

Mega PBX + BRI

User Manual



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About this manual

This manual describes the Allo product application and explains how to work and use its major features. It serves as a means to describe the user interface and how to use it to accomplish common tasks. This manual also describes the underlying assumptions and users make the underlying data model.

Document Conventions

In this manual, certain words are represented in different fonts, typefaces, sizes, and weights. This highlighting is systematic; different words are represented in the same style to indicate their inclusion in a specific category. Additionally, this document has different strategies to draw User attention to certain pieces of information. In order of how critical the information is to your system, these items are marked as a note, tip, important, caution, or warning.

Icon	Purpose
	Note
	Tip/Best Practice
	Important
	Caution
	Warning

- **Bold** indicates the name of the menu items, options, dialog boxes, windows and functions.
- The color [blue](#) with underline is used to indicate cross-references and hyperlinks.
- Numbered Paragraphs - Numbered paragraphs are used to indicate tasks that need to be carried out. Text in paragraphs without numbering represents ordinary information.
- The Courier font indicates a command sequence, file type, URL, Folder/File name
- e.g. www.allo.com

Support Information

Every effort has been made to ensure the accuracy of the document. If you have comments, questions, or ideas regarding the document contact online support: <http://support.allo.com>

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1. Introduction

Thank you for purchasing the Allo.com's MegaPBX, a SIP-based, affordable, feature-rich converging communication platform designed to meet the communication requirements for small to medium sized enterprises.

The MegaPBX provides the cutting-edge IP-based communications that businesses demand while leveraging existing infrastructure and providing a smooth transition into IP telephony. Based on open standard SIP, the MegaPBX can easily integrate into and interoperate with other components of your existing communications network while providing a rich set of features to reduce costs and increase productivity.

The MegaPBX also includes a Setup wizard and an intuitive user interface that allows users to quickly configure extensions, Voicemail, fax mail, Voicemail & fax to email, conference bridges and other enhanced features can be turned on with minimal effort via the web configuration interface.

4 models are available, all supporting up to 200 extensions and 50 simultaneous calls, 30 people conference room with full features (invite, schedule, email, kick, mute...). FXS ports for FAX machines only.

MegaPBX-PRI supports ISDN PRI protocol and adopts standard T1/E1 trunk interface to realize docking with traditional PBX /PSTN.

MegaPBX-BRI supports ISDN BRI protocol and adopts standard TE trunk interface to realize docking with traditional PBX /PSTN

Equipment Packaging

- 1) One MegaPBX unit
- 2) One 12 Volt power adapter
- 3) One Ethernet cable

1.1 Getting Started With MegaPBX

Initial Setup of IP/PRI/FXS/BRI PBX



Figure 1: Initial Setup

1. Plug one end of the RJ45 Ethernet cable into your Network Switch
2. Plug the other end of the RJ45 Ethernet cable into the WAN port of the MegaPBX
3. Connect a PC to the LAN port of the MegaPBX; Enable the DHCP option in the Network Settings of the PC
4. Plug the Power Adapter included into an available power outlet
5. Plug the other end of the Power Adapter into the “DC-IN” port of the MegaPBX
6. The MegaPBX will power up (Boot up time takes about 160secs)



Use Straight-through Ethernet cable to connect between the MegaPBX to Router/Switch/PC

1.2 Equipment Structure

1.2.1 Rear View



Figure 2: Rear View

Interface	Description
Power	Connect the power adapter, 12VDC, 3.5A
Reset	Reset button for factory default.
WAN	Standard 10/100BASE-TX Ethernet Interface for WAN
Management Console (LAN)	Standard 10/100BASE-TX Ethernet Interface for LAN. Default Web GUI Login IP address is 192.168.113.2
Memory	User can insert the USB drive.
Console	Serial console for debugging purpose.
BRI 1 & BRI 2	TE/NT ports with line port side LED indicator (Orange when line seized)
BRI 1, BRI2, BRI3 & BRI4	This LED will glow when the channel got seized.

1.2.2 Front View



Figure 3: Front View

Notification LEDs (On the Front Panel of the Gateway):

 LED 8	 LED 2	 LED 1	 WAN	 LAN	 Power
Blue On- PRI 1 link is up (No Alarm)	Blue On- System Ready Blue Blink- Factory Reset	Blue ON- If the SD Card Mounted properly	Orange Blinks- WAN link is up.	Orange Blinks- LAN link is up.	Orange On- Power is on.

WARRANTY

Hardware Warranty: 1 year

If the BRI Gateway was purchased from a Distributor/reseller, please contact the company where the device was purchased for replacement, repair or refund. If the device was purchased directly from allo.com, contact our Technical Support Team for a RMA (Return Materials Authorization) number before the product is returned. Allo.com reserves the right to remedy warranty policy without prior notification.



Use the power adapter provided with the ALLO BRI Gateway. Do not use a different power adapter as this may damage the device. This type of damage is not covered under warranty.

1.3 Accessing the WEB GUI

MegaPBX-BRI Web GUI can be accessed either through WAN or LAN interface. Steps to Access the GUI during the initial setup through LAN interface:

1. Make the setup as mentioned in the hardware setup
2. Change the Network setting of the PC is set in automatic mode (i.e. DHCP mode). An IP address will be accessed to the PC in manual mode (i.e. Static IP mode). Assign the IP address to the PC in the range of 192.168.113.xxx series (E.g:192.168.113.10), net mask as 255.255.255.0 and gateway& DNS as 192.168.113.1.
3. Launch the web browser and enter the URL <http://192.168.113.2> (Default LAN IP address) to open the login page of MegaPBX – BRI Graphical Interface.



Figure 4: Login Page

4. Login using the default username & password (Default: Username: admin; Password: admin). Successful login takes you to the Dashboard page. Observe the WAN IP address on the dashboard, this will be used to access the GUI from the WAN interface.

After successful login we get a MegaPBX Home Dash Board. To guarantee the system safety, When login for the first time, we need to modify Password. For modifying the password go to **TOOLS->Admin Account Option**



The Recommended web Browser to access GUI is Mozilla Firefox only.

- If your network is not enabled with DHCP server, configure the WAN port IP address manually in the SETTINGS > Network Settings section as per your requirement.

2. Setting up Features

Setting up your browser for working with BRI Gateway is simple. In order to run this application appropriately the following settings are to be configured.

3. Dashboard

ALLO MegaPBX Dash Board summarizes the Mega PBX status with a graphical display. Detailed status of an individual entity is available under the Status Tab or it can be directly accessed by clicking on [more](#).



Figure 5: Dashboard

4. Setup

4.1 Extensions

4.1.1 SIP Extensions

Navigate through **Setup > Extensions > SIP Extensions**

SIP Extensions are the unique number mapped to person that can be reached and be able to place calls.

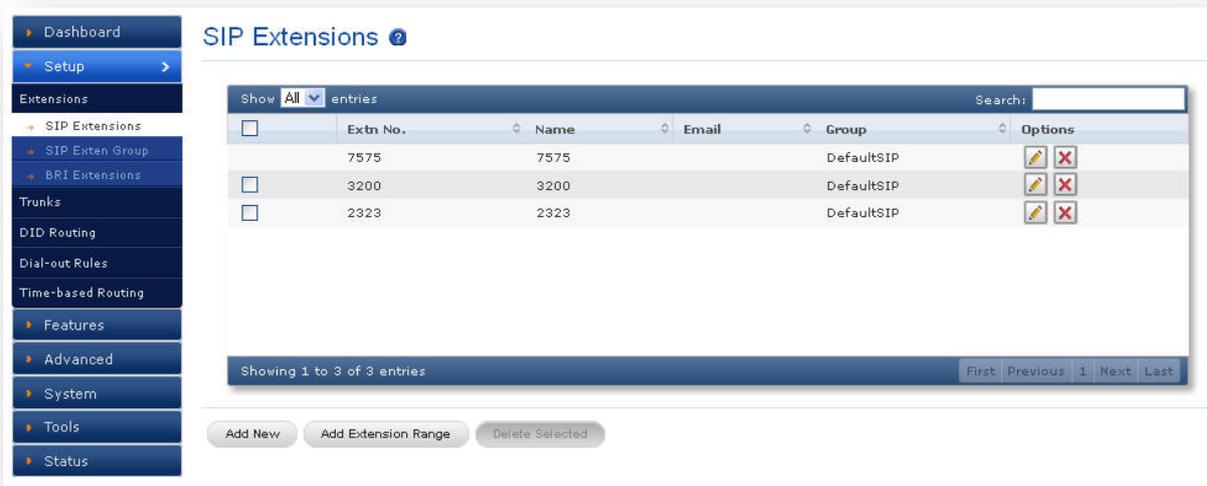


Figure 6: SIP Extensions

Click **Add New**, to create an Extension

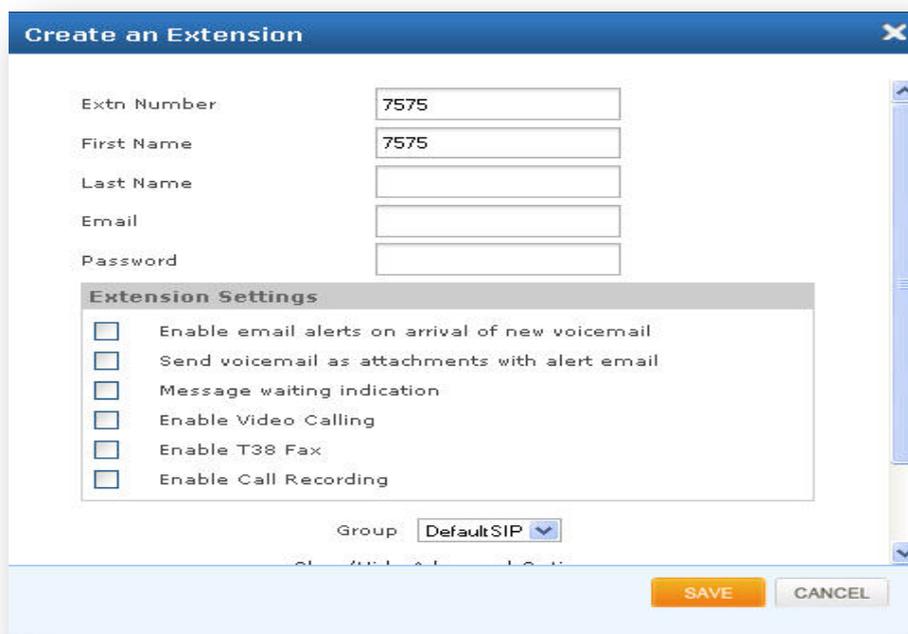


Figure 7: Create an Extension

Extn Number	Extension Number of endpoint (e.g.: IP phone) will use to authenticate with the MegaPBX, eg: 4000.
First Name	A character based first name for the user eg:"Bob".
Last Name	A character based last name for the user eg:"Jones".
Email	E-mail address for the user eg:"Bobjones@xyz.com".
Password	Password used to authenticate your phone and voicemail pin.
Extension Settings	This allows the user to either enable or disable email alerts or message waiting indication.
Add Extension Range	Range of Extensions can be added at once with required voicemail settings, Eg: from 4000 to 4010.

Show/ Hide Advance Options

Advance options, allows enabling the Features, Codec Configuration and Dialout Settings for a specific user. Default SIP group is disabled when Advanced Options is enabled.

Advanced Options	
DTMF	<p>Set default DTMF mode for sending DTMF digits. Options:</p> <ul style="list-style-type: none"> • INBAND – sent along with audio (requires 64 kbit codec - alaw, ulaw) • INFO – sent as SIP INFO messages • RFC2833 – sent as RTP packets • AUTO – System automatic selects the mode. Uses RFC2833 if offered, inband otherwise. <p>Default: AUTO</p>
Features	Enable or Disable the desired features like voicemail, call queue, conference, and call back, call pickup, call park, etc...
Codec Configuration	Choose the available Codecs and set priority in the order in which Mega PBX should prefer to send and receive audio. Supported codecs are alaw, ulaw, G.729, G.722
Dialout Settings	Allow or deny the preferred dial out plans for user.

4.1.2 SIP Extension Group

Navigate through **Setup > Extensions > SIP Extension Group**

By Default there is an extension group called “Default SIP”. You can limit or enable PBX features for extensions by creating Extensions group.

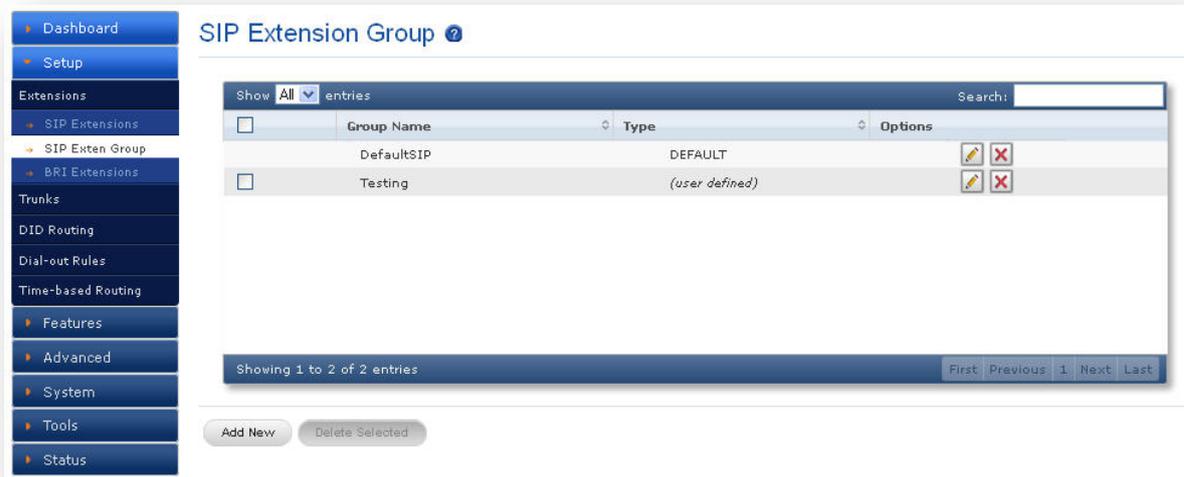


Figure 8: SIP Extension Group

Click Add New, to create Extension Group for MegaPBX-BRI.

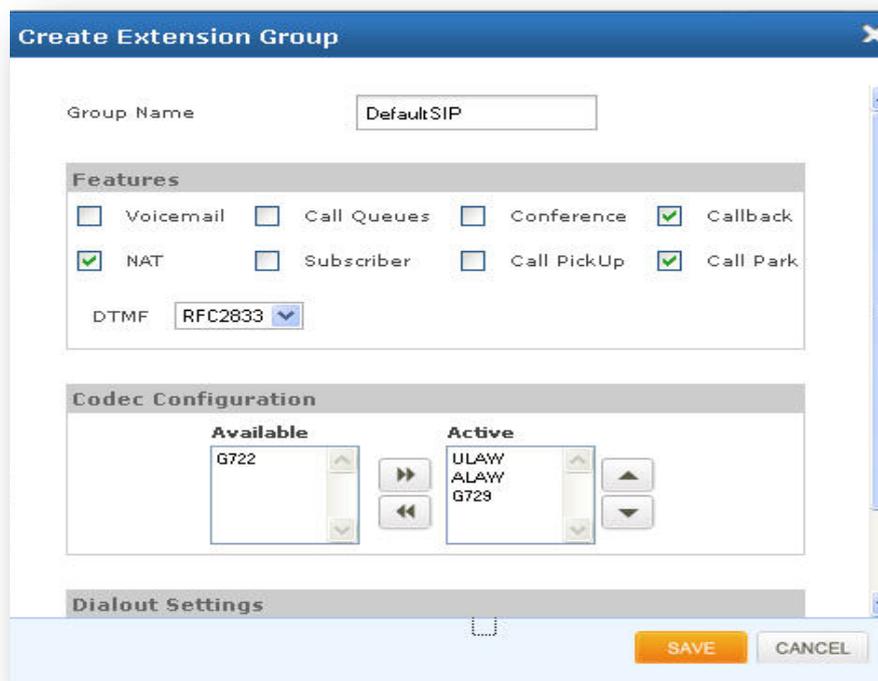


Figure 9: Create Extension Group

Group Name	Descriptive name for extension group
DTMF	<p>Set default DTMF mode for sending DTMF digits. Options:</p> <ul style="list-style-type: none"> • INBAND – sent along with audio (requires 64 kbit codec - alaw, ulaw) • INFO – sent as SIP INFO messages • RFC2833 – sent as RTP packets • AUTO – System automatic selects the mode. Uses RFC2833 if offered, inband otherwise. <p>Default: AUTO</p>
Features	Enable or Disable the desired features like voicemail, call queue, conference, and callback, call pickup, call park etc...
Codec Configuration	Choose the available Codecs and set priority in the order in which Mega PBX should prefer to send and receive audio. Supported codecs are alaw, ulaw, G.729, G.722.
Dialout Settings	Allow or deny the preferred dial out plans for this extension group.

4.1.3 BRI Extensions

Navigate through **Setup > Extensions > BRI Extensions**

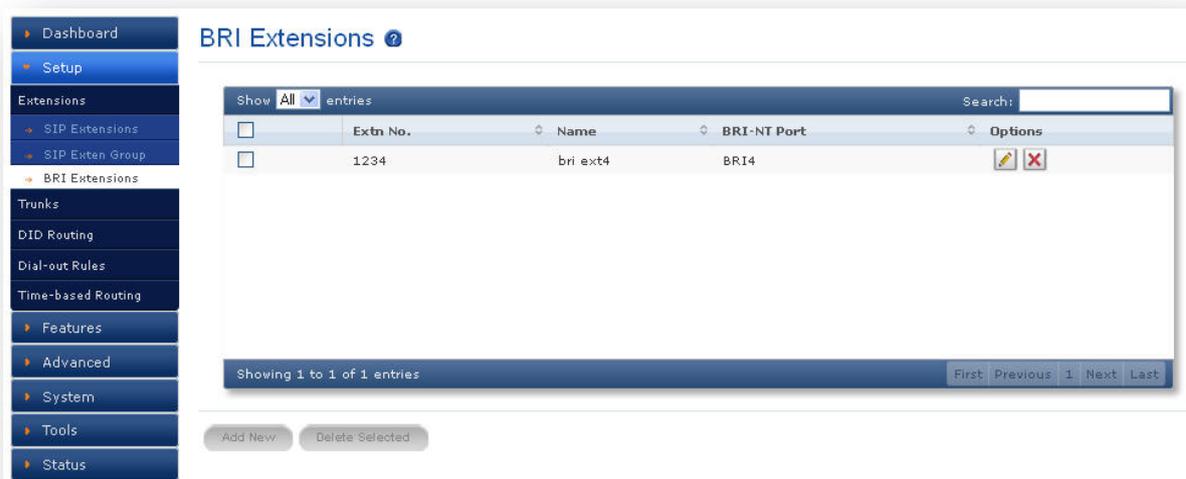


Figure 10: BRI Extensions

Extn Number	Extension Number of endpoint (e.g.: analog phone) will use to authenticate with the MegaPBX- BRI, eg: 1000.
BRINT	User can select the BRI Ports. E.g. BRI 1, BRI2
First Name	A character based first name for the user eg:”BRI”.
Last Name	A character based last name for the user eg:”Ext 4”.
Dialout Settings	Allow or deny the preferred dial out plans for this extension group.



while applying these settings current calls will get disconnected as call manager reload is required.

4.2 Trunks

4.2.1 SIP Trunks

Navigate through **Setup > Trunks > SIP Trunks**

SIP Trunks provide the interface to any SIP companion such as VoIP service provider, any SIP server or SIP clients. Add different types of interfaces, and configure the signaling & media settings for each trunk.



Figure 11: SIP Trunks

Click **Add New** Button, to create SIP Trunk



Figure 12: Create SIP Trunk

Account Name	Descriptive name for the SIP Trunk for user's reference. e.g.: 5656.
Username	Username of endpoint (e.g.: IPPBX) will use to authenticate with the Mega PBX, e.g.: 5656
Proxy Address	IP address or hostname with port of the endpoint (VOIP Service Provider or IPPBX) where the calls will be diverted. Default port no.: 5060 , e.g.: 192.168.0.100.
Outbound Proxy Address	IP address or hostname with port of the outbound proxy server. This ensures that all the SIP packets are sent via specified proxy. Specifying the port is not mandatory. Default port no.: 5060 e.g.: 192.168.0.222:5062 OR 192.168.0.222
Authentication	Enable, if Authentication is required by the End point (VOIP Service Provider or IPPBX)
Auth. Username	A username to use only for registration. e.g.: 5656.
Password	Password to authenticate registrations and inbound &

	outbound calls.
Registration Mode	Enable, if Registration to the End point (VOIP Service Provider or IPPBX) is required.
Registrar Address	IP address or hostname with port of the Registrar server where Mega PBX must register to. Specifying the port is not mandatory. Default port no.: 5060 e.g.: 192.168.0.222:5062 OR 192.168.0.222
Bridge PIN	You can set a PIN for outgoing calls on SIP trunk, thus you will set one more level of security. Leave it blank for unsecured mode. E.g.: 111.
Inbound Call Handling	Route incoming calls to any destination like extension, queue, and voice mail group, IVR, conference, DID Extensions etc. E.g.: Route To Extension 2000.

Show/ Hide Advance Options

Advance options, allows enabling the options like Features, Codec Configuration and Dial out Settings for a specific Trunk.

Advanced Options	
DTMF	<p>Set default DTMF mode for sending DTMF digits. Options:</p> <ul style="list-style-type: none"> • INBAND – sent along with audio (requires 64 kbit codec - alaw, ulaw) • INFO – sent as SIP INFO messages • RFC2833 – sent as RTP packets • AUTO – System automatic selects the mode. Uses RFC2833 if offered, inband otherwise. <p>Default: AUTO</p>
Registration Timeout	You can set the length of time in seconds between registration attempts (the default is 20 seconds).
Features	Enable or Disable the desired features like NAT, FAX, DID Routing, video calling and call recording.

Codec Configuration

Choose the available Codecs and set priority in the order in which gateway should prefer to send and receive audio. Supported codecs are alaw, ulaw, G.729, G.722

4.2.2 BRI Trunks

(Only for Mega PBX products with BRI support)

Navigate through **Setup > Trunks > BRI Trunks**

BRI Trunks provides the interface to any ISDN BRI companion such as BRI service provider or any other ISDN PBX. Create an interface for each span.

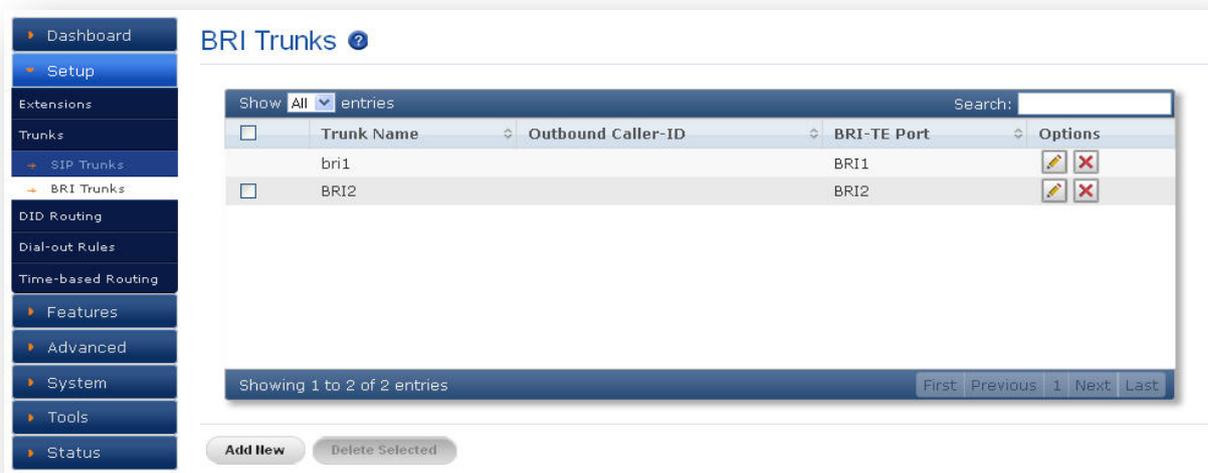


Figure 13: BRI Trunks

Click **Add New** button, to create BRI Trunk

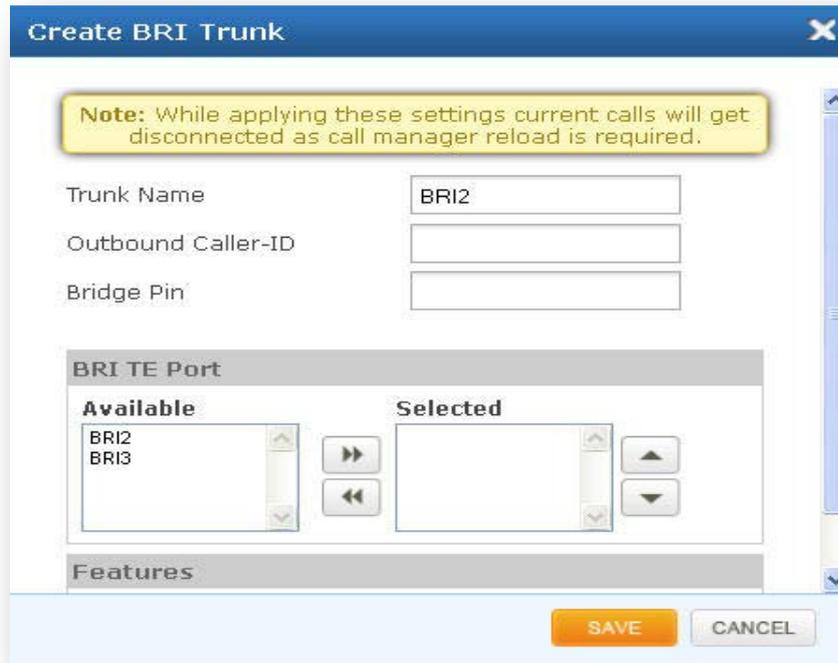


Figure 14: Create BRI Trunk

Trunk Name	Descriptive name for the BRI Trunk for user's reference.
Out bound Caller-ID	Configure the Caller ID Number that would be applied for outbound calls over this trunk.
Bridge Pin	You can set a PIN for outgoing call on BRI trunks, thus you can set one level of security. Leave it blank for unsecured mode.
BRI TE Port	Select BRI ports for this TRUNK.
Inbound Call Handling	Route incoming calls to DID extensions or Dial out rules. Route-1 and route-2 can be defined. E.g.: Route-1: DID Extension pattern: 1X. Trim Digits : 0.

4.3 DID Routing

Navigate through **Setup > DID Routing**

DID Routing is a feature that enables incoming calls to be routed directly to the selected extension or trunk.



Figure 15: DID Routing

Click Add New Button, to create a new DID No.

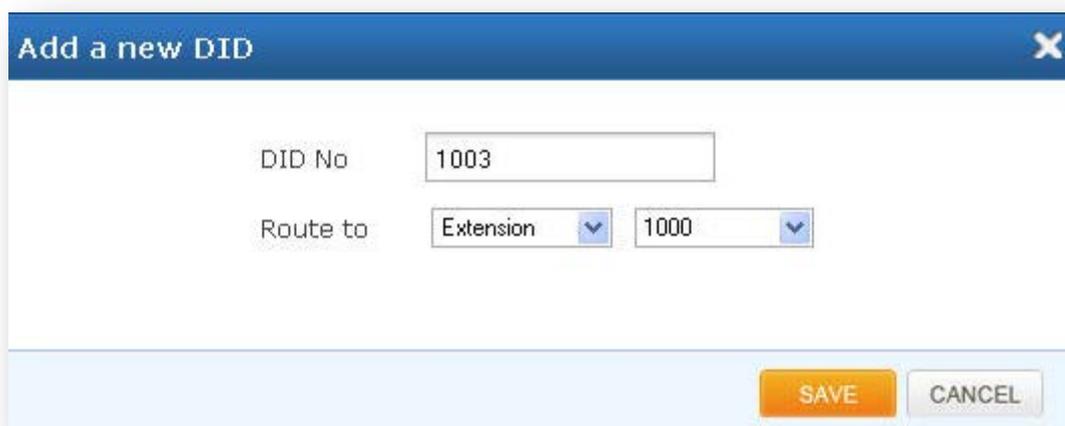
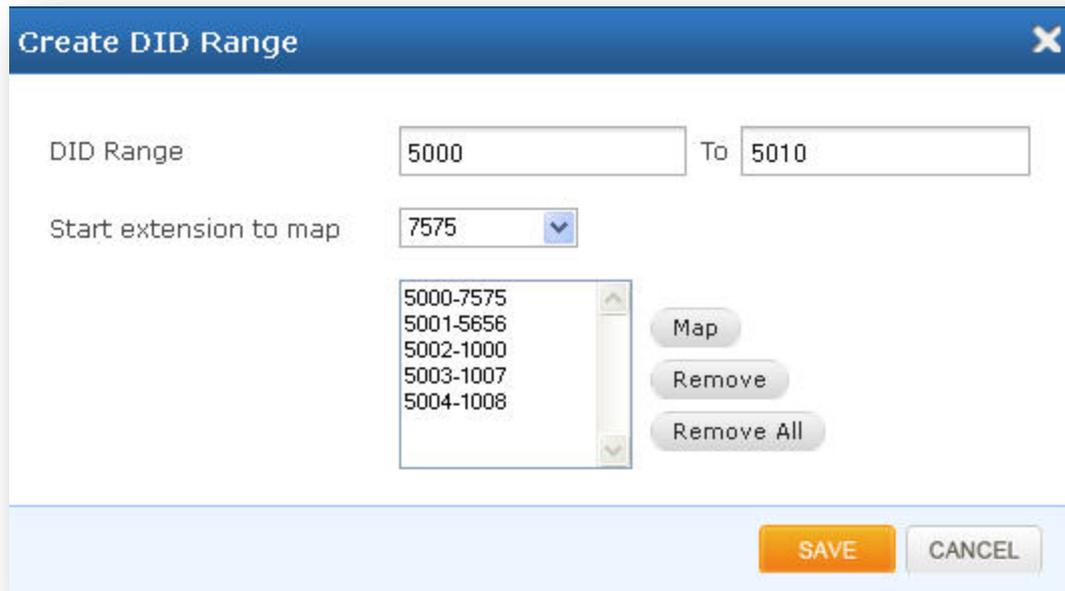


Figure 16: Add a new DID

DID Number	It is the number provided by the service provider for the incoming calls. e.g.: 5023
Route To	Specify where the incoming calls should be routed. e.g.: Conference.
ADD DID Range	Here you can specify the range of the DID numbers provided by the service provider, e.g.: 5000 to 5010.
Start Extension to Map	Here you can specify the starting number of the SIP extension which is to be mapped with the DID numbers. e.g.:2000



Create DID Range

DID Range: 5000 To 5010

Start extension to map: 7575

- 5000-7575
- 5001-5656
- 5002-1000
- 5003-1007
- 5004-1008

Map
Remove
Remove All

SAVE CANCEL

Figure 17: Create DID Range



Click Apply Changes, the message prompts that all the configuration files are successfully updated.

4.4 Dial-Out Rules

Navigate through **Setup > Dial-Out Rules**

Dial out Rules is used to configure the system to judge outgoing calls via trunks and also used to select a least cost routing provider based on the prefix configured.

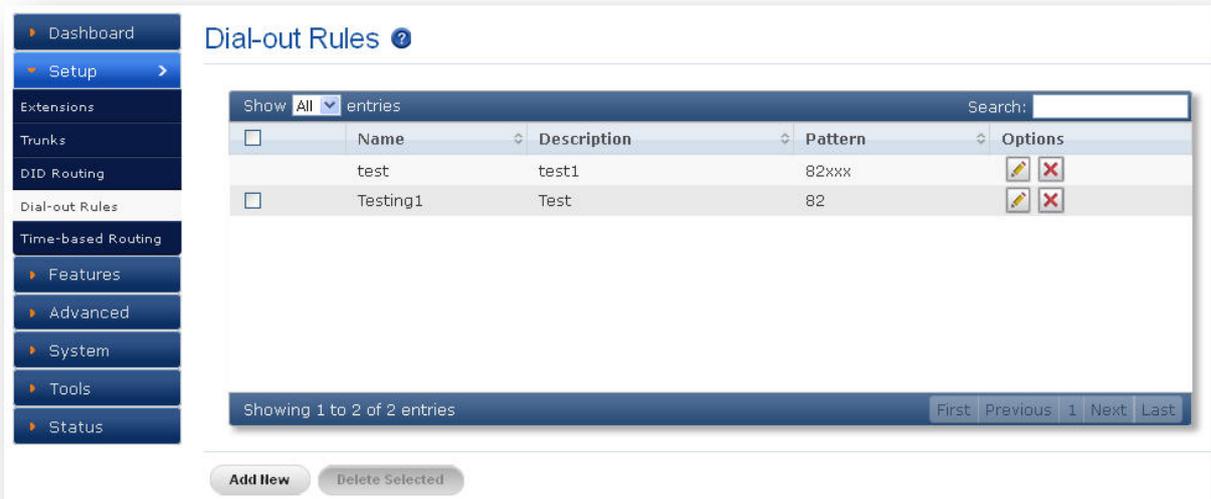


Figure 18: Dial-Out Rules

Click Add New button, to create Dial-out Rule

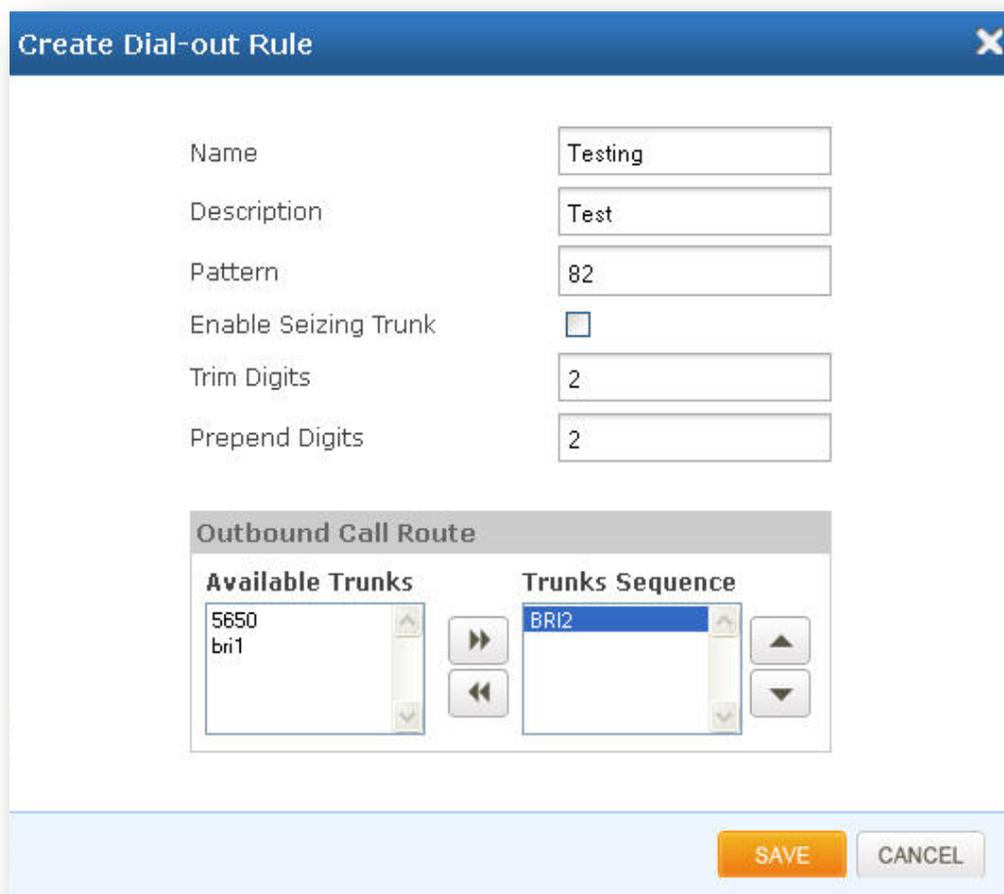


Figure 19: Create Dial-out Rule

Name	Descriptive name for the Dial-Out rule for user's reference.
Description	Provide the description for the Dial-Out rule. (Optional)
Pattern	Specify the pattern to match the dialed string of the incoming call. Pattern: X: Any Digit from 0-9. Z: Any Digit from 1-9. [12345-9]: Any digit from 1 to 9. N: Any Digit from 2-9. ".": Wildcard. Match one or more characters. "!": Wildcard. Match zero or more characters immediately. e.g.: X. – match at least one digit 988XXXX – match 988 followed by 4 digits
Enable Ceasing Trunk	Seize the line and dial out.
Trim Digits	Number of digits to trim from the beginning of dialed number. Eg. Pattern=52xx , Trim Digits=1, dial out digits = 2xx
Prepend Digits	Entered digits add to the beginning of pattern to be Dialout.
Outbound Call Route	Select the preferred trunks where calls are to be routed for this Dial Out rule. Ordering of the trunks in the “Selected” column indicates the order in which call flows on failure.

4.5 Time Based Routing

Navigate through **Setup > Time-Based Routing Groups**

Time-base routing, routes calls to different locations based on the time of day and day of week, when a call is made.

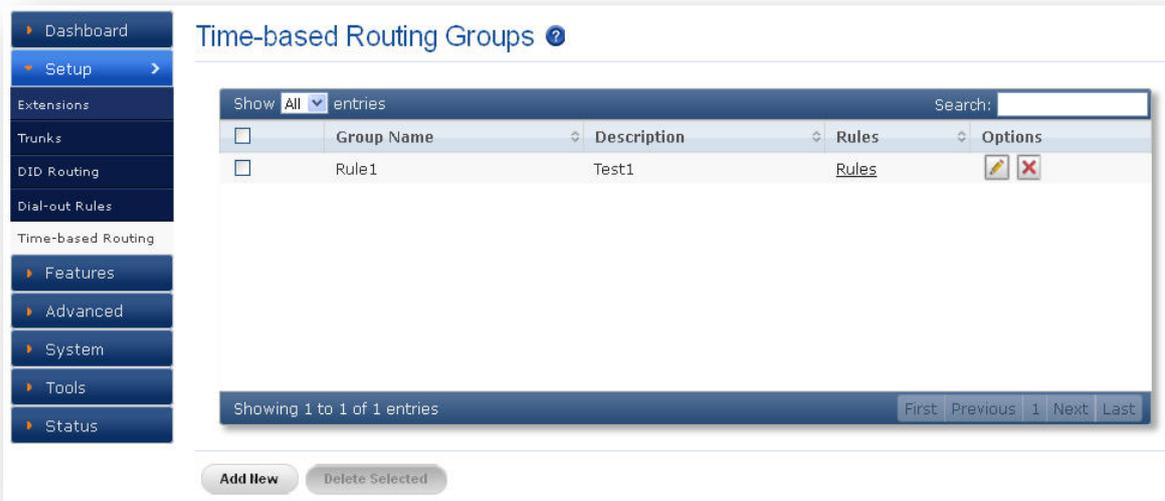


Figure 20: Time Based Routing Groups

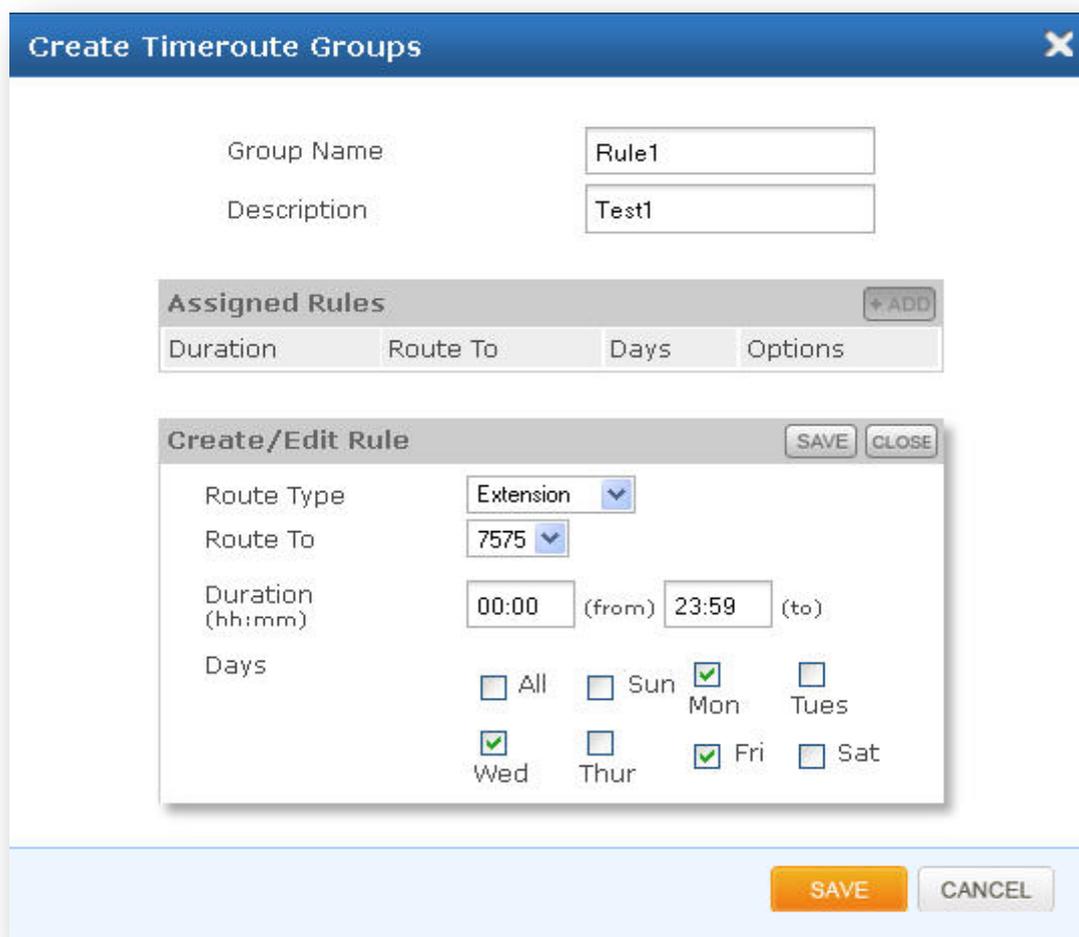


Figure 21: Create Time route Groups

Group Name	Descriptive name for the Time-Based Routing Group for user's reference.
Description	Provide the proper description for the Time based routing rule. (Optional)
Route Type	Select the destination where the call is routed to on matching the time. The destination can be any of these – Extension, Trunk, IVR, Queue, Voicemail Group, Fax to E-Mail
Route To	Setting the destination for the incoming route. The destination can be any of the created extensions, Trunks, IVRs, Queues and so on.
Duration	Specify the time range for which this routing rule will apply. Format: hh:mm
Days	Select the day/days during which this routing rule will apply.



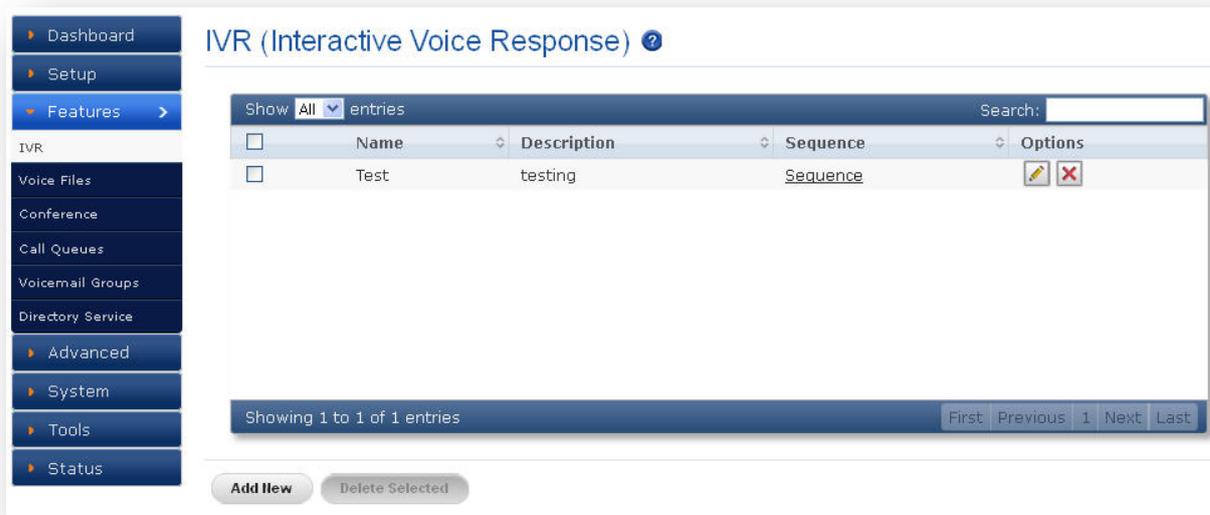
*Make sure that the current date and time are configured correctly under **System** > **Date/Time Configuration**.*

5. Features

5.1 IVR

Navigate through **Features > IVR**

Interactive voice response is a pre recorded interactive operator that allows an automatic separation of the incoming calls through the sequence of interaction with a multiple choices of menu with telephone callers.



	Name	Description	Sequence	Options
<input type="checkbox"/>	Test	testing	Sequence	 

Figure 22: IVR (Interactive Voice Response)

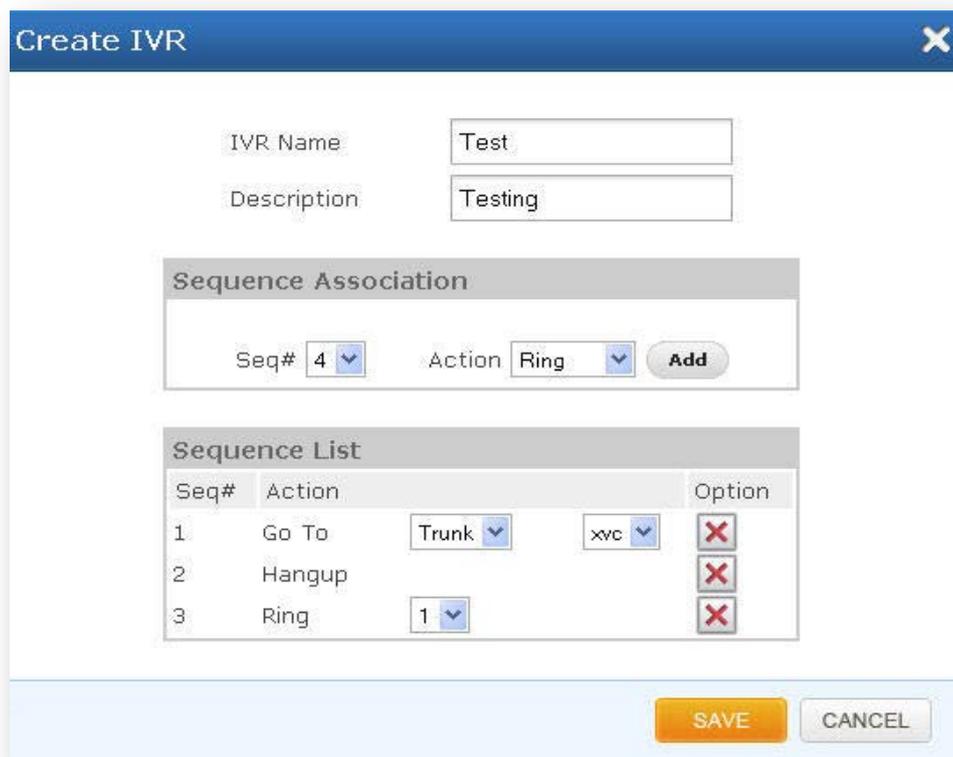


Figure 23: Create IVR

IVR Name	A character based name for the IVR.
Description	Detailed description of the IVR.
Sequence Association	Specifying how incoming calling should be handled sequentially.
Sequence List	List of operations to be handled.

5.2 Voice Files

Navigate through **Features > Voice Files**

Voice files are the audio files that are going to be played during the IVR play back and these files can be uploaded or they can be recorded, the user also has an option to associate key press with his voice file.

Example 1: Voice file without Key press

“Welcome to Allo.com! If you know your party’s extension, please dial it now.”

Example 2: Voice file with Key press

Press 1 for Customer Service

Press 2 for Sales

Press 0 for Reception

File Name	A character based name for a voice file.
Description	Detailed description for the voice file.
File Upload	Upload the voice file to device.
Key Association	With associated key press option it will route incoming call to the specified destination.
Associated Keys	The sequence in which a key and its associated action is given.



Mega PBX Supports ".wav" format only

5.3 Conference

Navigate through **Features > Conference**

The Mega PBX supports password protected conference bridges that allow up to 50 simultaneous participants from any trunks or Internal Extensions.



No.	Conf. Extn.	Date	Start Time	Duration (mins)	Status	Options
1	5001	04/12/2014	22:41	120	Completed	 
2	5002	04/12/2014	20:00	140	Pending	 

Figure 24: Conference

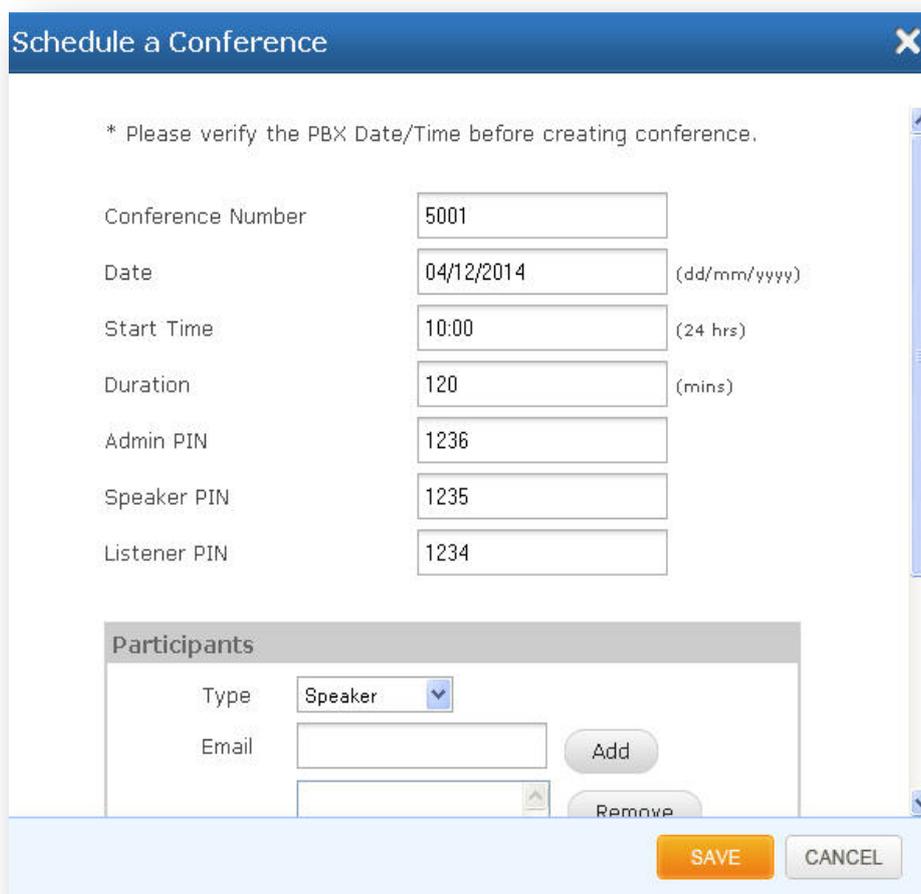


Figure 25: Schedule a Conference

Conference Number	Specifies a unique number which can be used to enter the conference room, e.g.: 6000.
Date	Specifies the date when the conference has to be scheduled, e.g.: 26/2/2014.
Start Time	Specifies the time to schedule the conference. E.g.: 12:30.
Duration	The duration during which the conference will be active, e.g.: 180 minutes.
Admin Pin	Specifies the PIN for the admin user to join the conference, e.g.: 555.
Speaker Pin	Specifies the PIN for the speaker and this user can speak and listen, e.g.: 666.
Listener Pin	Specifies the PIN for the listener and this user can only listen

	but cannot speak, e.g.: 777.
Participants	Specifies the privilege to be assigned and it can be Admin, Speaker or Listener.
Add Dynamic Participants	This option enables the user to add the participants dynamically from the web GUI.
Outbound Dialing	This option enables the user to add the participants dynamically over the trunks.
Maximum Participants	Specify the maximum participants to be allowed, e.g.: 10.

5.4 Call Queues

Navigate through **Features > Call Queues**

Call Queues are used to distribute calls in the order of arrival to the first available agent. The system answers each call immediately and if necessary holds it in a queue until it can be directed to the next available agent. This feature is used to balance the workload among the agents.

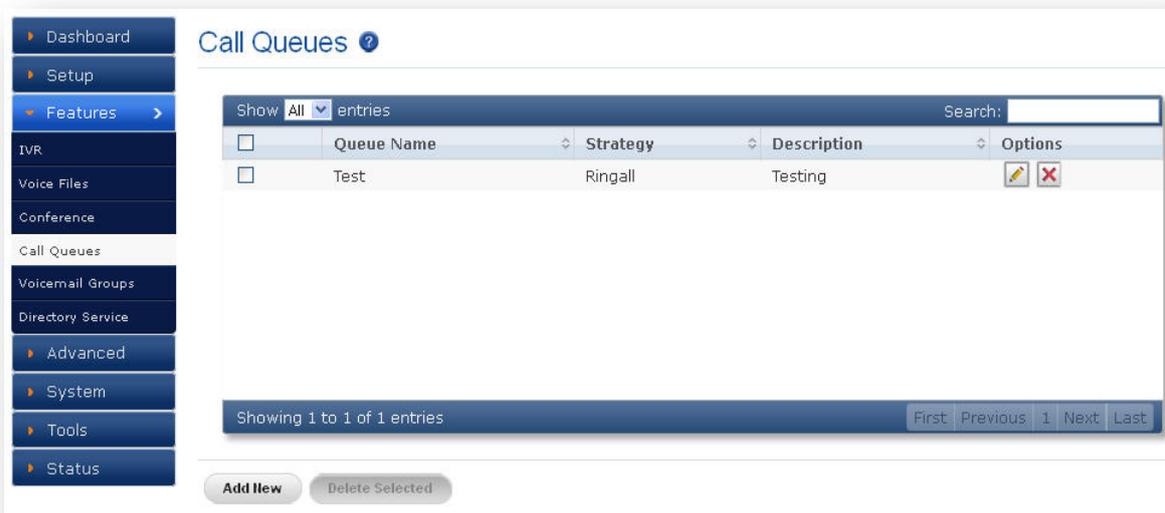


Figure 26: Call Queue

Click **Add New Button**, to create new call Queue

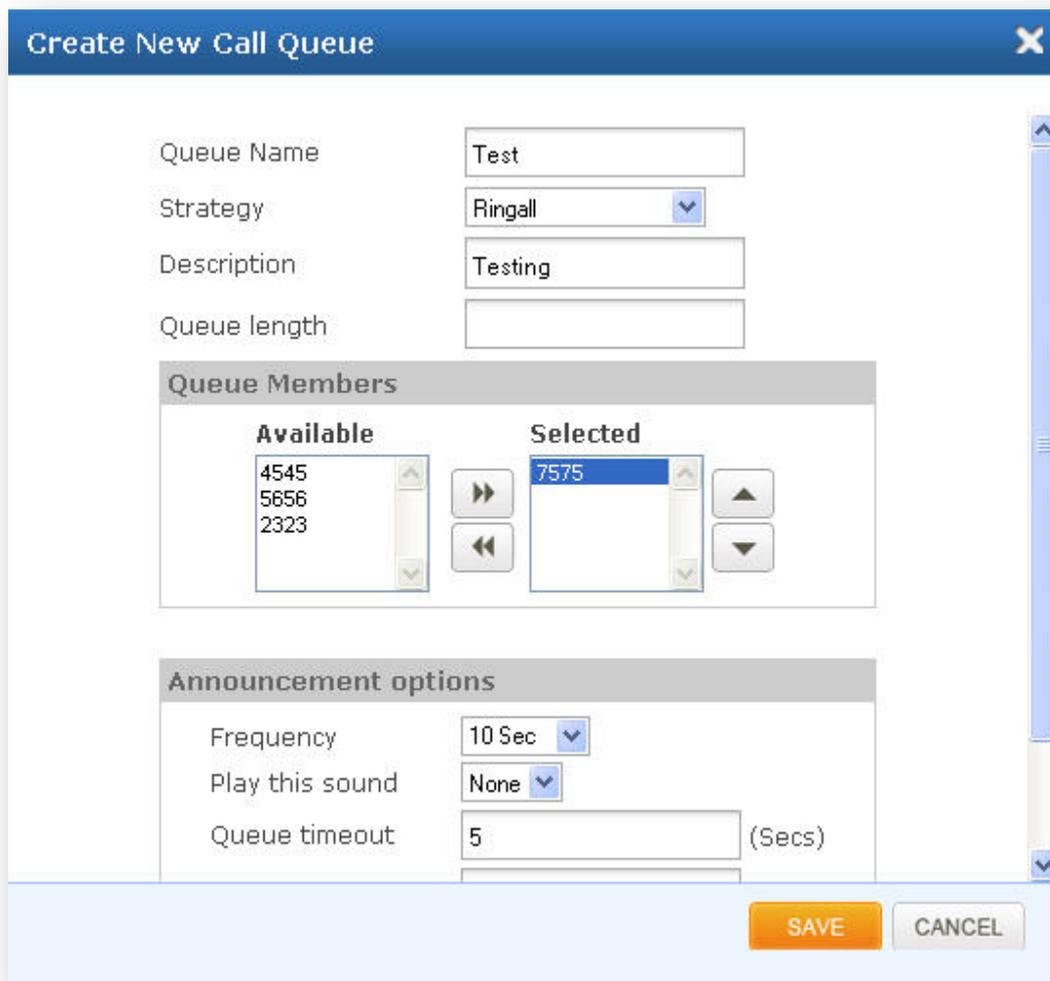


Figure 27: Create New Call Queue

Queue Name	A character based unique name for the queue.
Strategy	Calls are distributed among the members handling a queue with one of the several strategies like Ring all, Round robin, Random etc.,.
Description	Detailed description of the queue.
Queue Length	Used to decide the length of the queue.
Queue Members	Add the members to distribute the incoming calls.
Announcement Options	You can set timeout for queue, member and wrap up.

5.5 Voicemail Groups

Navigate through **Features > Voicemail Groups**

Voicemail Groups feature allows sending the voice message to multiple people or a group of people.

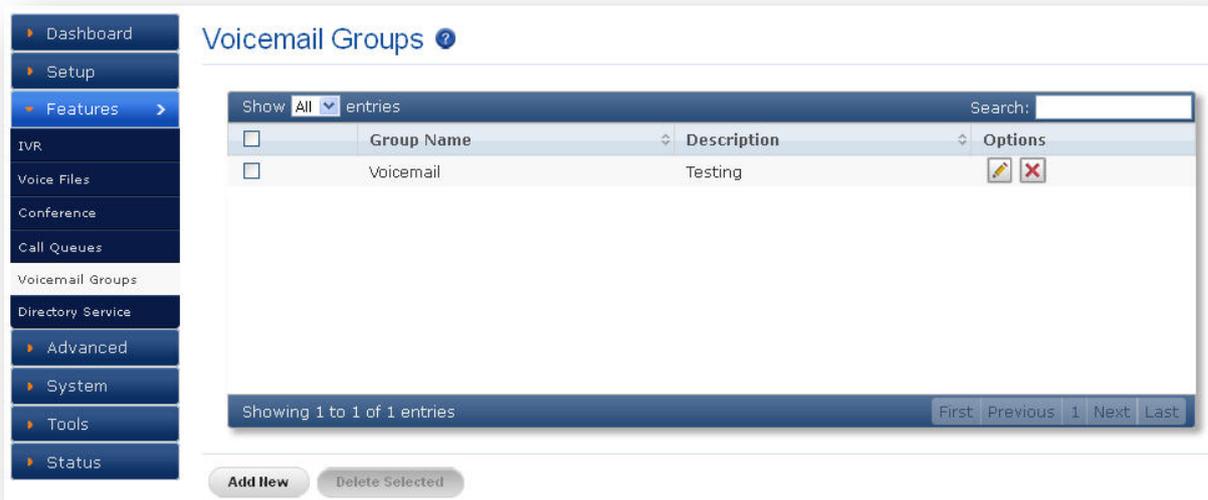


Figure 28: Voicemail Groups

Click **Add New** Button, to create New Voicemail Group

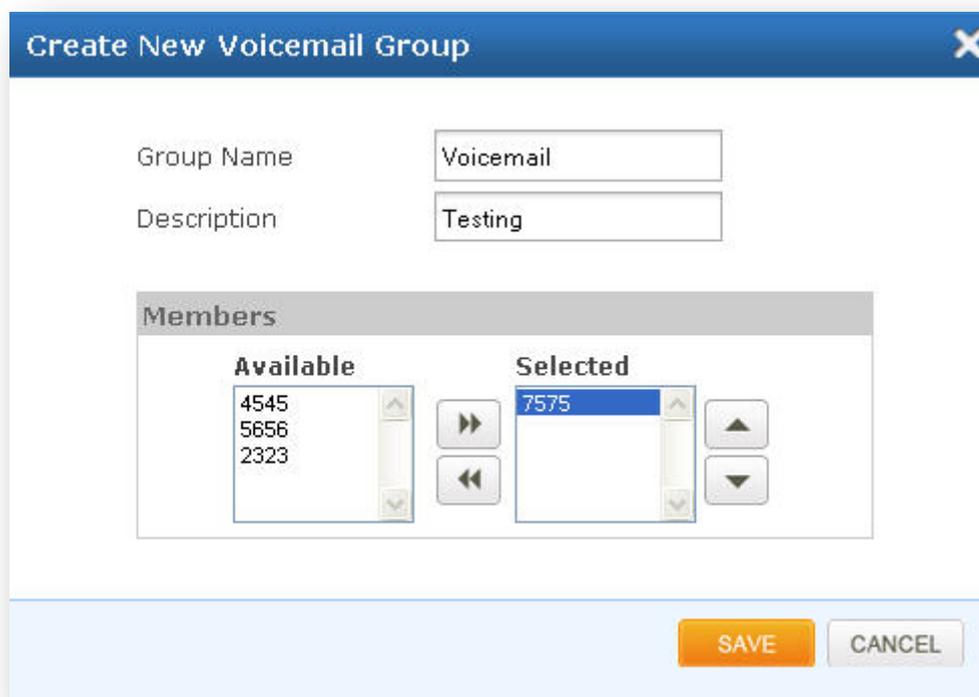


Figure 29: Create New Voicemail Group

Group Name	A character based unique name for a voicemail Group
Description	Detailed description of the Voicemail Group.
Members	Specifies the members to receive the voicemail from the list of available members.

5.6 Directory Service

Navigate through **Features > Directory Service**

Directory is where you can configure the Directory option for the extensions to search users by their First or last name. Dialing the 'Directory Extension' would present to the caller, a directory of users listed in the system telephone directory - from which they can search by First or Last Name.



No.	Extension	First Name	Last Name	Options
1	7575	7575		
2	5656	5656		
3	1000	1000	1000	
4	1007	1007	1007	
5	1008	1008	1008	

Figure 30: Directory Entries

Extension Number	Specify the Extension number to dial for accessing the Name Directory, e.g.: 555.
First Name	Allow the caller to enter the first name of a user in the directory, e.g.: JOHN.
Last Name	Allow the caller to enter the Last name of a user in the directory, e.g.: RAJ.
Import Directory	Import the directory entries by browsing the corresponding file. File has to be in .CSV format.

Export Directory	Export the Directory Entries by specifying the filename. The File will be exported to the local computer in .CSV format
------------------	---

6. Advanced

6.1 Feature Settings

Navigate through **Advanced > Feature Settings**

Feature Settings allows to modify the basic call related functionalities like call pickup, Conference, Callback etc...

Extension:

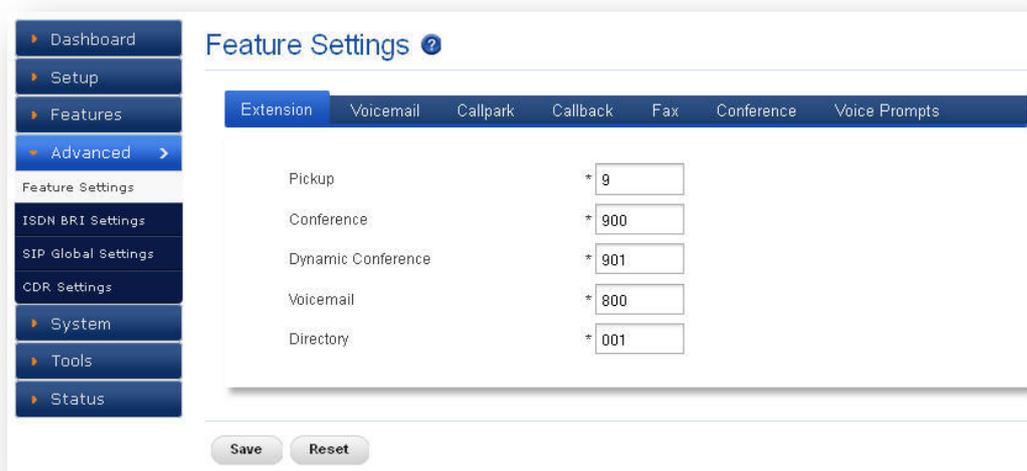


Figure 31: Feature Settings- Extension

Pickup	This feature code is to pick up the ringing extension from another extension if the party is not available in the desk. By Default Feature code is “*9”. For e.g. if *9 is your call pick up code, by dialing *91002 from any other extension you can attend 1002 phone extension.
Conference	Using this feature code you can enter into the conference room. By Default the Feature code is “*900”, i.e. Dial *900 from your phone and It will prompt you for the Conference Number and the PIN and it will let you enter into the

	conference room.
Dynamic conference	Using this feature code you can enter into the conference room and also add users in to it. By Default the Feature code is “*901”, i.e. Dial *901 from your phone. It will prompt you for the Conference Number and the PIN and it will let you enter into the conference room. To add users into the conference *0 then followed by extensions.
Voicemail	This is to assign the code for accessing the voice mail. This will allow end users to change their personal settings for voice mail handling. By dialing to this number, any users who are registered to Mega PBX can access the Voice Mail. I.e. dial *800 from your phone and follow the instructions.
Directory	Using this Feature code you can dial the other extension with first and last name configured in the PBX.

Voicemail:

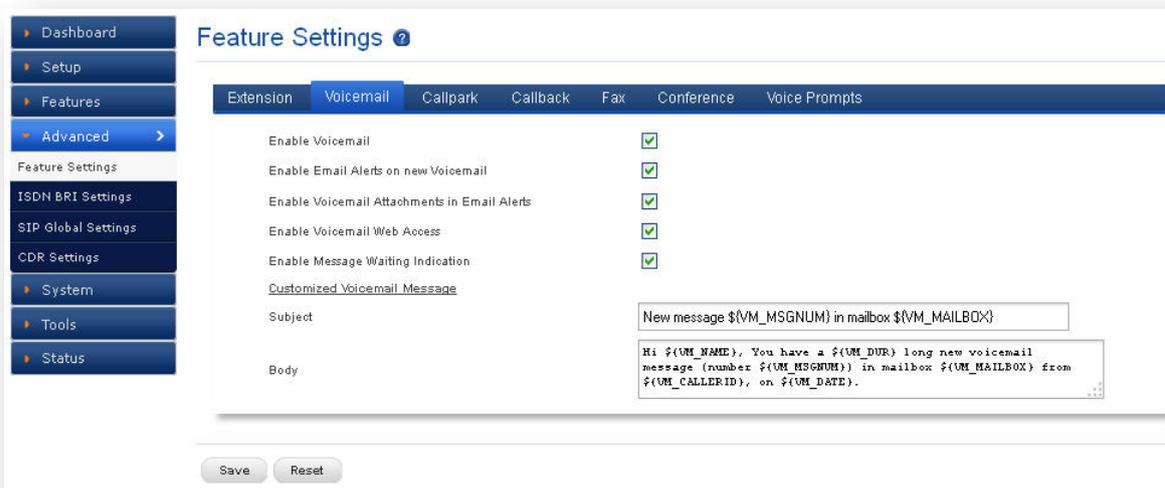


Figure 32: Voicemail

Enable Voice mail	With voice mail, callers can leave messages when you are busy, unable to answer phone calls, or when the IP phone is off-line.
-------------------	--

Enable Email alerts on new Voicemail	Helps to send an email when someone leaves a voice message.
Enable Voicemail attachments in Email alerts	Helps to attach voicemails in your Emails.
Enable Voicemail access	Helps to access your voicemail by using the voicemail access number followed by the password.
Enable message waiting indication	Helps the subscribers to know that a voice message is waiting.
Customized Voicemail message	Allows you to customize the Voicemail message Notifications, which will be sent to the specified Email-ID's.

Call Park:

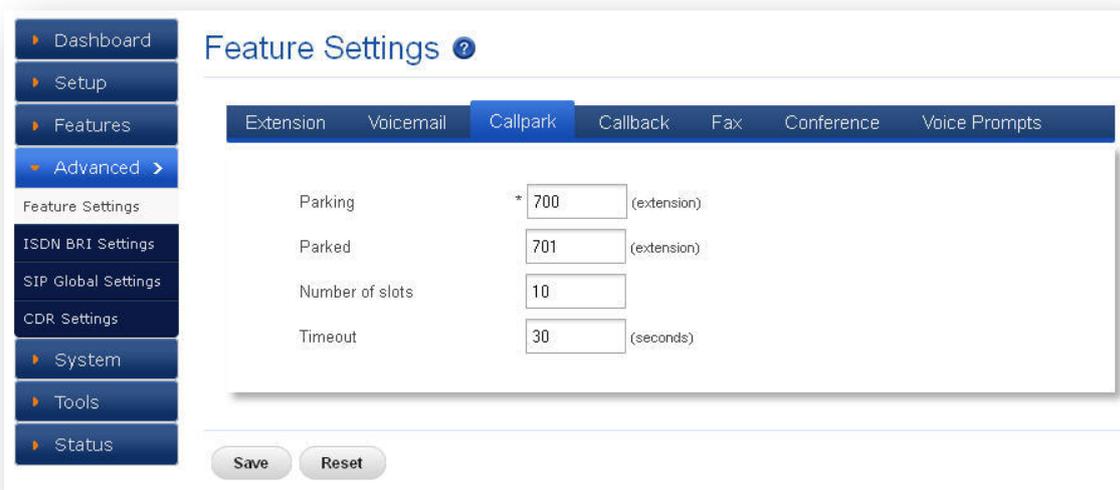


Figure 33: Call Park

Parking	Using this feature code you can park the number of calls. By Default the Feature code is “*700”. i.e. park a caller by dialing *700 by using transfer button on your phone
Parked	Using this feature code you can retrieve the parked calls. By Default the Feature code is “*701. To retrieve the call, the user can go to any phone in the group and press the feature code “*701” and dial the parked extension.

Number of slots	Specifies the number of parking slots. For example, to configure six parking slots : (701, 702, 703, 704, 705, and 706)
Timeout	It is the timeout interval for calls parked at a call-park slot.

Callback:

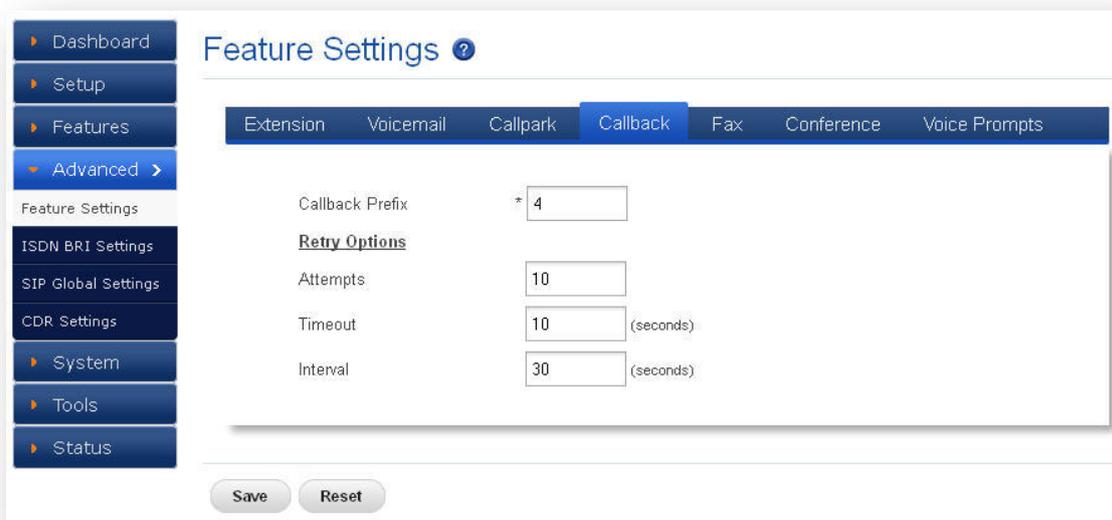


Figure 34: Callback

Callback prefix	To register callback function, user has to dial destination number with this prefix code.
Retry Options	This option helps to callback with number of attempts and timeout for the callback and also the time interval between callback calls.

Fax:

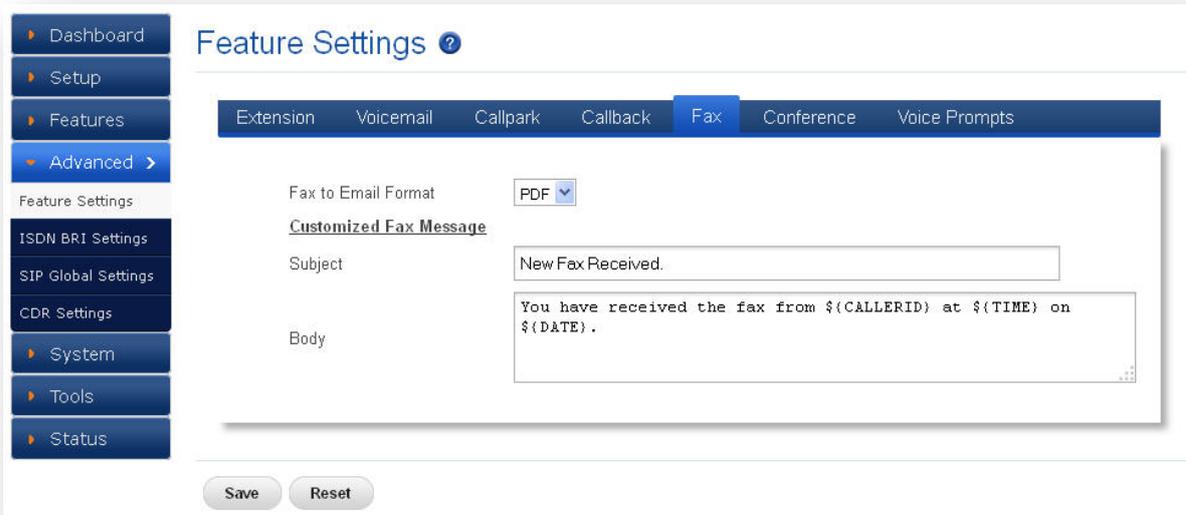


Figure 35: Fax

Fax to Email format	Specify the format to receive the FAX by email either PDF or TIFF format.
Customized Fax message	Allows you to customize the FAX message Notifications, which will be sent to the specified Email-ID's.

Conference:

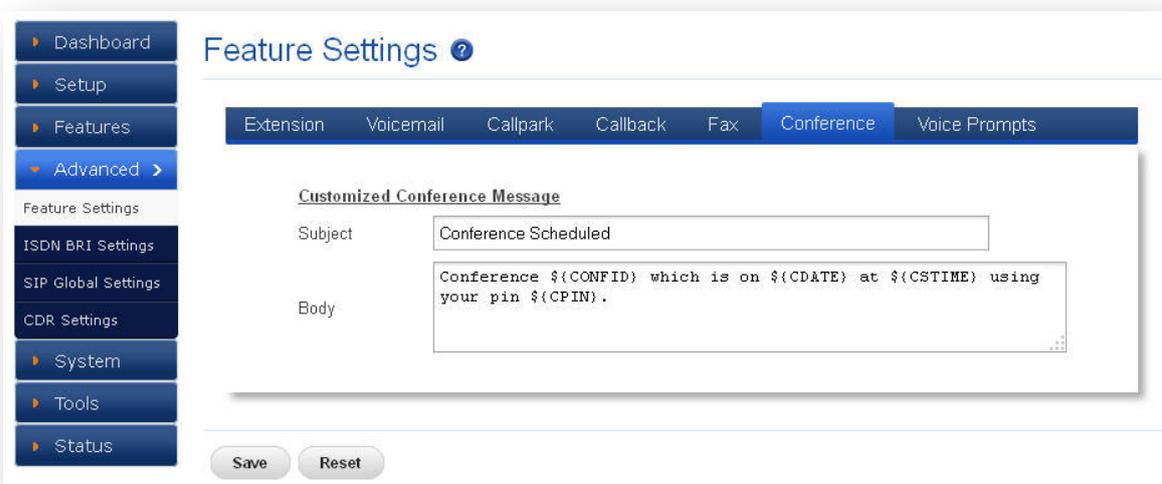


Figure 36: Conference

Customized conference message	Allows you to customize the Conference message Notifications, which will be sent to the specified Email-ID's.
-------------------------------	---

Voice-prompts:

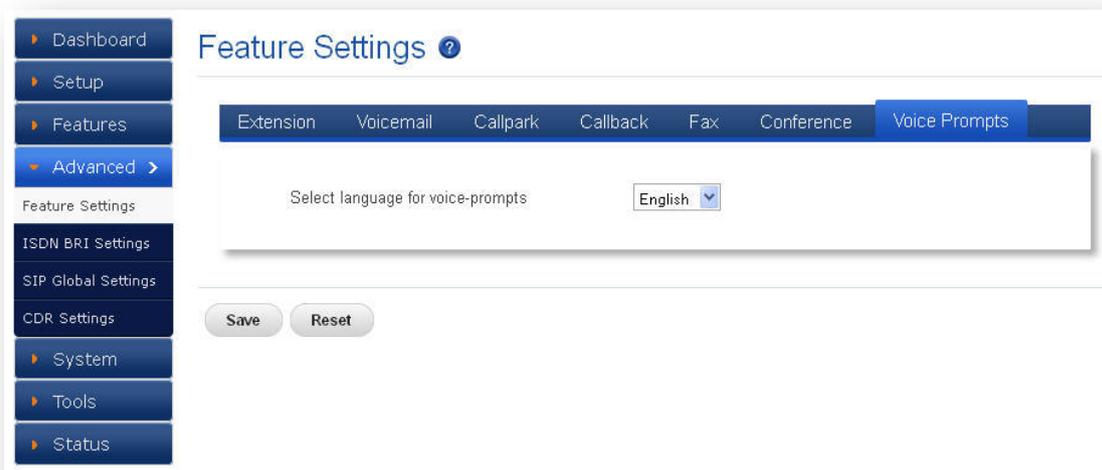


Figure 37: Voice Prompts

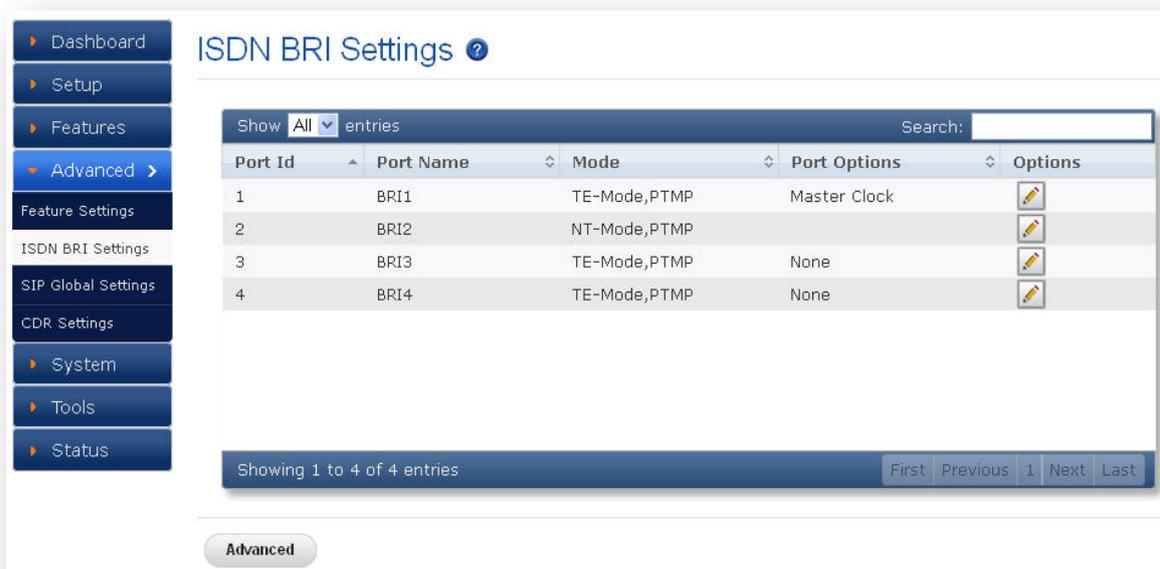
Select language for Voice-prompts.	Allows you to select the language for the Voice prompts. MegaPBX- BRI supports 4 language voice prompts such as English, French, Turkish, and Spanish.
------------------------------------	--

6.2 ISDN BRI Settings

(Only for Mega PBX products with BRI support)

Navigate through **Advanced > ISDN BRI Settings**

This section provides the ability to modify the BRI settings depending on the BRI-TE port and port option, with respect to the service provider or any other companion.



Port Id	Port Name	Mode	Port Options	Options
1	BRI1	TE-Mode,PTMP	Master Clock	
2	BRI2	NT-Mode,PTMP		
3	BRI3	TE-Mode,PTMP	None	
4	BRI4	TE-Mode,PTMP	None	

Figure 38: ISDN BRI Settings

By default, BRI settings are configured. By using  Edit button, you can edit and modify as per your Service providers Signaling parameters.

To Edit BRI Setting enter the following details

Port ID	It specifies the number of the PORT.
Port Name	Name of the port assigned while configuring the BRI trunks.
Port Option	User can keep this port as “Master clock” or “None”.
Port Mode	User can select TE-mode, PTMP or NT-Mode, PTMP. TE Mode, PTP will work when the ISDN BRI line is connected to BRI ports. NT-Mode, PTP can be configured when gateway is connecting ISDN phone/PBX.



Please delete the associated BRI Trunk/Extension to edit the Port model.

Advanced BRI Settings

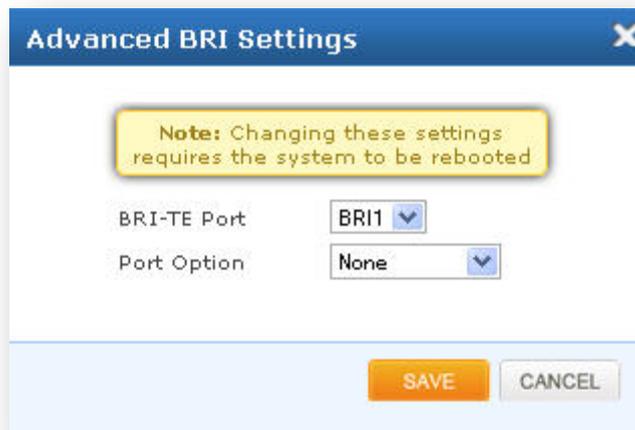


Figure 39: Advanced BRI Settings

BRI-TE Port	User can select the BRI Ports from the drop down menu. E.g.: BRI1, BRI2
Port Option	Enter the BRI-TE port and choose the port option.



Changing these settings requires the system to be rebooted.

Click on **“SAVE”** button, followed by **“APPLY CHANGES”** button to update the configuration changes.

6.3 SIP Global Settings

Navigate through **Advanced > SIP Global Settings**

SIP Global settings apply to all VoIP traffic.

Port Settings

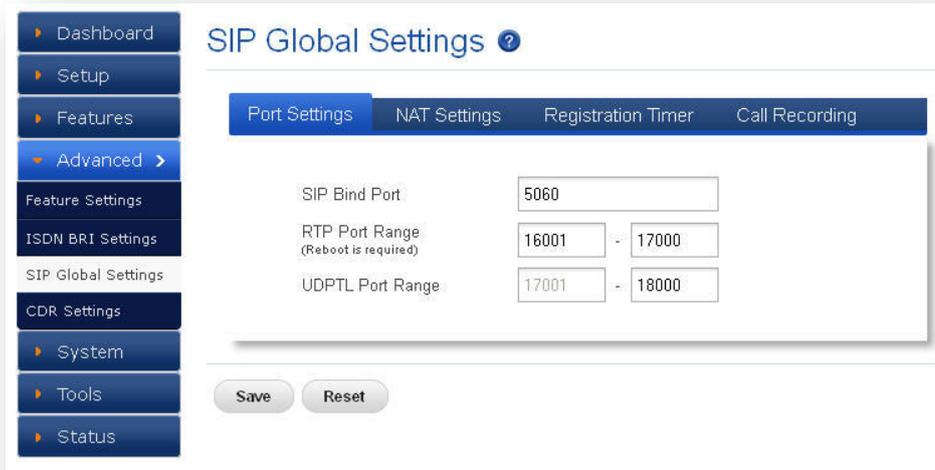


Figure 40: Port Settings

SIP Bind Port	Choose a port on which to listen for SIP UDP traffic. Default: 5060
RTP Port Range	Range of port numbers to be used for RTP traffic. Default: 16001- 17000 Make sure you configure this dynamic range of ports on your NAT Router. When the Mega PBX is behind a NAT and the NAT is configured to do port forwarding with above mentioned port range for UDP ports.
UDPTL Port Range	Port range for T38 Faxing is 17001 to 18000.

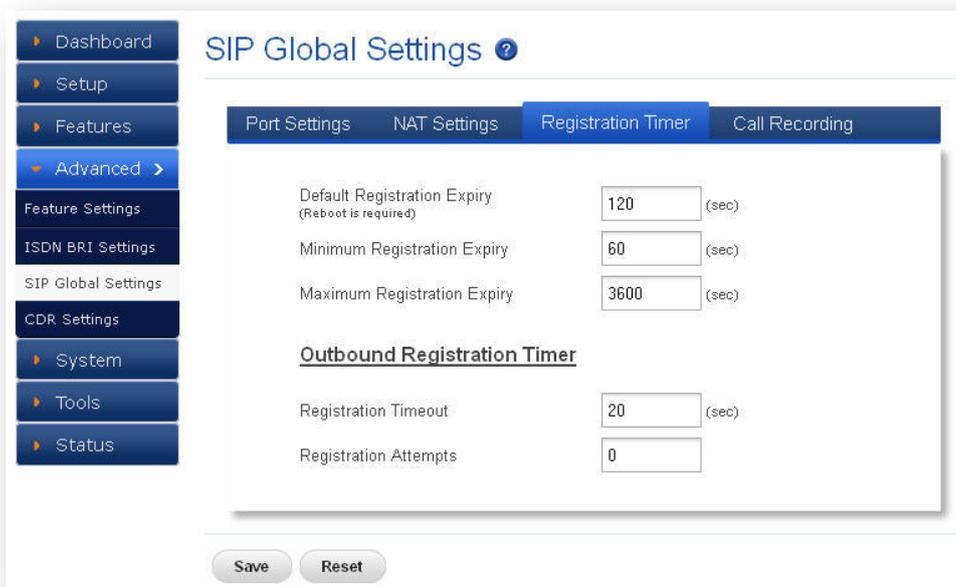
NAT Settings



Figure 41: NAT Settings

NAT	NAT option is checked, when the Mega PBX is behind the Router/Firewall. Select either Stun Server IP or External IP. Default: disabled
Stun Server IP	If the Mega PBX is behind a non-symmetric NAT router, it may be necessary to use STUN to allow PBX to reliably communicate via IP through the router. Enter a STUN server IP address or domain name in the STUN Server field. For a list of public STUN servers, please Refer to: http://www.voip-info.org/wiki/view/STUN
External IP	Enter the NAT Traversal IP address i.e. Public IP Address of your internet, to communicate with Public Network when PBX is behind the NAT. This IP address will substitute in all outgoing SIP messages instead of Local IP address.
Local Netmask	Entering the Net mask of the local network of the Mega PBX allows it to identify the hosts falling within the same network. E.g.: 192.168.2.0/255.255.255.0

Registration Timer



SIP Global Settings ?

Port Settings NAT Settings **Registration Timer** Call Recording

Default Registration Expiry (Reboot is required) (sec)

Minimum Registration Expiry (sec)

Maximum Registration Expiry (sec)

Outbound Registration Timer

Registration Timeout (sec)

Registration Attempts

Save Reset

Figure 42: Registration Timer

Default Registration Expiry	Default duration (in seconds) of incoming/outgoing registrations.
-----------------------------	---

	Default: 120 sec
Min Registration Expiry	Minimum duration (in seconds) of registrations allowed by the Mega PBX. Default: 60 sec
Maximum Registration Expiry	Maximum duration (in seconds) of incoming registrations allowed by the Mega PBX. Default: 3600 sec
Registration Attempts	Number of registration attempts before giving up with registrar (Outbound Registrations only). Default: 0 (never give up)
Registration Timeout	Registration attempt will be retried till this duration (in seconds), if no response from the Registrar. (Outbound Registrations only). Default: 20 sec

Call Recording

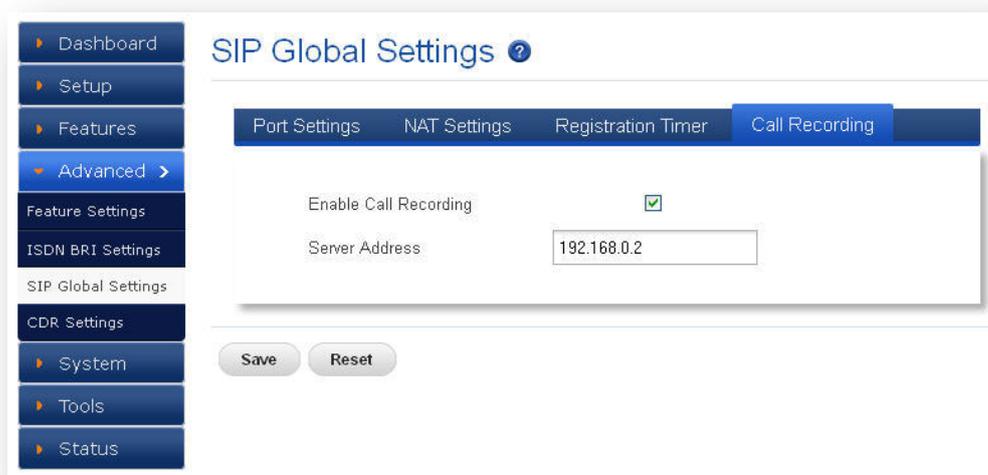


Figure 43: Call Recording

Server Address	It enables Call Recording with the given server where the ORK audio application is running.
----------------	---

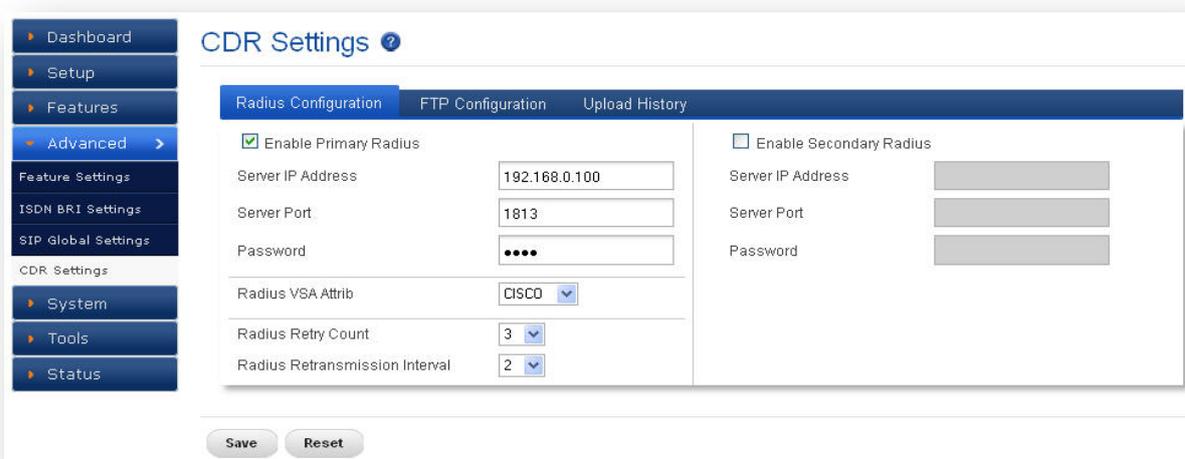
6.4 CDR Settings

Navigate through **Advanced > CDR Settings**

CDR Settings feature allows managing the call records via radius server and FTP server.

6.4.1 Radius Configuration

Radius Server Configuration allows configuring the radius server information where all the call records will be saved in the form of vendor-specific attributes (VSAs).



The screenshot shows the 'CDR Settings' page with a sidebar on the left containing navigation options: Dashboard, Setup, Features, Advanced (selected), Feature Settings, ISDN BRI Settings, SIP Global Settings, CDR Settings, System, Tools, and Status. The main content area is titled 'CDR Settings' and has three tabs: 'Radius Configuration' (active), 'FTP Configuration', and 'Upload History'. Under 'Radius Configuration', there are two sections: 'Enable Primary Radius' and 'Enable Secondary Radius'. The 'Enable Primary Radius' section is active and contains the following fields: 'Server IP Address' (192.168.0.100), 'Server Port' (1813), 'Password' (masked with dots), 'Radius VSA Attrib' (CISCO), 'Radius Retry Count' (3), and 'Radius Retransmission Interval' (2). The 'Enable Secondary Radius' section is inactive and its fields are greyed out. At the bottom of the form are 'Save' and 'Reset' buttons.

Figure 44: Radius Configuration

Server IP Address	User can enter the IP Address of Radius Server. Ex: 192.168.xxx.xxx
Server Port	It specifies the Port Number on which Radius Server can be connected. By default Radius Server works on 1813 Port. It can be changed depending upon Radius Server's Configuration.
Password	User can enter the Radius Server's password to authenticate the Radius configuration settings.
Radius VSA Attrib	MegaPBX supports two attributes such as CISCO, DIGIUM. User can select anyone from the drop down list.
Radius Retry Count	It specifies No. of retries to upload CDR entries to Radius Server.
Radius Retransmission Interval	Time duration between retries.

6.4.2 FTP Configuration

This will allow you to configure the FTP server information for CDR billing and CDR upload scheduling by setting the Frequency of schedule, Day and Time.

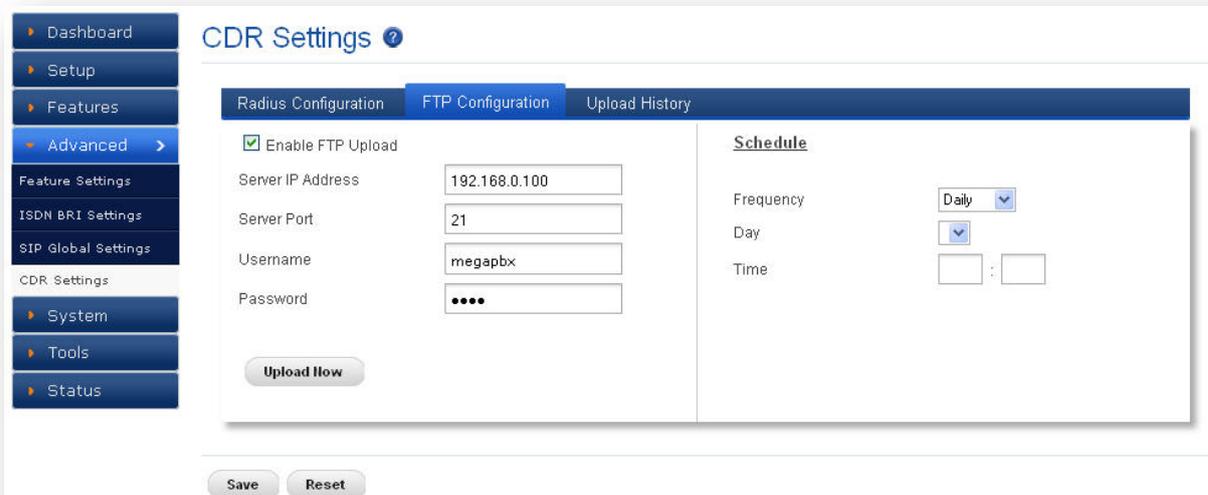
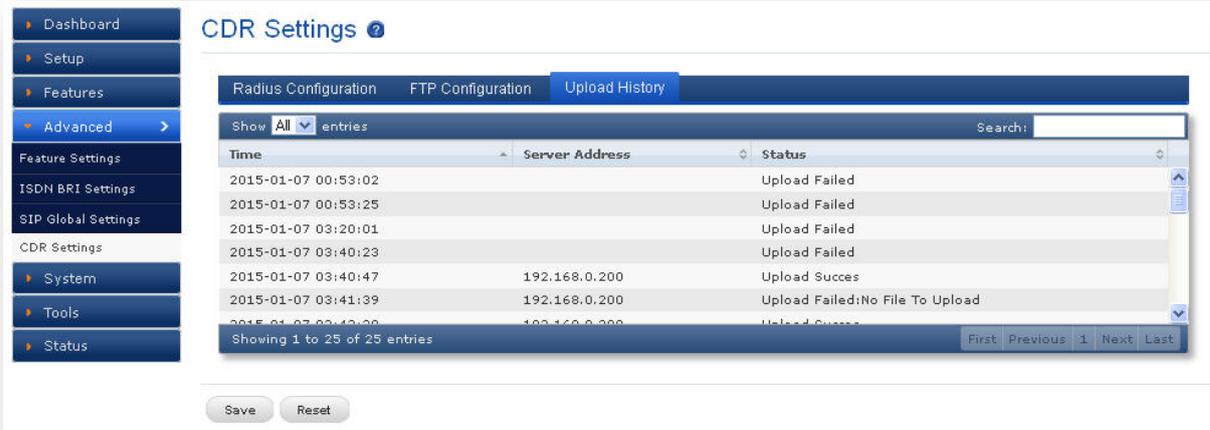


Figure 45: FTP Configuration

Server IP Address	User can enter the IP Address of Radius Server in the field. Ex: 192.168.xxx.xxx
Server Port	It specifies the Port Number on which Radius Server can be connected. By default Radius Server works on 1813 Port. It can be changed depending upon Radius Server's Configuration. Ex.21
User Name	Descriptive name for the FTP configuration for user's reference. It specifies the username of endpoint (e.g.: IPPBX) will use to authenticate with the Mega PBX, e.g.: 5656
Password	User can enter the Radius Server's password authenticate the FTP configuration settings.
Schedule	A user can schedule uploading CDR entries to FTP server. There are three frequency options: Daily, Weekly and Monthly.

6.4.3 Upload History

It shows the upload history of CDR with the details like time, server address and status of the uploaded CDR.



The screenshot displays the 'CDR Settings' interface with the 'Upload History' tab selected. The table below shows the upload history entries:

Time	Server Address	Status
2015-01-07 00:53:02		Upload Failed
2015-01-07 00:53:25		Upload Failed
2015-01-07 03:20:01		Upload Failed
2015-01-07 03:40:23		Upload Failed
2015-01-07 03:40:47	192.168.0.200	Upload Success
2015-01-07 03:41:39	192.168.0.200	Upload Failed:No File To Upload
2015-01-07 03:42:00	192.168.0.200	Upload Success

Figure 46: Upload History

7. System

7.1 Network

Navigate through **System > Network Settings**

Network Settings allows modifying device network settings.

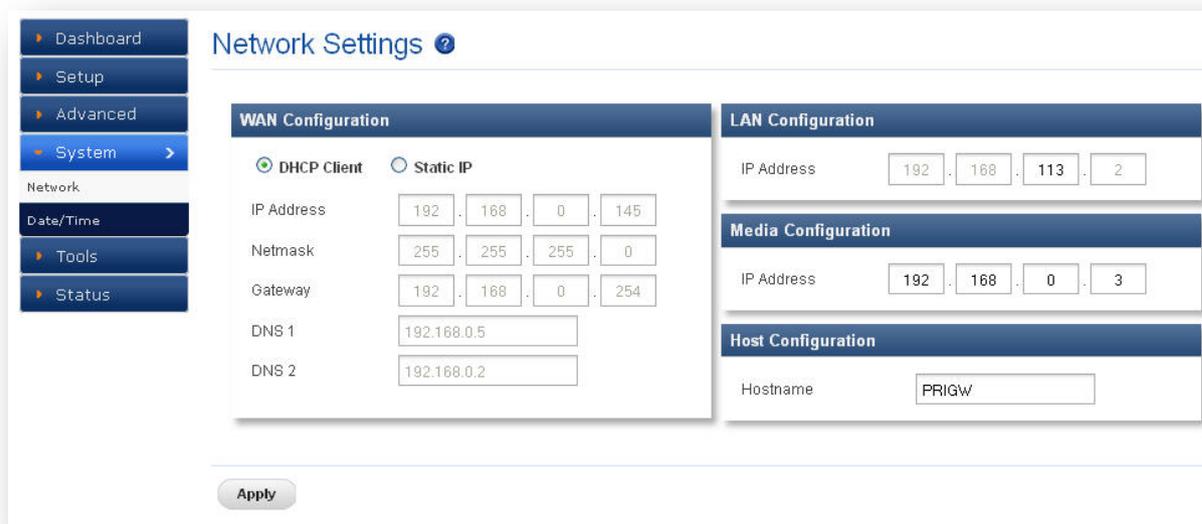


Figure 47: Network Settings

WAN Configuration:

DHCP	When enabled and a DHCP server is available, the Mega PBX will auto configure itself. If DHCP server is not available, select “Static”, and fill in the Network Configuration.
IP Address	The static IP address corresponding to your WAN configuration.
Net mask	The Net mask corresponding to your WAN configuration.
DNS	The IP address corresponding to a DNS server.

LAN Configuration:

LAN Port is a management port. Mega PBX can be connected back-to-back to a PC or to a LAN network for configuration. It is always recommended to connect back-to-back to a PC. In case, connected to LAN network & if IP series clash is found, IP series can be changed here.

Media Configuration:

It's applicable for Firmware Version 4. X.X

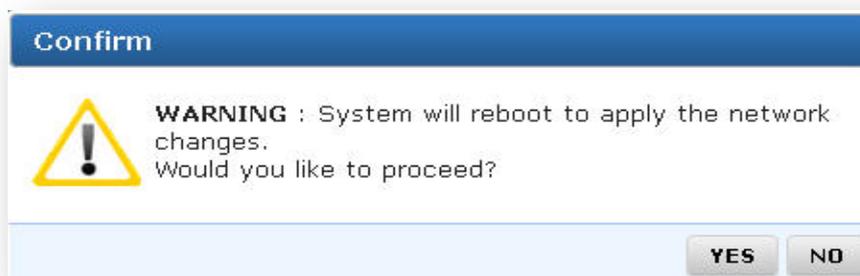


WAN port IP address and LAN port IP address should not be in the same network segment. **Media IP Address needs to be configured manually and it should be in the same network segment of WAN IP address. This IP address is used for Voice Media Configuration.**

For E.g.: If the WAN IP address is 192.168.0.145 and media IP address should be in the same Network Segment (available IP address) side. 192.168.0.3



If the media IP address is not configured, there won't be voice path in the calls.



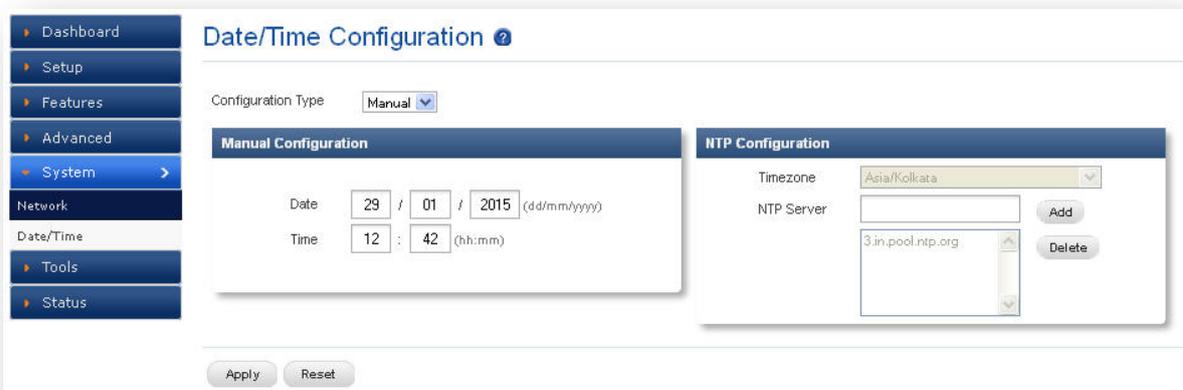
System will reboot to apply the network changes.

Host Configuration:

Host name: Label or IP of your system identity.

7.2 Date/Time

Navigate through **System > Date/Time**



Configuration Type	Date and Time of the Mega PBX can be either set manually (uses RTC) or automatically (through NTP). Default: NTP
NTP Configuration	<p>Time Zone: Select the correct time zone for the location where the Mega PBX is installed using the Time Zone dropdown box. Default: Asia/Kolkata</p> <p>NTP Server: URI or IP address of the NTP (Network Time Protocol) server, which will be used to synchronize the date and time. E.g.: 3.in.pool.ntp.org</p>

8. Tools

8.1 Diagnostics

Navigate through **Tools > Diagnostics**

Analyze the functionality of the Mega PBX with some of these diagnostic tools provided.

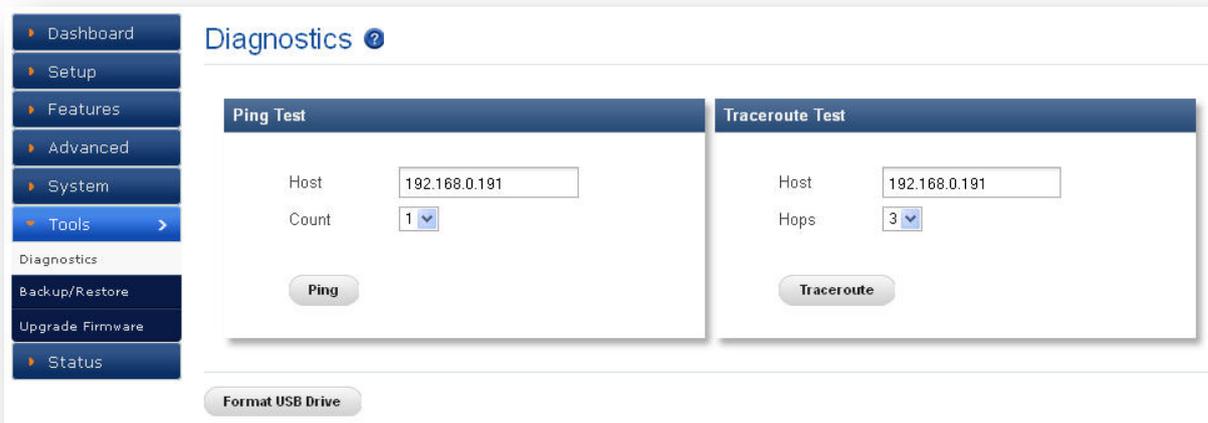


Figure 48: Diagnostics

Ping Test: It is used to check the packet loss and latency time from your SIP end client like IP Phone/ FXS gateways to check the quality of your network connections.

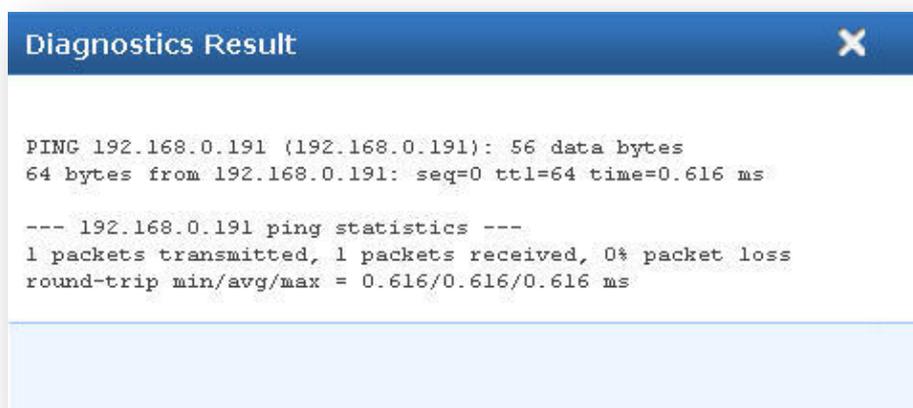
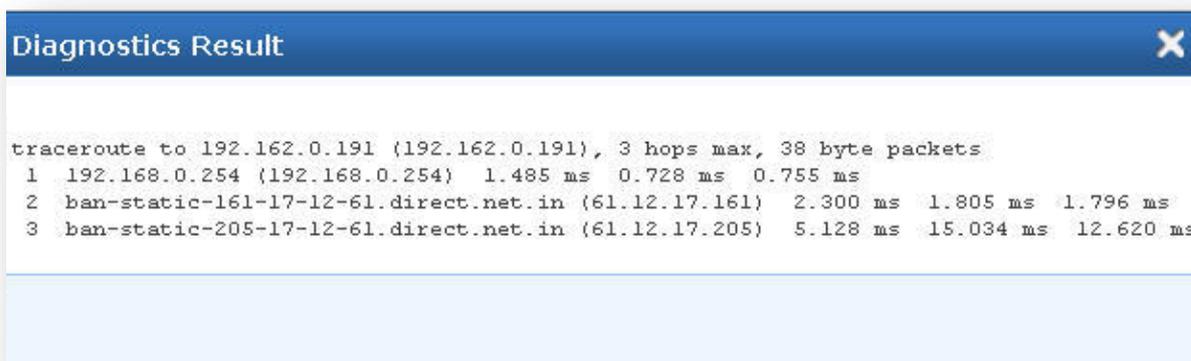


Figure 49: Diagnostics Result

Trace route Test: It is used to determine the route taken by packets across an IP network.



```
tracert to 192.162.0.191 (192.162.0.191), 3 hops max, 38 byte packets
 1 192.168.0.254 (192.168.0.254) 1.485 ms 0.728 ms 0.755 ms
 2 ban-static-161-17-12-61.direct.net.in (61.12.17.161) 2.300 ms 1.805 ms 1.796 ms
 3 ban-static-205-17-12-61.direct.net.in (61.12.17.205) 5.128 ms 15.034 ms 12.620 ms
```

Figure 50: Diagnostics Result

Format SD Card / Format USB Drive: This will allow you to completely erase all the contents in the SD card/ USB Drive (MegaPBX-BRI supports USB Drive).



If you are formatting the USB Drive/SD card details, kindly take the back of the MegaPBX configuration.

8.2 Backup/Restore

Navigate through **Tools > Backup/Restore**

Back Up:

It allows you to take the back up of the System configurations & save it to the local PC.

Restore:

Restoring from a new upload or backup file will destroy all current configurations and require a system reboot. All calls will be dropped and all current configurations will be destroyed.

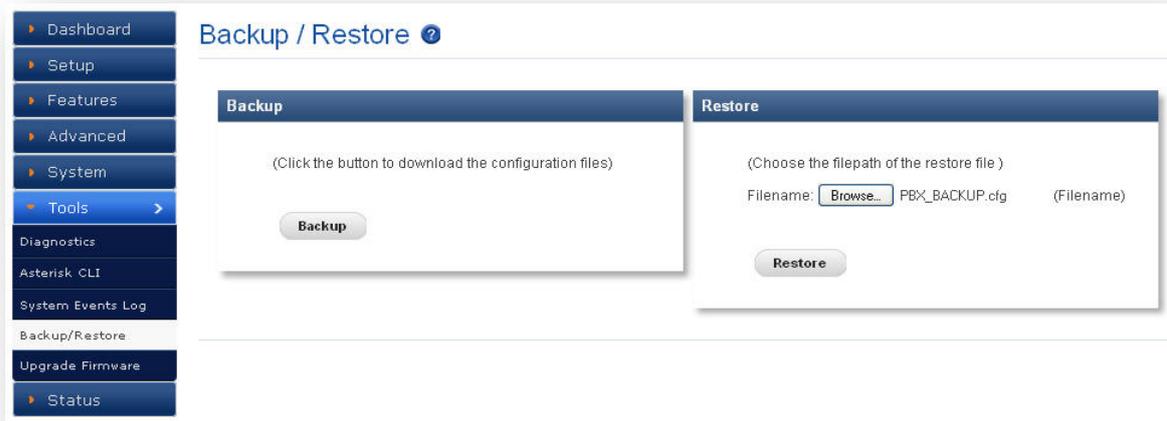


Figure 51: Backup/Restore



Administrator password will not be restored on restoration. So you should still use same credentials as before restoration.

8.3 Upgrade Firmware

Navigate through **Tools > Upgrade Firmware**

Update Mega PBX with the latest release available, which can contain key updates, added functionalities and bug fixes. When a new release is available, download it and save to your local PC. Then, browse for the file, and click the Upload button. Now your Mega PBX will display a Progress Screen and will prompt when it is about to reboot. Reboot and wait for blue LED's turn ON.

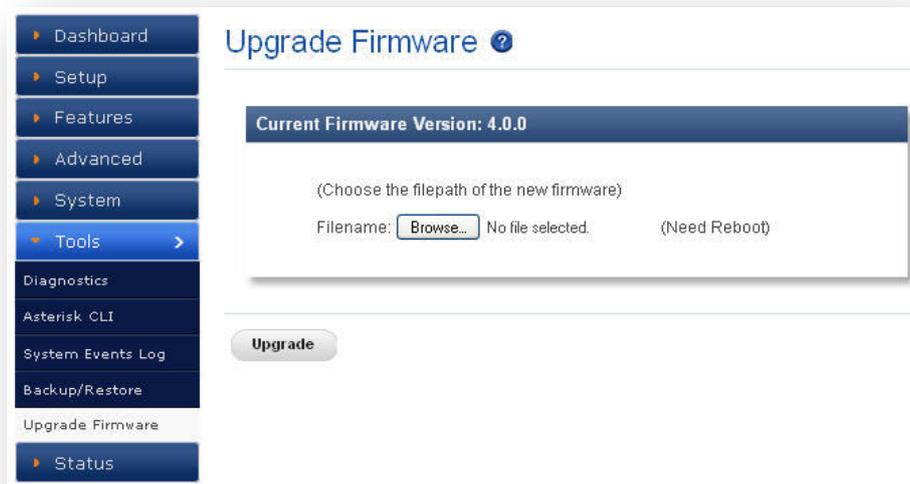


Figure 52: Upgrade Firmware



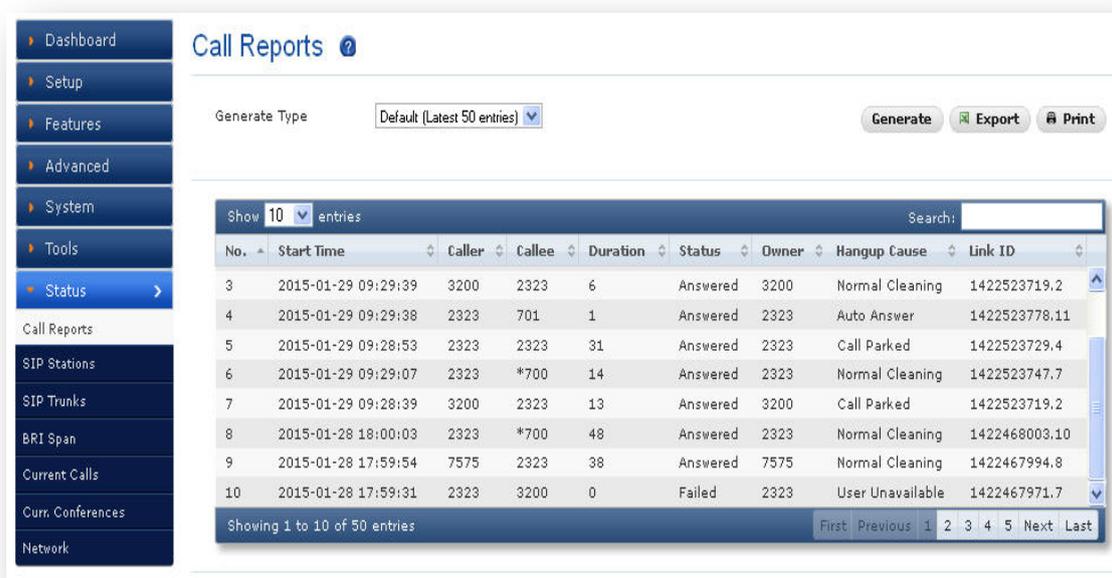
During firmware upgrade, there should not be any power or network disturbances, which may leads to Mega PBX board faulty. Firmware up-gradation process will take few minutes.

9. Status

9.1 Call Reports

Navigate through **Status > Call Reports**

Call Reports displays a detailed list of calls pass through the Mega PBX. The list can be generated on the bases of date range, CDR count, latest 50 entries or all entries. Generated report can also be exported to local PC as CSV file or directed to a printer.



No.	Start Time	Caller	Callee	Duration	Status	Owner	Hangup Cause	Link ID
3	2015-01-29 09:29:39	3200	2323	6	Answered	3200	Normal Cleaning	1422523719.2
4	2015-01-29 09:29:38	2323	701	1	Answered	2323	Auto Answer	1422523778.11
5	2015-01-29 09:28:53	2323	2323	31	Answered	2323	Call Parked	1422523729.4
6	2015-01-29 09:29:07	2323	*700	14	Answered	2323	Normal Cleaning	1422523747.7
7	2015-01-29 09:28:39	3200	2323	13	Answered	3200	Call Parked	1422523719.2
8	2015-01-28 18:00:03	2323	*700	48	Answered	2323	Normal Cleaning	1422468003.10
9	2015-01-28 17:59:54	7575	2323	38	Answered	7575	Normal Cleaning	1422467994.8
10	2015-01-28 17:59:31	2323	3200	0	Failed	2323	User Unavailable	1422467971.7

Figure 53: Call Reports

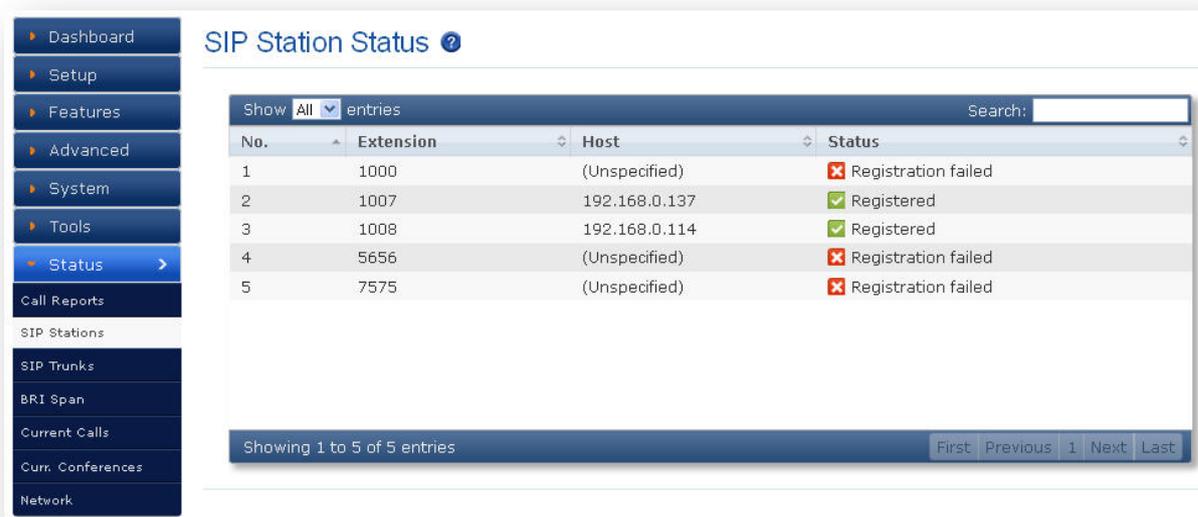
9.2 SIP Stations

Navigate through **Status > SIP Station Status**

SIP Station Status page displays detailed status of each SIP Extensions available on the Mega PBX.

E.g.:

No.	Extension	Host	Status
1	1001	Unspecified	Registration Failed
2	1002	192.168.0.127	Registered



No.	Extension	Host	Status
1	1000	(Unspecified)	Registration failed
2	1007	192.168.0.137	Registered
3	1008	192.168.0.114	Registered
4	5656	(Unspecified)	Registration failed
5	7575	(Unspecified)	Registration failed

Figure 54: SIP Station Status

9.3 SIP Trunks

Navigate through **Status > SIP Trunks Status**

SIP Trunk Status page displays detailed status of each SIP trunks available on the Mega PBX.

Status	Reg. State	Description	
OK	Registered	Configured, Registered & reachable	-
OK	-	Configured & Reachable, but no Registration	-
OK	Request Sent	Configured, but Host not responding or unreachable	Check Registrar Address
OK	Rejected	Configured & reachable, but Registration failure	Check Authentication
UNREACHABLE	Registered	Configured, Registered, but not reachable	Check Proxy Address
UNREACHABLE	-	Configured, but not reachable	Check Proxy Address
UNKNOWN	-	Not Registered	Client not registered

Dynamic: Host IP is obtained dynamically on registration.



Figure 55: SIP Trunk Status

9.4 BRI Span

(Only for Mega PBX products with BRI support)

Navigate through **Status > BRI Span**

BRI Span Status page displays detailed status of each BRI Port with individual channel info, available on the Mega PBX-BRI.



Figure 56: BRI Span Status

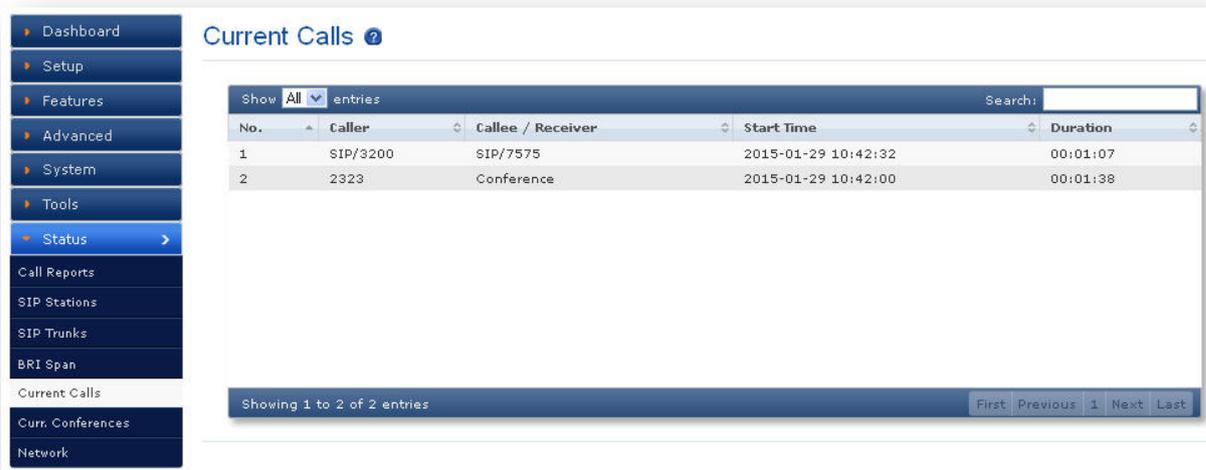
BRI Port Status	Description
	BRI SPAN/port is configured and available.
	BRI SPAN is not configured.
	Specific Link is up
	Specific Link is down.

Channel Status	Description
	Channel is Busy
	Channel is Idle and ready to receive or make calls
	Channel is not active

9.5 Current Calls

Navigate through **Status > Current Calls**

Current Calls page displays detailed status of the real time calls available on Mega PBX.



Current Calls ⓘ

Show **All** entries Search:

No.	Caller	Callee / Receiver	Start Time	Duration
1	SIP/3200	SIP/7575	2015-01-29 10:42:32	00:01:07
2	2323	Conference	2015-01-29 10:42:00	00:01:38

Showing 1 to 2 of 2 entries First Previous 1 Next Last

Figure 57: Current Calls

9.6 Current Conferences

Navigate through **Status > Current Conferences**

Current Conferences page displays detailed status of the real time conference available on Mega PBX.



No.	Caller-ID	Caller-ID Name	ConferenceID	Duration
1	2323	2323	1234	00:01:06

Showing 1 to 1 of 1 entries

Figure 58: Current Conferences

9.7 Network

Navigate through **Status > Network Status**

Network Status page displays detailed status of the network configuration on Mega PBX.



LAN Status		WAN Status	
IP Address	192.168.113.2	IP Address	192.168.0.165
		Netmask	255.255.255.0
Media Status		MAC Address	00:17:F7:00:9B:D8
IP Address	192.168.0.209	Default Gateway	192.168.0.254
MAC Address	00:0c:90:1c:23:54		

Figure 59: Network Status

10. Administrator



Figure 60: Administrator

10.1 Reboot

Navigate through  > **Reboot**

Using this option administrator can reboot (SOFT reboot) MegaPBX System remotely

10.2 Call Manager Reload

Navigate through  > **Call Manager Reload**

Reloading Call Manager will restart call manager and drop all current calls.

10.3 Web Settings

Navigate through  > **Web Settings**

Session Timeout	Duration after which current web login session expires. Default: 3600 sec
Pagination	Number of entries in a table per page to be displayed.
Change Password	Modify Administrator password here.

10.4 Email Settings

Navigate through  > **Email Settings**

To configure the Mega PBX to send out voicemail/FAX via email, the related SMTP setting must be configured.

Mail Server	Enter the domain name of the Email Server address of the particular authorized email client account
Email ID	Enter the email ID of the particular authorized email client account.
Username	Email ID given by the Mail Server administrator.
Password	Password of the Email ID
TLS Support	To secure the server to server transfer of emails, the provider needs to enable a technology called Transport Layer Security (TLS).

10.5 Logout

Navigate through  > **Logout**

Administrator Logout option after use.

Thank you for choosing



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