

Sep 21, 2019 09:36

Install PBX as a Virtual Machine or Server HW

! Important: The following Guide is designed for installation ONLY on PBXs with WMS version 3.88. For deployment of PBXs with WMS version 4.01, please consult the Guide: [Deploying WMS 4.0 on Hardware, Virtual, Cloud PBXs](#)

i This document explains how to Install a PBX on a Linux platform

WMS version: 3.86

Updated: February 2019

Permalink: <https://confluence.wildix.com/x/ygM8AQ>

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Requirements


Memory requirements

A virtual PBX can run on any modern server as long as the server has enough resources available (RAM, Disk space). In case you run several virtual machines on one server, take into consideration that more VMs use more resources. A good example of a server that can host a Wildix system is Dell PowerEdge T110 II.

Minimum memory resources available required

PBX model	Disk space (one HDD must be created)	RAM
PBX managing up to 1000 users	3GB (2GB for the system + min 1GB to save extra data)	2GB
PBX managing up to 5000 users	3GB (2GB for the system + min 1GB to save extra data)	4GB
PBX managing up to 10000 users	3GB (2GB for the system + min 1GB to save extra data)	6GB

! Note: It is highly recommended to create only ONE HDD when deploying Virtual PBX via chroot (described in the second chapter of the current Document). Please note that cases of using several HDDs were not tested and any consequences can't be predicted by Wildix.


 Please note that the RAM capacity indicated in the table are the recommended minimum requirements.

Other:

- NFS version 3
- MySQL MySQL version 5.4 or higher / MSSQL version starting from 2008
- Storage engine InnoDB or MyISAM
- VMware (deprecated): current .ova can operate on ESX/ESXi version 4.0 or later; VM Hardware version 7


Documentation on PBX activation: <https://confluence.wildix.com/x/twM8AQ>

Linux Server or VM on VMware / Xen / Azure / VirtualBox / Hyper-V / KVM, or other virtualization platform supporting Linux

 **Important: Host Linux system should use default partition scheme without LVM!**

Proceed as follows:

- Install Linux; suggested versions:
 - Centos: <https://wiki.centos.org/>
 - Debian: <https://www.debian.org/>
 - Ubuntu: <http://www.ubuntu.com/>
- Reboot the system
- Check the [list of ports](#) that are used by Virtual PBX and make sure they are not occupied
- Login to the machine via ssh / console with root rights

 Use the port 2222 for access via SSH inside chroot

- Go to /usr/src: **cd /usr/src/**
- Download the PBX image from the link: https://files.wildix.com/images/wms3/wildix_pbx_install.tar.gz
 - use the command: **wget [link]**
- Unpack the archive wildix_pbx_install.tar.gz:
 - use the command: **tar xzf [archive_name]**
- Change the network interface name. This step is necessary for Linux distributions with Udev version starting from 197, since in this version the network interface has a generic name format (is different from "ethX"):
 - open file */etc/default/grub*
 - add option "net.ifnames=0 in line **GRUB_CMDLINE_LINUX="net.ifnames=0"**
 - for Debian: **run update-grub2**
 - for CentOS: **run grub2-mkconfig -o /boot/grub2/grub.cfg**
 - reboot

- after host system reboot, you need to manually verify that the correct interface naming format was applied:
- for Debian: **cat /etc/network/interfaces**
 - the output should contain a line similar to this one (it can vary depending on system configuration): *iface eth0 inet dhcp*
 - “eth0” in this line is the interface name, which means, the naming format has been successfully changed (by default modern debian-like systems contain ens32 interface naming).

```

root@ubuntu:~# cat /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet dhcp

```

- For CentOS: run command: **ip r**
 - In the output find that line which begins with ‘default’; this line should contain “dev eth0”; which means the naming format has been successfully changed.

```

[root@0000c299f18ce network-scripts]# ip r
default via 10.100.1.254 dev eth0 proto static metric 100

```

- To install a virtual machine, run: **./pbx.sh install**
- Check the output
- Reboot the system

For console connection to PBX, use the command: **sudo chroot /wms/**


Follow the guide to activate your Virtual PBX Per User / Per Service: <https://confluence.wildix.com/x/twM8AQ>

Console history:

MacBook-admin:~ admin\$ ssh wildix@192.168.2.159

```
wildix@192.168.2.159's password:
Linux Hyper-Debian 3.2.0-4-686-pae #1 SMP Debian 3.2.60-1+deb7u3 i686
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.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Thu Sep 18 17:30:58 2014
wildix@Hyper-Debian:~$ su
Password:
root@Hyper-Debian:/home/wildix# wget http://storage.googleapis.com/wildix-data/Wildix_PBX/wildix_pbx_install.
tar.gz
-2014-10-02 17:58:38- http://storage.googleapis.com/wildix-data/Wildix_PBX/wildix_pbx_install.tar.gz
Resolving storage.googleapis.com (storage.googleapis.com)... 173.194.116.171, 173.194.116.172,
173.194.116.170, ...
Connecting to storage.googleapis.com (storage.googleapis.com)|173.194.116.171|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 264937287 (253M) [
application/x-gzip]
Saving to: `wildix_pbx_install.tar.gz'
100%[
=====>]
264,937,287 613K/s in 5m 11s
2014-10-02 18:03:51 (831 KB/s) - `wildix_pbx_install.tar.gz' saved [
264937287/264937287]
root@Hyper-Debian:/home/wildix# tar xzf wildix_pbx_install.tar.gz
root@Hyper-Debian:/home/wildix# ./pbx.sh install
Checking system requirements... Done.
Copying archive to /wms... Done.
Unpacking archive... Done.
Mounting file system for PBX... Done.
Running chroot...
Applying fixes... Done.
Create tmpfs... Done.
Changing hostname... Done.
Mount additional directories... Done.
Installing additional components... Done.
Start main services... Done.
root@Hyper-Debian:/home/wildix#
```

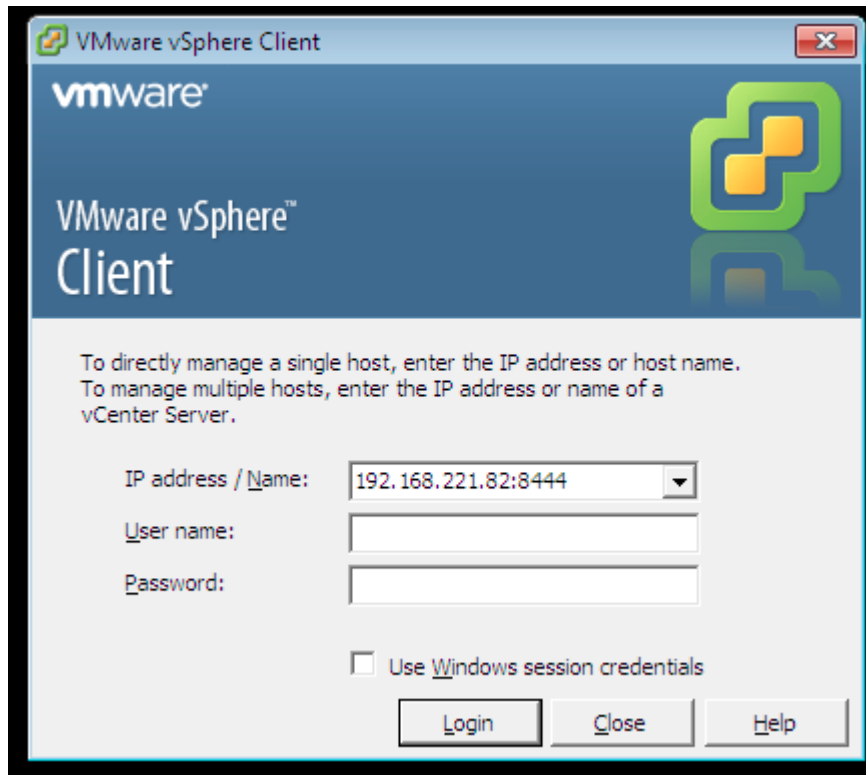
Official VMware VM image (deprecated)

 ****Starting from September 2017 *.ova is deprecated, please use the first mode****

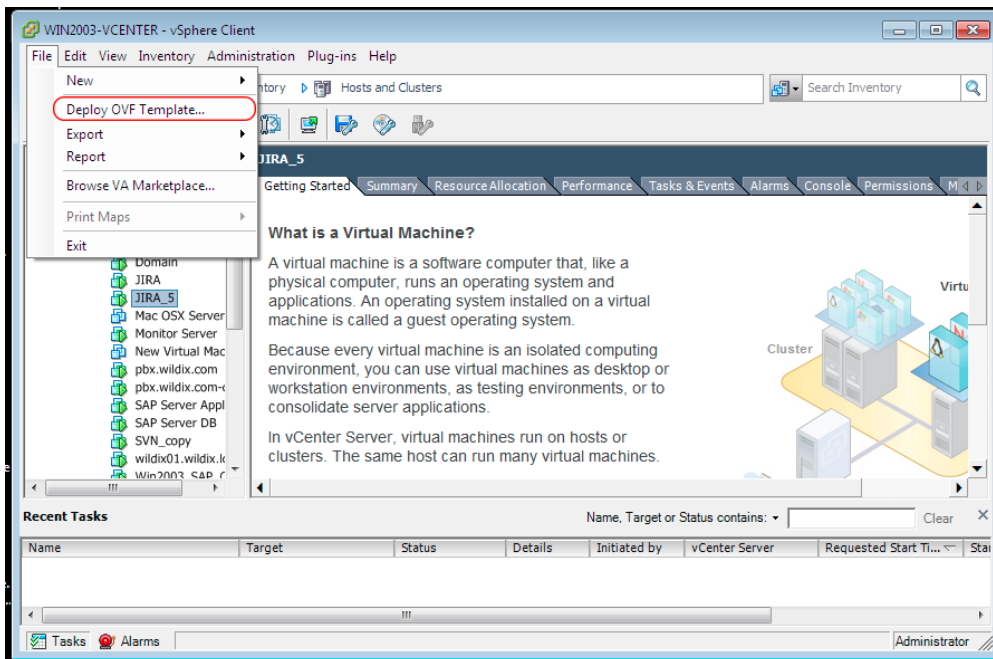
In case of Per User PBX: first follow the procedure to create a Per User Virtual PBX on WMP: <https://confluence.wildix.com/x/twM8AQ>

Proceed as follows:

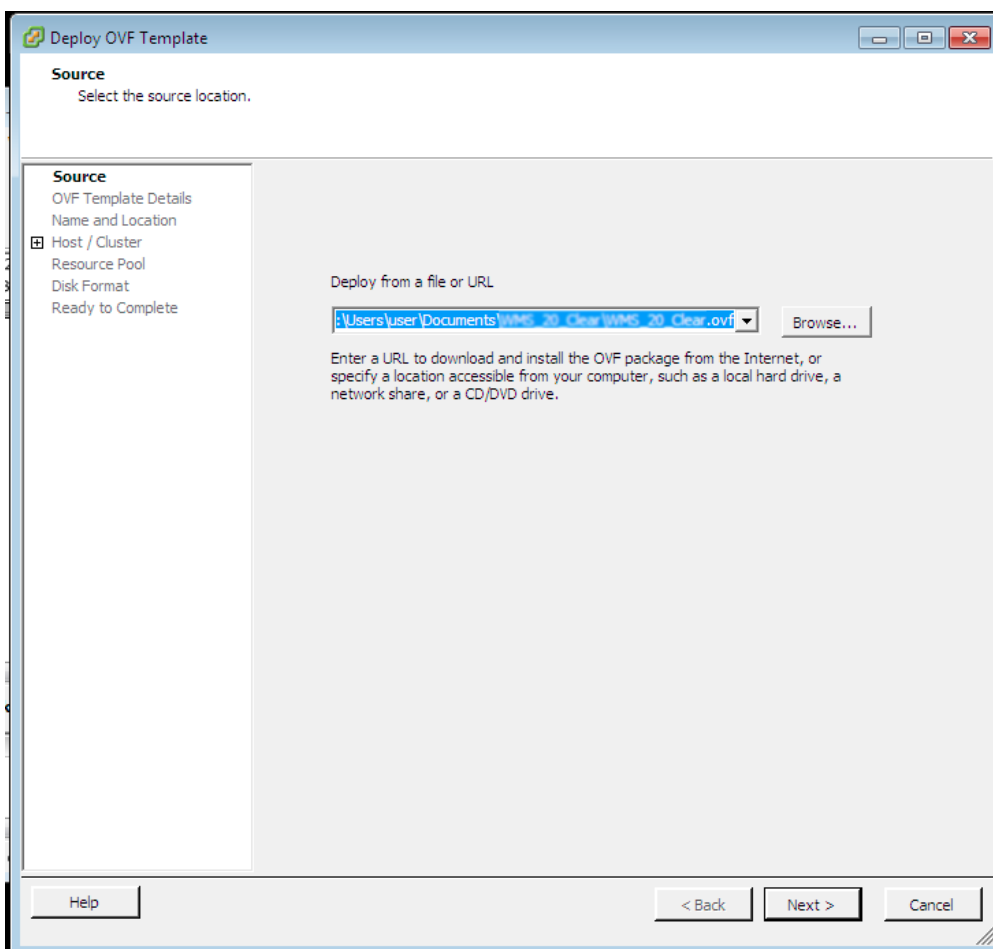
- Download the PBX image from the link: https://files.wildix.com/images/wms3/WMS_3.85_esxi_10082017.ova
- Run VMware vSphere Client
- Enter the data (IP address = IP address of your PC) and click on **Login**



- Select your machine, click on the menu *File > Deploy OVF Template*

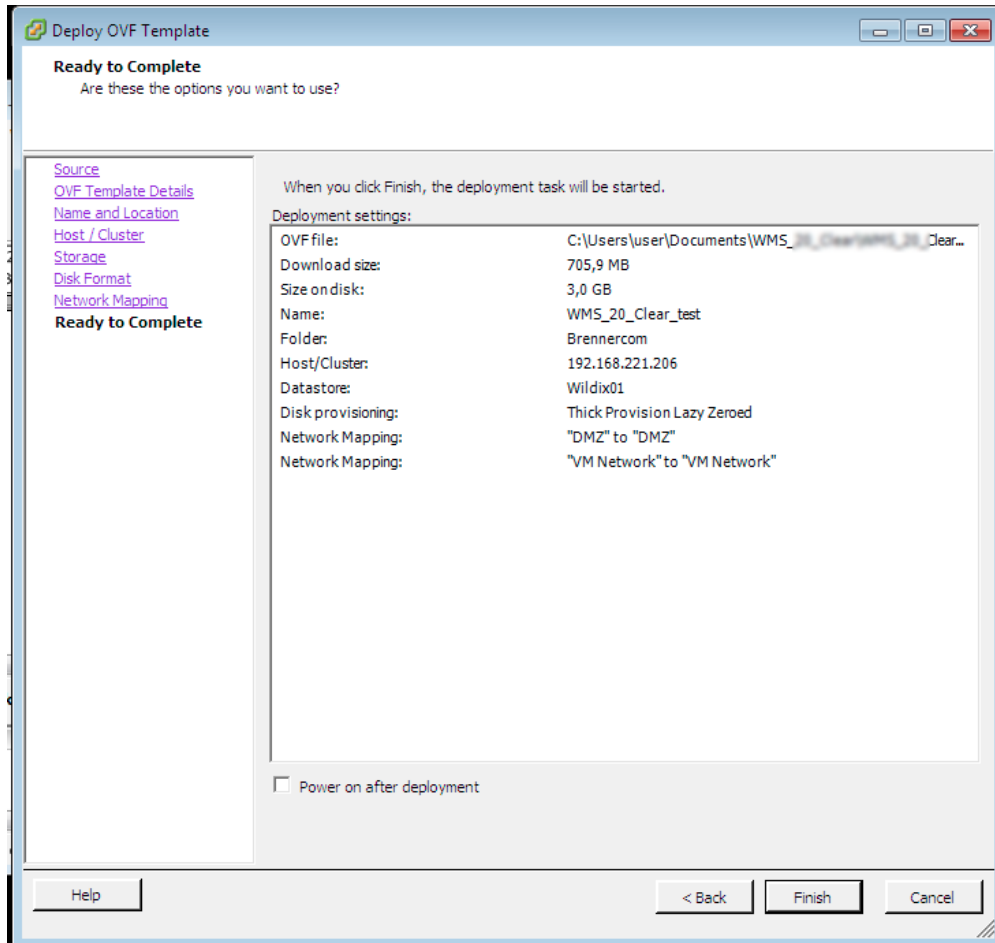


- Select the file on your PC with the PBX image and click on **Next**

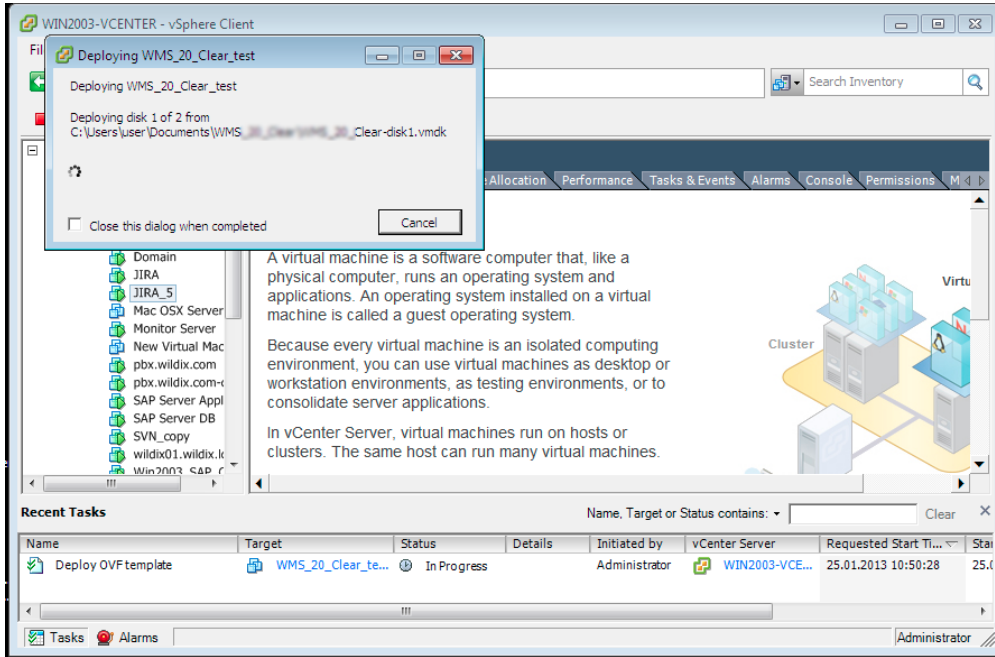


- Verify OVF template details: click on **Next**

- Specify a name and location for the deployed template: click on **Next**
- Select the host (PC) on which you want to run the deployed template: click on **Next**
- Select the disk on which you want to store the virtual machine file: click on **Next**
- Select the format for storing the virtual disks: click on **Next**
- Select the networks that the deployed template should use: click on **Next**
- Click **Finish**

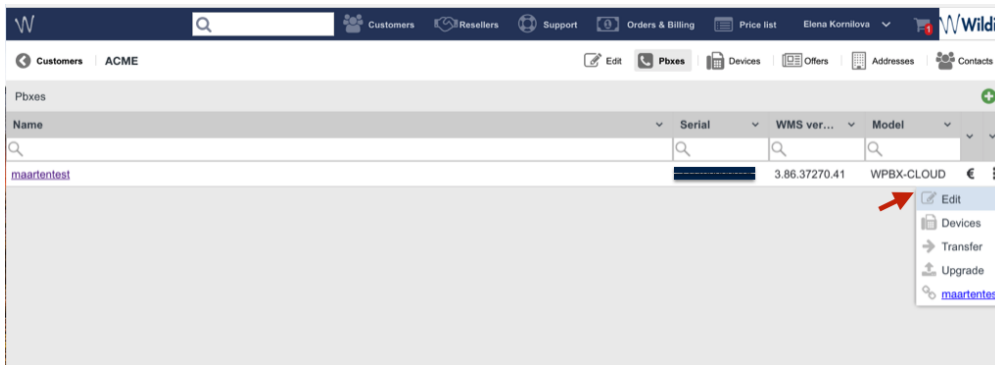


- Wait till the image is deployed

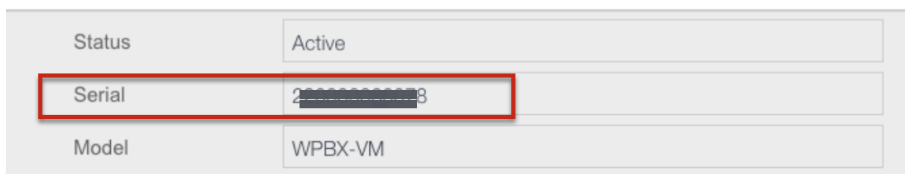


Per User PBX: **before starting your VMware, change the MAC address on VM to "Serial" copied from WMP:**

- Go to [WMP](#) -> *PBX per user* -> select your company -> select your PBX -> click **Edit**



- Copy the Serial:



- Change the MAC address on your VM to this value. How to set static MAC address on VMware: <http://ask.xmodulo.com/static-mac-address-vmware-esxi-virtual-machine.html>

Per Service PBX: access WMS and follow the guide to activate Per Service Virtual PBX: <https://confluence.wildix.com/x/twM8AQ>