

PBXact System 300 Recovery

The following steps will guide you through the re-installation process of your System 300 Sangoma appliance

- [Preparation](#)
- [USB Recovery Process](#)
- [Final Steps](#)

Preparation

1. Verify that the appliance is powered off.
2. Connect the appliance to the internet using a LAN cable (The system requires internet to setup timezone and network details)
 1. Plug a network cable (cat 5) into **port 0** on the appliance as seen below:



If you have a FreePBX appliance, **Port 0** is labeled with a Green color instead of Grey as indicated above

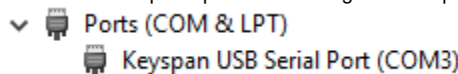
2. Plug the other end of the network cable into a network that will provide internet access to the appliance
3. Plug a USB-to-Serial Console Cable into the Console Port located on the front of the appliance, as seen below:

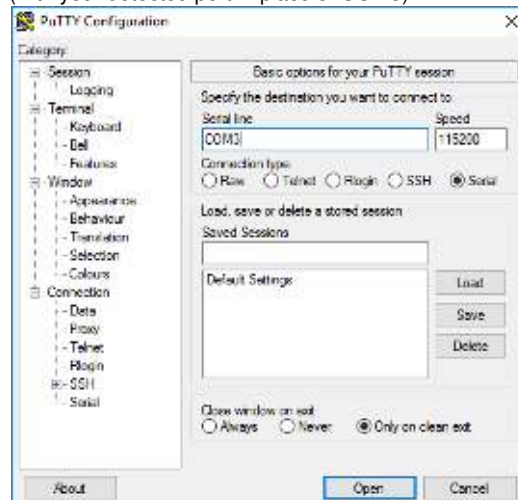


The System 300 does not come shipped with a USB-to-Serial Console cable. However, it is the standard console cable that is used with any networking equipment.
See the below image for an example usb-to-seial console cable:



serial-to-usb console cable

1. Plug the **RJ45** end into the the Console port on the appliance
2. Plug the **USB** end into a laptop or desktop computer
3. If your computer does not have the software drivers installed for the usb-to-serial cable please visit the following page:
-> [Appliance USB to Serial Cable](#)
-> you must have the drivers installed otherwise your computer will not be able to communicate with the appliance through the console cable.
4. From the computer determine which USB port the console cable is plugged into.
 1. For Windows: open up device manager and expand the ports area, see below example:

1. in the above example, COM3 is the port.
5. From the computer, open up a terminal program and connect to the above detected COM port.
 1. use the following connection settings:
 - **Speed: 115200n8 1**
 - **Hardware/Software flow control: disabled**
 2. For example, on a Windows computer, you can use **Putty** (free downloadable program) and connect as seen below (with your detected port in place of COM3):



3. The terminal screen should appear black/blank (which is normal) as the appliance is powered off and there is nothing to be seen on screen.

USB Recovery Process

A USB recovery key was included with the packaging of your System 300.

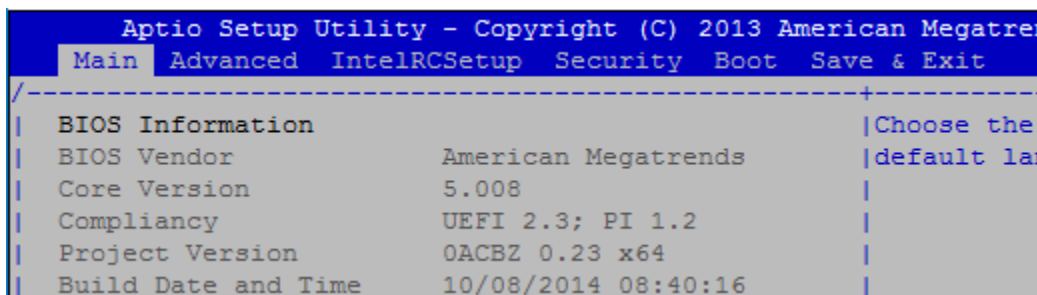


This is required for the following steps. If you cannot locate the USB recovery key, you can quickly create one yourself using your own USB key and by following the instructions on [this wiki](#)

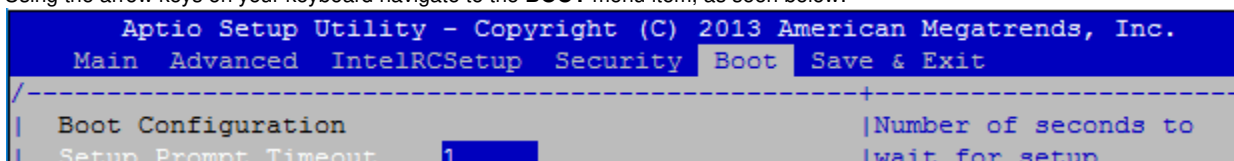
- Plug the USB Recovery Key into any of the USB ports located on the front of the appliance.
- Turn your PBX on and immediately press the **TAB** key on your computer's keyboard as soon as you see the following screen.

```
Initializing Intel(R) Boot Agent GE v1.4.04
PXE 2.1 Build 091 (WfM 2.0)
Press Ctrl+S to enter the Setup Menu..
```

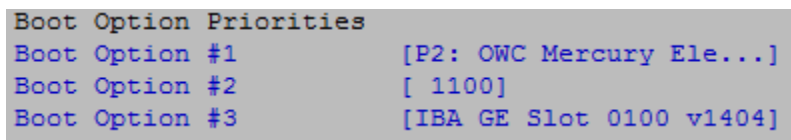
This will log you into the BOOT menu, as seen below:



- Using the arrow keys on your keyboard navigate to the **BOOT** menu item, as seen below:



- Within the Boot menu screen you will be able to see the boot order. In the example screenshot below, we can see when the PBX starts up, it will first try to boot from the OWC Mercury Harddrive, since it is Boot Option #1. If the Hard drive is unavailable the PBX will try to boot from 1100 second. 1100 is the USB Recovery Key installed in previous step.



- The Boot order needs to be changed so that the PBX tries to boot from 1100 (the USB Recovery Key).
- To change the boot priority for 1100 to be number 1 in the list scroll down to Boot Option 1, press the <enter> key and set the USB drive so that it will boot first from the USB drive.

Once we have completed the Recovery process you will need to log back into the BIOS and change the Boot order to have the Hard drive be Boot Option #1.

```

Boot Option Priorities
Boot Option #1      [ 1100]
Boot Option #2      [P2: OWC Mercury Ele...]
Boot Option #3      [IBA GE Slot 0100 v1404]

```

- Press F10 on your keyboard to save and confirm your changes, which will reboot the PBX.

```

/----- Save & Exit Setup -----\
| Save configuration and exit? |
|                               |
| Yes      No                  |
\-----/

```

- As the appliance reboots it will boot from the USB recovery key and prompt you for PBX installation.

```

*                               Welcome to FreePBX 10.13.66                               *
*****
* FreePBX 10.13.66 with Asterisk 13 *
* Full Install *
* Full Install -- No RAID *
* Full Install -- Advanced *
* HA Install -- Requires 250G or larger disk *
* FreePBX 10.13.66 with Asterisk 11 *
* Full Install *
* Full Install -- No RAID *
* Full Install -- Advanced *
* HA Install -- Requires 250G or larger disk *
*
*
*****
Press [Tab] to edit options

```

If the above screen does not appear then there was an issue encountered and you must repeat the steps again

- Select the **Full Install** of the Current Stable version with **Asterisk 13**.
- The following Network Device screen will appear, asking you to select the **Ethernet interface** your network cable is plugged into

```

Welcome to SHM2 for x86_64

Networking Device

You have multiple network devices on this system.
Which would you like to install through?

eth0 - Ethernet device eth0 - 00:90:0b:3a:ac:97
eth1 - Ethernet device eth1 - 00:90:0b:3a:ac:98
eth2 - Ethernet device eth2 - 00:90:0b:3a:ac:99
eth3 - Ethernet device eth3 - 00:90:0b:3a:ac:9a
eth4 - Ethernet device eth4 - 00:90:0b:3a:ac:9b
eth5 - Ethernet device eth5 - 02:19:23:96:00:64

OK      Identify      Back

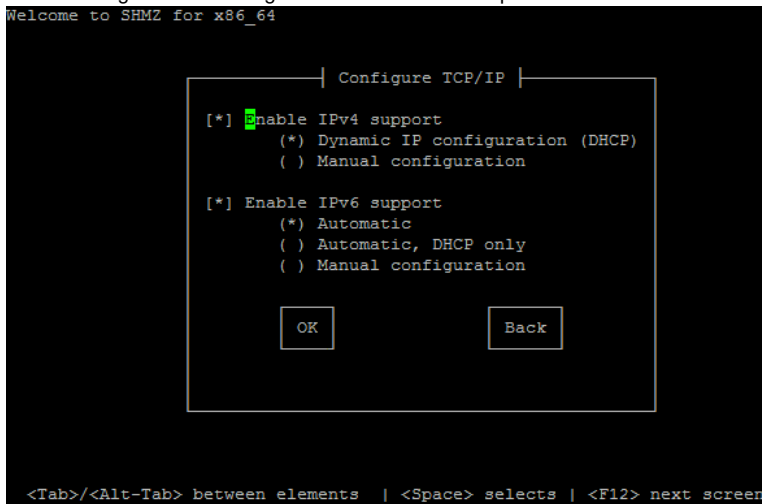
<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

```

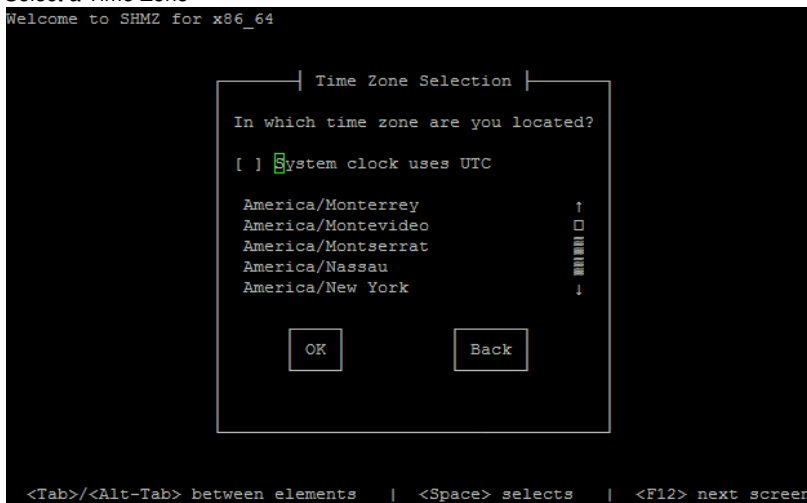
- Since your network cable is plugged into **Port 0**, select **eth4** from the list by moving your cursor key down.

- Once **Eth4** is selected press the **TAB** key on your keyboard to move to the **OK** button, then select <enter> to move to the next step.

- The following Network configuration screen will then present itself

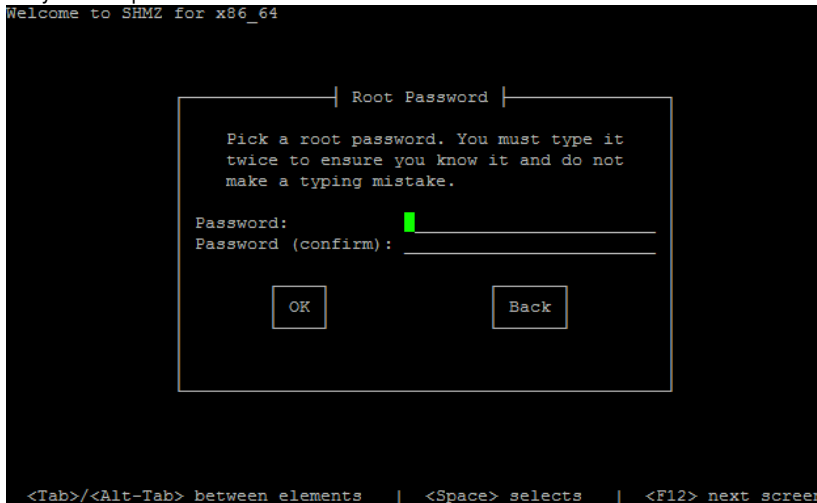


- For standard DHCP settings (recommended), press the **TAB** key on your keyboard to move forward to the **OK** button and then press the <enter> key
 - If you want to setup a static IP address press the TAB key over Manual configuration to setup a static IP address
- Select a Time Zone

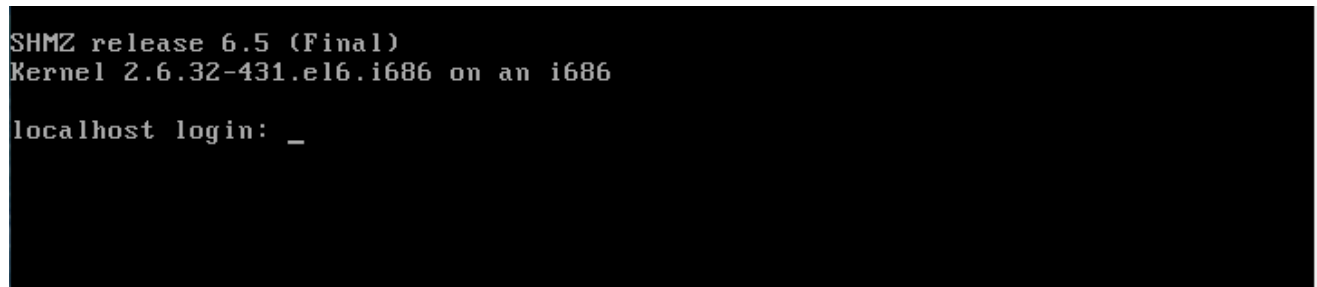


- Make your selection then press the **TAB** key on your keyboard to move to the **OK** button, then select <enter> to move to the next step.

- Set your root password



- Creation your root password then press the **TAB** key on your keyboard to move to the **OK** button, then select <enter> to move to the next step.
- The installation process will take about 20-40 minutes. Do not power down the system at this time. Allow the process to complete
- Near the end, your appliance will reboot itself. Please make sure to remove the USB key otherwise the system will try and boot again from the USB key
- Once complete, a login screen will present itself, as seen below:
 - Login with your root password that you created in the previous step

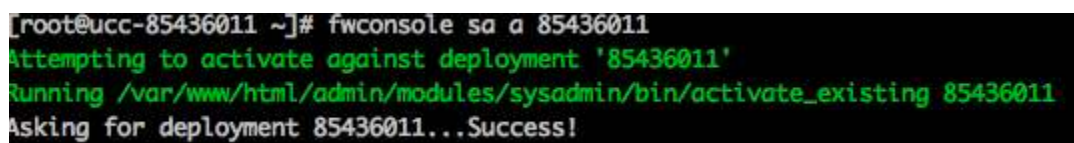


- The final step is to reactivate the appliance with the **deployment ID** that originally shipped with your system.

If your system is licensed for PBXact the conversion process will happen in the background when you activate as outlined below.

- To reactivate your appliance type the following on screen:
 - > fwconsole sa a <deployment Id>
 - > press the <enter> key

replace "<deployment id>" in "fwconsole sa a <deployment id>" with your deployment ID. If you do not know your deployment ID please refer to your invoice or log into the sangoma portal to find out



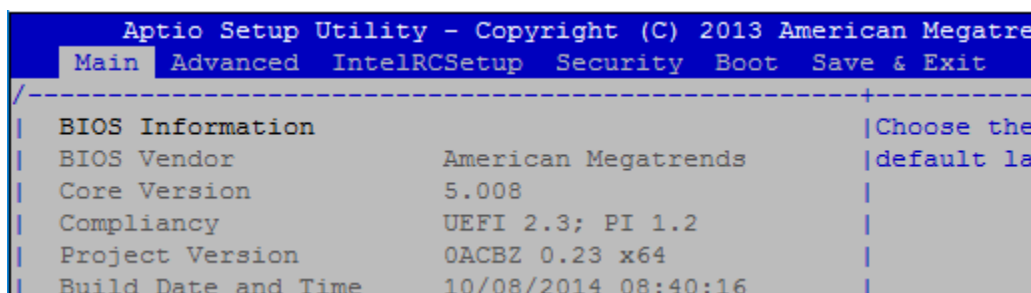
- Type the following command to verify that your system is completely happy
 - > fwconsole sa eol
 - press the <enter> key

```
[root@localhost ~]# fwconsole sa eol
*****
* Sangoma EOL Testing for PBXactUC *
*****
```

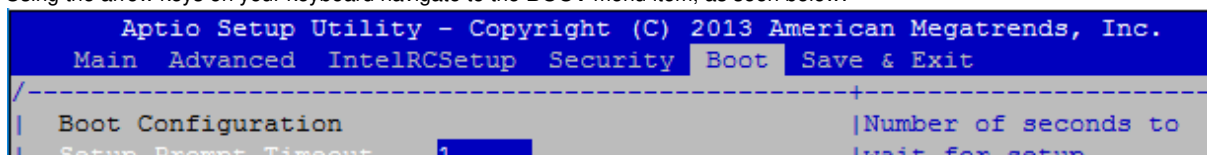
- You can find the IP address of the system by typing "ifconfig" within the command line.
 - The IP address is located beside ETH0.
 - You can use this IP address to log into the appliance's WebGUI

Final Steps

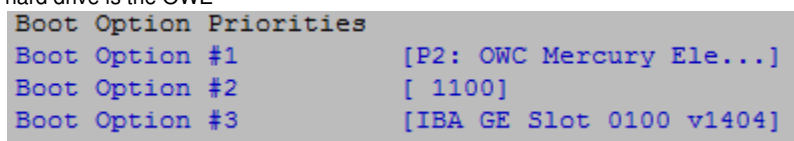
- Please remove the USB recovery key from the USB port
- Reboot your appliance and press the DELETE key numerous times until you log into the BIOS screen (as in the initial steps)



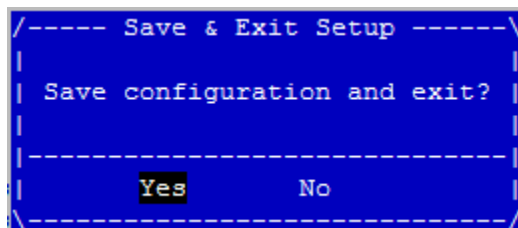
- Using the arrow keys on your keyboard navigate to the **BOOT** menu item, as seen below:



- Scroll down to the Boot order and verify (or change) the system Hard drive is now BOOT Option #1. In the example below the hard drive is the OWE



- Press F10 on your keyboard to save and confirm your changes, which will reboot the PBX.



- Done

Activate your Deployment to license PBXact

- Once the install process is complete, locate your Deployment ID number from the Sangoma [Portal](#) or from your Invoice, and issue the following command:

```
fwconsole sysadmin activate XXXX (Replacing XXX with your deployment ID)
```

```
[root@lgaetzdev2 ~]# fwconsole sysadmin activate 15 31
Attempting to activate against deployment '15 31'
Running /var/www/html/admin/modules/sysadmin/bin/activate_existing 15 31
Asking for deployment 15 31...Success!
```

- The activation process will install additional RPMs, and make the necessary changes to the GUI behind the scenes. The end result is a complete new PBXact system. This process takes about 3-4 minutes.
- When completed you can run the following End of Line testing and all checks should come back Passed. If you have any failed checks wait 5 minutes and run again. If you still have failed checks please open a support ticket [here](#).

fwconsole sa eol

```
Sangoma License File: PASSED
Asterisk Running: PASSED
SSH Keys Installed: PASSED
Branding Module: PASSED
Operator Panel Installed: PASSED
*****
Overall Status: PASSED
[root@localhost ~]#
```