Install on the RasPBX (Asterisk for Raspberry Pi)

A 4GB card is required. First download the image disk to flash it in your MicroSD.

Get it from :

- Downloads (from raspberry-asterisk.org)

The latest image available for download is based on Raspbian (Debian 8 / Jessie) and includes:

- SD Image name raspbx-22-09-2016.zip (for 4Go microSD)
- Asterisk 13.11.2
- FreePBX 13.0.188.8

Install the RasPBX suite

Follow those instruction to flash the SD image :

- Flash Image (from raspberrypi.org)

Connect to SSH (raspbx/raspberry) to complete the installation with the Voximal installer package. The default login acces is :

SSH login:

- user: root
- password: raspberry

Default FreePBX login:

- user: admin
- password: admin

```
Raspbian GNU/Linux8 raspbx tty1

raspbx login : root
Password:

Welcome to RasPBX - Asterisk for Raspberry Pi

RasPBX is based on Debian. The programs included with the Debian GNU/Linux
system are free software; the exact distribution terms for each program are
```

```
described in the individual files in /usr/share/doc/*/copyright.

RasPBX comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

List of RasPBX specific commands:
-------------------------------------------------------------------------
-
raspbx-upgrade        Keep your system up to date with the latest add-ons and
                      security fixes
configure-timezone    Set timezone for both system and PHP
install-fax           Install HylaFAX
add-fax-extension     Add additional fax extension for use with HylaFAX
install-fail2ban      Install Fail2Ban for additional security
install-dongle        Install GSM/3G calling capability with chan_dongle
raspbx-backup         Backup your complete system to an image file

Last login: Sat Mar  5 18:56:10 2016
```

Once your RasPBX has successfully booted, run this command on the console to install the latest additions and improvements:

```
root@raspbx:~# raspbx-upgrade
RasPBX upgrade tool
Run "raspbx-upgrade --help" for additional options
Base version: 06-03-2016
Installed upgrade:       21
Local upgrade available:  21
Online upgrade available: 24
Running apt-get update && apt-get dist-upgrade.

... (lot of logs...)

132 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 164 MB of archives.
After this operation, 10.4 MB of additional disk space will be used.
Do you want to continue? [Y/n] y

... (installing packages...)

Setting up libraspberrypi0 (1.20160620-1) ...
Setting up libraspberrypi-dev (1.20160620-1) ...
Setting up libraspberrypi-doc (1.20160620-1) ...
Setting up libraspberrypi-bin (1.20160620-1) ...
Setting up raspbx-upgrade (1.0-43) ...
Setting up raspi-config (20160527) ...
Installing new version of config file /etc/init.d/raspi-config ...
Processing triggers for initramfs-tools (0.120+deb8u2) ...
Processing triggers for libc-bin (2.19-18+deb8u4) ...
Processing triggers for systemd (215-17+deb8u4) ...
Installing upgrade 22.
```

```
--------------------------------------------------------------------
Fixing Asterisk startup problems in recent 2016 images
--------------------------------------------------------------------
Installing upgrade 23.
--------------------------------------------------------------------
Increasing swap size to 200MB; installing en_US locale
--------------------------------------------------------------------
Generating locales (this might take a while)...
  en_GB.UTF-8... done
  en_US.UTF-8... done
Generation complete.
Installing upgrade 24.
--------------------------------------------------------------------
1. Updating GPG keys for FreePBX
2. Enabling Apache2 rewrite module
--------------------------------------------------------------------
gpg: refreshing 2 keys from hkp://pool.sks-keyservers.net
gpg: requesting key 69D2EAD9 from hkp server pool.sks-keyservers.net
gpg: requesting key B33B4659 from hkp server pool.sks-keyservers.net
gpg: key 69D2EAD9: "FreePBX Mirror 1 (Module Signing - 2014/2015)
<security@freepbx.org>" 2 new signatures
gpg: key B33B4659: "FreePBX Module Signing (This is the master key to sign
FreePBX Modules) <modules@freepbx.org>" 2 new signatures
gpg: Total number processed: 2
gpg:           new signatures: 4
gpg: 3 marginal(s) needed, 1 complete(s) needed, PGP trust model
gpg: depth: 0  valid:   1  signed:   1  trust: 0-, 0q, 0n, 0m, 0f, 1u
gpg: depth: 1  valid:   1  signed:   0  trust: 0-, 0q, 0n, 1m, 0f, 0u
Enabling module rewrite.
To activate the new configuration, you need to run:
  service apache2 restart
Finishing RasPBX upgrades installation, installed version is now: 24
root@raspbx:~#
```

Install the Voximal module

RasPBX already install Asterisk with FreePBX so you only need to complete your installation with the Voximal package :

Get it from :

  * Lastest Voximal/Rasberry package

You can directly download the Voximal package with the wget tool :

```
root@raspbx:~# wget
http://downloads.voximal.com/voximal/raspbian8/armhf/latest.tar.gz
--2016-09-13 16:52:21--
http://downloads.voximal.com/voximal/raspbian8/armhf/latest.tar.gz
Resolving downloads.voximal.com (downloads.voximal.com)... 84.246.228.252,
```

```
2a02:23e0:0:4:9458:e0ff:feb7:e457
Connecting to downloads.voximal.com
(downloads.voximal.com)|84.246.228.252|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 7819312 (7.5M) [application/x-gzip]
Saving to: 'latest.tar.gz'

latest.tar.gz        100%[====================>]   7.46M  3.34MB/s    in 2.2s

2016-09-13 16:52:23 (3.34 MB/s) - 'latest.tar.gz' saved [7819312/7819312]
```

Untar and execute the installation script :

```
root@raspbx:~# tar xfz latest.tar.gz
root@raspbx:~# cd voximal_14.0_2016xxxx_0voximalxxxraspbian8_armhf/
root@raspbx:~/voximal_14.0_2016xxxx_0voximalxxxraspbian8_armhf# ./install.sh
Compatible module found : app_voximal.so.asterisk_v13.11.2
--- Voximal V14.0 Installation ---
Creating directories
Installing binaries
Installing VoiceXML examples
Installing default voximal.conf
Installing libraries
Installing Voximal module for asterisk
Installing additional sounds
User asterisk exists, set permissions
Restarting asterisk.............................................
Configuring VoiceXML examples
Installing Voximal FreePBX module
Configuring Voximal FreePBX module
Adding accounts...
 - Account "helloworld" added
 - Extension 8965 added
Wildcard extension added
Voximal license updated
Voximal configuration updated
Voximal TTS configuration parsed
Generating CSS...Done
Module voximal successfully installed
Updating Hooks...Done
Reloading FreePBX
Successfully reloaded
--- Voximal V14.0 installation has finished ---
```

Connect with WIFI (option)

If you want to connect you raspberry with Wifi, please follow those steps :

- Configure Wifi (from raspberrypi.org)

Use a GSM/USB dongle (option)

A highly affordable GSM access can be obtained using Huawei E155X or compatible USB modems and chan_dongle, providing both inbound and outbound calls on GSM/3G networks.

Chan_dongle is able to work with many different USB modems from Huawei, such as K3715, E169 / K3520, E155X, E175X, K3765 and others.

- Compatibility list
- More information

You can use the integrated dongle channel to get calls from a plug.

```
root@raspbx:~# install-dongle
Installing GSM VoIP gateway with chan_dongle.
Please read the documentation at http://raspbx.org/dongle

Please enter the phone number of your SIM card
(defaults to +1234567890 if left blank):
Send incoming SMS to email address
(leave empty to disable SMS forwarding):
Forward incoming SMS to mobile phone number (via dongle0)
(leave empty to disable):
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  libjim0.75 usb-modeswitch-data

...

Would you like to install a webpage for sending SMS with
chan_dongle? (http://raspbx/sms/) [y/N] n

Please wait...

!!!!amportal is depreciated. Please use fwconsole!!!!
forwarding all commands to 'fwconsole'
Running FreePBX shutdown...

Shutting down Asterisk Gracefully. Will forcefully kill after 30 seconds.
Press C to Cancel
Press N to shut down NOW
[===========================] 1 sec
Running FreePBX startup...
Starting Asterisk...
[===========================] 57 secs
Asterisk Started
Your configuration has been saved successfully to these files:
/etc/asterisk/dongle.conf
```

```
root@raspbx:~#
```

You will need to configure and **inband route** to link the incomming calls to the Voximal application and account.

Test your installation

You have two simple ways to test and validate your installation :

- With a soft phone : Soft Phone connection
- With the test numbers : Call the test service

From:
https://wiki.voximal.com/ - **Voximal documentation**

Permanent link:
https://wiki.voximal.com/doku.php?id=installation_guide:raspbx

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