

SECTION 5 Use the NetworkManager to Configure the Network

In case you are using SUSE Linux Enterprise Server 10 on a laptop, you will most likely use different kinds of Internet access, depending on where you are—maybe a LAN in your office and a wireless connection at a customer site.

Objective

1. Use the NetworkManager to Configure the Network

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The conventional network setup requires you to switch to the root account to change the network configuration. The purpose of the **NetworkManager** (package `NetworkManager`) is to allow the user to change the network configuration according to his needs, without switching to the root account.

`NetworkManager` runs as a root-user system level daemon, since root privileges are needed to manipulate hardware directly. The programs used for this purpose are `/usr/sbin/NetworkManager` and `/usr/sbin/NetworkManagerDispatcher`. **nm-tools** can be used to list information about `NetworkManager`, devices, and wireless networks.

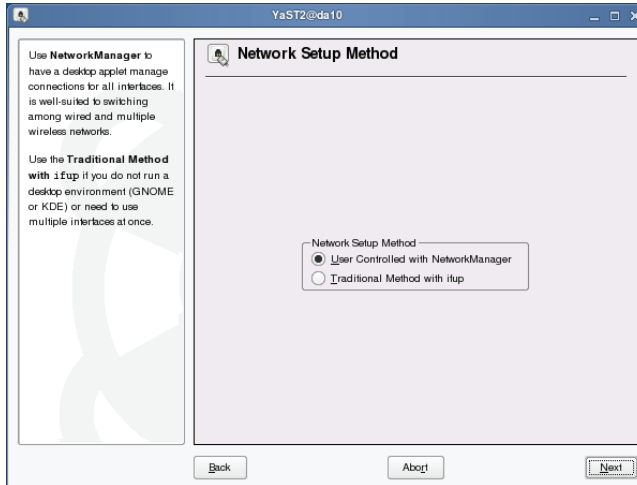
From a list of all adapters currently installed on the system, `NetworkManager` will first try a wired and then a wireless adapter. Wireless adapters that support wireless scanning are preferred over ones that cannot. `NetworkManager` does not try to keep a connection up as long as possible, meaning that plugging into a wired network will switch the connection to the wired network, away from the wireless one.

For wireless networking support, `NetworkManager` keeps two lists of wireless networks: a **Trusted list**, and a **Preferred list**. The trusted list contains networks the user specifically adds to it, while the preferred list contains networks the user forces `NetworkManager` to connect to.

Since trusted and preferred networks are user-specific, there must be some mechanism of getting and storing this information per user. This is achieved with a desktop-level per-user process, **nm-applet**, or `KNetworkManager` in KDE. `NetworkManager` communicates over DBUS with these user level processes.

Switching to NetworkManager is done by starting YaST and selecting **Network Devices > Network Cards**. In the **Network Setup Method** dialog, you select **User Controlled with NetworkManager**:

Figure 5-1

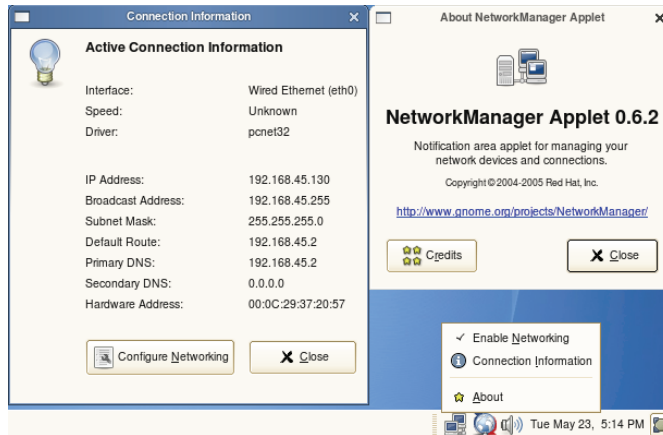


The following dialogs of this module are the same for both setup methods.

When selecting **User Controlled with NetworkManager**, YaST sets the variable **NETWORKMANAGER=** in `/etc/sysconfig/network/config` to "yes".

Choosing the NetworkManager in YaST will also automatically start the Network Applet when a user logs in. Using the desktop applet, the user can easily change the network configuration:

Figure 5-2



Note: As there was no wireless card built into the computer on which the above screenshot was taken, there is no option for switching networks in this screenshot.

Summary

Objective	Summary
1. Use the NetworkManager to Configure the Network	NetworkManager allows the user to change the network configuration without having to assume root privileges. NetworkManager is mainly useful for use on laptops.
