New System Setup Guide

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Logging into PBXact UC

1. Determine the IP address of the PBXact appliance by plugging in a monitor and keyboard. If your appliance connects using an RJ45 console port, please visit this page: http://wiki.FreePBX.org/display/PPS/Appliance+USB+to+Serial+Cable. All PBXact UC appliances come with DHCP enabled on the server so it will grab a IP address for you. The default root password is set to "sangoma".

   Type “ifconfig” from the command line to determine what the current IP address.
Welcome to The PBXact Distro

[root@static ~]# ifconfig
eth0      Link encap:Ethernet HWaddr EE:BA:AC:63:F0:84
         inet addr:192.168.1.1 Bcast:66.185.28.127 Mask:255.255.255.224
         inet6 addr: fe80::ecba:acff:fe63:f084/64 Scope:Link
         UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
         RX packets:122132 errors:0 dropped:0 overruns:0 frame:0
         TX packets:8202 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:1000
         RX bytes:18643790 (17.7 MiB) TX bytes:1649490 (1.5 MiB)
         Interrupt:10 Base address:0xa000

[root@static ~]#

Now that you know your IP address you can log into the PBXact GUI. In case you do not have DHCP Server running and you want to set the static IP address from Console refer to How to set Network Settings from the CLI

2. Change the root password to something more secure. You can do this from the Linux CLI by typing "passwd" and then it will prompt you to type your new password twice

[root@static ~]# passwd
Changing password for user root.
New password:

3. Now that you know your IP address you can log into the PBXact GUI. To do this type the IP address of your PBXact system and the port number of 2001 into a web browser on the same network as your PBXact system (e.g. http://192.168.1.1:2001 replacing 192.168.1.1 with your IP address). You should be prompted to create a user and password. If you are prompted with a login screen, log in using "admin" and "sangoma" as the password

4. You can now login as a PBX administrator by clicking on the PBX Administration button as shown below.
5. Click on the "PBX Administrator" icon to begin the Quick Wizard.
6. You will be prompted to log in with your Username and Password that you created earlier.

7. To change network settings please review the Changing Network Settings Wiki here.

Quick Setup Wizard

The Quick Setup Wizard is designed to quickly and easily setup your PBXact within minutes. It provides basic PBX setup. For more advanced options, you can exit the wizard at any point.

- STEP 1: Time Zone and Email
- STEP 2: Extension Creation
- STEP 3: Extension Customization

Upon first login to PBXact you will be greeted with the Quick Wizard.
If you wish to skip to advanced mode click on Advanced Mode from the top menu.
STEP 1: Time Zone and Email

- **System Time Zone**: Pick which time zone you want the PBX to use
- **System Email Address**: Optionally change what email address the PBX will appear to be sending messages from for things like fax to email or voicemail to email
- Click the **Next** button to move to the next step of the Quick Wizard

STEP 2: Extension Creation

- This step will create all the extensions for your system. The extensions will be in consecutive order based on the initial created.
- Insert the first extension number you want in your PBX in **Starting Extension**
  - In the above example, we selected 4000
- Insert the number of extensions you want in **Extension Count**
  - In the above example we selected 15
  - This will create extensions 4000 to 4015
- Click **Next** to move to the next step of the Quick Wizard
STEP 3: Extension Customization

This step will display all the extensions created from the previous step. As seen in the screen below, the extensions have been created in consecutive order.

- **Name**: For each extension, you can optionally set a name that internal users will see when receiving a call from this extension. This will also show up at the top of the extension's phone.
- **Email Address**: For each extension, you need to set the email address associated with this user.
- **Voicemail Password**: You can optionally change the voicemail password here.
- **Administrator**: If set to yes, this user can log into the PBXact Admin Panel.
- **Direct Dial DID**: If you want a phone number to ring directly to a user's extension, you can choose from your purchased DID (direct inward dial) numbers here.

- Click **Next** to move to the next step of the Quick Wizard
The Quick Wizard will now exit and bring you to the PBXact UC Dashboard, as seen in the screen below

- Click the **Apply Config** button on the top right of the window to apply all the configuration

You will now need to configure the individual modules as seen on the dashboard. Proceed to the next section for details

**Dashboard Module Configuration**

- Extensions
- IVR
- Inbound Routes
- Music on Hold
- Ring Groups
- Time Conditions
- EndPoint Manager
- Advanced Mode

PBXact has a simple compact dashboard designed to provide control to the basic items typically required to configure and maintain a phone system.
Extensions

- To edit or assign user extensions click on the Extensions icon:

- The below screen shows all the extensions created for this example PBXact system
Click the **Add Extension** Button to add one or more SIP extensions:

**Add Extension**

- Insert all the SIP extension details in the screen as seen below:

**Add SIP Extension**

- For details on what each field means please visit **Extensions Module - SIP Extension**
• Click the Submit button when SIP extension creation is completed:

Submit

IVR

• The IVR module allows you to create one or more IVRs ("Interactive Voice Response" systems or Auto Attendants). You can then route calls to the IVR and play a recording prompting callers what options to enter, such as “press 1 for sales and press 2 for the company directory.” An IVR can also route calls to another IVR, or in other words, a sub-menu. As a general rule, you never want more than five or six options in a single IVR, or it will become too confusing to navigate. It is better to only include a few options at a single menu level, and route callers to a sub-menu for more choices.

• To create an IVR click on the IVR Icon:

[Diagram of IVR options]

• Click on the add IVR button

+ Add IVR

• Create your IVR
**Add IVR**

- **IVR Name**: Name of this IVR
- **Announcement**: Here you can upload the greeting that will prompt callers what options they can press when they enter an IVR (interactive voice response menu). For example, “Press 1 for sales, press 2 for support...”
  Greeting to be played on entry to the IVR. Upload files from your local system. Supported upload formats are: gsm, WAV, g722, alaw, ulaw, s1n192, s1n96, s1n48, s1n44, s1n32, s1n24, s1n16, s1n12, s1n, wav16, wav, aiff, flac, ogg, oga, mp3. This includes archives (that include multiple files) and multiple files
- **Ring Tone**: Select a Ring Tone from the list of options by double clicking within the Ring Tone field. This will determine how your phone sounds when it is rung from this group
- **Digits**: Digits the caller needs to dial to reach said destination
- **Destination**: Choose the destination to route the call to
  - Options are: Directory, Extensions, IVR, Ring Groups, Voicemail.

- **Add Another Entry**: Click to create another IVR entry

Click **Submit** to complete your IVR entry

**Inbound Routes**

- Inbound routing is one of the key pieces to a functional PBX. The Inbound Routes module is the mechanism used to tell your PBX where to route inbound calls based on the phone number or DID dialed. This module is used to handle SIP, PRI and analog inbound routing.
  Setting up inbound routing properly is a critical step in the deployment of a PBX system. Inbound routes are often used in conjunction with time conditions and IVRs. A typical setup will go from an inbound route to a time condition, then to an IVR or after-hours answering service depending on the time condition met.
To create inbound routes click on the Inbound Routes Icon:

- Click on the **Add Inbound Route** button

  ![Add Inbound Route](image)

- Enter the details for the inbound route

**Inbound Routes**

**Add Incoming Route**

<table>
<thead>
<tr>
<th>Description</th>
<th>ANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DID Number</td>
<td>ANY</td>
</tr>
<tr>
<td>CallerID Number</td>
<td>ANY</td>
</tr>
<tr>
<td>Ring Tone</td>
<td>Double-Click to see options or type freeform</td>
</tr>
<tr>
<td>Set Destination</td>
<td>== choose one ==</td>
</tr>
</tbody>
</table>

- **Description**: Enter a unique description for the route.
- **DID (Direct Inward Dialing) Number**: Routing is based on the trunk on which the call is coming in. In the DID field, you will define the expected “DID Number” if your trunk passes the DID on incoming calls. Leave this blank to match calls with any or no DID info. The DID number entered must match the format of the provider sending the DID. You can also use a pattern match to match a range of numbers. Patterns must begin with an underscore (_) to signify they are patterns. Within patterns, X will match the numbers 0-9 and specific numbers can be matched if they are placed between square parentheses. This field can also be left blank to match calls from all DIDs. This will also match calls that have no DID information.
- **Caller ID Number**: Routing calls based on the caller ID number of the person that is calling. Define the caller ID number to be matched on incoming calls. Leave this field blank to match any or no CID info. In addition to standard dial sequences, you can also put “Private,” “Blocked,” “Unknown,” “Restricted,” “Anonymous” or “Unavailable” in order to catch these special cases if the telco transmits them.
- **Set Destination**: The PBX provides multiple ways to route a call. This is the place where the desired call target is selected.

- Click the **Submit** button when done

- For more details on inbound routes please visit [Inbound Route User Guide](#)

**Music on Hold**
The Music on Hold module is intended to reassure callers that they are still connected to their calls. The PBX comes with 11 built in songs that are the default hold music. You can easily add your own music or sound files to the system by uploading them in .wav or .mp3 format, or stream a live feed. Adding custom music on hold is a great way to bring personality to your phone system. The PBX allows two styles of music on hold – static files and streaming. Static files are audio files (WAV or MP3 files) that are uploaded to the server and played back when a caller is placed on hold. Streaming audio is used to connect to a live audio feed from a particular source. This could be an Internet stream, or a stream from a sound card or other audio device. MoH categories can be applied to inbound routes as well as to queues, ring groups, outbound routes and conferences. Categories assigned at the call level will override the MOH category for that target only. Once a call leaves that target, it will fall back into the category specified in the inbound route it was matched against.

To create Music on Hold, click on the **Music on Hold** button:

Here you can upload a custom recording by simply dragging the specific audio file within the **Upload Recording** box. Upload files from your local system. Supported upload formats are: WAV, aiff, alaw, flac, g722, gsm, mp3, oga, ogg, sln, sln12, sln16, sln192, sln24, sln32, sln44, sln48, sln96, ulaw, wav, wav16. This includes archives (that include multiple files) and multiple files.
On Hold Music - default

- Click the **Submit** button when done

Ring Groups

- The Ring Groups module provides a method to ring several extensions with a variety of ring strategies. It allows for several useful features such as announcements, CID name prefix, call confirmation, and others. Ring groups can include local extensions and DIDs (which become outbound calls from the system).
To create a ring group click on the **Ring Groups** button

Click the **Add Ring Group** button

**Ring Groups: Add**

- **Ring Group Name**
- **Extension List**
- **Ring Strategy**
- **Ring Time**
- **Ring Tone**
- **Destination if no answer**

For details on each field visit [Ring Groups Module User Guide](#)

Click the **Submit** button when done

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**Time Conditions**

The Time Conditions module is used to control call flow based upon time and date.

Time Conditions module creates a destination to which you can route calls. When a call arrives at the Time Condition destination, the system will check the current system time and date against the Time Group that you selected. The system will then route the call to one of two destinations that you define.

For example, you might create a Time Condition called "Closed at Lunch." You would then select a Time Group that defines what time periods are "lunch," and then indicate that calls that come in during lunchtime should go directly to voicemail, while calls that do not come in at lunchtime should ring the Front Desk.
Time Conditions can also be used to route calls to different destinations during business hours vs. after-hours, for example.

- To create time conditions click on the Time Conditions button:

- Click on the Add Time Condition button

- Insert the time condition details

**Time Conditions**

**Add Time Condition**

- **Time Condition name**: Enter a description to identify this time group. For example, “Closed Hours” works better than something generic like “Time Condition 1.”
- **Time Zone**: Specify the time zone by name if the destinations are in a different time zone than the server. Type two characters to start an auto-complete pick-list. Important: Your selection here MUST appear in the pick-list or in the /usr/share/zoneinfo/ directory.
- **Time Group**: The time group this time condition will be checked against. A time group defines the times that are considered a “match.” You can create new time groups in the Time Group module.
- **Destination matches**: This destination will be used as the call target when the current time matches the time group selected above.
- **Destination non-matches**: This destination will be used as the call target when the current time does not match the time group selected above.

- For more details on Time Conditions visit Time Conditions User Guide
- Click the Submit button when done

**EndPoint Manager**
With the commercially supported End Point Manager (EPM), you can auto-provision and configure popular desk phones, wireless phones, door phones, overhead paging devices, gateways, and specialty devices.

To use Endpoint Manager click on the **Endpoint Manager** icon:

The following screen will appear:

- **Endpoint Manager**

This module is used to automatically provision & configure Desk Phones, Wireless Phones, Door Phones, Overhead Paging Devices, Gateways, and Specialty devices from supported manufacturers.

To get started please choose an option in the **Menu** on the right.

- **EndPoint**
- Global Settings
- Extension Mapping
- Brands
- Sangoma
- **Advanced**
  - Add Brand
  - Image Management
  - Baseline Edit
  - Custom Ext Management
  - Firmware Management
  - Network Scan

Please visit the following page for full details on EPM: [EndPoint Manager](#)

If you are configuring Sangoma Phones with your PBXact UC system, please visit [Auto-Provision Quick Start Guide](#)

**Advanced Mode**