /dhcp6 /tma /annuaire /easyadmin /setup /webtelephony		User	Admin

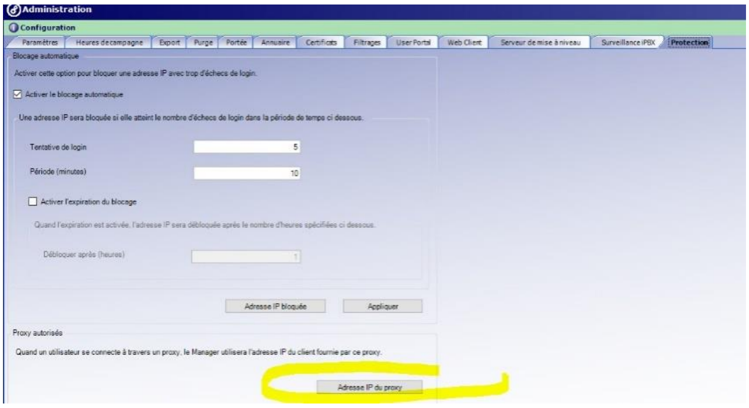
9.2.2 PROXY TRUSTED CONFIGURATION

9.2.2.1 Case of Web Client and User Portal on MiVoice 5000 Manager

Configure the MBG IP address in the proxys authorized by the MiVoice 5000 Manager.

Menu **Configuration** – **Protection** Tab.

Refer to the document MiVoice 5000 Manager – User Guide



Blocage automatique

Activer cette option pour bloquer une adresse IP avec trop d'échecs de login.

☑ Activer le blocage automatique

Une adresse IP sera bloquée si elle atteint le nombre d'échecs de login dans la période de temps ci dessous.

Tentative de login: 5

Période (minutes): 10

□ Activer l'expiration du blocage

Quand l'expiration est activée, l'adresse IP sera débloquée après le nombre d'heures spécifiées ci dessous.

Débloquer après (heures): 1

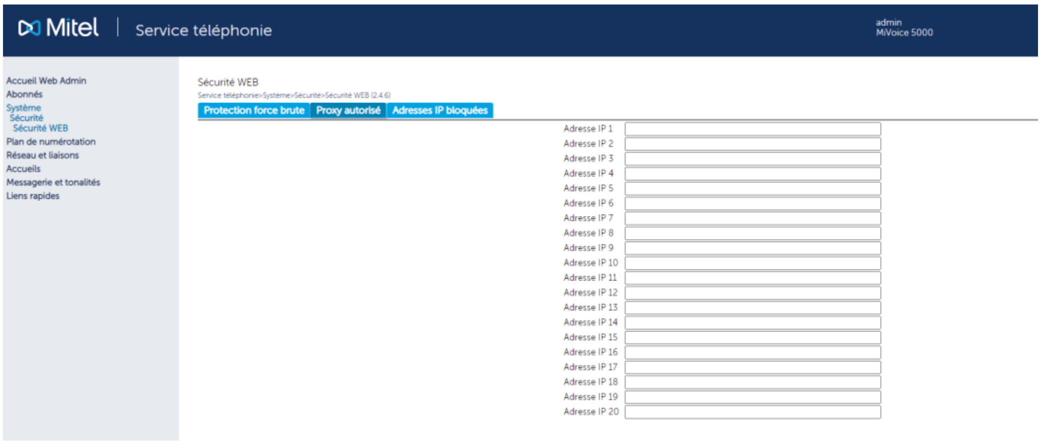
Proxy autorisés

Quand un utilisateur se connecte à travers un proxy, le Manager utilisera l'adresse IP du client fournie par ce proxy.

9.2.2.2 Case of the embedded User Portal

In the Web Admin, menu **Telephony service>System>Security>WEB security**, **Proxy authorized** tab:

- Enter the address(es) of the MBG(s) authorized for access in OTT mode.



Sécurité WEB

Service téléphonie>Système>Sécurité>Sécurité WEB (2.4.6)

Adresse IP 1

Adresse IP 2

Adresse IP 3

Adresse IP 4

Adresse IP 5

Adresse IP 6

Adresse IP 7

Adresse IP 8

Adresse IP 9

Adresse IP 10

Adresse IP 11

Adresse IP 12

Adresse IP 13

Adresse IP 14

Adresse IP 15

Adresse IP 16

Adresse IP 17

Adresse IP 18

Adresse IP 19

Adresse IP 20

10 OTT MODE CONFIGURATION FOR SIP DECT SYSTEM

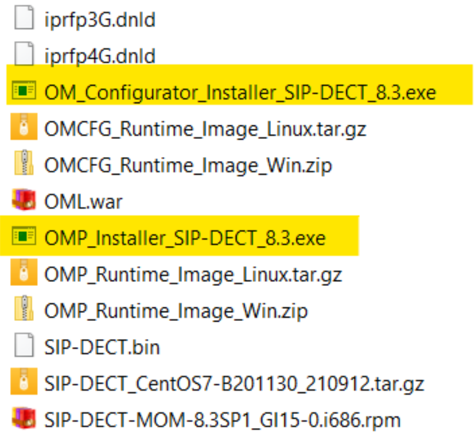
10.1 INTRODUCTION

Two tools can be used for configuring the SIP-DECT system:

- OM Configurator - Open Mobility Configurator,
- OMP - Open Mobility Management Portal.

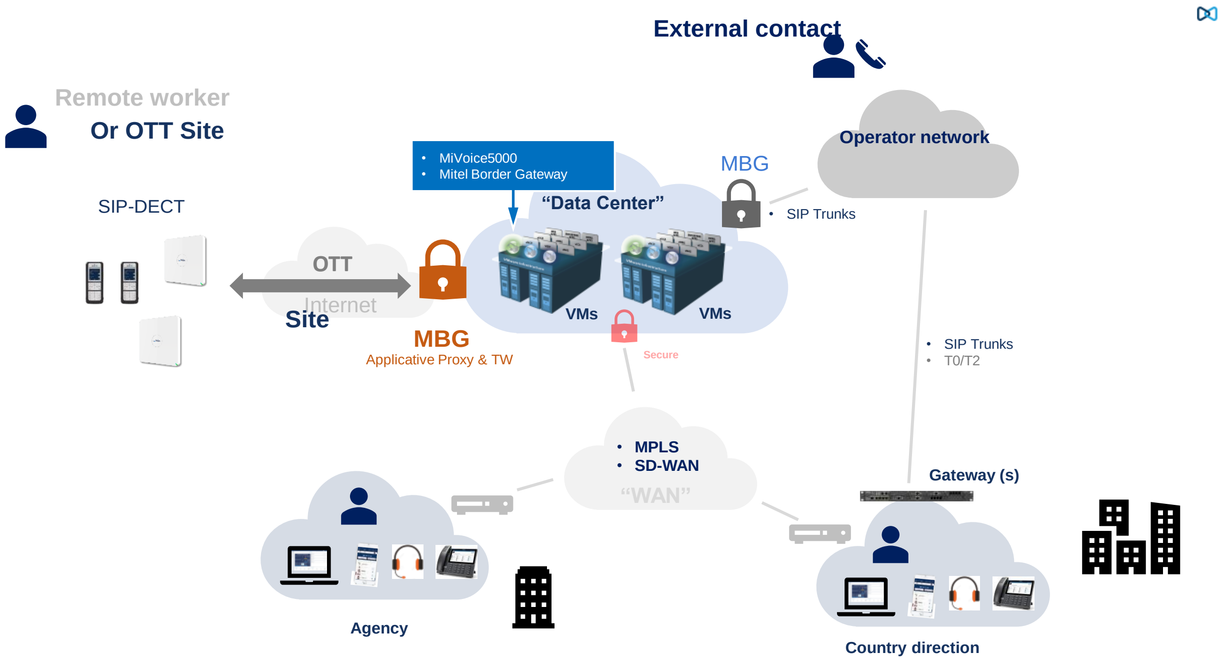
Tools available on the Mitel website:

MiAccess>Software Download Center>SIP DECT>Mitel SIP DECT>Release 8.x SP? menu:

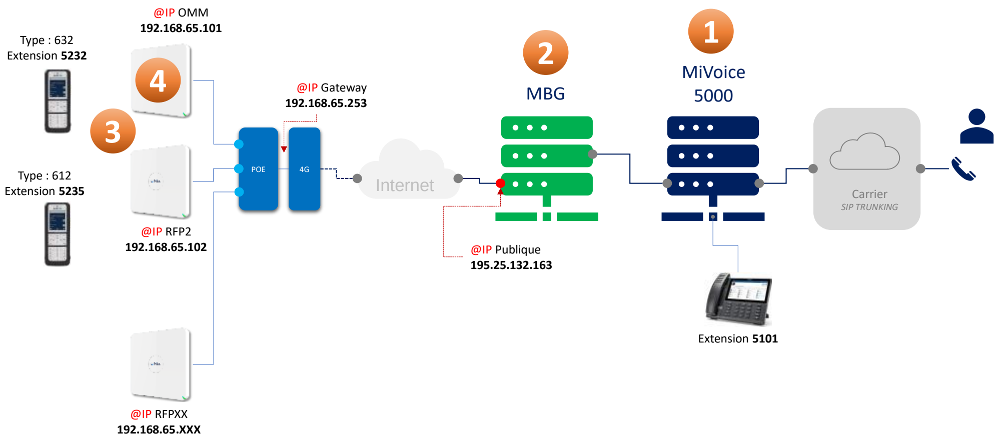


iprfp3G.dnld
iprfp4G.dnld
OM_Configurator_Installer_SIP-DECT_8.3.exe
OMCFG_Runtime_Image_Linux.tar.gz
OMCFG_Runtime_Image_Win.zip
OML.war
OMP_Installer_SIP-DECT_8.3.exe
OMP_Runtime_Image_Linux.tar.gz
OMP_Runtime_Image_Win.zip
SIP-DECT.bin
SIP-DECT_CentOS7-B201130_210912.tar.gz
SIP-DECT-MOM-8.3SP1_GI15-0.i686.rpm

10.2 ARCHITECTURE



Configuration example



10.3 MIVOICE 5000 CONFIGURATION

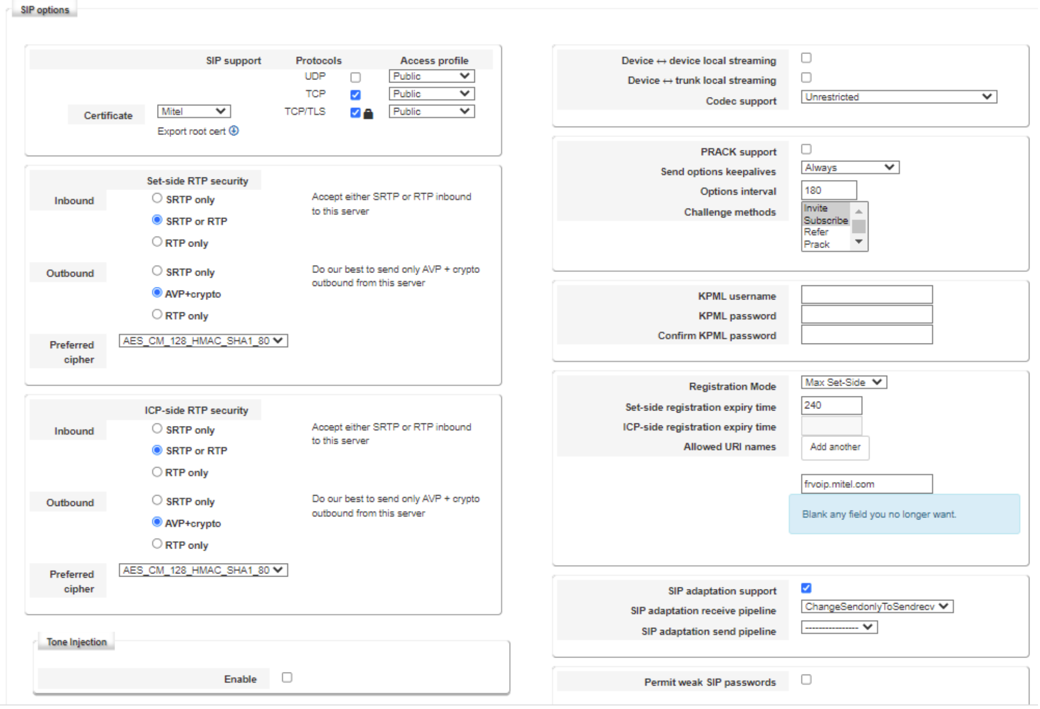
Declare the considered subscribers.

Refer to the documents:

- MiVoice 5000 Server - Operating Manual
- MiVoice 5000 Manager - User Guide.

10.4 CONFIGURATION MBG

Menu **MBG>System>Settings>SIP Options**



SIP options

SIP support	Protocols		Access profile
	UDP	□	Public
	TCP	☑	Public
Certificate: Mitel	TCP/TLS	☑ 🔒	Public

Export root cert

Set-side RTP security

Inbound: ○ SRTP only ● SRTP or RTP ○ RTP only — Accept either SRTP or RTP inbound to this server

Outbound: ○ SRTP only ● AVP+crypto ○ RTP only — Do our best to send only AVP + crypto outbound from this server

Preferred cipher: AES_CM_128_HMAC_SHA1_80

ICP-side RTP security

Inbound: ○ SRTP only ● SRTP or RTP ○ RTP only — Accept either SRTP or RTP inbound to this server

Outbound: ○ SRTP only ● AVP+crypto ○ RTP only — Do our best to send only AVP + crypto outbound from this server

Preferred cipher: AES_CM_128_HMAC_SHA1_80

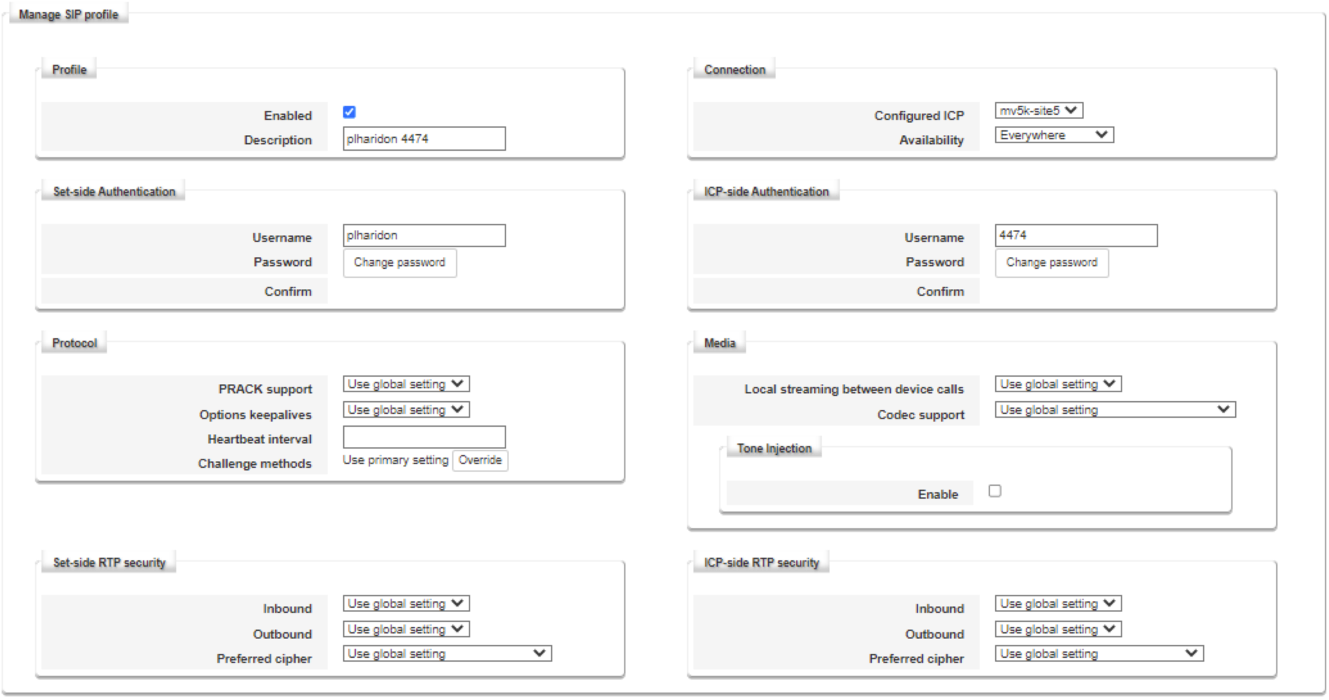
Tone Injection

Enable □

Device ↔ device local streaming	□
Device ↔ trunk local streaming	□
Codec support	Unrestricted
PRACK support	□
Send options keepalives	Always
Options interval	180
Challenge methods	Invite Subscribe Refer Prack
KPML username	
KPML password	
Confirm KPML password	
Registration Mode	Max Set-Side
Set-side registration expiry time	240
ICP-side registration expiry time	
Allowed URI names	Add another frvoip.mitel.com
SIP adaptation support	☑
SIP adaptation receive pipeline	ChangeSendonlyToSendrecv
SIP adaptation send pipeline	---------------
Permit weak SIP passwords	□

Blank any field you no longer want.

Menu **MBG> TeleWorking> SIP**



Manage SIP profile

Profile

Enabled ☑
Description plharidon 4474

Connection

Configured ICP mv5k-site5
Availability Everywhere

Set-side Authentication

Username plharidon
Password Change password
Confirm

ICP-side Authentication

Username 4474
Password Change password
Confirm

Protocol

PRACK support Use global setting
Options keepalives Use global setting
Heartbeat interval
Challenge methods Use primary setting Override

Media

Local streaming between device calls Use global setting
Codec support Use global setting

Tone Injection

Enable □

Set-side RTP security

Inbound Use global setting
Outbound Use global setting
Preferred cipher Use global setting

ICP-side RTP security

Inbound Use global setting
Outbound Use global setting
Preferred cipher Use global setting

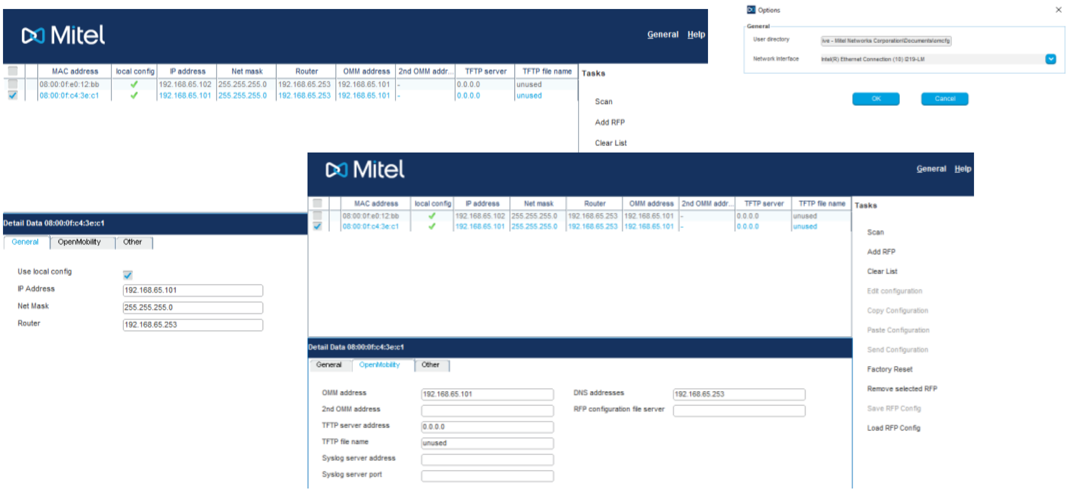
10.5 CONFIGURATION WITH OM CONFIGURATOR

This simple tool allows:

- The discovery of the terminals connected to the same network as his PC
- The initial configuration of the RFP terminals (IP address, mask, gateway, etc.)

  - Default login: **omm / omm**
  - Password : XXXX

OM CONFIGURATION / RFP 1 / OMM



	MAC address	local config	IP address	Net mask	Router	OMM address	2nd OMM addr...	TFTP server	TFTP file name
□	08:00:0f:e0:12:bb	✓	192.168.65.102	255.255.255.0	192.168.65.253	192.168.65.101	-	0.0.0.0	unused
☑	08:00:0f:c4:3e:c1	✓	192.168.65.101	255.255.255.0	192.168.65.253	192.168.65.101	-	0.0.0.0	unused

Options

General

User directory: ive - Mitel Networks Corporation\Documents\omcfg
Network interface: Intel(R) Ethernet Connection (10) I219-LM

Detail Data 08:00:0f:c4:3e:c1

General | OpenMobility | Other

Use local config ☑
IP Address 192.168.65.101
Net Mask 255.255.255.0
Router 192.168.65.253

Detail Data 08:00:0f:c4:3e:c1

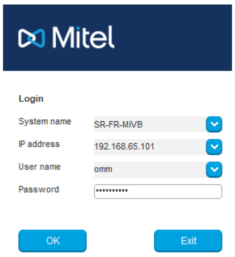
General | OpenMobility | Other

OMM address 192.168.65.101
2nd OMM address
TFTP server address 0.0.0.0
TFTP file name unused
Syslog server address
Syslog server port
DNS addresses 192.168.65.253
RFP configuration file server

10.6 OMP CONFIGURATION (OPEN MOBILITY PORTAL)

This advanced tool allows the configuration of the SIP-DECT system

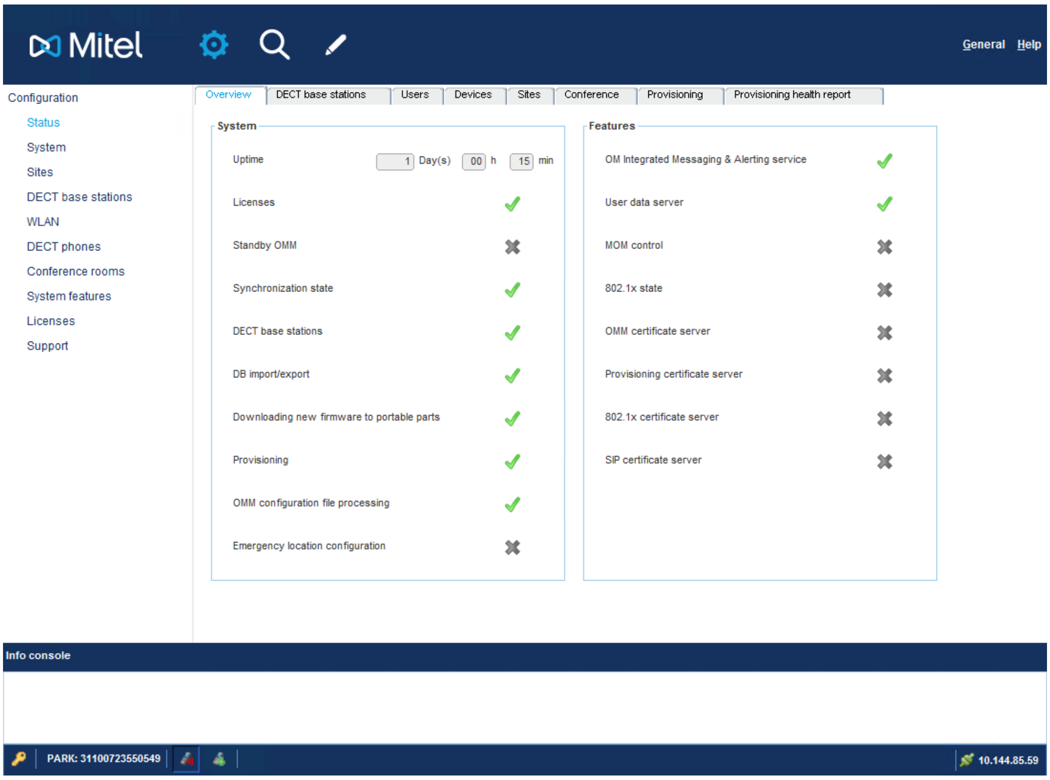
- Default login: **omm** / **omm**
- Password: XXXX



Login

System name	SR-FR-MIVB
IP address	192.168.65.101
User name	omm
Password	••••••••••

OMP STATUS



System

Uptime	1 Day(s) 00 h 15 min
Licenses	✓
Standby OMM	✗
Synchronization state	✓
DECT base stations	✓
DB import/export	✓
Downloading new firmware to portable parts	✓
Provisioning	✓
OMM configuration file processing	✓
Emergency location configuration	✗

Features

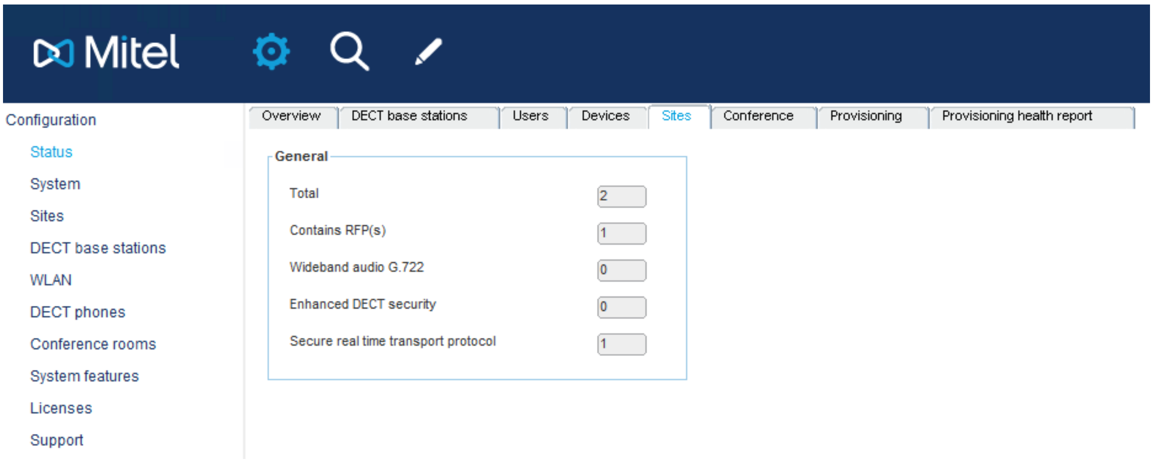
OM Integrated Messaging & Alerting service	✓
User data server	✓
MOM control	✗
802.1x state	✗
OMM certificate server	✗
Provisioning certificate server	✗
802.1x certificate server	✗
SIP certificate server	✗

Info console

PARK: 31100723550549

10.144.85.59

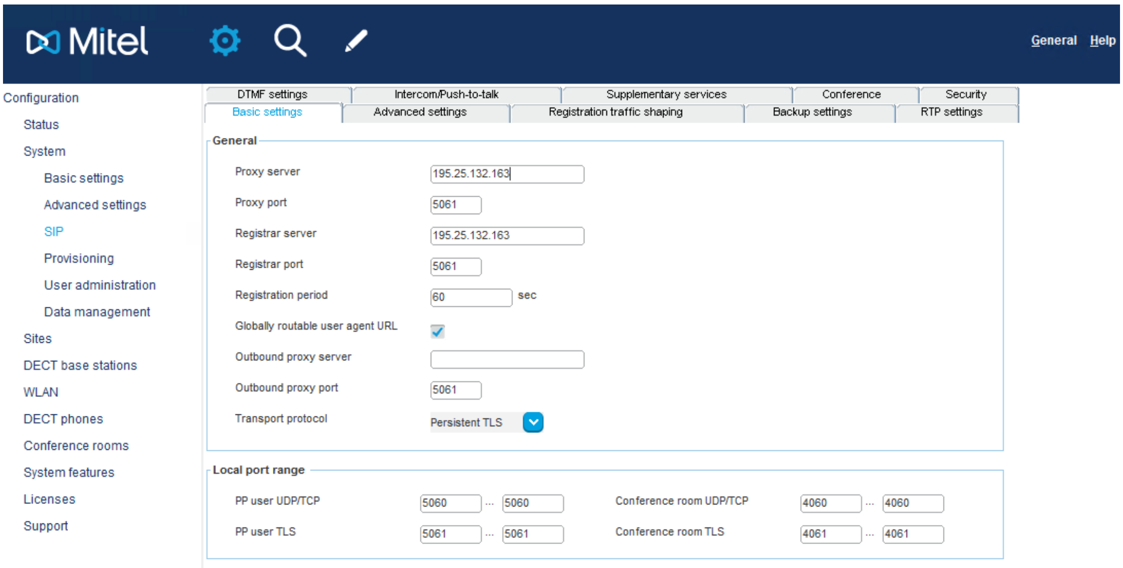
OMP - SITES



General

Total	2
Contains RFP(s)	1
Wideband audio G.722	0
Enhanced DECT security	0
Secure real time transport protocol	1

BASIC SETTINGS 1/2



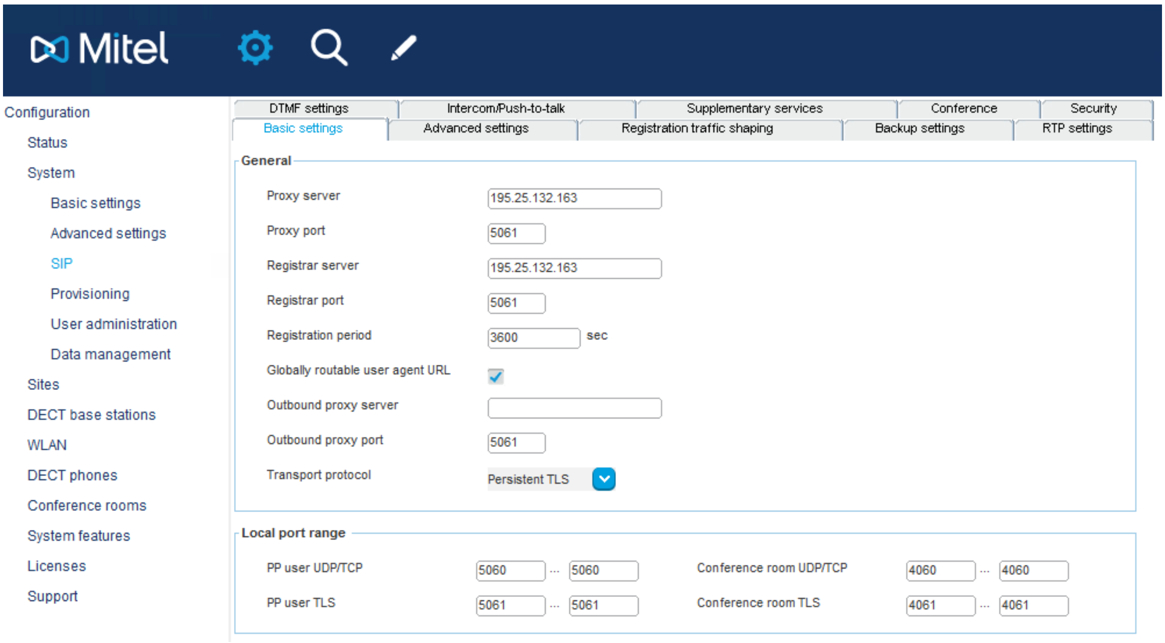
General

Proxy server	195.25.132.163
Proxy port	5061
Registrar server	195.25.132.163
Registrar port	5061
Registration period	60 sec
Globally routable user agent URL	☑
Outbound proxy server	
Outbound proxy port	5061
Transport protocol	Persistent TLS

Local port range

PP user UDP/TCP	5060 ... 5060		Conference room UDP/TCP	4060 ... 4060	
PP user TLS	5061 ... 5061		Conference room TLS	4061 ... 4061	

BASIC SETTINGS 1/2



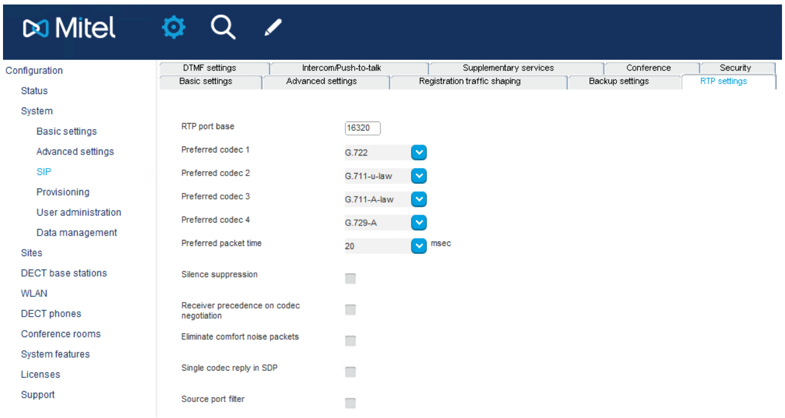
General

Proxy server	195.25.132.163
Proxy port	5061
Registrar server	195.25.132.163
Registrar port	5061
Registration period	3600 sec
Globally routable user agent URL	☑
Outbound proxy server	
Outbound proxy port	5061
Transport protocol	Persistent TLS

Local port range

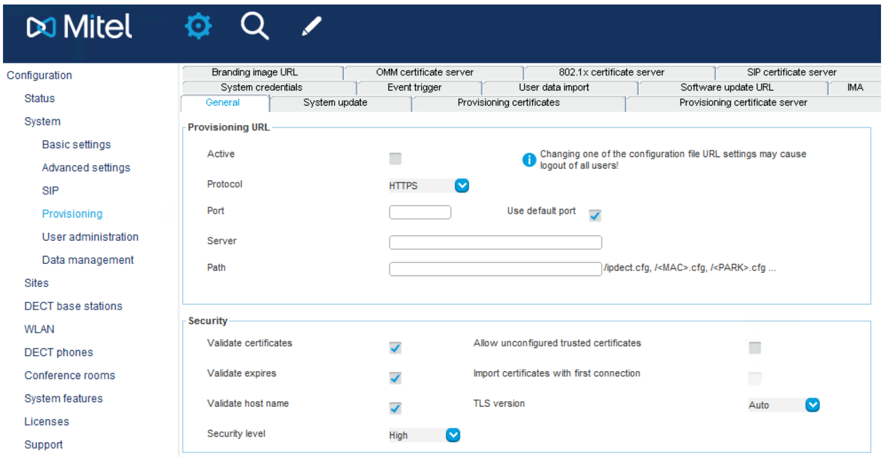
PP user UDP/TCP	5060 ... 5060		Conference room UDP/TCP	4060 ... 4060	
PP user TLS	5061 ... 5061		Conference room TLS	4061 ... 4061	

OMP – RFP SETTING



RTP port base: 16320
Preferred codec 1: G.722
Preferred codec 2: G.711-u-law
Preferred codec 3: G.711-A-law
Preferred codec 4: G.729-A
Preferred packet time: 20 msec
Silence suppression □
Receiver precedence on codec negotiation □
Eliminate comfort noise packets □
Single codec reply in SDP □
Source port filter □

OMP – GENERAL 1/2



Provisioning URL

Active □

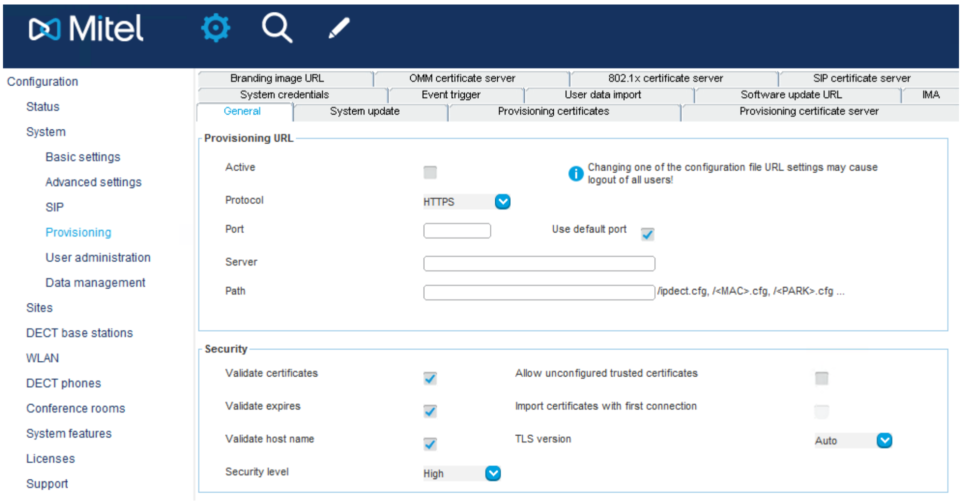
Changing one of the configuration file URL settings may cause logout of all users!

Protocol: HTTPS
Port: Use default port ☑
Server:
Path: /ipdect.cfg, /<MAC>.cfg, /<PARK>.cfg ...

Security

Validate certificates ☑
Allow unconfigured trusted certificates □
Validate expires ☑
Import certificates with first connection □
Validate host name ☑
TLS version: Auto
Security level: High

OMP – GENERAL 2/2



Provisioning URL

Active □

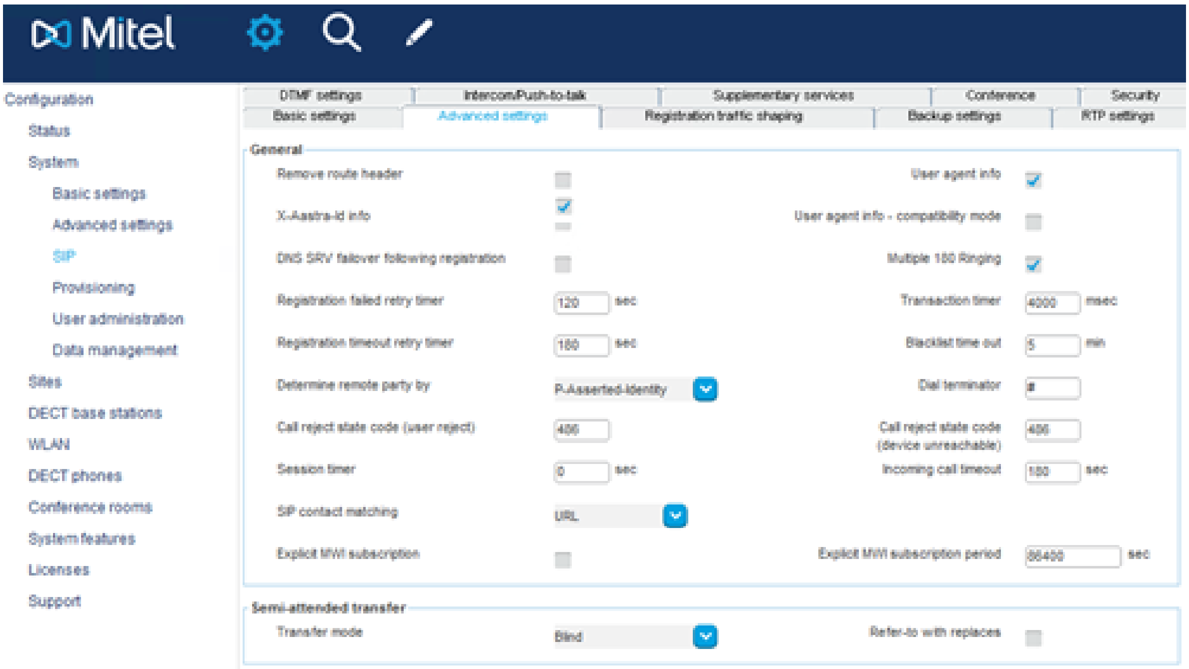
Changing one of the configuration file URL settings may cause logout of all users!

Protocol: HTTPS
Port: Use default port ☑
Server:
Path: /ipdect.cfg, /<MAC>.cfg, /<PARK>.cfg ...

Security

Validate certificates ☑
Allow unconfigured trusted certificates □
Validate expires ☑
Import certificates with first connection □
Validate host name ☑
TLS version: Auto
Security level: High

OMP – ADVANCED SETTINGS



General

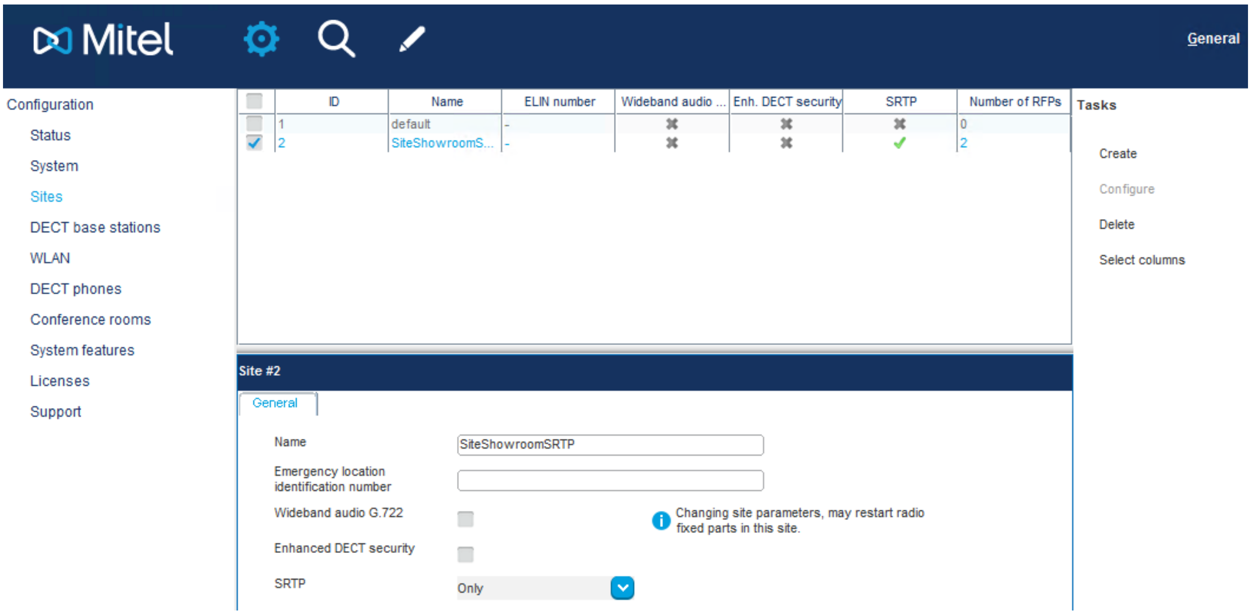
Remove route header	□	User agent info	☑
X-Aastra-id info	☑	User agent info - compatibility mode	□
DNS SRV failover following registration	□	Multiple 180 Ringing	☑
Registration failed retry timer	120 sec	Transaction timer	4000 msec
Registration timeout retry timer	180 sec	Blacklist time out	5 min
Determine remote party by	P-Asserted-Identity	Dial terminator	#
Call reject state code (user reject)	486	Call reject state code (device unreachable)	486
Session timer	0 sec	Incoming call timeout	180 sec
SIP contact matching	URL		
Explicit MWI subscription	□	Explicit MWI subscription period	86400 sec

Semi-attended transfer

Transfer mode	Blind	Refer-to with replaces	□

Check the **X-Aastra-id info** box, having imperatively carried out a DECT-IP pre-assignment on the subscriptions concerned on the MiVoice 5000 side.

OMP - SITES



□	ID	Name	ELIN number	Wideband audio ...	Enh. DECT security	SRTP	Number of RFPs
□	1	default	-	✖	✖	✖	0
☑	2	SiteShowroomS...	-	✖	✖	✓	2

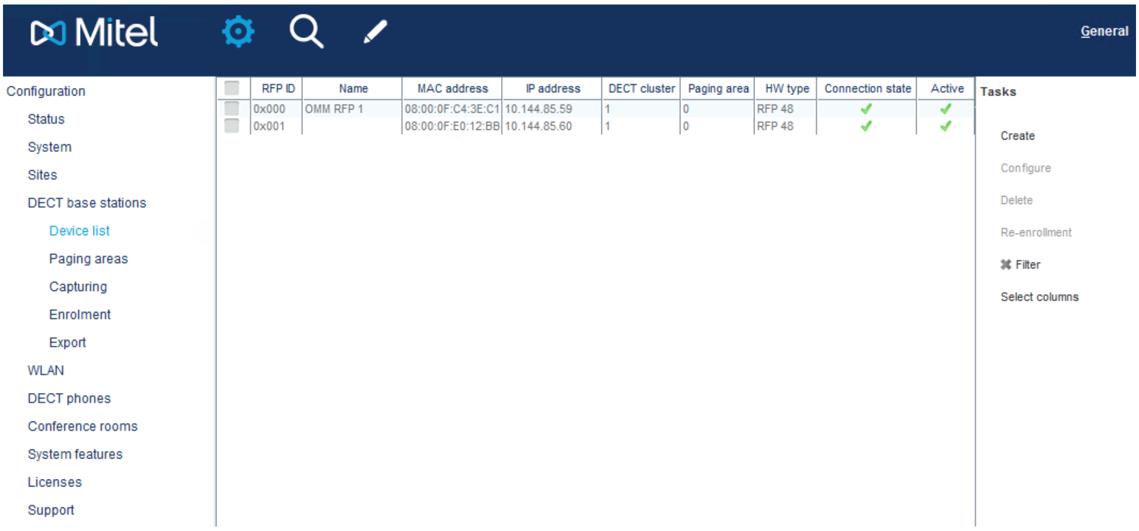
Site #2

General

Name	SiteShowroomSRTP
Emergency location identification number	
Wideband audio G.722	□
Enhanced DECT security	□
SRTP	Only

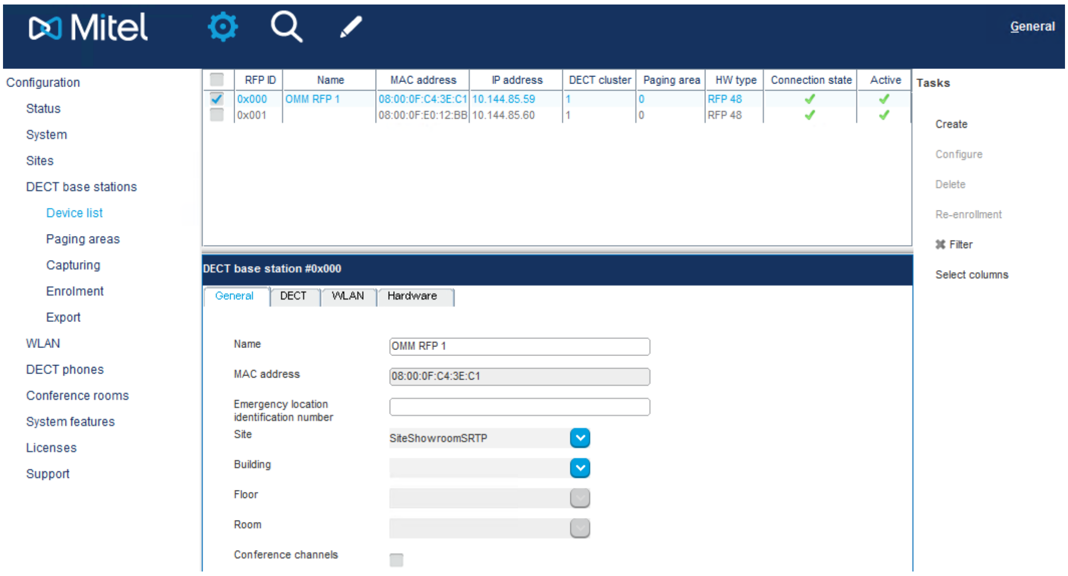
Changing site parameters, may restart radio fixed parts in this site.

OMP - SITES & BASE STATIONS 1/2



	RFP ID	Name	MAC address	IP address	DECT cluster	Paging area	HW type	Connection state	Active
□	0x000	OMM RFP 1	08:00:0F:C4:3E:C1	10.144.85.59	1	0	RFP 48	✓	✓
□	0x001		08:00:0F:E0:12:BB	10.144.85.60	1	0	RFP 48	✓	✓

OMP - SITES & BASE STATIONS 2/2

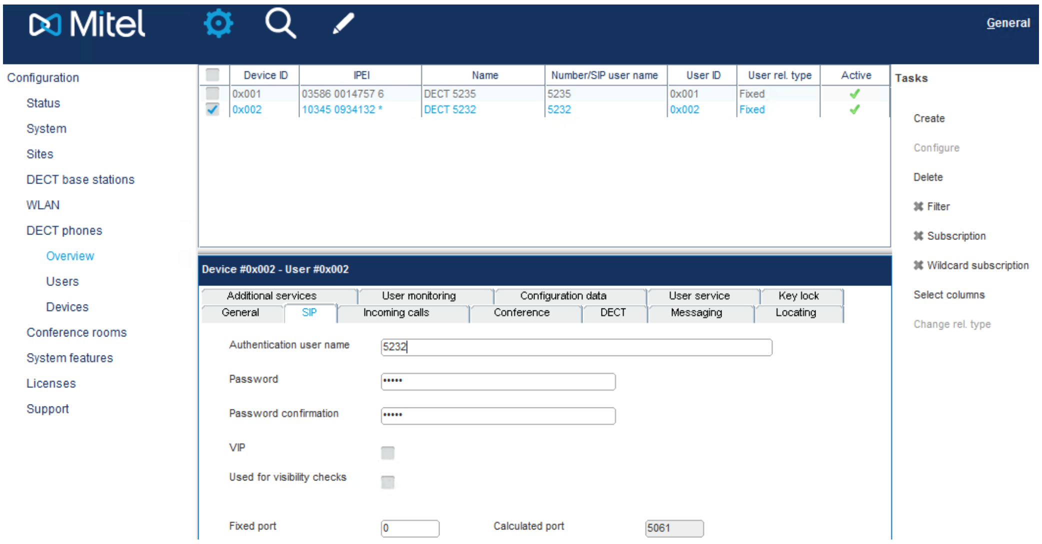


	RFP ID	Name	MAC address	IP address	DECT cluster	Paging area	HW type	Connection state	Active
☑	0x000	OMM RFP 1	08:00:0F:C4:3E:C1	10.144.85.59	1	0	RFP 48	✓	✓
□	0x001		08:00:0F:E0:12:BB	10.144.85.60	1	0	RFP 48	✓	✓

DECT base station #0x000

Name	OMM RFP 1
MAC address	08:00:0F:C4:3E:C1
Emergency location identification number	
Site	SiteShowroomSRTP
Building	
Floor	
Room	
Conference channels	□

OMP - DECT PHONES 1/2



□	Device ID	IPEI	Name	Number/SIP user name	User ID	User rel. type	Active
□	0x001	03586 0014757 6	DECT 5235	5235	0x001	Fixed	✓
☑	0x002	10345 0934132 *	DECT 5232	5232	0x002	Fixed	✓

Device #0x002 - User #0x002

Authentication user name: 5232

Password: •••••

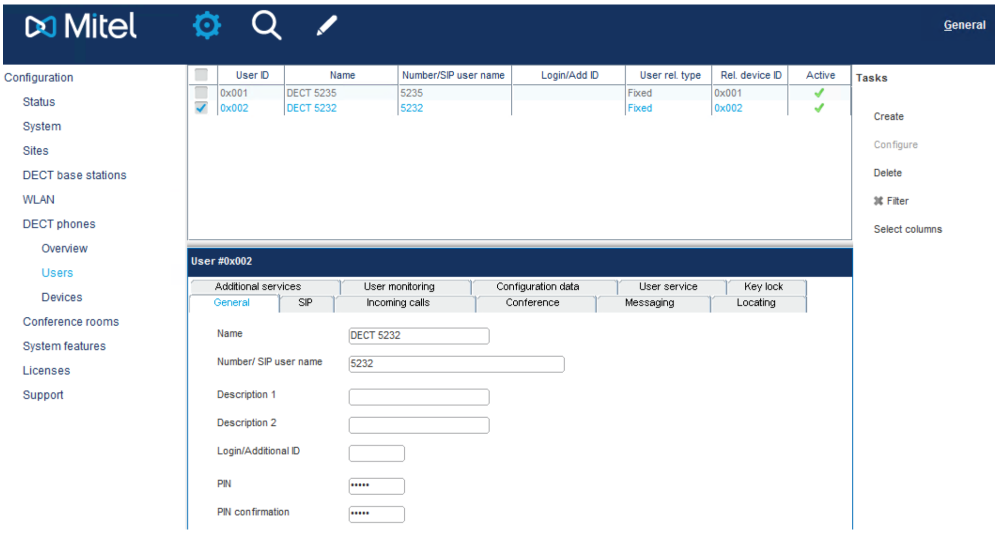
Password confirmation: •••••

VIP: □

Used for visibility checks: □

Fixed port: 0 Calculated port: 5061

OMP - DECT PHONES 2/2



□	User ID	Name	Number/SIP user name	Login/Add ID	User rel. type	Rel. device ID	Active
□	0x001	DECT 5235	5235		Fixed	0x001	✓
☑	0x002	DECT 5232	5232		Fixed	0x002	✓

User #0x002

Name: DECT 5232

Number/ SIP user name: 5232

Description 1:

Description 2:

Login/Additional ID:

PIN: •••••

PIN confirmation: •••••

10.7 CONFIGURATION OF XML ACCESS FOR REMOTE WORKER DECT SIP IN OTT MODE

10.7.1 PRINCIPLE

A DECT SIP Remote Worker subscriber in OTT mode must be detected by the MiVoice 5000 as a Remote Worker.

During deployment, it is therefore necessary to provide the OMM with the access key (hash) delivered at the level of the MiVoice 5000 to fill in the URLs relating to the proven XML functionalities (list of callers, redial list, server menu , the feature access code).

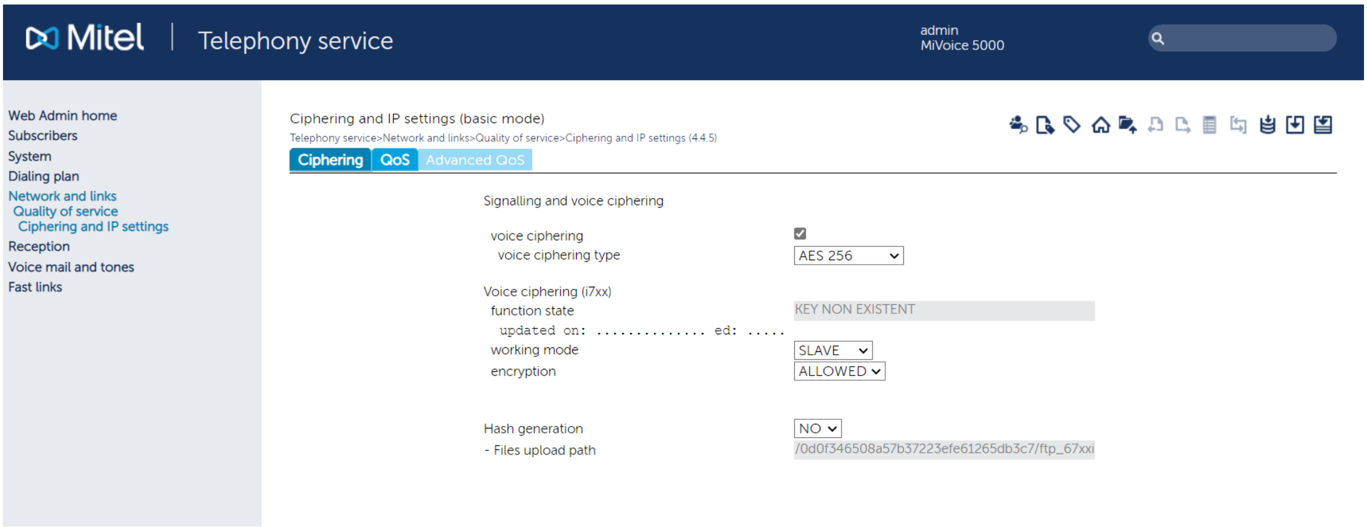
This action is to be carried out in two steps:

- At the MiVoice 50000 WebAdmin level: Retrieve the hash value indicating the path for downloading the files concerning the Remote Workers.
- At OMM level: Fill in the hash key value for features requiring XML access.
- Open access to MiVoice 5000 directories.

10.7.2 CONFIGURATION

- MiVoice 5000 level hash key recovery

Telephony service menu>Network and links>Quality of service>Encryption and IP parameters (4.4.5) – Encryption tab:



Ciphering and IP settings (basic mode)

Telephony service>Network and links>Quality of service>Ciphering and IP settings (4.4.5)

Signalling and voice ciphering

voice ciphering ☑

voice ciphering type AES 256

Voice ciphering (i7xx)

function state KEY NON EXISTENT

updated on: .... ed: .....

working mode SLAVE

encryption ALLOWED

Hash generation NO

- Files upload path /0d0f346508a57b37223efe61265db3c7/ftp_67xxi

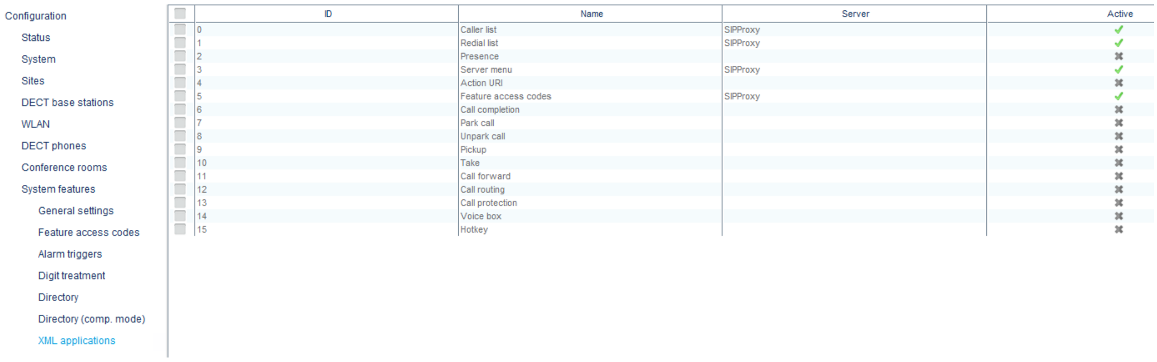
Copy and save the indicated value of the hash (only) in the field - Path for downloading files.

⚠ **IMPORTANT :** The hash value is the one indicated on the left of the field, before /ftp_67xx. In the example 0d0f346508a57b3722efe61265db3c7.

Configuring the OMM level access URL

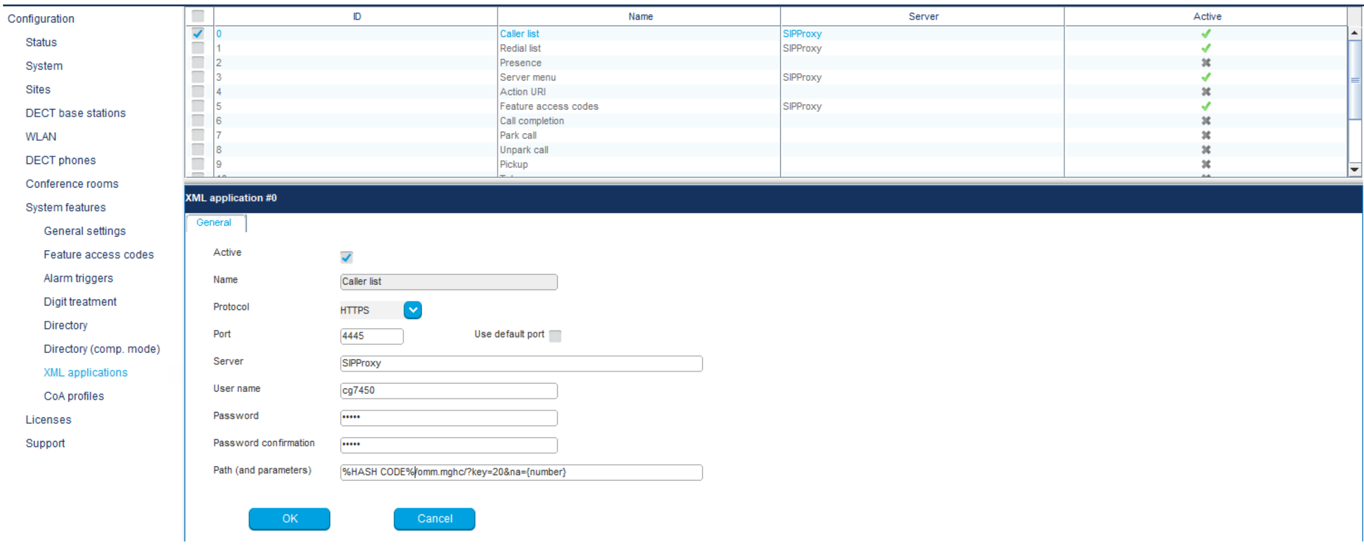
From the OMM operating interface

Configuration menu>System features>XML applications



□	ID	Name	Server	Active
□	0	Caller list	SIPProxy	✓
□	1	Redial list	SIPProxy	✓
□	2	Presence		✖
□	3	Server menu	SIPProxy	✓
□	4	Action URI		✖
□	5	Feature access codes	SIPProxy	✓
□	6	Call completion		✖
□	7	Park call		✖
□	8	Unpark call		✖
□	9	Pickup		✖
□	10	Take		✖
□	11	Call forward		✖
□	12	Call routing		✖
□	13	Call protection		✖
□	14	Voice box		✖
□	15	Hotkey		✖

- Enter the hash value at the beginning of the field relative to Path (and parameters) access URL.



□	ID	Name	Server	Active
☑	0	Caller list	SIPProxy	✓
□	1	Redial list	SIPProxy	✓
□	2	Presence		✖
□	3	Server menu	SIPProxy	✓
□	4	Action URI		✖
□	5	Feature access codes	SIPProxy	✓
□	6	Call completion		✖
□	7	Park call		✖
□	8	Unpark call		✖
□	9	Pickup		✖

XML application #0

General

Active	☑
Name	Caller list
Protocol	HTTPS
Port	4445 Use default port □
Server	SIPProxy
User name	cg7450
Password	•••••
Password confirmation	•••••
Path (and parameters)	%HASH CODE%/omm.mghc/?key=20&na={number}

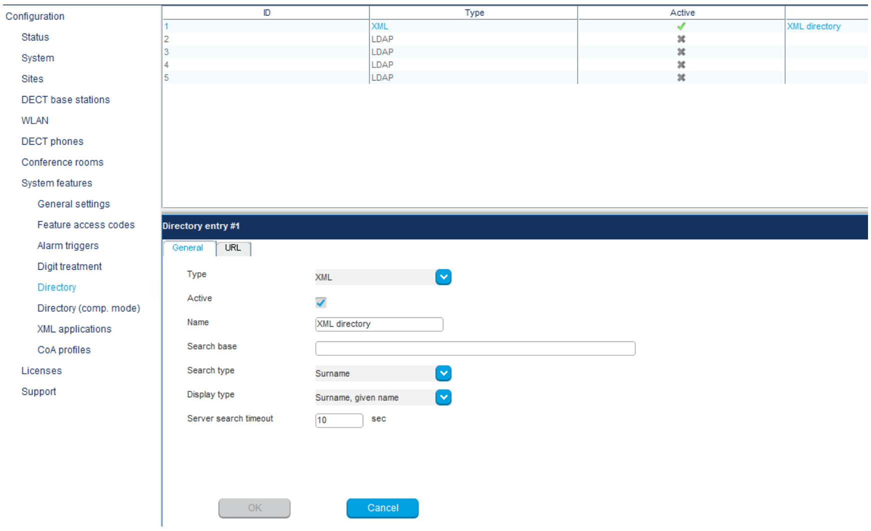
The same Hash key must be entered in the different URLs depending on the functionality:

- Caller list: %HASH CODE%/omm.mghc/?key=20&na={number}
- Redial list: %HASH CODE%/omm.mghc/?key=18&na={number}
- Server menu: %HASH CODE%/omm.mghc/?key=0&na={number}
- Feature access codes: %HASH CODE%/omm.mghc/?key=0&na={number}&fac={fac}

Opening access to the MiVoice 5000 directories

Configuration menu>System features>Directory

General tab

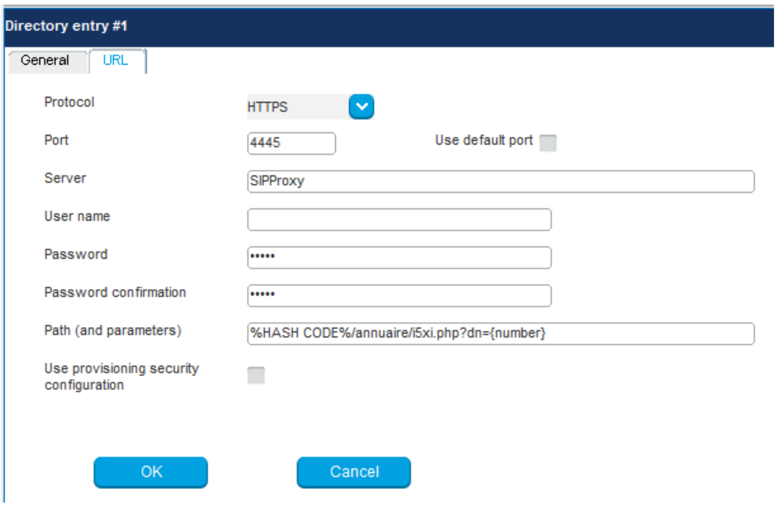


ID	Type	Active	
1	XML	✓	XML directory
2	LDAP	✖	
3	LDAP	✖	
4	LDAP	✖	
5	LDAP	✖	

Directory entry #1

Type	XML
Active	☑
Name	XML directory
Search base	
Search type	Surname
Display type	Surname, given name
Server search timeout	10 sec

URL tab

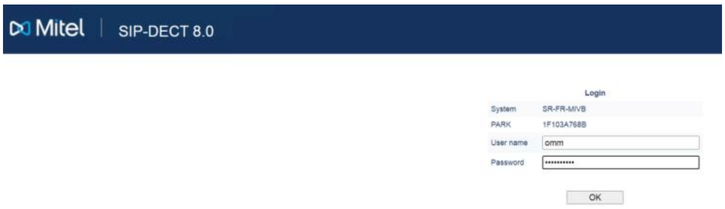


Directory entry #1

Protocol	HTTPS
Port	4445 Use default port ☐
Server	SIPProxy
User name	
Password	•••••
Password confirmation	•••••
Path (and parameters)	%HASH CODE%/annuaire/i5xi.php?dn={number}
Use provisioning security configuration	☐

10.8 OMM WEB

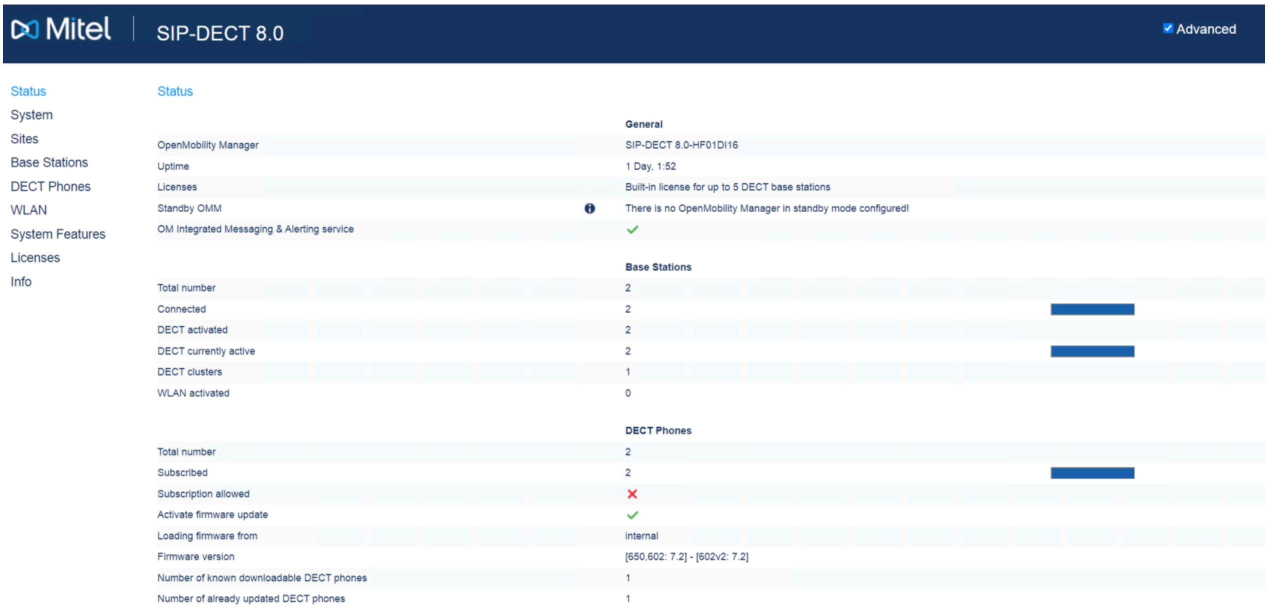
Access > https:\\192.168.65.101



Login

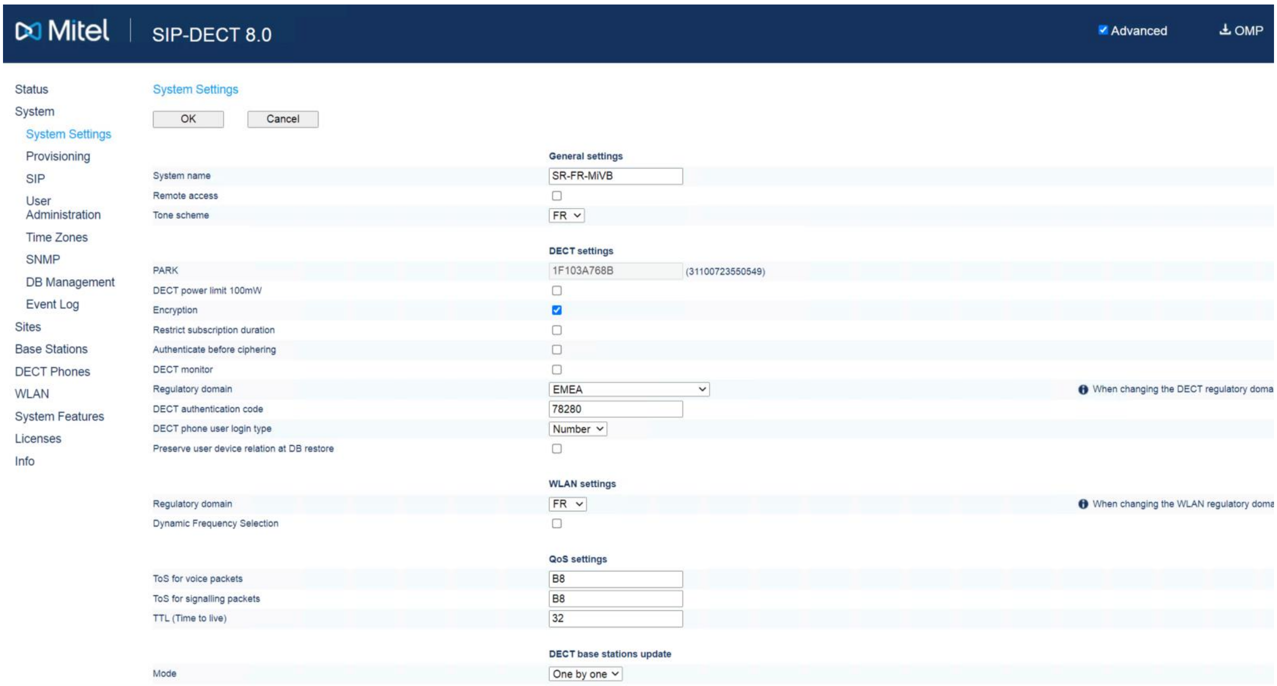
System	SR-FR-MIVB
PARK	1F103A768B
User name	omm
Password	•••••••••••

OK



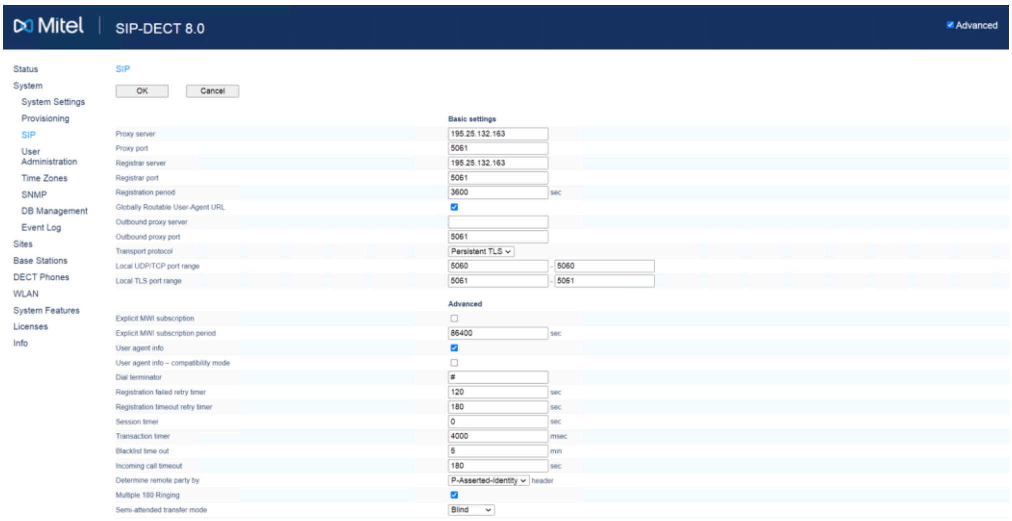
Status

	General
OpenMobility Manager	SIP-DECT 8.0-HF01DI16
Uptime	1 Day, 1:52
Licenses	Built-in license for up to 5 DECT base stations
Standby OMM	There is no OpenMobility Manager in standby mode configured!
OM Integrated Messaging & Alerting service	✓
	Base Stations
Total number	2
Connected	2
DECT activated	2
DECT currently active	2
DECT clusters	1
WLAN activated	0
	DECT Phones
Total number	2
Subscribed	2
Subscription allowed	✗
Activate firmware update	✓
Loading firmware from	internal
Firmware version	[650,602: 7.2] - [602v2: 7.2]
Number of known downloadable DECT phones	1
Number of already updated DECT phones	1



System Settings

	General settings	
System name	SR-FR-MiVB	
Remote access	☐	
Tone scheme	FR	
	DECT settings	
PARK	1F103A768B (31100723550549)	
DECT power limit 100mW	☐	
Encryption	☑	
Restrict subscription duration	☐	
Authenticate before ciphering	☐	
DECT monitor	☐	
Regulatory domain	EMEA	When changing the DECT regulatory doma
DECT authentication code	78280	
DECT phone user login type	Number	
Preserve user device relation at DB restore	☐	
	WLAN settings	
Regulatory domain	FR	When changing the WLAN regulatory doma
Dynamic Frequency Selection	☐	
	QoS settings	
ToS for voice packets	B8	
ToS for signalling packets	B8	
TTL (Time to live)	32	
	DECT base stations update	
Mode	One by one	

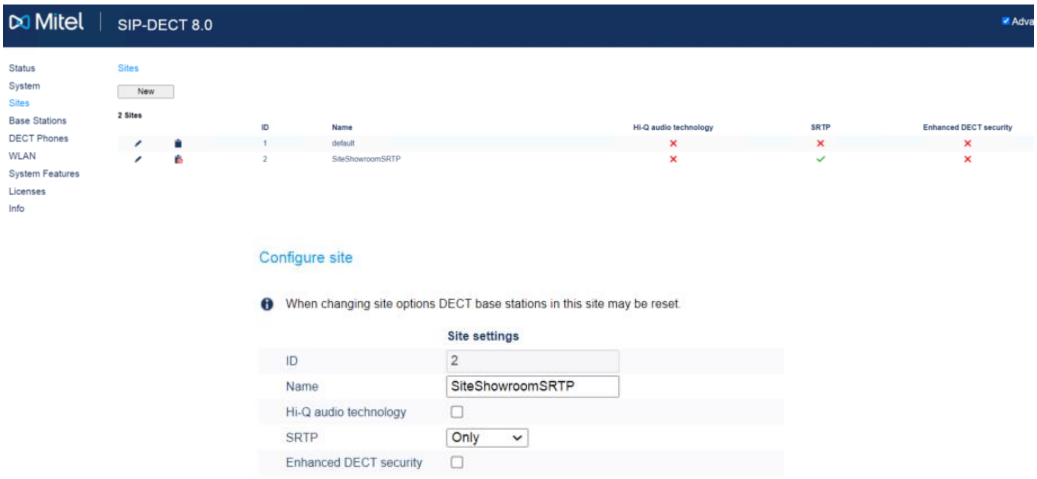


Basic settings

Proxy server	195.25.132.163	
Proxy port	5061	
Registrar server	195.25.132.163	
Registrar port	5061	
Registration period	3600	sec
Globally Routable User-Agent URL	☑	
Outbound proxy server		
Outbound proxy port	5061	
Transport protocol	Persistent TLS	
Local UDP/TCP port range	5060 - 5060	
Local TLS port range	5061 - 5061	

Advanced

Explicit MWI subscription	□	
Explicit MWI subscription period	86400	sec
User agent info	☑	
User agent info – compatibility mode	□	
Dial terminator	#	
Registration failed retry timer	120	sec
Registration timeout retry timer	180	sec
Session timer	0	sec
Transaction timer	4000	msec
Blacklist time out	5	min
Incoming call timeout	180	sec
Determine remote party by	P-Asserted-Identity	header
Multiple 180 Ringing	☑	
Semi-attended transfer mode	Blind	



2 Sites

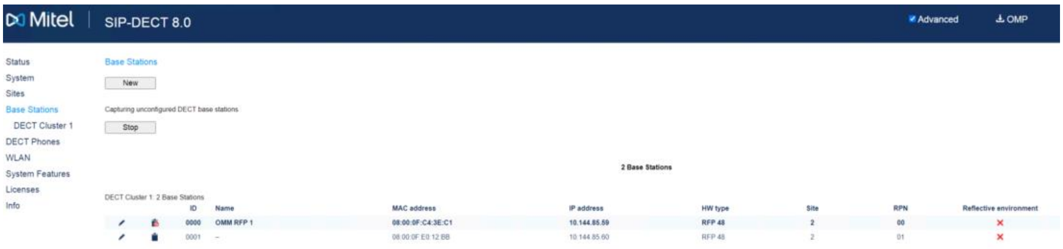
		ID	Name	Hi-Q audio technology	SRTP	Enhanced DECT security
		1	default	✗	✗	✗
		2	SiteShowroomSRTP	✗	✓	✗

Configure site

When changing site options DECT base stations in this site may be reset.

Site settings

ID	2
Name	SiteShowroomSRTP
Hi-Q audio technology	□
SRTP	Only
Enhanced DECT security	□

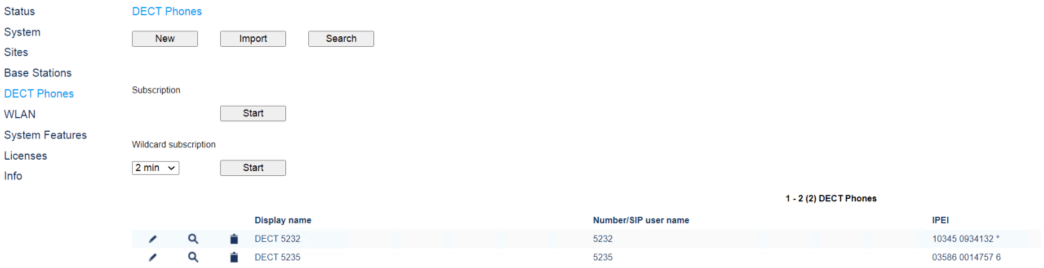


Capturing unconfigured DECT base stations

2 Base Stations

DECT Cluster 1: 2 Base Stations

		ID	Name	MAC address	IP address	HW type	Site	RPN	Reflective environment
		0000	OMM RFP 1	08:00:0F:C4:3E:C1	10.144.85.59	RFP 48	2	00	✗
		0001	–	08:00:0F:E0:12:BB	10.144.85.60	RFP 48	2	01	✗

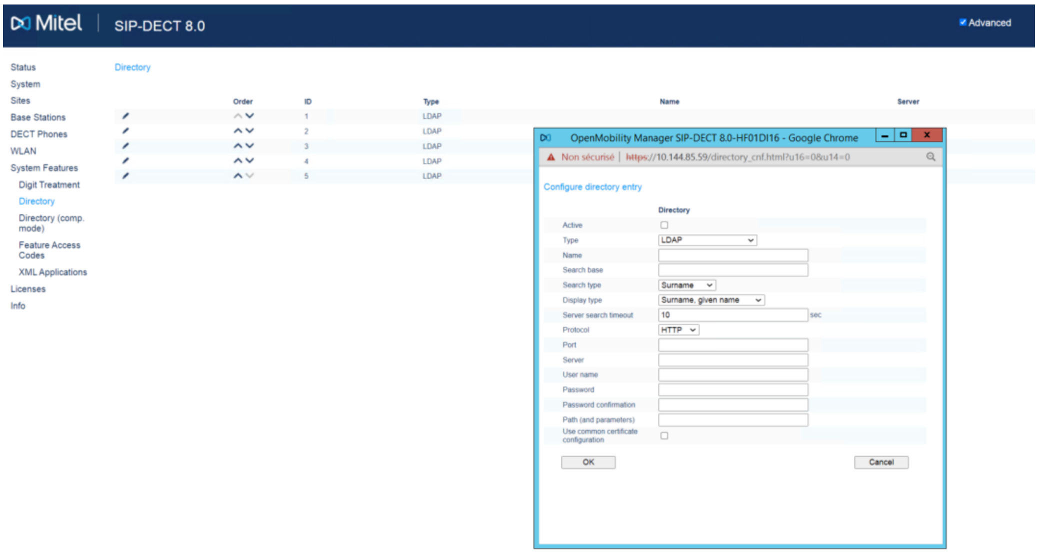


Subscription

Wildcard subscription: 2 min

1 - 2 (2) DECT Phones

			Display name	Number/SIP user name	IPEI
			DECT 5232	5232	10345 0934132 *
			DECT 5235	5235	03586 0014757 6



Directory

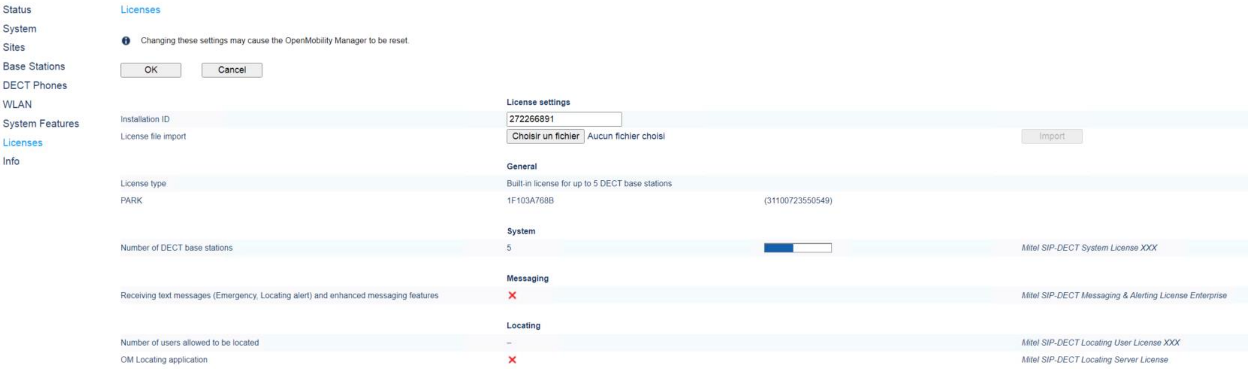
Order	ID	Type	Name	Server
˅	1	LDAP		
˄ ˅	2	LDAP		
˄ ˅	3	LDAP		
˄ ˅	4	LDAP		
˄	5	LDAP		

Non sécurisé | ~~https~~://10.144.85.59/directory_cnf.html?u16=0&u14=0

Configure directory entry

	Directory
Active	□
Type	LDAP
Name	
Search base	
Search type	Surname
Display type	Surname, given name
Server search timeout	10 sec
Protocol	HTTP
Port	
Server	
User name	
Password	
Password confirmation	
Path (and parameters)	
Use common certificate configuration	□

OK Cancel



Licenses

Changing these settings may cause the OpenMobility Manager to be reset.

OK Cancel

	License settings		
Installation ID	272266891		
License file import	Choisir un fichier Aucun fichier choisi		Import
	General		
License type	Built-in license for up to 5 DECT base stations		
PARK	1F103A768B	(31100723550549)	
	System		
Number of DECT base stations	5		*Mitel SIP-DECT System License XXX*
	Messaging		
Receiving text messages (Emergency, Locating alert) and enhanced messaging features	✗		*Mitel SIP-DECT Messaging & Alerting License Enterprise*
	Locating		
Number of users allowed to be located	–		*Mitel SIP-DECT Locating User License XXX*
OM Locating application	✗		*Mitel SIP-DECT Locating Server License*