

Installing Dashboard in Linux Systems that use RPM (Red Hat, Fedora, CentOS)

Document #

Date: May 19, 2016

The person installing the DASHBOARD is knowledgeable of the Linux file system and can upgrade, deploy JAVA, Firefox, RPM packages, etc. The Dashboard requires “JAVA” and the browser requires recognizing JAVA. Some Linux flavors allows to log as “root” others, only allows you as a “user” and in order to have access to files system, the “user” must be part of the “sudo” list to execute command. As Linux “administrators” or “users”, you will know how to add yourself and have the proper rights if you cannot log as “root”.

GENERAL INSTALLATION GUIDE USING RPM

The DASHBOARD is installed automatically but the “user” must have right to the Root system files either “add” the account to the “Sudo users” or Logging as a “root”

The DASHBOARD and files are installed in a single directory

Make Backup of the entire directory “Dashboard” found under /usr/bin/Dashboard if there is already an installation and running. The Data and Configuration files are found in the following directories.

- Current Readings and Status data /usr/bin/Dashboard/Sys/Data
- Units Configurations data /usr/bin/Dashboard/Sys/Config
- Archive data /usr/bin/Dashboard/webapps/examples/archive

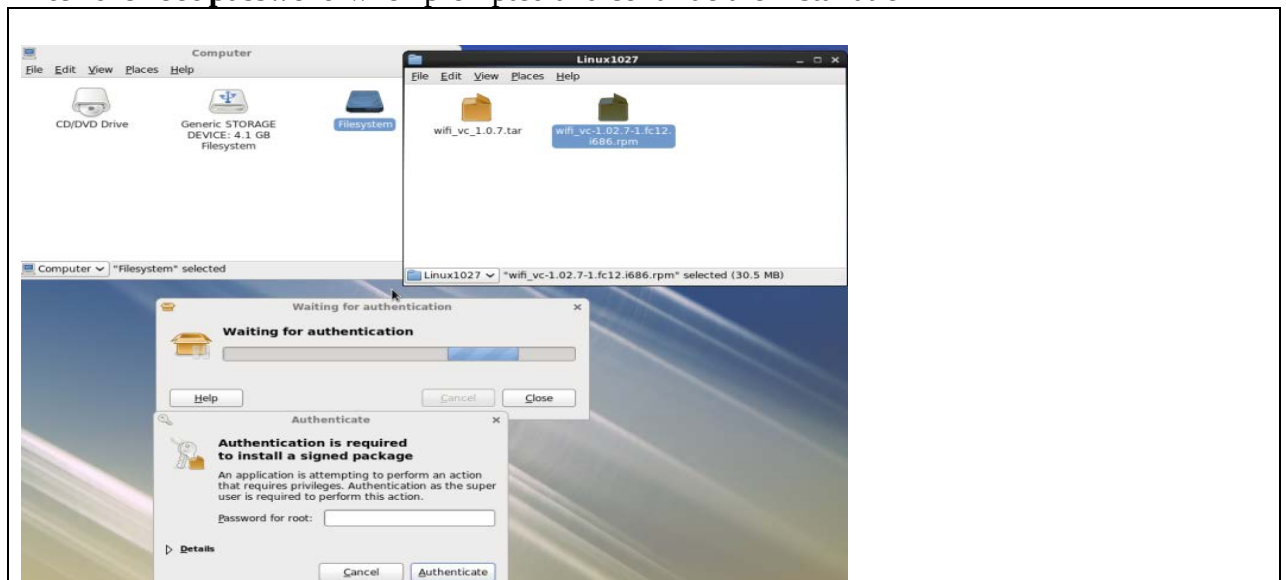
After re-installation, you may want to copy back these directories to recover the old data

TIP: The latest Dashboard is usually at this URL.

<http://www.newportus.com/software/Dashboard/index.html>

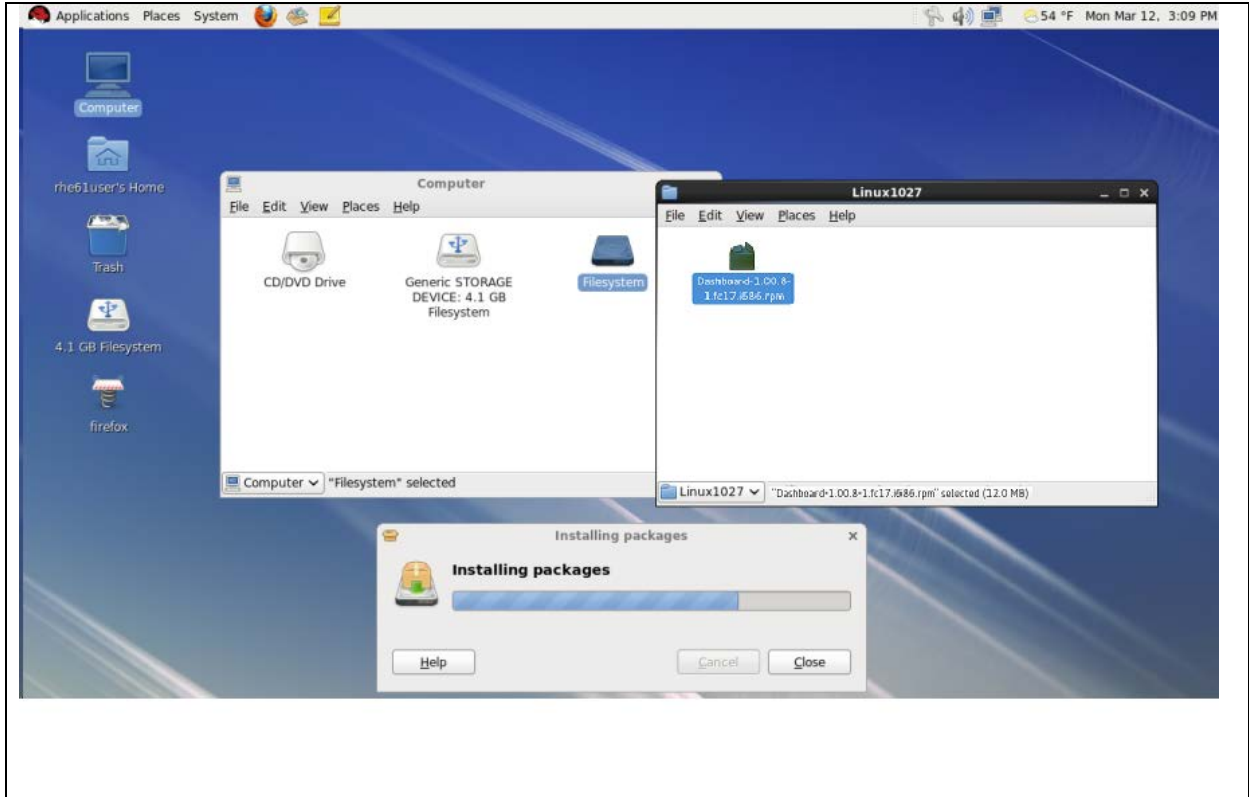
- Copy the tar file “Dashboard-1.00.8-1.fc17.i686.rpm”** to the “user” home directory, and run it from there (some system do not run directly from the mounted USB flash card)

Enter the root password when prompted and continue the installation



You must enable the required Ports from the firewall

The Dashboard IP should use a Static IP (No DHCP) and open Ports 80 services and 21 for FTP when upgrading the WIFI units; in addition, Enable port 50002/udp, 50006/tcp, 2000/tcp, 21/tcp, 80/tcp on the firewall.
(Refer to the section: ***“Installation: services and Ports for Server/Desktop”***)



FIREWALL AND ETHERNET SERVICES

(for Servers Refer to the Section: ***“Installation: Services and Ports for Server/Desktop”***)

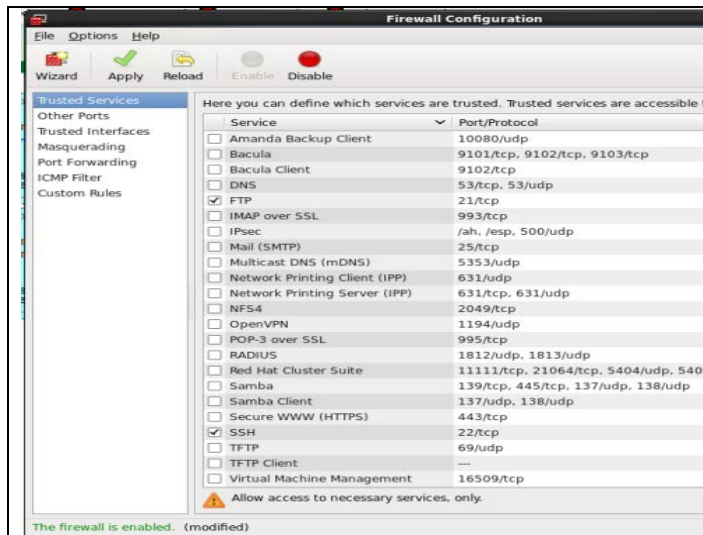
Use the GUI to enable the FTP and WWW services as well as the ports 2000/tcp, 50006/tcp, 50002/udp, and for static IP DHCP, edit the GUI interface of the network connections

Menu: “System\Administration\Firewall”

Menu: System\Preferences\Network connections



Chose the “em1” or what you have for Wire Connections to “edit” the file to

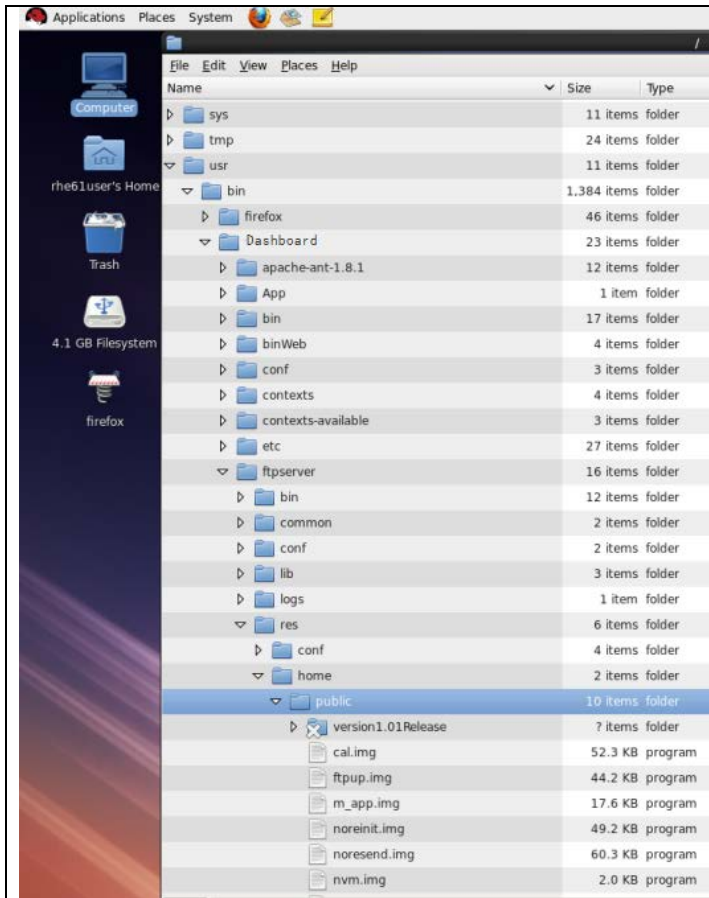


set the Static IP parameters

- b.) The RPM installations does what it takes to configure manually (explained in the General guidelines at the end of this Document.

The “Dashboard” folder is created under the directory “/usr/bin”

During the RPM installation as well as other links to run the Java scrips described under the Manual Installations



- Dashboard Files are under “/usr/bin/”
- For the FTP firmware upgrade, the nine files must reside under the “**Public**” Subfolder (*.img)
- To re- installed the same RPM (same revision), you must removed the old one, because system manager will not allow to reinstall an RPM
- Make a backup of settings and recorded data located
 /usr/bin/Dashboard/Sys
 /usr/bin/Dashboard/Webapps
 /usr/bin/Dashboard/ftpsrvr
- **Very Important when Updating, or Installing and reinstalling**
Make a backup when reinstalling

/usr/bin/Dashboard

- Useful Command:

```
#cp -av (for copy)
#rm -rf (remove directory)
#mkdir -p (create a directory)
#mv file1 file2 (renames file)
#rpm -e Dashboard, (removes the rpm package Dashboard)
```

Installation: Services and Ports for Servers/Desktop

The Dashboard IP should use a Static IP (No DHCP) and uses other ports than 80, Enable port 50002/udp, 50006/tcp, 2000/tcp, 21/tcp, 80/tcp on the firewall.

-Port 50002/50006 is used for communication between the transmitter and the DASHBOARD for data

-Port 2000 is the command server.

-Port 21 is for firmware upgrade on transmitters.

-Port 80 is for the web server

IP and Ports Configurations (No GUI Desktop)

- a). **JAVA:** Assuming Java (JRE) is preinstalled with RHEL 6, or if none, please Install it <http://openjdk.java.net/install>

```
$ su -c "yum install java-1.6.0-openjdk"
```

- b). **FIREFOX:** Assuming Firefox is preinstalled with RHEL 6, or if none, please Install it.

Website for different download <http://www.mozilla.org/en-US/firefox/all.html>

Installing from a package manager

To install Firefox using the package manager, please refer to the documentation of the Linux distribution you're using.

Installing outside of a package manager

How do I install firefox in Linux

<http://support.mozilla.org/en-US/kb/Installing%20Firefox%20on%20Linux>

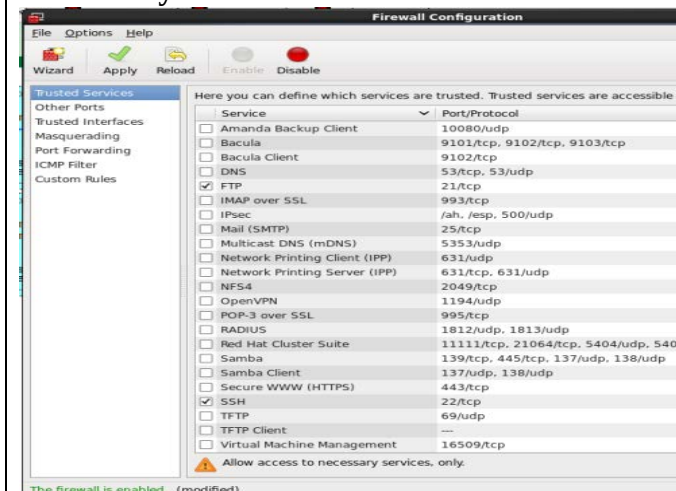
- c). **Static IP and Firewall for Desktops:**

Set a static IP to the system.

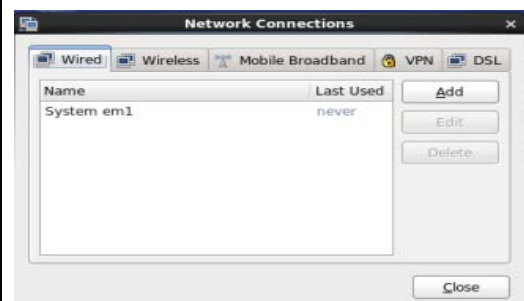
1.) FOR DESKTOP:

Use the **GUI** to enable the FTP and WWW services as well as the Ports 2000/tcp, 50006/tcp, 50002/udp, etc. For Static IP, edit the GUI interface of the Network Connections

Menu: "System\Administration\Firewall"



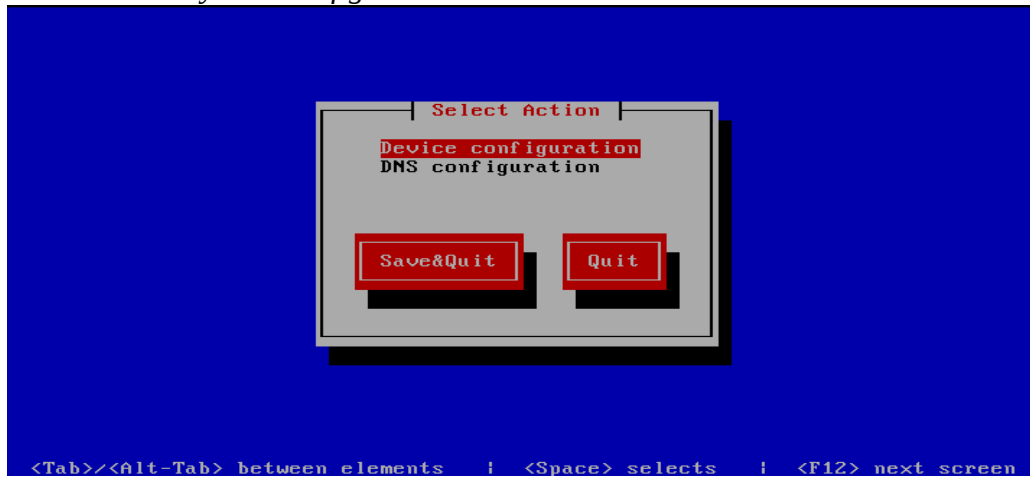
Menu: System\Preferences\Network connections



Chose the "em1" or what you have for Wire Connections to "edit" the file to set the Static IP parameters

2.) FOR SERVER CONFIGURATION

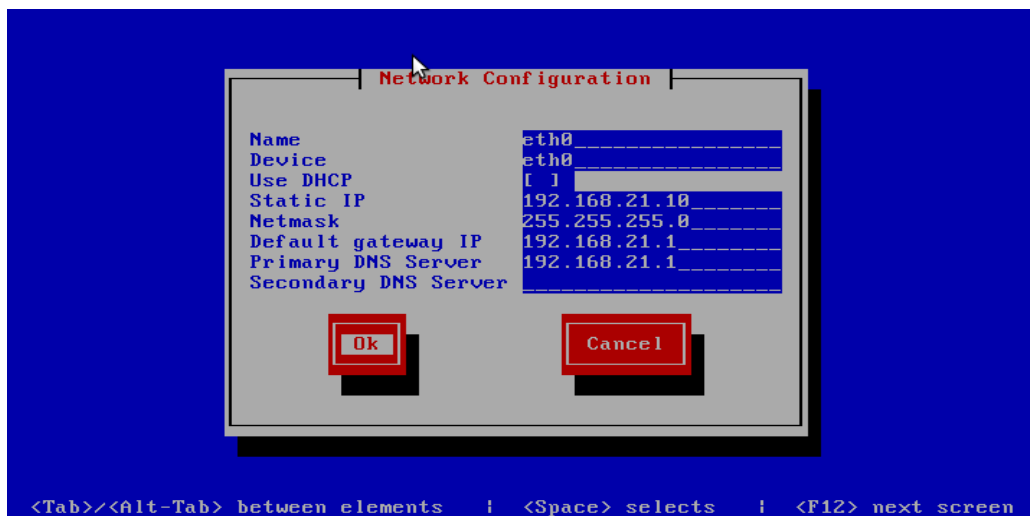
In terminal `#system-config-network`



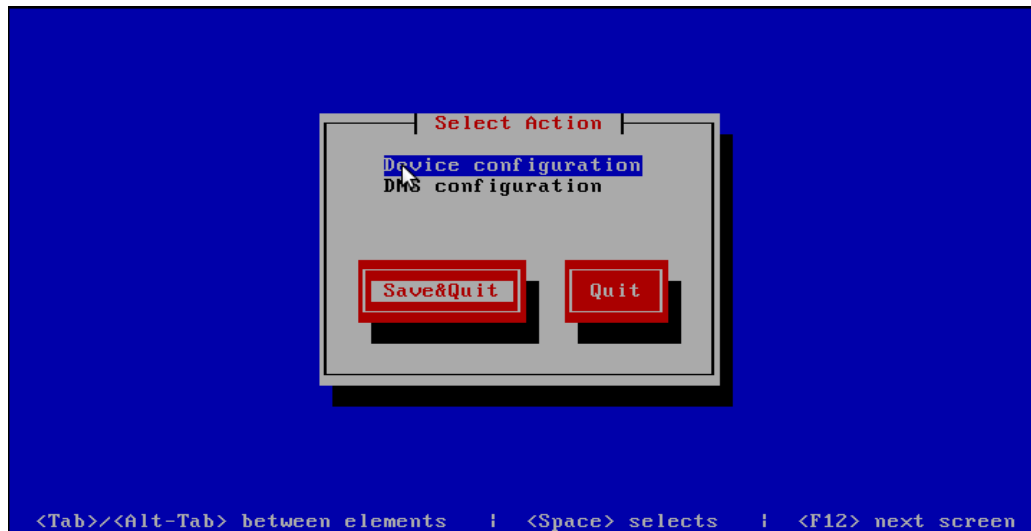
Choose the *Device configuration* and click enter.



Choose the *network card* that you want to configure.



Disable DHCP, enter the network information and click OK.



Once back to the home screen, choose *save and quit*.

Now, edit the network scripts to enable the adapter at boot up.

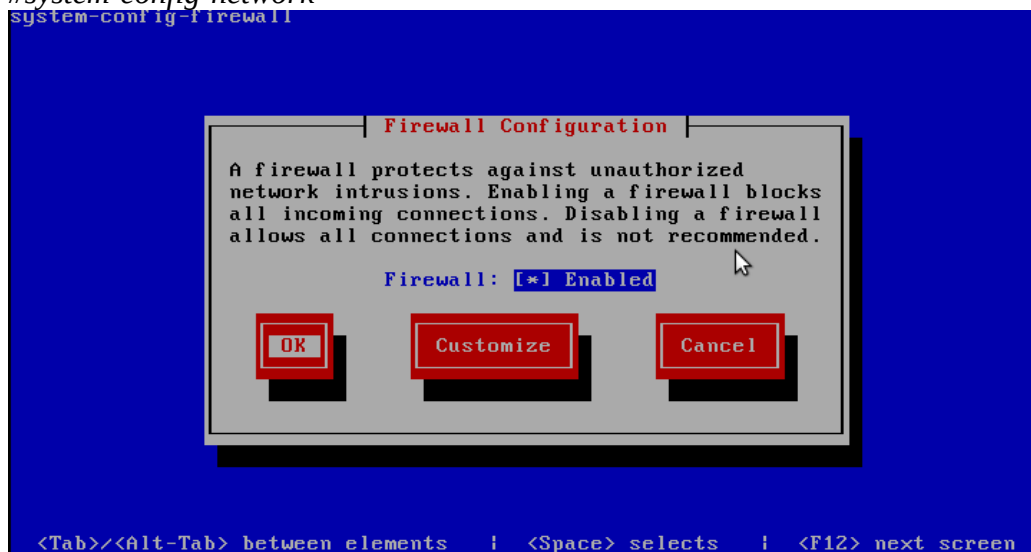
```
#vi /etc/sysconfig/network-scripts/ifcfg-eth0
```

Change the line that says "ONBOOT=no" to ONBOOT=yes" and restart the network service. Also check the IP address for eth0 interface.

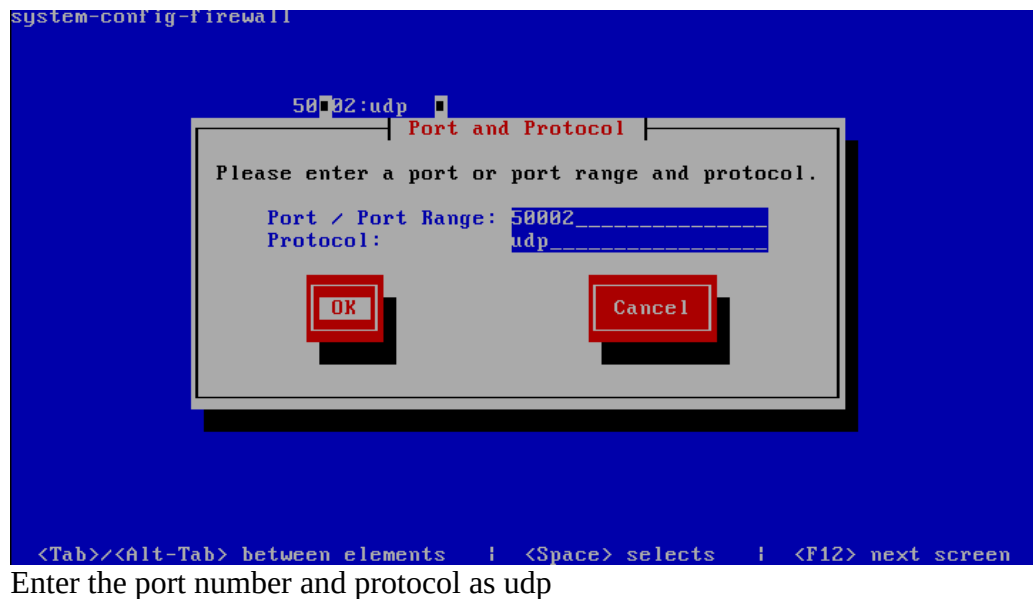
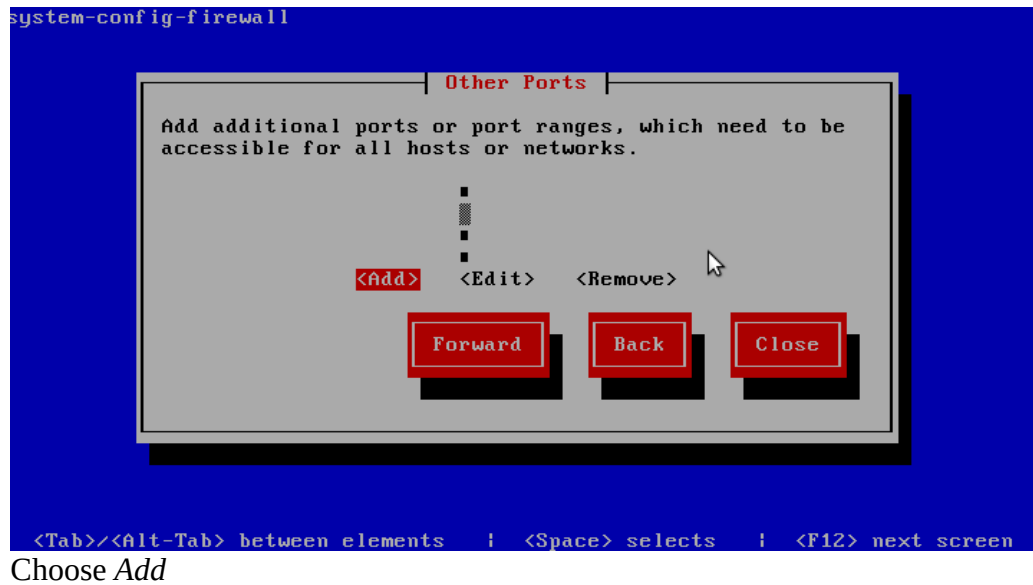
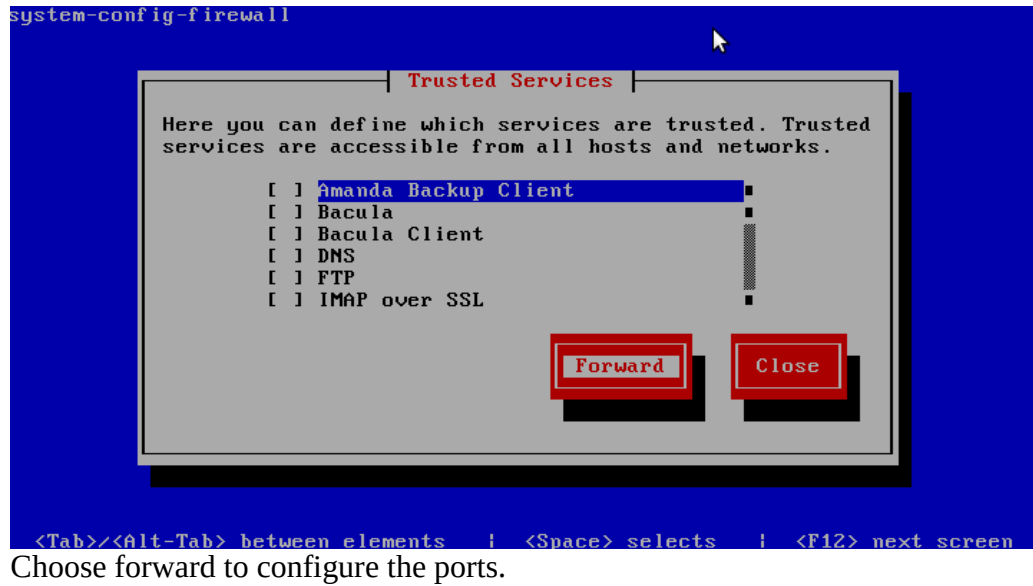
```
#service network restart
#ifconfig
eth0    Link encap:Ethernet....
```

- c.) Start the firewall configuration tool use the command "system-config-firewall".
Enable ports 50002(udp), 50006(tcp) and 80(HTTP) on firewall.

```
#system-config-network
system-config-firewall
```



Choose *customize*.



system-config-firewall

Other Ports

Add additional ports or port ranges, which need to be accessible for all hosts or networks.

50002:udp
50006:tcp

<Add> <Edit> <Remove>

Forward Back Close

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

Choose forward

system-config-firewall

Trusted Interfaces

Mark all interfaces as trusted which should have full access to the system.

[*] eth+
[] ippp+
[] isdn+
[] ppp+

Forward Back Close

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

Mark the interface that you will trust.

system-config-firewall

50002:udp

Masquerading

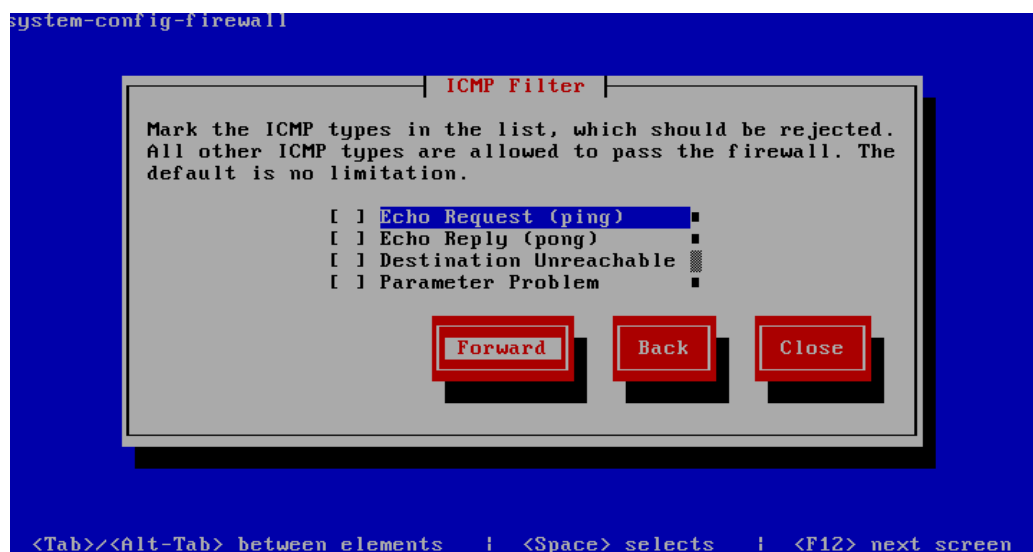
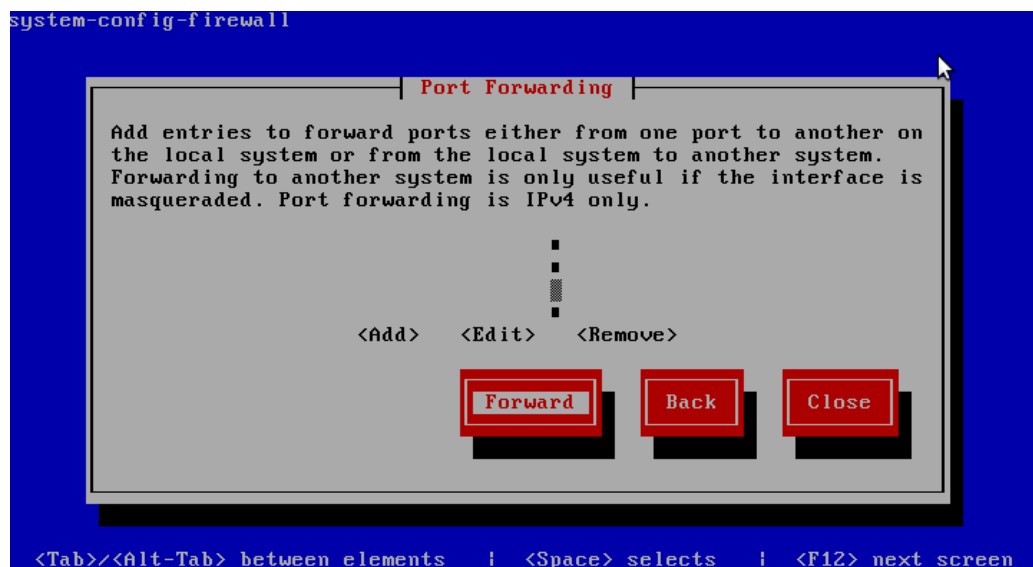
Mark the interfaces to be masqueraded.

[*] eth+
[] ippp+
[] isdn+
[] ppp+

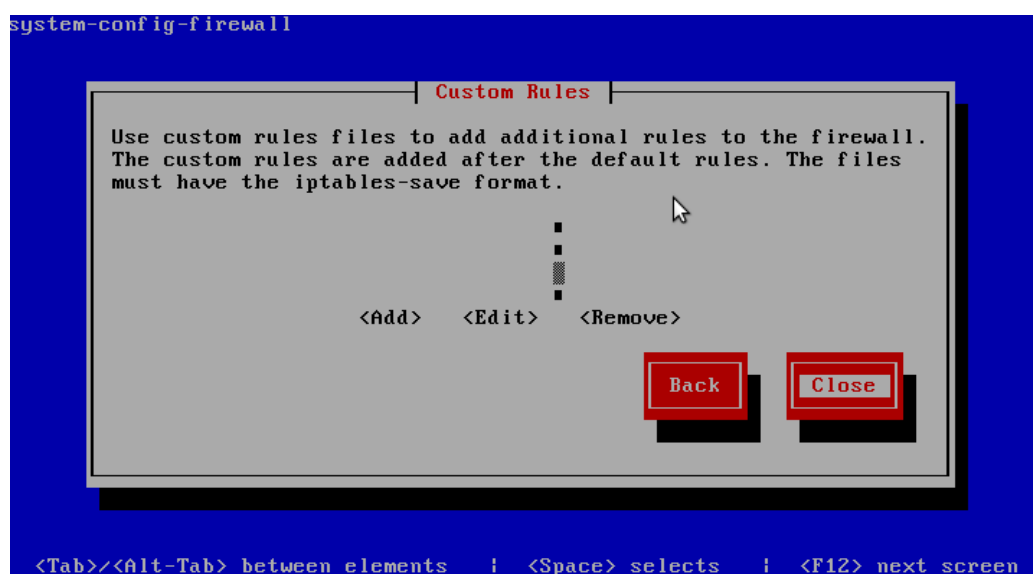
Forward Back Close

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

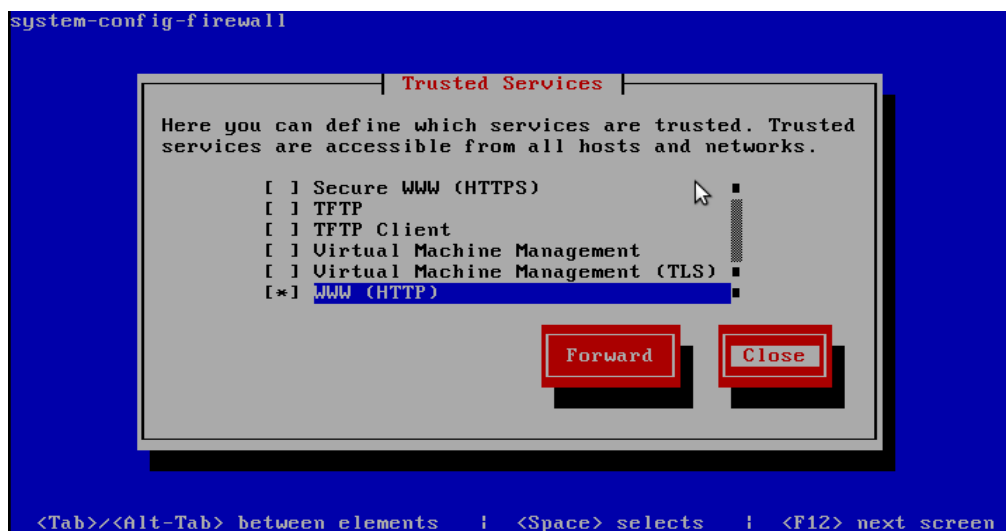
Also Mark the interface to be masqueraded.



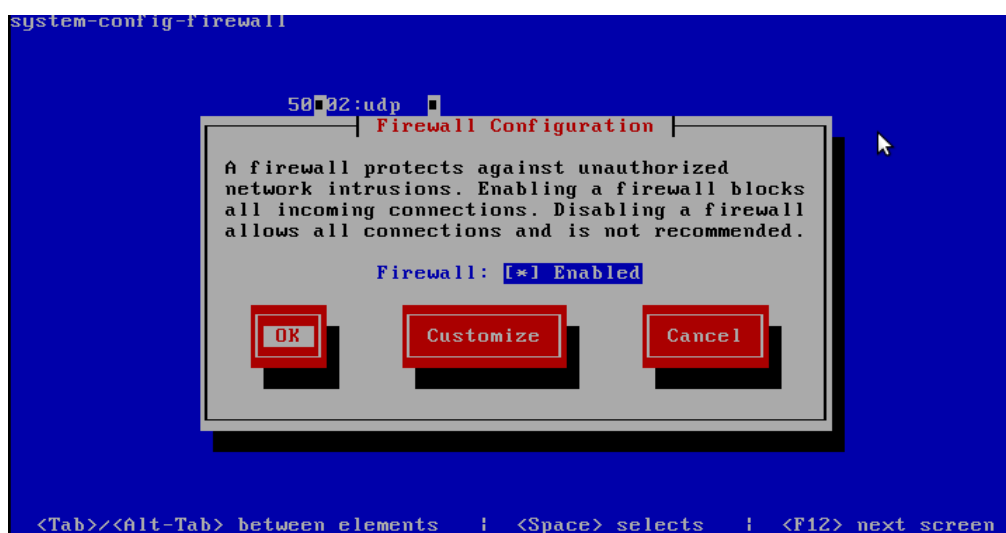
Choose *forward*.



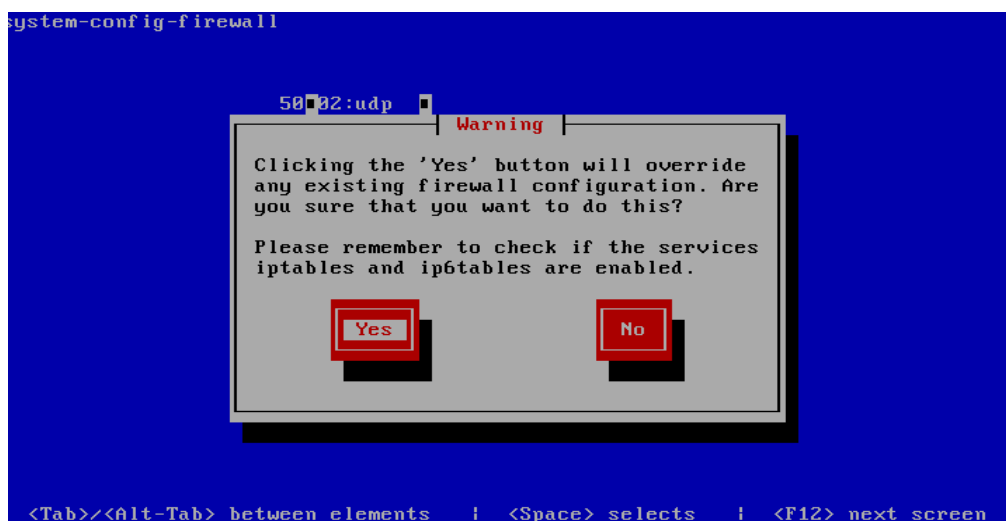
Choose *Close*



When on the home screen, customize again and choose the WWW (*HTTP*) service in trusted service. Close and go to home screen.



Choose **OK**



Choose **YES** if you want this setting to be written.

This will override existing settings.

Installing Dashboard in Linux Systems Manual Installations that do not use RPM Packages
(In case the RPM does not work, even with ROOT privileges)

Please refer to the other document from our webpage about installing Dashboard with NO RPM using tar.gz package.