



Introduction

About this guide

Thank you for purchasing a Positron Telecom phone system. This guide will help present the major steps to be followed, in order for you to have your system up and running, as quick as possible. It's important that you complete all the relevant steps, and that you adhere to the "Create Configuration" step, otherwise your settings may be incorrect and unsaved.

Detailed Information

If you are looking for more comprehensive information, please refer to our User Guide available under "Support", on the corporate web site: www.positrontelecom.com.

Contacting Positron Telecom

We would be happy to help and answer any of your questions via:

Email: support@positrontelecom.com

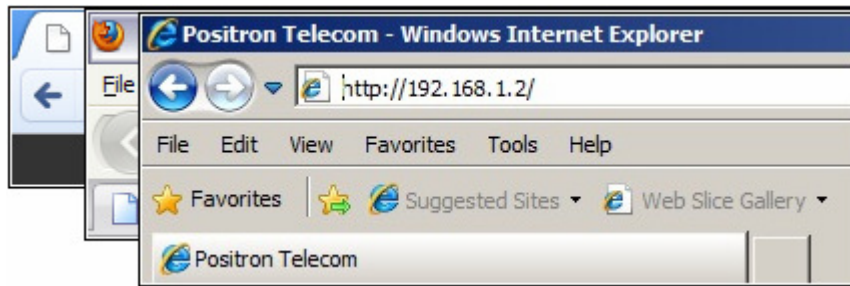
Skype: USERID: positronsupport

or

Phone: (514)-664-4719

Connect to the Web Management interface

Using the Web browser of your choice (Internet Explorer, Firefox, Chrome... etc), navigate to the IP address of your device. By default you device's IP is set to 192.168.1.2



Login to the web interface using the following credentials:

USERNAME = admin

PASSWORD = password



System Settings

The first time you login, it's important to configure the following system settings:

Set the web interface's Language

The language may be changed in the far right corner of the status page, and this value can be changed at any time.

Change the default Admin password

This is for your security. It can be set in the "System → Admin Account" section.

Set the Country and Language for the Positron system

This is set in the "PBX → PBX Settings" section.

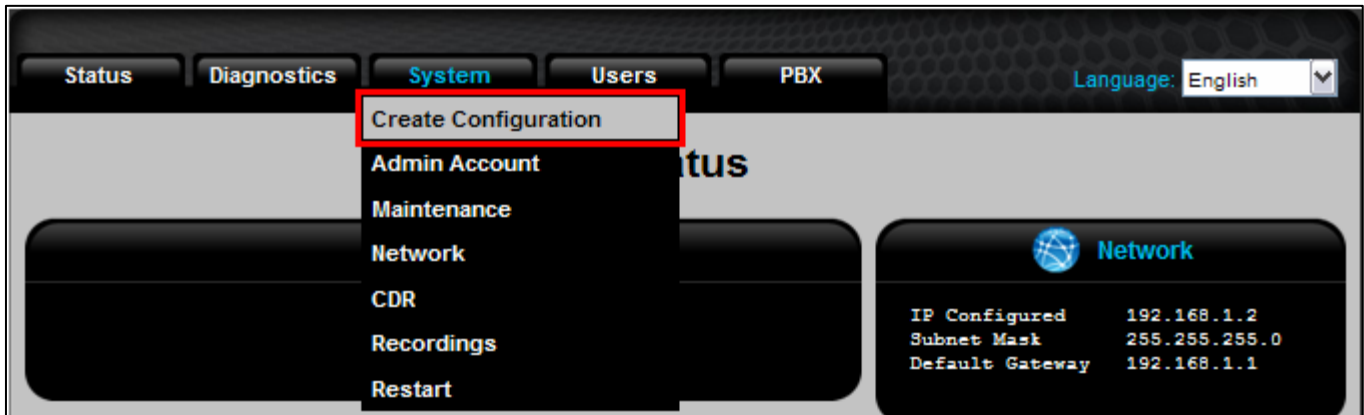
Set the external Storage media

We would need to format the external storage to work with the Positron system. This can be done from the “System → Maintenance → Storage” section. We would then navigate to “System → Maintenance → Logs” and select CDR (Call Detail Records), Messages, the Logs, Call Recordings, and Voicemail, to have them stored on the chosen external media.

Date / Time / Region

Set a valid DNS Server and Time Zone, this way your device may synchronize to the NTP Server specified in the “System → Network” section. The DNS and Time Zone entries are also specified in the “System → Network” section.

Now we’ll need to do a “System → Create Configuration”. After any saved changes, a “System → Create Configuration” is always required.



Configuration Steps

These steps are laid out from Step 1 through Step 9. If you jump steps or fail to complete a step, you may create configuration errors. It’s important, and recommended that you go through each step.

Step 1 Create Trunk(s)

Trunks are the interfaces used to connect to a network. Typically these are either SIP (VoIP) or Telephony ports (FXO, ISDN or E1/T1). This will define how and which network you connect to.

Step 2 Create Dial Group(s)

Dial groups allow you to assign trunk(s) to the created group, which can then be assigned to the Dial Plan rules. E.g.: “Dialgroup1 uses FXO/T1/E1, and groups Telephone lines and Fax analog trunks together” or “DialGroup2 uses VoIP, and uses your SIP or IAX trunk.

Step 3 Create Dial Plan(s)

A dial plan allows you to define a set of rules. These rules include dialing patterns, and the group(s) you’ll select to follow them. With dial plans, not only can you create these rules, but you can also define the CallerID used when executing them.

Note: To make a call, you must create the relevant dial pattern.

Step 4 Create User Template(s)

User templates are created for SIP Extensions to use; it simplifies their configuration.

Within the template you can select codecs, enable voicemail functions, BLF (busy line field), different Music on Hold and most notably, the dial plan the SIP extension(s) use.

Step 5 Create Extensions

You can create three different types of extensions: SIP extensions, Analog extensions and Virtual extensions.

Virtual extensions have five different subtypes, allowing you to create Park and Page, Ring Groups, Conference Rooms, IVRs, and Voicemails.

Step 6 Create Ring Group(s)

After first defining a ring group Extension, you can now create a Ring Group. This feature will allow you to select a group of extensions you wish to ring, a strategy (Ring All or Ring in Order), and an action taken if there's no answer.

Step 7 Create IVR(s)

Again, after defining the IVR Extension, you can now create an IVR. An IVR will determine the way the system will handle and direct calls. I.e. What welcome messages are played and where people are directed when they press key digits zero through nine.

Step 8 Create Incoming Call rules

With Incoming rules, you assign where each call should be going within the system. E.g. Calls can be pushed into the IVR or routed directly to a phone extension I.e.: the operator.

Step 9 Create Configuration

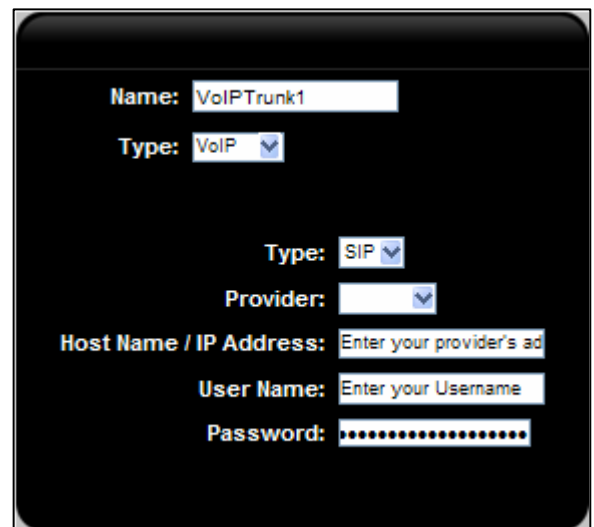
Perhaps the most important step! Changes and setting are only applied to the system once you've done a "System → Create Configuration".

- **Creating a Trunk**

- On the **PBX tab**, click **Trunks / Lines**.
- Below the Trunks / Lines table, click **add**.
- In the first **Type drop down box**, choose the desired trunk type. **VoIP** for a voice over IP trunk, **ISDN** for an Integrated Services Digital Network trunk, or **Analog** for an analog trunk.

- **If your Creating a VoIP Trunk:**

- Give your trunk a reference **Name** to start.
- The VoIP **Type** is **SIP** by default.
- In the **Provider** drop down box, if your provider is available, you may select it to simplify the configuration. Otherwise leave this area blank. *Note: This drop down field will be updated with other providers in the near future.*
- In the **Host Name / IP Address** text box, please enter your provider's address.
- In the following two fields, please enter your **Username** and **Password** (given by your Provider).
- **Click Save, go to your System tab, and Create Configuration.**



The screenshot shows a configuration form for a VoIP trunk. The fields are as follows:

- Name:** VoIPTrunk1
- Type:** VoIP (dropdown menu)
- Type:** SIP (dropdown menu)
- Provider:** (dropdown menu)
- Host Name / IP Address:** Enter your provider's ad
- User Name:** Enter your Username
- Password:** (password field with dots)

- If your Creating a ISDN Trunk:

- Give your trunk a reference **Name** to start.
- Select **ISDN** as the **Type** and choose the **Controller** you're using.
- Your **Mode** should remain as **TE** and your **Link** should be PTP if you have Point to Point or PTMP if you have Point to Multipoint.
- **Click Save, go to your System tab, and Create Configuration.**

If your carrier has not supplied you with the Link information, try both options.

After Creating Configuration, if you see “no link” on your status screen, try the other Link option. If you see “not connected”, then you’ve successfully created your Trunk/Line.

- If your Creating a Analog Trunk:

- Give your trunk a reference **Name** to start.
- Now simply select the **FXO Port**, you plan to use for your trunk.
Note: If you cannot check a specific FXO Port, it is likely being used already. To reassign your ports, simply edit the existing Analog trunk, (in the previous page).
- **Click Save, go to your System tab, and Create Configuration.**

- Creating a Dial Group

- On the **PBX tab**, click **Dial Groups**.
- Bellow the Dial Groups table, click **add**.
- In the **Type** drop down box, choose the desired group type.
Note: Depending on the trunk you created, and device you have, you'll be able to select from a few choices, as seen bellow.

Regardless of the type you select, the next steps remain the

same; give your dial group a **Name**, click the trunk you wish to assign your group to, and save.

- **Go to your System tab, and Create Configuration.**

- **Creating a Dial Plan**

- On the **PBX tab**, click **Dial Plans**.
- Bellow the Dial Plans table, click **add**.
- Give your Dial Plan a reference **Name** to start.
- Now, in the **Default CallerID** textbox, as with other CallerIDs, the Syntax must be as follows; “Name” <Number>. E.g.: “Company ABC” <5141234567>.
- Click on the **Allow dialing other extensions** check box, if you’d like this plan to be able to dial other extension.
- **Click Save**.
- **Now** once back on the previous page, next to the plan you’ve just created, click on the Rules button.

Name: DialPlan1

Default CallerID: "CompanyABC" <5141234567>

Allow dialing other extensions:

- **Creating a Rule for you Dial Plan:**

- Bellow the Rules table, click **add**.
- Start with entering a **Pattern** you would like your group(s) to dial. The idea here is to limit your assigned group(s) dialing capabilities. E.g.: If you enter `_9NXXXXXXXX:1` in this field, user(s) in the specified group(s) will need to dial 9, followed by the ten digit number. Another example would be for long distance: If you enter `_1514XXXXXX` in this field, user(s) in the specified group(s) will need to dial 1514, followed by the seven digits - limiting them to local calls only.
- In the next field you’ll enter the **CallerID**. Again, keeping the same syntax we’ll enter a “Name” <number> here. This CallerID is assigned specifically to the dial plan rule.
- Next, you’ll click on the drop down boxes and select the **Group(s)** you would like abiding by these dial plan rules.
- Finally, as a failsafe, in the **If Failed** drop down box, you can select a message to be played if failed. E.g.: `please-try-again-later.gsm`.
- **Click Save, go to your System tab, and Create Configuration.**

Pattern: `_9NXXXXXXXX:1`

Inter-Office:

CallerID:

Group1: DialGroup1

Group2:

Group3:

If Failed: please-try-again-later.gsm

- **User Templates**

- On the **PBX tab**, click **User Templates**.
- Bellow the User Templates table, click **add**.
- Give your User Template a reference **Name** to start.
- From the drop down menu, select the **Dial Plan** you created.
- Next, you can select the **Music on Hold** this template will use.
Note: New Music on Hold options can be created in the “PBX → Music on Hold” section and new (.gsm only) audio files can be added in the “PBX → Sound Manager → Music on Hold” section.
- If you wish, you can **Enable** the **Busy Lamp Field (BLF)** feature. You can also set a **BLF Pickup Prefix** in the “PBX → PBX Settings” section.

Name: UserTemplate1

NAT: no

DTMF Mode: rfc2833

Dial Plan: DialPlan1

Music on Hold: DefaultMoH

Enable BLF:

Codec 1: ulaw

Codec 2:

Codec 3:

Voicemail: Email Only
 Password

- You can also select the **Codec(s)** The Template will use.
- Finally, you can enable the **Voicemail** settings at the bottom.

- **Creating Extensions**

- On the **Users tab**, click **Extensions**.
- Below the Extensions table, click **add**.
- In the **Type** drop down box, choose the desired Extension type. **SIP** for a SIP Phone Extension and **Analog** for an analog phone Extension. Selecting **Virtual** will trigger a Subtype drop down box to appear. This drop down gives you the options of creating Voicemail, an IVR, a Conference Room, a Ring Group, or a Park and Page Extension.

- If your Creating a **SIP** Extension:

- In the **Extension** box, type your extension. E.g.: 1000
- Select the **Template** you created.
- Enter the User's **First** and **Last name** in the following two boxes. This value is important if you plan to use the "dial by name" directory feature.
- Enter a **Voicemail Password** (recommended).
- In the **CallerID** box, enter the Caller ID you wish to be displayed, for this Extension. The Syntax must be as follows: "Username" <Extension Number>. E.g.: "John Doe" <1000>
- Click the **In Directory** Check box if you'd like the Extension to be accessible from the IVR directory.
- Enter the User's **Email Address** in the text box. This information can be used in features such as Voicemail to Email.
- In the **Phone Maker** drop down box, select other and the next two fields (Model and Serial Number) will disappear. *If* you have a Polycom or Aastra phone, simply select one of the two from the drop down box, select your **Model**, and then enter the **Phone's Serial Number**.
- In the next textbox, you can enter the **Phone Password**. This field is important to remember; if you set a password, you'll need it, along with the extension to be able to register your phone.
- Click on the **Forward** check box if you'd like to enable and configure the forwarding feature.
- Click on the **Follow Me** check box if you'd like the Follow Me feature enabled. This feature can be used to "follow" someone around. E.g.: You can configure it to first ring the initial extension, then maybe your cell phone.
- **Click Save, go to your System tab, and Create Configuration.**

- If your Creating an **Analog** Extension:

- In the **Extension** box, type your Extension. E.g.: 1001

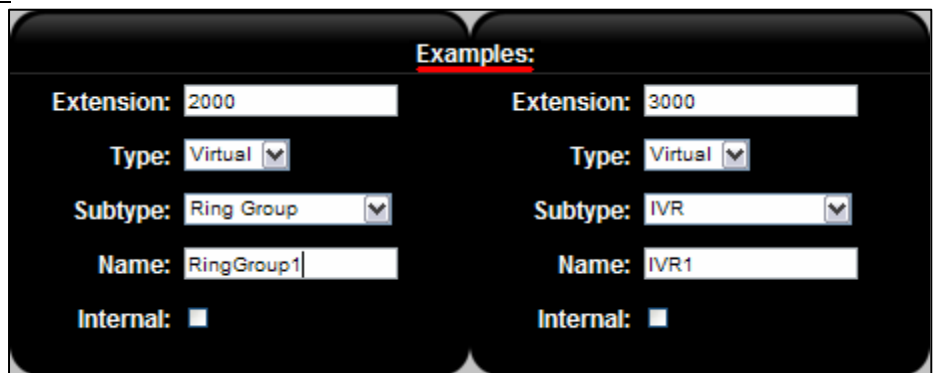
The screenshot shows a configuration form for a SIP extension. The fields and their values are as follows:

- Extension:** 1000
- Type:** SIP
- Template:** UserTemplate1
- First Name:** John
- Last Name:** Doe
- Language:** English
- Ring Time:** 20
- Disable Voicemail:**
- Voicemail Password:** Enter a Voicemail Password
- CallerID:** "John Doe" <1000>
- External CallerID:**
- Call Group:** 1
- Pick-up Group:** 1
- In Directory:**
- Can Be Monitored:**
- Email Address:** JohnDoe@Gmail.com
- Phone Maker:** Other
- Phone Password:** Enter a Phone Password
- Cell Phone:**
- Internal:**
- Forward:**
- Follow Me:**

- The **FXS Port** drop down box will be used to select the actual port you're using on the unit, to the phone you're trying to configure.
- Select the **Dial Plan** you created.
- The **Music on Hold** drop down box will only have one (default) selection, unless you upload other (.gsm) files, or stream through the unit's audio in (if configuring a G series device).
- Enter the User's **First** and **Last name** in the following two boxes.
- Enter a **Voicemail Password** (recommended).
- In the **CallerID** box, enter the Caller ID you wish to be displayed, for this Extension. The Syntax must be as follows: "Username" <Extension Number>. E.g.: "Jane Doe" <1001>
- Click the **In Directory** Check box if you'd like the extension to be accessible from the directory.
- Enter the User's **Email Address** in the text box. This information can be used in features such as Voicemail to Email.
- Click on the **Forward** check box if you'd like to enable and configure the forwarding feature.
- Click on the **Follow Me** check box if you'd like the Follow Me feature enabled. This feature can be used to "follow" someone around. E.g.: You can configure it to first ring the initial extension, then maybe your cell phone.
- **Click Save, go to your System tab, and Create Configuration.**

• If your Creating a **Virtual Extension**:

- In the **Extension** box, type your Extension.
- In the **Subtype** drop down box, you'll select the feature you're looking to create.
- Give your Extension a **Name** and saved it. *Note: After defining a Virtual Extension, you can create and configure them in their respective sections.*



- **Go to your System tab, and Create Configuration.**

• **Ring Groups**

- On the **Users tab**, click **Ring Groups**.
- Locate the Virtual Ring Group Extension you just defined, and click **Create**.
- Start with selecting a **Ring Time**. This will determine the amount of seconds you'd like the feature to ring for.
- Next select your **Play Back** option. Here you can decide whether you'd like the customer to hear a Ring tone, maybe some Music on



Hold, or even a recording (for advertising/promotional purposes).

- Select your **Ring Strategy**; either ringing them in Order, or All at Once.
- Select the **User Extensions** you wish, or even an External number.
- Finally, you can select an **If not Answered** fail safe. E.g.: If 1000 and 1001 do not answer, **Goto Voicemail Box** 1000 "John Doe".

- **Creating an IVR**

- On the **PBX tab**, click **IVR Menus**.
- Locate the Virtual IVR Menu Extension you just defined, and click **Create**.

A simple IVR, with commonly used settings:

Assuming you're in the newly defined IVR Extension, we'll start with the Steps drop down boxes on the left hand side, along with the Parameters assigned to them, and then the Actions along with the action Parameters.

- **Steps and Parameters**

- In **Step drop down box 1** we'll select **Answer**. This will "answer" the call. **No Parameter** is needed when answering or hanging up a call.
- In **Step drop down box 2** we'll select **GotoTimebasedRule**. This will create a time based action, based on the selection of your first **Parameter**. E.g.: If "Open" was the selected parameter: based on the default "Open" (in Time Frames), your menu will continue to follow the steps you've provided *at your created label*, unless the system time is outside "open" hours. If it happens to be outside open hours, your menu will continue to **Step drop down box 3**.
- In **Step drop down box 3**, since we're outside the open hours, we'll select **LeaveVoicemail**. This will allow us to choose a voicemail box, under the **Parameter**, to direct the calls. E.g.: A Virtual Voicemail box you may already have created, otherwise you can use **John Doe** or Jane Doe.
- In **Step drop down box 4**, we'll **Hangup** the call. This will Hangup and complete the call. Again, **no Parameter** is needed when answering or hanging up a call.
- **Step drop down box 5** would be the continuation of the IVR, if it's "Open hours". So now we'll select **Label** to indicate where you'll continue. The **Parameter** for the selected step will be whatever you choose to call the label. E.g.: **Open hours**
- Now in **Step drop down box 6**, you may want to play a background greeting. So here we'll select **Background** and as a **Parameter** you can select **thanks-for-calling-today.gsm**. This is one of many default messages included in the sound manager, which we'll use in our example.
- In **Step drop down box 7**, you may want to indicate to the caller: the people, Extensions, or departments they can reach. For now we'll select another **Background** message and the **Parameter** will be **if-u-know-ext-dial.gsm**.

Step	Parameter
Answer	
GotoTimebasedRule	Open
LeaveVoicemail	IVR1:main:Open Hours
Hangup	1000 "John Doe"
Label	Open Hours
Background	thanks-for-calling-to
Background	if-u-know-ext-dial.gsm
WaitExten	3
Background	if-u-know-ext-dial.gsm
WaitExten	3
GotoExtension	1001 "Jane Doe"

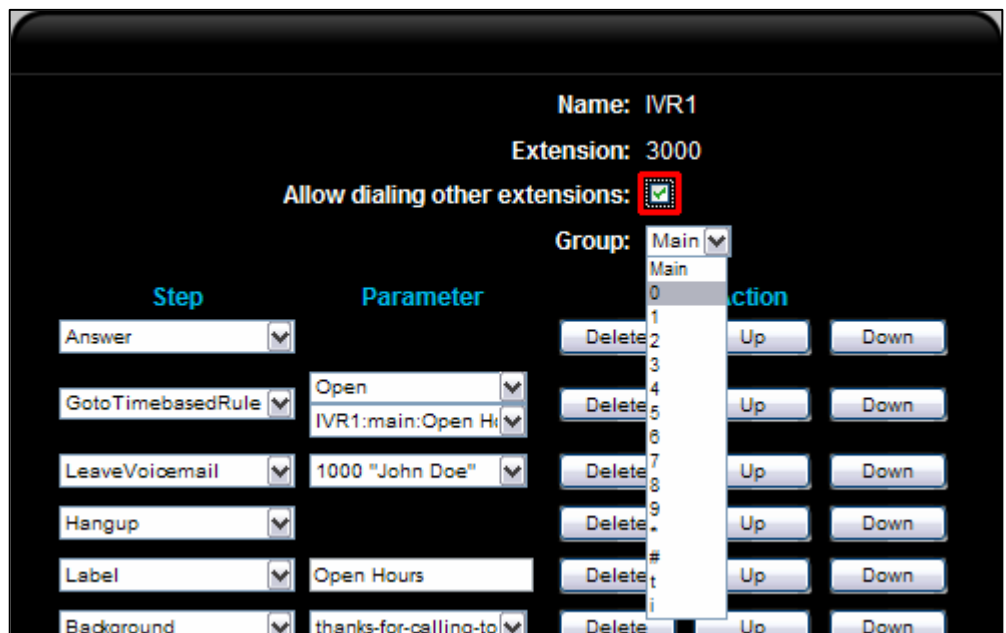
- In **Step drop down box 8**, we'll give the time necessary to the caller, to dial an Extension. To do so, select **WaitExten**. The **Parameter** here will be the time (in seconds) you'll wait for an Extension to be dialed by the caller. E.g.: **3**
- In **Step drop down box 9**, we can repeat the Background message from step 7 to the caller. This will give the caller another chance to move on from the IVR, if the message wasn't heard the first time. Again, select **Background** and **if-u-know-ext-dial.gsm** as the **Parameter**.

*Note: New Background messages can be created by dialing *95 and recording whatever you like! After recording, your file can be found in the "PBX → Sound Manager → IVR" section. It'll be displayed as a series of numbers; simply rename it and it'll now be available to select in your IVR Menus! For more information, see the [Recording and uploading greetings](#) section below.*

- In **Step drop down box 10**, we'll give the caller the necessary time to choose an option, as we did in step 8. Again, select **WaitExten** and **3** as the **Parameter**.
- Finally, in **Step drop down box 11** - after giving the caller the opportunity to direct themselves to where they'd like to go - you may want to direct them to reception for help. To do so, select **GoToExtension** and **1001 "Jane Doe"** as the **Parameter**.

- **Allow dialing other extensions**

This check box must be checked off, for the caller to be able to dial an Extension, while in the IVR. E.g.: In drop downs 7 and 9, we give the opportunity to the caller to dial an Extension. If this check box was not checked off, the caller would not be able to do so.



- **Steps and Parameters**

- In the Group drop down box, you'll find every key which you can configure an action for. The Key being the number the caller will dial in your IVR, to be directed to the Action.

Note: Once you've selected a key from the Group menu, you'll be directed to its configuration page.

- In your **1st Group drop down box (Key 0)** - as you may want to use 0 for reception - we'll choose **GoToExtension** and **1001 "Jane Doe"** (the SIP Extension you created), as the **Parameter**. I.e.: If the caller hits 0, his/her call will be directed to Extension 1001 "Jane Doe".

- In your **Group drop down box 2 (Key 1)**, you may want to direct the caller to a Ring Group created. To do so, select **GoToExtension** and **2000 “RingGroup1”** (the Ring Group extension you created), as your **Parameter**.

Name: IVR1
Extension: 3000
Allow dialing other extensions:
Group: i

Step	Parameter	Action
GoToMenu	IVR1:main	Delete Up Down

- We’ll skip now to the **Group drop down box 9 (Key 8)**. Here we’ll give a directory option to the caller. This will allow the caller to key-in the name of the individual he/she is looking for. For the **Step Drop down box** we’ll choose **GoToDirectory** and for the **Parameter** you can choose whether the caller will key-in by **First** or **LastName**.
- Sometimes, under **Key 9**, the caller is given the opportunity to switch to the English menu /IVR. We haven’t created one at this point, but we’ll assign the Sample IVR for the exercise. Under **Group drop down box 10**, select **GoToMenu** and **Sample IVR** as your **Parameter**.
- The exceptions would be t and i. **t** would be for a timeout and **i** would be for an invalid key press. In these two cases, you may want to select **GoToMenu** and **Main-IVR** (the current IVR we’re in) as your **Step** and **Parameter**. This will return the caller to the beginning of your IVR. Think of it as your worst case scenario for the caller.
- **Click Save, go to your System tab, and Create Configuration.**

• **Creating Incoming Calls**

- On the **PBX tab**, click **Incoming Calls**.
- Bellow the Incoming Calls table, click **add**.
- Give your Incoming Calls a reference **Name** to start.
- Similar to creating a Dial Group, here you’ll click the trunk you wish to assign your incoming to, and save.
- Once back on the previous page, next to the Incoming you’ve just created, click on the **Rules button**.

Name: VoIPIncoming1
Telephone Lines
VoIPTrunk1

• **Creating a Rule for you Incoming:**

- Bellow the Rules table, click **add**.
- Your **DID** should be given to you from your provider, if you have one, otherwise you may leave it blank or use “**All**”.

DID: All
To: 8000 "Sample IVR"

Note: Carriers will likely give you a full number, but generally only the last 4-6 digits are used for your DID; NA normally using the last 4 digits and the UK, the last 6 digits.

I.e.: In NA, if your given this number → (915)755-4567 → then 4567 would be used for your DID.

- In the **To: drop down box**, you can select where you’d like the incoming call to go. I.e.: you may want to send the calls to the IVR you’ve created. To do so, simply select **3000 “IVR1”**.
- **Click Save, go to your System tab, and Create Configuration.**

Adding Audio

If you would like to add support for a Paging system or Music on hold from an external source, see below:

- **Paging System**

If you connect a traditional paging speaker to the audio output jack on a G-Series you can dial ***96** and “speak” over the paging system.

- **Music on Hold**

If you connect an MP3 Player to the audio input jack on a G-Series, you can dial ***97** and listen to the music being played on the mp3 player. To assign a specific music on hold, we would need to change the music on hold value for the user template being used by a set of extensions.

Recording and uploading greetings

- **Recording a Custom Greeting from a User Extension**

Dial ***95** from a user phone that is connected to the system (registered to the system) and we would get a beep, after which you can record the custom greeting. Once you finish the recording, please **press #** on your phone key pad. The system will then play you the custom greeting recorded and will give you options to accept the recording or rerecord the custom greeting.

Once the custom greeting is accepted, you can see the file under the “PBX → Sound Manager → IVR” section, and the filename starts with user Extension that was used to record the custom greeting. E.g.:

1001_0_DDMMYYYY_HHMMSS.gsm

- **Uploading a file**

We can upload custom greetings (in .gsm format), to the system from the “PBX → Sound Manager” section.

Voicemail Tree

Note: At all times “” should return us to the main menu unless otherwise noted*

- 1 Read voicemail messages
 - 3 Advanced options
 - 1 Reply
 - 2 records message
 - 3 Envelope
 - 5 Send Message (only available if voicemail enabled)

Asks for extension to send to:

- 4 Play previous message
- 5 Repeat current message
- 6 Play next message
- 7 Delete current message
- 8 Forward message to another mailbox

Asks for extension then:

- 1 to prepend a message
- 2 to forward without prepending
- 9 Save message in a folder
 - 0 Save in new Messages
 - 1 Save in old Messages
 - 2 Save in Work Messages
 - 3 Save in Family Messages
 - 4 Save in Friends Messages
- * Help; during msg playback: Rewind
- #Exit; during msg playback: Skip forward
- 2 Change folders
 - 0 Switch to new Messages
 - 1 Switch to old Messages
 - 2 Switch to Work Messages
 - 3 Switch to Family Messages
 - 4 Switch to Friends Messages
- 3 Advanced Options
 - 5 Send Message ((only available if voicemail enabled))
 - 1 Use Voicemailnumber (only available if voicemail enabled))
 - 2 Use Voicemail Directory (only available if voicemail enabled)
- 0 Mailbox options
 - 1 Record unavailable message
 - 2 Record busy message
 - 3 Record name
 - 4 Record temporary message (If there isn't already a temporary message) else:
 - 1 Record temporary message
 - 2 Erase temporary message (going back to the standard message)
 - 5 Change voicemail password
 - * Return to the main menu
- * Help
- # Exit

After recording a message (incoming message, busy/unavail greeting, or name)

- 1 - Accept
- 2 - Review
- 3 - Re-record

In all cases where a voicemail message is being played then

- * : Rewind
- #: Skip forward