<https://docs.puppet.com/pe/latest/sys_req_hw.html>

**From the Release Notes:**

Incorrect umask value can cause upgrade/installation to fail

To prevent potential failures, you should set an umask value of 0022 on your Puppet master.

Puppet Server run issue when /tmp/ directory mounted noexec

In some cases (especially for RHEL 7 installations) if the /tmp directory is mounted as noexec, Puppet Server might fail to run correctly, and you might see an error in the Puppet Server logs similar to the following:

Be very careful entering passwords during installation. Incorrect passwords may cause the install to fail, but the warnings are confusing. Ref. Release Notes for more details.

Agents in Puppet job runs may request incorrect environment

When you use the Puppet orchestrator puppet job command with the environment flag, Puppet agent runs participating in the job should request the specified environment. A known issue exists where these agent runs may request a catalog for a different environment than the one specified in the job.

To workaround this issue, we recommend that you [use the node classifier in the PE console](https://docs.puppet.com/pe/2016.4/console_classes_groups.html) to add agents to the environment that will be participating in Orchestration jobs. Alternatively, you could [assign the agent’s environment in its configuration file](https://docs.puppet.com/puppet/4.7/reference/environments_assigning.html).

Restart shell after install for PE client tools subcommands

After installing PE, the commands in the PE client tools will not be available on the PATH until you restart your shell.

Solaris 10 and 11 have no default symlinkdirectory

Solaris 10 and 11 will not by default have the symlink directory in their path. Therefore, if you use one of these two platforms, add /usr/local/bin to your default path.

System Requirements

Dependencies and OS-specific details

These sections show which OS packages are installed from the various OS repos. If the machine you’re installing on has internet access, they will be set up during PE installation. If it doesn’t, you must install them manually.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Node volume | Cores | RAM | /opt/ | /var/ | EC2 |
| 10 - 4000 | 16 + | 32 + GB | 100 GB | 10 GB | m3.xlarge or c4.4xlarge |

**RHEL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All Nodes | Master Nodes | Console Nodes | Console/Console DB Nodes |
| pciutils | x |  |  |  |
| system-logos | x |  |  |  |
| which | x |  |  |  |
| libxml2 | x |  |  |  |
| dmidecode | x |  |  |  |
| net-tools | x |  |  |  |
| cronie (RHEL 6, 7) | x |  |  |  |
| vixie-cron (RHEL 4, 5) | x |  |  |  |
| curl |  | x | x |  |
| mailcap |  | x | x |  |
| libjpeg |  | x |  | x |
| libtool-ltdl (RHEL 7) |  | x | x |  |
| unixODBC (RHEL 7) |  | x | x |  |
| libxslt |  |  |  | x |
| zlib | x |  |  |  |
| gtk2 |  | x |  |  |

**Solaris**

Solaris support is agent only.

For Solaris 10, the following packages are required:

* SUNWgccruntime
* SUNWzlib
* In some instances, bash may not be present on Solaris systems. It needs to be installed before running the PE installer. Install it via the media used to install the OS or via CSW if that is present on your system. (CSWbash or SUNWbash are both suitable.)

For Solaris 11 the following packages are required:

* system/readline
* system/library/gcc-45-runtime
* library/security/openssl

These packages are available in the Oracle Solaris release repository (enabled by default on Solaris 11). The PE installer will automatically install them; however, if the release repository is not enabled, the packages will need to be installed manually.

Name resolution

* Decide on a preferred name or set of names agent nodes can use to contact the Puppet master server.
* Ensure that the Puppet master server can be reached via domain name lookup by all of the future Puppet agent nodes at the site.

You can also simplify configuration of agent nodes by using a CNAME record to make the Puppet master reachable at the hostname puppet. (This is the default Puppet master hostname that is automatically suggested when installing an agent node.)

Firewall Ports:

Additional port usage for all installation types



|  |  |
| --- | --- |
| Port | Use |
| 8140 | * The Puppet master uses this port to accept inbound traffic/requests from Puppet agents. * The PE console sends request to the Puppet master on this port. * Certificate requests are passed over this port unless ca\_port is set differently. * Puppet Server [status checks](https://docs.puppet.com/pe/latest/status_api.html) are sent over this port. * Classifier group: “PE Master” |
| 443 | * This port provides host access to the PE console. * The PE Console accepts HTTPS traffic from end-users on this port. * Classifier group: “PE Console” |
| 61613 | * MCollective uses this port to accept inbound traffic/requests from Puppet agents. * Any host used to invoke commands must be able to reach MCollective on this port. * Classifier group: “PE ActiveMQ Broker” |
| 8142 | * Orchestration services and the Run Puppet button use this port to accept inbound traffic/responses from Puppet agents (via the PXP agent/PCP broker). * Classifier group: “PE Orchestrator” |

* Port 3000: If you are installing PE using the web-based installer, ensure port 3000 is open. You can close this port when the installation is complete. If necessary, [instructions for port forwarding to the web-based installer](https://docs.puppet.com/pe/2016.4/install_pe_mono.html) are available in the installation instructions. (This applies to both split and mono installs.)
* Port 8143: The orchestrator client uses this port to communicate with the orchestration services running on the Puppet master. If you [install the client on a workstation](https://docs.puppet.com/pe/2016.4/install_pe_client_tools.html), this port must be available.
* Port 8150 and 8151: Razor uses port 8150 for HTTP and 8151 for HTTPS. Any node classified as a Razor server must be able to use these ports.
* Port 4432: Local connections for node classifier, activity service, and RBAC [status checks](https://docs.puppet.com/pe/2016.4/status_api.html) are sent over this port. Remote connections should use port 4433.
* Port 8170: If you use Code Manager, it requires this port. Code manager [status checks](https://docs.puppet.com/pe/2016.4/status_api.html) are sent over this port.

**Prerequisites**

Deploy the VM with an additional 200GB Disk.

* 100 GB reserved for opt
* 100 GB reserved for root (due to the /etc/puppetlabs/puppet/environments directory)

Software in Osiris:/unxi/software/puppet/

Puppet Install Checklist (spreadsheet)

pe.conf file

This will be a Puppet Enterprise “Monolithic” install, meaning every component on one server.

It will be a text-based installation.

It will use a file called pe.conf in /etc/puppetlabs/enterprise/conf.d

Installer options:

-D debugging

-V verbose

PATH=$PATH:/opt/puppetlabs/puppet/bin:/opt/puppetlabs/server/bin

export PATH

**INSTALL**

Login to <newpuppet> as root

**Install Additional Software**

Additional Installation Steps (\*redacted\* specific)

* yum install libtool-ltdl
* yum install unixODBC

Create /etc/resolv.conf file

**NTP Setup**

Ensure ntp1.\*redacted\* is resolved

Run ntpq –p

Ensure time synchronization is good

**Secondary disk setup**

fdisk /dev/sdb

n – add a new partition

p - primary

1 – partition #

<enter> - first sector

<enter> - last sector

T – change type of partition

8e – linux LVM

p – confirm settings

w – write new partition table

Create LVM volume for /opt

pvcreate /dev/sdb1

lvcreate –L100G –n opt vgroup2

mkfs.xfs /dev/vgroup2/opt

Copy all data from /opt to new LVM opt volume

mount /dev/vgroup2/opt /mnt

cd /opt

rsync –avz . /mnt

Edit /etc/fstab to add the new LVM volume

Remove all directorites in /opt

Reboot

Login to Osiris as \*redacted\*

cd /unix/software

scp puppet-enterprise-2016.5.1-el-7-x86\_64.tar.gz <newpuppet>:/var/tmp

Login to <newpuppet> as root

cd /var/tmp

gunzip puppet-enterprise-2016.5.1-el-7-x86\_64.tar.gz

tar xvf puppet-enterprise-2016.5.1-el-7-x86\_64.tar

cd puppet-enterprise-2016.5.1-el-7-x86\_64

sudo ./puppet-enterprise-installer

How to proceed? 2

Edit the pe.conf file as needed.

console\_admin\_password

Save and quit.

Proceed with installation? Yn n

Shut the server down.

Create a VM snapshot.

Login as root.

umask 0022

sudo ./puppet-enterprise-installer –c /var/tmp/puppet-enterprise-2016.5.1-el-7-x86/conf.d/custom-pe.conf

puppet agent –t

shutdown –r now

puppet agent –t

Open firewall port for https service from VDI pool for console

UPGRADE (to 2016.5.2)

Download puppet-enterprise-2016.5.2-e6\_64.tar.gz

Untar file in /var/tmp

./puppet-enterprise-installer -c /etctlabs/enterprise/conf.d/pe.conf

puppet agent –t

Making agent packages available:

You need to add the pe\_repo class for the OS to the master puppet

Download and install stdlib module from Puppet Force

puppet module install ./puppetlabs-stdlib-4.16.0.tar.gz --ignore-dependencies