



Red Hat Enterprise Linux 6 SP1 – Network Device Naming

The current x86 based servers support an increasing number of network interface ports on the system board, in addition to add-in network adapters. Linux-based operating systems name these interfaces as `ethN`. The naming of network interfaces is currently nondeterministic and not governed by any standards in terms of their relationship to the way the ports are configured on the system.

A naming mechanism that can convey meaning to the name of the network interfaces based on the physical location of a network port in relation to the intended system design is necessary. To achieve this, the system firmware has the ability to communicate the intended order for network devices on the system board to the operating system using standard mechanisms such as System Management BIOS (SMBIOS) and Advanced Configuration and Power Interface (ACPI).

Red Hat Enterprise Linux 6 SP1 implements a new naming scheme for network interfaces on supported Dell PowerEdge servers. This document provides information about the new naming scheme for the Red Hat Enterprise Linux 6 SP1 environment.

Supported Dell PowerEdge Systems

M series:

M610, M610X, M710, M710HD, and M910

R series:

R210, R210 II, R310, R410, R415, R510, R515, R610, R710, R715, R810, R815, and R910

T series:

T110, T110 II, T310, T410, T610, and T710

Understanding the Naming Scheme

The network interfaces are named based on their location on the system board. The naming scheme implemented is

Lan On Motherboard (LOM) interfaces:

em<port number>_<virtual function instance>

PCI add-in interfaces:

p<slot number>p<port number>_<virtual function instance>

The naming scheme is enabled by default on supported PowerEdge systems. The naming scheme can be disabled by passing the `biosdevname=0` kernel command line parameter during the installation. If a system is upgraded from Red Hat Enterprise Linux 6 to Red Hat Enterprise Linux 6 SP1, the network interface names present in Red Hat Enterprise Linux 6 are preserved across the upgrade.

For more information, see

linux.dell.com/files/whitepapers/consistent_network_device_naming_in_linux.pdf

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