



# Red Hat Enterprise Linux 5

## 5.3 Release Notes

全アーキテクチャ向けリリースノート

エディション 3



# Red Hat Enterprise Linux 5 5.3 Release Notes

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エディション 3

Ryan Lerch  
Red Hat Engineering Content Services  
rlersch@redhat.com

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## 概要

本ドキュメントは、Red Hat Enterprise Linux 5.3 のリリースノートについて説明します。

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# 1. RELEASE NOTES UPDATES

This section contains information about Red Hat Enterprise Linux 5.3 that did not make it into the Release Notes included in the distribution.

## 1.1. Feature Updates

### audit の更新

The audit packages contain user-space utilities for storing and searching the audit records generated by the audit subsystem in the Linux 2.6 kernel.

These updated packages upgrade the auditd daemon and its utilities to the newer upstream version 1.7.7, which provides the following enhancements over the previous version:

- the auditctl program, which is used to control the behavior of the audit subsystem, now supports multiple keys in the audit rules.
- a new utility, ausyscall, which is used to cross-reference syscall name and number information, is now provided in these updated packages.
- the aureport program has been enhanced to provide reports about keys it sees in audit events.
- event log parsing for the ausearch and aureport programs has been improved.
- a sample STIG rules file, named "stig.rules", is newly provided in these updated packages. This file contains the auditctl rules which are loaded whenever the audit daemon is started by init scripts.

In addition to the listed enhancements, these updated audit packages also include a new feature to allow a server to aggregate the logs of remote systems. The following instructions can be followed to enable this feature:

1. The audispd-plugins package should be installed on all clients (but need not be installed on the server), and the parameters for "remote\_server" and "port" should be set in the /etc/audisp/audisp-remote.conf configuration file.
2. On the server, which aggregates the logs, the "tcp\_listen\_port" parameter in the /etc/audit/auditd.conf file must be set to the same port number as the clients.
3. Because the auditd daemon is protected by SELinux, semanage (the SELinux policy management tool) must also have the same port listed in its database. If the server and client machines had all been configured to use port 1000, for example, then running this command would accomplish this:

```
semanage port -a -t audit_port_t -p tcp 1000
```

4. The final step in configuring remote log aggregation is to edit the /etc/hosts.allow configuration file to inform tcp\_wrappers which machines or subnets the auditd daemon should allow connections from.

### wpa\_supplicant re-base

wpa\_supplicant has been re-based to the latest upstream stable version 0.5.10 and include backported fixes for a number of issues that may affect users of wireless drivers that depend on the kernel's mac80211 wireless stack. Specific fixes and enhancements include:

- Support for a D-Bus control interface has been added. D-Bus is a popular lightweight Inter-Process Communication mechanism, and the addition of this control interface to wpa\_supplicant allows applications (like NetworkManager) to more reliably control the supplicant.
- Cisco Aironet 340/350 wireless cards were not able to successfully connect to 802.1x-enabled wireless networks, often used in security sensitive organizations. During the connection process at the 4-Way WPA handshake stage, sending encryption keys to the driver would clear the wireless card firmware's authentication state. With this update, the supplicant uses an alternate method of supplying encryption keys to the kernel driver, allowing authentication state to be preserved in the Aironet firmware and 802.1x connections to succeed.
- Kernel drivers utilizing the new mac80211 wireless stack were sometimes unable to connect to wireless networks, either failing to find the requested network, or prematurely ending communication with the wireless access point during the connection process. Some drivers were prone to reporting multiple disconnection events during the association process, confusing the supplicant and causing long timeouts. The supplicant also did not sufficiently instruct the driver to disconnect when switching access points. This update fixes these issues and, in conjunction with kernel driver updates, allow more wireless hardware to successfully connect to wireless networks.

### NetworkManager re-base

**NetworkManager** has been updated to version 0.7.0. This update provides the following fixes and enhancements:

- NetworkManager would not display a LEAP password, even when the user selected the "show password" option. This has been fixed through a rebase to NetworkManager 0.7.
- During the beta phase, a version of NetworkManager was unable to automatically start network interfaces for which "ONBOOT=no" was present in the ifcfg file. NetworkManager now ignores this value unless "NM\_RESPECT\_ONBOOT=yes" is also present.
- a NetworkManager plug-in was named for its upstream repository. This could cause end-users to mistake the plug-in for an un-supported addition to Red Hat Enterprise Linux. This plug-in has been renamed to "ifcfg-rh".
- with this update, support has been added to NetworkManager for wired 802.1x authentication. However, after creating an 802.1x-enabled wired connection in the NetworkManager connection editor, it may be necessary to log out, then log back in before the connection can be used from the NetworkManager applet menu.
- NetworkManager attempted to set a hostname, but only after X had already done so. The user could not then open new windows because the authority files had been set by X with a different hostname. NetworkManager no longer sets hostnames.
- an update for NetworkManager that was available in the beta phase would change the run level enablement of the package during installation, and thus prevent NetworkManager from starting. NetworkManager no longer changes run level enablements during installation.



- on a system with more than one network adapter, network keys saved by the user while connecting with one adapter would not be available when the user attempted to connect with the other adapter. NetworkManager can now retrieve and use network keys saved for a different adapter on the same network.
- previously, NetworkManager would not always prompt the user for a new network key if the protocol or key of a wireless network changed. Although NetworkManager would wait for a new key, it would not always open a dialog box and allow the user to provide one. NetworkManager will now open a dialog box when needed.
- several bug fixes and enhancements for NetworkManager were available upstream. NetworkManager has been rebased to version 0.7 to incorporate these improvements, including mobile broadband functionality, Phase2 WPA support, and static IP functionality.
- NetworkManager would cause a segmentation fault when resuming a session. This was caused by the HAL dropping privileges before connecting to D-Bus, meaning that the HAL could not send signals to NetworkManager. NetworkManager now explicitly permits signals from the HAL.
- sometimes, X would freeze if the NetworkManager menu and a keyring manager window were open at the same time. This updated package includes a patch from upstream that prevents this behavior.
- if NetworkManager requires a network key from the user, it will open a pop-up window. However, the applet previously could not steal focus from metacity and would remain in the background. The window was therefore not obvious to the user. The applet now opens in the foreground, alerting the user to take action.
- when resuming, NetworkManager could sometimes re-establish a wireless connection, but not a route. A fix for this problem from upstream has been included in this update.
- NetworkManager did not previously support Cisco Airo Wi-Fi cards, as these devices did not respond to NetworkManager's attempts to detect them. NetworkManager can now detect and use these cards.
- the NetworkManager applet would wake up and redraw its icon once per second, even when NetworkManager was not active. Now, the applet will not wake up unless NetworkManager is running.
- NetworkManager 0.7 connects faster than libnotify can provide a notification bubble. When this happens, the bubble will appear at the top left corner of the screen, rather than under the taskbar. NetworkManager notification bubbles are now delayed for a few seconds, allowing libnotify to react.

#### **dbus-glib re-base**

The dbus-glib integration library has been re-based to version 0.73.8 This update provides support to updated versions of NetworkManager and also implements the following bugfix and enhancements

- cleanup of the DBusGProxy objects treated pending remote method calls incorrectly and may have resulted in freeing invalid memory. Consequently, processes using DBusGProxy objects may have crashed when the DBusGProxy object was freed. With this update dbus-glib correctly handles the destruction of DBusGProxy objects, resolving this issue.

- two new function calls, `dbus_g_proxy_call_with_timeout` and `dbus_g_proxy_begin_call_with_timeout`, have been added to `dbus-glib` providing the ability to specify a timeout when making a request to a remote service.
- `dbus-binding-tool` now ignores namespaced Extensible Markup Language (XML) nodes when processing introspection definition files.

### sudo のリベース

`sudo` がバージョン 1.6.9 に更新されました。本バージョンの `sudo` は LDAP をサポートし、`sudo` 権限に対してベース検索 (例: ツリーレベルのみ) のみでなく、サブツリー検索ができるようになりました。これにより、管理者は `sudo` 権限をツリーで分類できるため、ユーザー特権の管理が楽になります。



#### 注記

the `env_reset` sudoers option from newer `sudo` will reset the `PATH` environment variable. This is different from the behaviour in `sudo-1.9.8`. To keep the old behaviour simply add `PATH` variable into `env_keep` in `sudoers` file.

### LVM-based Cluster mirroring

With this update, the ability to create LVM mirrors in a cluster environment (i.e. while using CLVM) is now available in Red Hat Enterprise Linux It provides for simultaneous access from multiple cluster machines, like when using a cluster-aware file system. This solution is compatible with existing single-machine mirrors. When switching a mirrored logical volume between single-machine and cluster-aware, no resynchronization is necessary.

## 1.2. Resolved Issues

- `system-config-network` requires the fonts provided with `xorg-x11-fonts-Type1` in order to display. However, this fonts package was not previously set as a dependency for `system-config-network` and it was therefore possible (for example, in the case of a minimal installation) for `system-config-network` to be present on a system and yet unable to function because these fonts were missing. This update sets `xorg-x11-fonts-Type1` as a dependency for `system-config-network` to ensure that these fonts will be available and that `system-config-network` will display correctly.
- In Red Hat Enterprise Linux 5.2, a 64-bit version of `httpd` was included in addition to the existing 32-bit `httpd` in the PowerPC architecture. If a user installed both versions, an `httpd` conflict would occur, preventing `httpd` from functioning properly.

To resolve this issue, the 64-bit version of `httpd` has been removed from this release. Any systems with the previous 64-bit version of `httpd` installed should remove the package before upgrade.

## 1.3. Driver Updates

- the SCSI device handler infrastructure (`scsi_dh`) has been updated, providing added support for LSI RDAC SCSI based storage devices.
- the `tg3` driver for Broadcom Tigon3 ethernet devices has been updated to version 3.93. This applies several upstream changes for new hardware. However, the 5785 hardware is not fully supported. This device may be detected by the driver, but lack of PHY support may cause

these chips to not function correctly and may require the user disable any on-board 5785 cards in the system BIOS.

- **scsi-target-utils** now features *iSCSI Extensions for RDMA*(iSER), which is based on the Linux Target (tgt) framework. iSER is included in this release as a Technology Preview, and provides capabilities for both single and multiple portals on different subnets. Note, however, that there are known bugs with using multiple portals on the same subnet.

To set up an iSER target component, install the **scsi-target-utils** and **libibverbs-devel** packages. The corresponding library package for your system's Infiniband hardware is also required. For example, in HCAs that use the **cxgb3** driver the **libcxgb3** package is needed, and for HCAs using the **mtbca** driver the **libmtbca** package is need.

- The MPT Fusion driver has been updated to version 3.04.06, providing the following bugfixes and enhancements:
  - Previously, the MPT Fusion driver always allocated I/O resources, even if they were not required, which may have caused issues in low resource environments. With this update, the driver now uses the `pci_enable_device_mem` and `pci_enable_device` functions to differentiate the resource allocations.
  - Previously, the kernel would panic when the `mptsas` and `mptcl` modules were loaded in parallel. With this update, this issue has been resolved.
  - Previously, system power state changes (such as hibernation and standby) were not functioning correctly with 106XE controllers. With this update, the driver has been modified to free and allocate resources in power management entry points.

## 1.4. Virtualization

- **kernel-xen** を使用するシステムが **kdump** 環境へブートできない問題の原因となっていた IDE/ATA ドライバスタックのバグが修正されました。以前のリリースでは、IDE デバイスが I/O を実行し、IDE デバイスが **libata** 以外のデバイスドライバによって制御されている時にシステムでカーネルパニックが発生するとこの問題が発生しました。
- A softlockup may have occurred when creating a guest with a large amount of memory. Consequently, a call trace of the error was displayed on both the dom0 and the other guest. In this update, this issue has been resolved.
- On systems with large amounts of memory (ie 256GB or more), setting up the dom0 could exhaust the hypervisor memory heap. To work around this, the `xenheap` and `dom0_size` command line arguments had to be set to valid values for the system. In this update, the hypervisor has been updated to automatically set these values to a default of 32GB, which resolves this issue.
- Due to technical problems with passing TX checksum offload information between paravirtual domains, the use of TX checksum offload in conjunction with NAT for traffic originating from another domain is not supported. TX checksum offload can be used together with NAT as long as the NAT rule is applied in the domain where the traffic originates.

Note that this also applies to fully virtualised domains using paravirtual network drivers. Fully virtualised domains using fully virtualised drivers are not affected as they do not support TX checksum offload at all.

## 1.5. Known Issues

- Previous versions of the 5.3 Release Notes stated that the CD-ROM/DVD-ROM unit on **Dell PowerEdge R905** servers does not work with Red Hat Enterprise Linux 5. This note was included by error, and does not apply to Red Hat Enterprise Linux 5.3.
- **kdump** now serializes drive creation registration with the rest of the **kdump** process. Consequently, **kdump** may hang waiting for IDE drives to be initialized. In these cases, it is recommended that IDE disks not be used with **kdump**.
- Improvements have been made to the 'nv' driver, enhancing suspend and resume support on some systems equipped with nVidia GeForce 8000 and 9000 series devices. Due to technical limitations, this will not enable suspend/resume on all hardware.
- **pirut** sorts some package lists using the textual representation of a package, which is inconsistent with the textual representation method used in **yum**. As such, some package lists (e.g. **Optional Packages** list) in **pirut** may not display names in alphabetical order.
- The Hypervisor outputs messages regarding attempts by any guest to write to an MSR. Such messages contain the statement **Domain attempted WRMSR**. These messages can be safely ignored; furthermore, they are rate limited and should pose no performance risk.
- When upgrading from Red Hat Enterprise Linux 4 Workstation to 5 Server, **OpenOffice** will no longer work correctly with SELinux. This is because the Red Hat Enterprise Linux version of **OpenOffice** is built using an incorrect library. As a result, SELinux will prevent **OpenOffice** from accessing any shared libraries, causing **OpenOffice** to fail.

To work around this, update the SELinux context to allow **OpenOffice** to access shared libraries. To do so, run the following commands:

```
semanage fcontext -a -t textrel_shlib_t '/usr/lib/ooo-1.1(/.)*?'
```

```
semanage fcontext -a -t textrel_shlib_t '/usr/lib64/ooo-1.1(/.)*?'
```

```
restorecon -Rv /usr/lib/ooo-1.19
```

```
restorecon -Rv /usr/lib64/ooo-1.19
```

Alternatively, you can also upgrade your **OpenOffice** to a correct version compatible with SELinux in Red Hat Enterprise Linux 5. You can do this by subscribing to the "Productivity App" child channel in Red Hat Network and running the following command:

```
yum install openoffice-  
{base,calc,draw,emailmerge,graphicfilter,headless,impress,javafilter,ma  
th,pyuno,writer,xsltfilter}
```

- If jumbo frames are enabled on your system, a kernel panic will occur if you attempt to unload the **bnx2** module.
- Red Hat advises that you avoid removing a block device from a guest while the device is in use. Doing so causes Xend to lose domain information for the guest.
- Accessing the right-click menu of the **NetworkManager** GNOME applet may cause the GNOME **Keyring Unlock** dialog to appear. When this occurs, no X11 applications can receive keyboard or mouse input.

To recover from this, switch to a virtual terminal using **Ctrl+Alt+F1**. Log in as the affected user (or root) and run **killall -9 nm-applet**. Then, switch back to X11 using **Ctrl+Alt+F7**. Your system should be able to receive keyboard and mouse input, although

Red Hat recommends that you logout and login again to allow the system to fully recover.

- On Altix systems with an ATI FireMV graphics adapter, the GUI console may not display on one of the VGA connectors. To workaround this issue, switch to using the other VGA connector on the dongle.
- It has been determined that 1024 byte objects in kernel slab may be lost when a call to `pipe()` fails. The problem occurs because `pipe()` allocates pipe files, and then tries to get free file descriptors for them. If the process is out of file descriptors, `pipe()` fails, but it does not clean up properly. A fix for this problem is planned for a forthcoming 5.3 kernel update.

To workaround this issue, ensure that the process calling `do_pipe` has adequate file descriptors allocated.

This issue has been observed with `multipathd` in particular. To avoid the problem with `multipathd`, calculate the number of file descriptors (FDs) required using the formula: "FDs = Number of Paths + 32". If the result is greater than the default value of 1024, then the `max_fds` value in the defaults section of `multipath.conf` should be set to the previously calculated value. For example, if there are 255 LUNs with 8 paths each, the line to be added to the defaults section of `multipath.conf` would be:

```
max_fds 2072
```

- The `libcpiutil-devel` package depends on `tog-pegasus-devel`, which for the Red Hat Enterprise Linux Desktop product is only available from the Workstation option. Therefore, any attempt to install the `libcpiutil-devel` package on a system that does not have a Subscription including the Workstation option or is not subscribed to the Workstation channel on the Red Hat Network, will fail with an unresolved dependency error.
- It is possible in rare circumstances, for `makedumpfile` to produce erroneous results but not have them reported. This is due to the fact that `makedumpfile` processes its output data through a pipeline consisting of several stages. If `makedumpfile` fails, the other stages will still succeed, effectively masking the failure. Should a vmcore appear corrupt, and `makedumpfile` is in use, it is recommended that the core be recorded without `makedumpfile` and a bug be reported.
- An issue may be encountered when using `system-config-cluster` to configure a Postgres 8 resource agent, resulting in the postgresql service failing to start. To include a Postgres resource agent in your cluster, please check the man page for the agent, and edit the `cluster.conf` file in an editor, then update the cluster with the new configuration file using the appropriate `cman_tool` command.
- Due to outstanding driver issues with hardware encryption acceleration, users of Intel WiFi Link 4965, 5100, 5150, 5300, and 5350 wireless cards are advised to disable hardware accelerated encryption using module parameters. Failure to do so may result in the inability to connect to Wired Equivalent Privacy (WEP) protected wireless networks after connecting to WiFi Protected Access (WPA) protected wireless networks.

To do so, add the following options to `/etc/modprobe.conf`:

```
alias wlan0 iwlagm
options iwlagm swcrypto50=1 swcrypto=1
```

(where `wlan0` is the default interface name of the first Intel WiFi Link device)

- `kdump` now restarts when CPUs or DIMMs are hot-added to a system. If multiple items are

added at the same time, several sequential restarts may be encountered. This behavior is intentional, as it minimizes the time-frame where a crash may occur while memory or processors are not being tracked by kdump.

## 1.6. Technology Previews

### Software based Fibre Channel over Ethernet (FCoE)

The Fibre Channel over Ethernet (FCoE) driver (`fcoe.ko`), along with `libfc`, provides the ability to run FCoE over a standard Ethernet card. This capability is provided as a technical preview in Red Hat Enterprise Linux 5.3.

To enable this feature, you must login by writing the network interface name to the `/sys/module/fcoe/parameters/create` file, for example:

```
echo eth6 > /sys/module/fcoe/parameters/create
```

To logout, write the network interface name to the `/sys/module/fcoe/parameters/destroy` file, for example:

```
echo eth6 > /sys/module/fcoe/parameters/destroy
```

For further information on software based FCoE refer to: [http://www.openfcoe.org/openfc/wiki/index.php/FCoE\\_Initiator\\_Quickstart](http://www.openfcoe.org/openfc/wiki/index.php/FCoE_Initiator_Quickstart).

Red Hat Enterprise Linux 5.3 は 3 つの特殊ハードウェア実装上の FCoE を完全サポートします。対象のハードウェア実装は、Cisco `fnic` ドライバ、Emulex `lpfc` ドライバ、Qlogic `qla2xx` ドライバです。

### iSER Support

iSER support, allowing for block storage transfer across a network, has been added to the `scsi-target-utils` package as a Technology Preview. In this release, single portal and multiple portals on different subnets are supported. There are known bugs when using multiple portals on the same subnet.

To set up the iSER target component install the `scsi-target-utils` and `libibverbs-devel` RPM. The library package for the InfiniBand hardware that is being used is also required. For example: host channel adapters that use the `cxgb3` driver the `libcxgb3` package is needed, and for host channel adapters using the `mtchca` driver the `libmthca` package is needed.

There is also a known issue relating to connection timeouts in some situations. Refer to [Red Hat Bugzilla #470627](#) for more information on this issue.

## 2. INSTALLATION-RELATED NOTES

This section includes information specific to **Anaconda** and the installation of Red Hat Enterprise Linux 5.3.

Red Hat Network can install the new and changed packages and upgrade an existing Red Hat Enterprise Linux 5 system. Alternatively, **Anaconda** can upgrade an existing Red Hat Enterprise Linux 5 system or perform a fresh installation of Red Hat Enterprise Linux 5.3.

Note: upgrading from beta releases of Red Hat Enterprise Linux 5.3 to this GA release is not supported.

Further, although **Anaconda** provides an option for upgrading from earlier major versions of Red Hat Enterprise Linux to Red Hat Enterprise Linux 5.3, Red Hat does not currently support this. More generally, Red Hat does not support in-place upgrades between any major versions of Red Hat Enterprise Linux. (A major version is denoted by a whole number version change. For example, Red Hat Enterprise Linux 4 and Red Hat Enterprise Linux 5 are both major versions of Red Hat Enterprise Linux.)

In-place upgrades across major releases do not preserve all system settings, services or custom configurations. Consequently, Red Hat strongly recommends fresh installations when upgrading from one major version to another.

## 2.1. All Architectures

- **Anaconda** を **Text Mode** でインストールの際、オプションで **Virtual Network Computing (VNC)** に切り替えてインストールを終了することができるようになりました。
- 暗号化されたソフトウェア RAID メンバーディスク (**software RAID** パーティションなど) の作成や使用はサポートされていませんが、暗号化されたソフトウェア RAID アレイ (`/dev/md0` など) の作成はサポートされます。
- The NFS default for RHEL5 is "locking". Therefore, to mount nfs shares from the %post section of anaconda, use the `mount -o nolock, udp` command to start the locking daemon before using nfs to mount shares.
- iBFT 設定のネットワークデバイスを持つシステムで、CD-ROM または DVD-ROM からインストールを行う場合、ネットワークが設定されていないと **Anaconda** によって iBFT 設定のストレージデバイスは含まれません。インストールでネットワークを有効にするには、インストール時のブートプロンプトにて、コマンド `linux updates=http://[any]` を使用します。[any] は使用する URL に置き換えてください。

ご使用のシステムが静的 IP の設定を必要とする場合は、コマンド `linux updates=http://[any] ip=[IP address] netmask=[netmask] dns=[dns]` を使用します。

- 完全仮想化ゲスト上に Red Hat Enterprise Linux 5.3 をインストールする場合、**kernel-xen** カーネルは使用しないでください。このカーネルを完全仮想化ゲスト上で使用すると、システムがハングする原因になります。

完全仮想化ゲスト上での Red Hat Enterprise Linux 5.3 のインストールにおいてインストール番号を使用する場合は、必ずインストール中に **Virtualization** パッケージグループの選択を解除してください。**Virtualization** パッケージグループオプションは **kernel-xen** カーネルをインストールしてしまいます。

これは、準仮想化ゲストには関係ありません。準仮想化ゲストは常に **kernel-xen** カーネルを使用します。

- Red Hat Enterprise Linux 5 から 5.2 へのアップグレードに **Virtualized** カーネルを使用する場合は、アップグレードが完了したら再起動する必要があります。その後、更新された **Virtualized** カーネルを使ってシステムを起動してください。

Red Hat Enterprise Linux 5 と 5.2 のハイパーバイザーは ABI 互換ではありません。アップグレード後は、更新された **Virtualized** カーネルを使ってシステムを起動しないと、更新された仮想化 RPM は稼働しているカーネルと一致しません。

- Red Hat Enterprise Linux 4.6 から Red Hat Enterprise Linux 5.1 やそれ以降のバージョンにアップグレードすると **gcc4** が原因でアップグレードに失敗する可能性があります。そのため、アップグレードをする前に **gcc4** パッケージを手作業で削除するようにしてください。

- **firstboot** 言語プラグインは、新規の言語が選択されると正しくシステムを再設定しないため、削除されました。
- インストール中にゲストをプロビジョニングする場合、**RHN tools for guests** オプションは使用できません。システムには **dom0** が使用するエンタイトルメントではない追加のエンタイトルメントが必要となります。

ゲストに対して追加のエンタイトルメントを使用しないようにするには、**rhn-virtualization-common** パッケージを手作業でインストールしてから Red Hat Network にシステムを登録してください。

- 複数のネットワークインターフェイスを使用してシステムに Red Hat Enterprise Linux 5.3 をインストールし、手作業で **IPV6** アドレスを指定すると、ネットワーク設定の一部が正しく設定されません。この場合、**IPv6** 設定がインストールしたシステム上で確認できません。

これに対処するには、**/etc/sysconfig/network** で **NETWORKING\_IPV6** を **yes** に設定します。その後、コマンド **service network restart** を使用してネットワーク接続を再起動します。

- システムに **yum-rhn-plugin-0.5.2-5.e15\_1.2** (または以前のバージョン) がインストールされている場合、**yum update** で Red Hat Enterprise Linux 5.3 にアップグレードすることはできません。そのため、**yum update yum-rhn-plugin** を使用して **yum-rhn-plugin** を最新のバージョンにアップグレードしてから **yum update** を実行してください。
- これまで、**anaconda** は最大 8 つの **SmartArray** コントローラーまでしかアクセスできませんでしたが、今回のアップデートでこの問題が解決されました。
- OEM によって提供されたドライバディスクは単一のイメージファイル (**\*.img**) で、複数のドライバパッケージやカーネルモジュールが含まれることもあります。これらのドライバはインストールで使用され、ドライバがないと Red Hat Enterprise Linux 5 によって認識されないハードウェアをサポートします。システムがブートした際にロードされるよう、ドライバパッケージやカーネルモジュールはシステムにインストールされた後、初期 RAM ディスク (**initrd**) に置かれます。

本リリースでは、インストールの際にファイルシステムラベルを基にして自動的にドライバディスクが検出され、ドライバディスクの内容がインストール中に使用されます。この動作は、自動検索を有効にするインストールコマンドラインオプション **dlabel=on** によって制御されます。本リリースでは **dlabel=on** はデフォルトの設定です。

ファイルシステムラベル **OEMDRV** を持つすべてのブロックデバイスが検証され、検証した順にデバイスよりドライバがロードされます。

- **vfat** ファイルを格納する既存の暗号化されたブロックデバイスは、パーティショニングインターフェイスではタイプ **foreign** と表示されます。そのため、これらのデバイスはシステムのブート中に自動的にマウントされません。自動的にマウントするには、適切なエントリを **/etc/fstab** に追加します。追加方法の詳細は **man fstab** を参照してください。

## 2.2. PowerPC Architectures

- The minimum RAM required to install Red Hat Enterprise Linux 5.2 is 1GB; the recommended RAM is 2GB. If a machine has less than 1GB RAM, the installation process may hang.

また、RAM が 1GB のみの PowerPC ベースのマシンは、負荷が RAM に集中すると重大なパフォーマンスの問題が発生する場合があります。Red Hat Enterprise Linux 5.2 システムが RAM 集中のプロセスを最適な状態で実行するには、マシン上に 4GB の RAM を搭載することが



推奨されます。これにより、Red Hat Enterprise Linux 4.5 やそれ以前のバージョンがインストールされている RAM が 512MB の PowerPC マシンと同じ数の物理ページを持つことができます。

## 2.3. s390x Architectures

- **anaconda** が *OSA Express3* カードに対し CHPID の両方のポートをサポートするようになりました。インストールの初期段階でポート番号の指定が求められます。ポートに指定した値はインストールされたネットワークインターフェイスの起動スクリプトにも影響します。ポート 1 を選択すると、**portno=1** の値が **ifcfg-eth\*** ファイルの **OPTIONS** パラメータに追加されません。



### 注記

z/VM でインストールする場合、**PORTNO=0** (ポート 0 を使用) か **PORTNO=1** (ポート 1 を使用) のいずれかを **CMS** 設定ファイルに追加すると、指定を求められません。

- **DASD** ブロックデバイス上に **Linux** または **非 Linux** ファイルシステムを持つマシンにインストールを実行しようとする、インストーラが停止することがあります。この問題が発生した場合、使用したい **DASD** デバイス上にある既存のパーティションを全てクリアする必要があります。

## 2.4. ia64 Architecture

- If your system only has 512MB of RAM, attempting to install Red Hat Enterprise Linux 5.3 may fail. To prevent this, perform a base installation first and install all other packages after the installation finishes.
- Using **yum** to install packages from the **32-bit Compatibility Layer** disc may fail. If it does, it is because the Red Hat package signing key was not imported into the RPM database. This happens if you have not yet connected to Red Hat Network and obtained updates. To import the key manually, run the following command as root:

```
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
```

Red Hat GPG 鍵がインポートされたら、**yum** を使用して **32-bit Compatibility Layer** ディスクからパッケージをインストールすることができます。

ディスクからインストールする場合、インストール中にベース OS の依存関係に対応するため、**rpm** ではなく **yum** を使用することが推奨されます。

## 3. FEATURE UPDATES

### ブロックデバイスの暗号化

Red Hat Enterprise Linux 5.3 は **Linux Unified Key Setup (LUKS)** 仕様を使用したブロックデバイスの暗号化をサポートします。デバイスを暗号化すると、デバイスが物理的にシステムから取り除かれた後もブロックデバイス上のすべてのデータを不正アクセスから保護することができます。認証でパスワードかキーを提供しない限り暗号化されたデバイスの内容にアクセスすることはできません。

ディスク暗号化の設定に関する詳細は、Red Hat Enterprise Linux インストールガイド (<http://redhat.com/docs/>) を参照してください。

## mac80211 802.11a/b/g WiFi プロトコルスタック (mac80211)

Red Hat Enterprise Linux 5.3 は **mac80211** スタック (以前の名称 **devicescape/d80211** スタック) をサポートします。このスタックは **Intel WiFi Link 4965** ハードウェアの **iwlwifi 4965GN** ワイヤレスドライバを有効にし、一部のワイヤレスデバイスはどのような WiFi ネットワークにでも接続できるようになります。

Red Hat Enterprise Linux 5.3 は **mac80211** コンポーネントをサポートしていますが、カーネルに対するシンボルのホワイトリストにはシンボルは含まれていません。

## グローバルファイルシステム 2 (GFS2)

**GFS2** は **GFS** がインCREMENTALに改良されたものです。今回の更新では、オンディスクファイルシステム形式への変更を必要とする複数の重要な改善が適用されました。**GFS** ファイルシステムのメタデータを適切に更新するユーティリティ **gfs2\_convert** を使用すると **GFS** ファイルシステムを **GFS2** に変換できます。

Red Hat Enterprise Linux 5.2 では **GFS2** は評価目的のカーネルモジュールとして提供されました。Red Hat Enterprise Linux 5.3 では **GFS2** はカーネルパッケージの一部となりました。Red Hat Enterprise Linux 5.3 の **GFS2** を使用するには、インストールされている Red Hat Enterprise Linux 5.2 の **GFS2** カーネルモジュールを削除してください。

## ドライバディスクサポートの向上

OEM によって提供されたドライバディスクは単一のイメージファイル (\*.img) で、複数のドライバ RPM やカーネルモジュールが含まれることもあります。これらのドライバはインストールで使用され、ドライバがないと認識されないハードウェアをサポートします。マシンがリブートした際に RPM がサポートされるようにするため、RPM はシステム上にインストールされ、**initrd** 内に置かれます。

Red Hat Enterprise Linux 5.3 では、インストールの際にファイルシステムラベルを基にして自動的にドライバディスクが検出され、ドライバディスクの内容がインストール中に使用されます。この動作は、自動検索を有効にするインストールコマンドラインオプション **dlabel=on** によって制御されます。ファイルシステムラベル **OEMDRV** を持つすべてのブロックデバイスが検証され、検証された順にドライバがデバイスよりロードされます。

## iSCSI ブートファームウェアテーブル

Red Hat Enterprise Linux 5.3 は iSCSI デバイスからブートできるようにする **iSCSI ブートファームウェアテーブル (iBFT)** を完全にサポートするようになりました。このサポートを有効にするには、iSCSI ディスク (ノード) が自動的に起動しないようにしなければなりません。これにより、ランレベル 3 または 5 を指定する場合、インストールされたシステムは自動的に iSCSI ディスクへの接続やログインを実行しなくなります。

通常 iSCSI はルートファイルシステムに使用されます。この場合、ランレベルを指定する前に **initrd** は必要な iSCSI ディスクに接続し、ログインするため、この変更による影響はありません。

しかし、**/home** や **/srv** などのルートディレクトリでないディレクトリに iSCSI ディスクをマウントする必要がある場合、インストールされたシステムはルートファイルシステムが使用しない iSCSI ディスクへ自動的に接続したりログインしないため、この変更の影響を受けます。

ルートディレクトリでないディレクトリに iSCSI ディスクをマウントすることはできますが、以下に挙げる対処法の 1 つを使用する必要があります。

1. ルートディレクトリでないディレクトリにマウントされた iSCSI ディスクを使用せずにシステムをインストールした後、ディスクとマウントポイントを手作業で設定する。

- インストールしたシステムをランレベル1でブートし、各ディスクに対して以下のコマンドを1回実行してルートファイルシステムが自動起動で使用しないiSCSIディスクをマークする。

```
iscsiadm -m node -T target-name -p ip:port -o update -n node.startup
-v automatic
```

## rhythmbox

**rhythmbox** オーディオプレーヤーがバージョン 0.11.6 に更新されました。このアップデートにより、オプションでプロプラエタリ GStreamer プラグインを使用できるようになりました。

## lftp のリベース

**lftp** がバージョン 3.7.1 にリベースされました。これにより、以下を含むアップストリームの機能アップデートやバグ修正が適応されました。

- **mirror --script** によって生成されたスクリプトを **lftp** が引用する方法に安全面の欠陥(無許可で特権がエスカレートされる可能性)がありましたが、これが修正されました。
- **lftp** にオプション **-c** を使用しても **lftp** がハングしなくなりました。
- **sftp** を使用して転送しても **lftp** によるファイル破壊が発生しなくなりました。

For more information on **lftp** updates applied in this release, refer to <http://lftp.yar.ru/news.html>.

## TTY 入力監査

TTY 入力監査がサポートされるようになりました。プロセスが TTY 入力監査の対象になっている場合、TTY より読み取るデータが監査され、監査記録上ではタイプ TTY として表示されます。

プロセス(および子プロセス)を TTY 入力監査の対象としてマークするには、**pam\_tty\_audit** モジュールを使用します。手順の詳細については、**man pam\_tty\_audit(8)** を参照してください。

TTY 監査記録には、監査されたプロセスが読み取ったキーストロークがそのまま記録されます。データのデコードを容易にするため、**bash** は記録タイプ **USER\_TTY** を使用して正確なコマンドラインを監査します。

The "TTY" audit records contain all data read by audited processes from the TTY. This includes data inserted into the input stream by the **TIOCSTI ioctl** system call.

## SystemTap のリベース

**SystemTap** がバージョン 0.7.2 にリベースされました。**SystemTap** のアップデートにより、細かな改良や主要な機能が追加されました。新しい機能は次の通りです。

- **SystemTap** は x86 や x86-64、PowerPC アーキテクチャ上のシンボリックプローブをサポートするようになりました。これにより、**SystemTap** スクリプトがユーザースペースアプリケーションや共有ライブラリ内にプローブを置くことができるようになりました。その結果、**SystemTap** はカーネルプロービングと同じレベルのデバッグプロービングを一部のユーザースペースアプリケーション上で提供できるようになりました。

例えば、**coreutils-debuginfo** をインストールすると、以下のように **/usr/share/doc/systemtap-version/examples/general/callgraph.stp** を使用して **ls** コマンドのコールグラフを出力することができます。

```
stap para-callgraph.stp 'process("ls").function("*")' -c 'ls -l'
```

バイナリと `debuginfo RPM` 間でバージョンのミスマッチが検出されないような状況を回避するため、Red Hat は、`SYSTEMTAP_DEBUGINFO_PATH` 環境変数を `+:.debug:/usr/lib/debug:build` に設定することを推奨します。

SystemTap's support for symbolic probes also extends to markers placed into the kernel of this release. To use these markers, load the `kernel-trace` kernel module in `/etc/rc.local` (using `modprobe kernel-trace`).

- SystemTap はリモートのコンパイルサービスもサポートします。これにより、ネットワーク上の単一のコンピューターがローカル SystemTap クライアントの `debuginfo/コンパイラ` サーバーとして動作できるようになります。クライアントは `mDNS (avahi)` を使用して自動的にサーバーを検出し、`systemtap-client` パッケージと `systemtap-runtime` パッケージのみが必要となります。

現在、この機能は暗号化などのセキュリティメカニズムを使用しません。そのため、リモートのコンパイルサービスは信用できるネットワーク内でのみ使用することが推奨されます。詳細は `man stap-server` を参照してください。

- 本リリースのカーネルアップデートには、SystemTap スクリプトのシャットダウンを大幅に改善するカーネル API 拡張が含まれています。今回追加されたカーネル API 拡張は、個別にプローブが削除される際、必要のない同期化が行われないようにします。その結果、何百ものカーネルプローブを持つ SystemTap スクリプトの処理が大幅に高速化されます。

これは、`probe syscall.* { }` のように多数のカーネルイベントを対象とするワイルドカードを含むプローブを用いたスクリプトを使用する管理者にとって大変便利です。

本リリースに同梱された SystemTap アップデートの一覧については、次の URL を参照してください。

[http://sources.redhat.com/git/gitweb.cgi?p=systemtap.git;a=blob\\_plain;f=NEWS;hb=rhel53](http://sources.redhat.com/git/gitweb.cgi?p=systemtap.git;a=blob_plain;f=NEWS;hb=rhel53)

### クラスタマネージャのアップデート

クラスタマネージャユーティリティ (`cman`) がバージョン 2.0.97 に更新されました。これにより、以下を含むバグ修正や改善が適応されました。

- `cman` はファームウェアバージョン `APC AOS v3.5.7` および `APC rpdu v3.5.6` を使用するようになりました。これにより、`APC 7901` が `SNMP (簡易ネットワーク管理プロトコル)` を適切に使用できなかったバグが修正されました。
- `fence_drac`、`fence_ilo`、`fence_egenera`、`fence_bladecenter` エージェントが `ssh` をサポートするようになりました。
- 再起動しなくても `fence_xvmd` キーファイルを再ロードできるようになりました。
- 単一のフェンスメソッドが最大 8 つのフェンスデバイスをサポートできるようになりました。

### RPM のリベース

Red Hat Package Manager (RPM) が Fedora 9 アップストリームバージョンにリベースされました。`rpm` がセカンダリアーキテクチャ特有のマクロファイルをマルチアーキテクチャのシステム上で追加するようになりました。また、今リリースの `rpm` は Red Hat Enterprise Linux 5 に同梱されるための認証基準をすべて満たしています。

さらに、この更新により以下を含むアップストリームの改良やバグ修正が適応されました。

- **rpm** は、必要でない **.rpmnew** ファイルや **.rpmsave** ファイルをマルチアーキテクチャシステム上で生成しなくなりました。
- **rpm** の **rpmgiNext()** 関数にバグがあったため、エラー報告が適切に行われませんでした。この更新でエラー報告に対して適切なセマンティックが適応されたため、すべてのインスタンスで **rpm** が正しい終了コードを返すようになりました。

### OFED (Open Fabrics Enterprise Distribution) / opensm

**opensm** がアップストリームバージョン 3.2 に更新され、**opensm** ライブラリ API に細かな変更が加えられました。

- **opensm.conf** ファイルの形式が変更になりました。既存の **opensm.conf** をカスタム変更した場合、**rpm** によって新しい **opensm.conf** ファイルが **/etc/ofed/opensm.conf.rpmnew** として自動的にインストールされます。カスタム変更をこのファイルに移行した後、既存の **opensm.conf** ファイルと置き換える必要があります。
- **Red Hat** は、常に進化している技術を最大限に使用できるようにするため、アップストリームの **OFED (Open Fabrics Enterprise Distribution)** コードベースを綿密に追隨しています。そのため、**Red Hat** はマイナーリリースではアップストリームプロジェクトと同レベルの **API/ABI** 互換性のみを保持します。これは、**Red Hat Enterprise Linux** の開発における一般慣行の例外となります。

そのため、**OFED** スタック（一覧は下記を参照）にビルドされたアプリケーションについては、**Red Hat Enterprise Linux** の古いマイナーリリースから新たなマイナーリリースに移行する際に、再コンパイルやソースレベルのコード変更が必要になることもあります。

通常、**Red Hat Enterprise Linux** のソフトウェアスタックにビルドされた他のアプリケーションは、再コンパイルやコード変更の必要ありません。対象コンポーネントは次の通りです。

- **dapl**
- **compat-dapl**
- **ibsim**
- **ibutils**
- **infiniband-diags**
- **libcxgb3**
- **libehca**
- **libibcm**
- **libibcommon**
- **libibmad**
- **libibumad**
- **libibverbs**
- **libipathverbs**

- libmlx4
- libmthca
- libnes
- librmdacm
- libsdp
- mpi-selector
- mpitests
- mstflint
- mvapich
- mvapich2
- ofed-docs
- openib
- openib-mstflint
- openib-perftest
- openib-tvflash
- openmpi
- opensm
- perftest
- qlvnictools
- qperf
- rds-tools (将来的)
- srptools
- tvflash

### Net-SNMPのリベース

**Net-SNMP** has been re-based to upstream version 5.3.2.2. This update adds Stream Control Transmission Protocol (SCTP) support (as per RFC 3873, <http://www.ietf.org/rfc/rfc3873.txt>) and introduces two new configuration options (to be used in `/etc/snmpd.conf`):

- **dontLogTCPWrappersConnects** – 接続試行のロギングを無効にします。
- **v1trapaddress** – enables administrators to set an agent's IP address inside outgoing SNMP traps.

この更新では、以下を含むアップストリームのバグ修正も適応されています。

- 255 以上のネットワークインターフェイスを持つシステム上でも **snmpd** デーモンが適切に機能するようになりました。また、65535 番以上のポートをリスンするよう **snmpd** を設定すると、**snmpd** もエラーを報告するようになりました。
- **/proc** より読み取りを行う時に **snmpd** デーモンがファイル記述子を漏えいする原因となっていた競争状態が修正されました。
- マルチCPU ハードウェア上でも **snmpd** デーモンが適切に **hrProcessorLoad** オブジェクト ID (OID) を報告するようになりました。ただし、デーモン開始から OID 値の計算まで約 1 分ほどかかりますので注意してください。
- **net-snmp-devel** パッケージは **lm\_sensors-devel** パッケージに依存するようになりました。

### FIPS 認証における OpenSSL のリベース

**openssl** パッケージは **OpenSSL** ライブラリを新しいアップストリームバージョンに更新します。これは現在、FIPS (連邦情報処理標準) の検証を受けています (FIPS-140-2)。OpenSSL ライブラリが Red Hat Enterprise Linux 5 の過去リリースの **openssl** パッケージとのフィーチャーパリティや ABI 互換性を維持するため、FIPS モードはデフォルトで無効になっています。

この更新には以下のアップストリーム修正も適応されました。

- デフォルトでは **zlib** 圧縮が SSL 接続と TLS 接続に使用されます。Processor Assist for Cryptographic Function (CPACF) を持つ IBM System z アーキテクチャでは、圧縮が主な CPU 負荷となり、全体的なパフォーマンスは暗号化の速度ではなく圧縮速度によって判断されました。圧縮を無効にすると、全体的なパフォーマンスは向上します。アップデートされたパッケージでは、**OPENSSL\_NO\_DEFAULT\_ZLIB** 環境変数を使用して SSL 接続や TLS 接続の **zlib** 圧縮を無効にすることができます。速度が遅いネットワーク上の TLS 接続では、送信するデータ量を少なくするため圧縮を有効にした方がよいでしょう。
- **s\_client** オプションと **s\_server** オプションを使用して **openssl** コマンドを実行した場合、デフォルトの CA 証明書ファイル (**/etc/pki/tls/certs/ca-bundle.crt**) が読み取られなかったため、証明書の検証に失敗しました。証明書が検証に合格するようにするには、**-CAfile /etc/pki/tls/certs/ca-bundle.crt** オプションを使用しなければなりません。更新されたパッケージでは、デフォルトの CA 証明ファイルが読み取られるようになったため、**-CAfile** オプションを使用する必要がなくなりました。

### yum のリベース

**yum** がアップストリームバージョン 3.2.18 にリベースされました。これにより、**yum** が動作する速度が向上され、各マイナーリリースごとに増加するパッケージがもたらす問題が軽減されます。さらに、再インストールコマンドが導入され、一部コマンドのインターフェイスも改良されました。また、以下を含むバグ修正が適応されました。

- **-c** オプションを使用してウェブアドレス (**http**) に存在する設定ファイルを指定すると **yum** コマンドの実行に失敗するバグが修正されました。
- **yum** の **checkSignal()** により正しくない終了関数が呼び出され、**yum** が終了せずにトレースバックされる問題がありましたが、本リリースでは **yum** が適切に終了するようになりました。

### flash-plugin のリベース

**flash-plugin** パッケージがバージョン 10.0.12.36 にリベースされました。この更新には前回の **flash-plugin ASYNC** の更新に含まれたセキュリティに関する修正が複数適応されています。また、更新されたプラグインには、以下のバグ修正や改良機能を含む **Adobe Flash Player 10** が同梱さ



れています。

- 音声出力の競争状態を修正し、Linux プラットフォーム上での安定性が改善されました。
- カスタムフィルタやエフェクト、ネイティブ 3D 変換やアニメーション、高度な音声処理、柔軟な新しいテキストエンジン、GPU ハードウェアアクセラレーションを新たにサポートするようになりました。

この更新に関する詳細は、以下のリンクより **Adobe Flash Player 10** のリリースノートを参照してください。

[http://www.adobe.com/support/documentation/en/flashplayer/10/Flash\\_Player\\_10\\_Release\\_Notes.](http://www.adobe.com/support/documentation/en/flashplayer/10/Flash_Player_10_Release_Notes.)

### **gdb** のリベース

**gdb** がバージョン 6.8 リベースされました。これにより、アップストリームの機能更新やバグ修正が適応されました。その1つが、C++ テンプレートやコンストラクタ、インライン関数内部のブレークポイントのサポートです。

For more information on **gdb** updates applied in this release, refer to <http://sourceware.org/cgi-bin/cvsweb.cgi/src/gdb/NEWS?rev=1.259.2.1&cvsroot=src>.

### **AMD Family 10h** プロセッサの Instruction Based Sampling

AMD Family10h プロセッサの新しいハードウェアプロファイリングサポートが Red Hat Enterprise Linux 5.3 に追加されました。新しい AMD CPU は IBS (Instruction Based Sampling) をサポートします。IBS をサポートするには、oProfile ドライバを変更して情報を収集し、新しい機能に関連する新しい MSR (Model Specific Registers) を初期化する必要があります。

この更新により、新しい **IBS\_FETCH** および **IBS\_OP** プロファイリングサンプルが oProfile ドライバの per CPU バッファとイベントバッファに追加されました。IBS サンプリングを制御するため、新しい制御エントリが **/dev/oprofile** に追加されました。これらの変更は、以前の PMC 専用バージョンとの後方互換性を維持し、oProfile 0.9.3 に別のパッチを使用してこの新しいデータを使用することができます。

IBS の詳細については、[Instruction-Based Sampling: A New Performance Analysis Technique for AMD Family 10h Processors, November 19, 2007](#) を参照してください。

### **Squid** のリベース

**Squid** が最新の安定したアップストリームバージョン (STABLE21) にリベースされました。このアップデートにより以下を含むバグが修正されました。

- **squid init** スクリプトが常に誤った終了コード 0 を返すバグが修正され、**squid** が Linux Standard Base に準拠するようになりました。
- **refresh\_stale\_hit** ディレクティブを使用すると、エラーメッセージ **Clock going backwards** が **squid** ログファイルに表示されます。
- **squid** のインストールの際に **/usr/local/squid** ディレクトリの所有者が正しく設定されませんでした。本リリースではユーザー **squid** が **/usr/local/squid** のデフォルトの所有者として設定されるようになりました。
- **squid** が **hash\_lookup()** の使用を試みると、**signal 6** にてアボートされます。
- **squid\_unix\_group** を使用すると、**squid** がクラッシュします。



## Apache のイベントマルチプロセッシングモデル

Apache HTTP Server パッケージの `httpd` に実験的な「イベント」MPM (マルチプロセッシングモデル) が含まれました。この MPM は、専用スレッドを使用して `keepalive` 接続を処理するため、パフォーマンスが向上されます。

## libgomp のリベース

`libgomp` がバージョン 4.3.2-7.el5 にリベースされました。このリベースにより、`OpenMP` のパフォーマンスが改善され、`gcc43` コンパイラを併用すると `OpenMP` バージョン 3.0 のサポートが追加されます。

## iSCSI ターゲット機能

これまで、技術プレビューとして Linux Target (`tgt`) フレームワークの一部として提供された iSCSI ターゲットが、Red Hat Enterprise Linux 5.3 で完全サポートされるようになりました。Linux ターゲットフレームワークは、システムが SCSI イニシエータを持つ他のシステムにブロックレベルの SCSI ストレージを提供します。この機能は、ネットワーク上で iSCSI イニシエータにストレージを提供する Linux iSCSI ターゲットとして最初にデプロイされます。

iSCSI ターゲットを設定するには、`csi-target-utils` RPM をインストールし、`/usr/share/doc/scsi-target-utils-[version]/README` および `/usr/share/doc/scsi-target-utils-[version]/README.iscsi` の説明を参照してください。

# 4. DRIVER UPDATES

## 4.1. All Architectures

### General Driver/Platform Updates

- ALSA の Intel High Definition Audio ドライバがアップデートされました。
- AMD ATI 統合チップセットの HDMI (高品質マルチメディアインターフェイス) オーディオサポートがアップデートされました。
- 以下の Wacom グラフィックテーブルが `linuxwacom` ドライバを介してサポートされるようになりました。
  - Cintiq 20WSX
  - Intuos3 4x6
- Emulex Fibre Channel Host Bus Adapter の `lpfc` ドライバが 8.2.0.33.2p にアップデートされました。これにより以下を含むアップストリームの変更が適応されました。
  - `NETLINK_SCSITRANSPORT` ソケットが使用されるようになりました。
  - 初期化されないノードアクセスの問題が解決されました。
  - NPIV が有効である場合に `echotest` の障害を起こす原因となっていたバグを修正しました。
  - ファイバチャネルの認証に `fcauthd 1.19` が必要になりました。
- `dm-multipath` に IBM DS4000 のインボックスサポートが含まれました。

- **ixgbe** ドライバが **82598AT** デュアルポートアダプタと **82598 CX4** アダプタをサポートするようになりました。
- **jsm** ドライバがアップデートされ、**Digi Neo PCI Express 4 HiProfile I/O** アダプタに対するサポートが追加されました。
- **hp-ilo** ドライバが追加され、**HP Integrated Lights Out (iLO)** 技術がサポートされるようになりました。
- **radeon\_tp** ドライバが今リリースより完全にサポートされるようになりました。このドライバーは **ATI R500/R600** チップセットを有効にします。

**radeon\_tp** ドライバは以下のような機能も提供します。

- **R500/R600** チップセットでのモードセッティング
- **R500** チップセットでの 2D アクセラレーション
- **R600** チップセットでのシャドウフレームバッファアクセラレーション
- 本リリースでは、**powernow-k8** ドライバがロード可能なモジュールとして同梱されました。これにより、カーネルをアップグレードしなくても既存のドライバフレームワーク (**Red Hat Driver Update Model** や **Dell DKMS** など) が **powernow-k8** ドライバの更新を **RPM** パッケージとしてユーザーに配信することができます。
- 本リリースではレガシープリンタをサポートするため **pnm2ppa** が再追加されましたが、これは非奨励のサポートであるため、今後のメジャーリリースではサポートが廃止される予定です。
- **ccid** ドライバがリベースされ、**USB Smartcard** キーボードのサポートが追加されました。
- **USB** ビデオデバイスの **uvcvideo** ドライバが **Red Hat Enterprise Linux 5.3** のカーネルに追加されました。

## Network

- **Broadcom NetXtreme II** ネットワークカードの **bnx2** ドライバがバージョン **1.7.9** に更新されました。今回の更新では、ブート時にシステムがパニックする原因となっていたバグを修正するため、**bnx2** を使用するコントローラのイーサネットリングバッファオプションが修正されました。
- **Intel PRO/1000** イーサネットデバイスの **e1000e** ドライバがアップストリームバージョン **0.3.3.3-k2** にアップデートされました。このアップデートにより、サポート対象デバイスの **EEPROM** および **NVM** が書き込み保護されるようになりました。
- **Intel Gigabit Ethernet Adapter** の **igb** ドライバがバージョン **1.2.45-k2** にアップデートされ、**82576** ベースのデバイスのサポートが追加されました。
- **Intel(R) 10 Gigabit PCI Express** ネットワークデバイスの **ixgbe** ドライバがバージョン **1.3.18-k4** にアップデートされました。
- **niu** ドライバが **Red Hat Enterprise Linux 5.3** に追加され、**Sun CP3220** システム上の **10Gbps** イーサネットデバイスをサポートするようになりました。
- **Intel PRO Wireless** デバイスの **ipw2100** ドライバと **ipw2200** ドライバが **Linux Kernel 2.6.25** から **Red Hat Enterprise Linux 5.3** にバックポートされました。

- Broadcom Wireless デバイスの **bcm43xx** ドライバが Linux Kernel 2.6.25 から Red Hat Enterprise Linux 5.3 へバックポートされました。
- ワイヤレスデバイスの **ieee80211** サポートコンポーネントが Linux Kernel 2.6.25 から Red Hat Enterprise Linux 5.3 にバックポートされました。
- ZyDAs Wireless デバイスの **zd1211rw** ドライバが更新され、前回の **non-mac80211** バージョンと Linux 2.6.25 以前のバージョンが合致されました。
- **iw1wifi** ドライバがバージョン 2.6.26 よりアップデートされ、**iw14965** ワイヤレスデバイスに対して 802.11n のサポートが追加されました。また、ドライバの 2.6.26 バージョン以前のバグ修正についても一部がバックポートされたドライバに盛り込まれました。
- Myricom Myri-10G イーサネットデバイス向けの **myri10ge** ドライバがバージョン 1.3.2-1.269 にアップデートされました。
- NetXen ネットワークカードの **netxen** ドライバがバージョン 3.4.18 にアップデートされました。
- Broadcom Everest ネットワークデバイスの **bnx2x** ドライバがバージョン 1.45.23 にアップデートされ、57711 ハードウェアのサポートが追加されました。
- **forcedeth-msi** ドライバがアップデートされ、リンクアップ検出が正しく行われない原因となっていたバグが修正されました。
- Atheros ワイヤレスデバイスの **ath5k** ドライバが Linux Kernel 2.6.26 から Red Hat Enterprise Linux 5.3 にバックポートされました。
- Ralink ワイヤレスデバイスの **rt2x00** ドライバが Linux Kernel 2.6.26 から Red Hat Enterprise Linux 5.3 にバックポートされました。
- Realtek ワイヤレスデバイスの **rtl8180** ドライバと **rtl8187** ドライバが Linux Kernel 2.6.26 から Red Hat Enterprise Linux 5.3 にバックポートされました。

## Storage

- 3ware SATA RAID Controller の **3w-xxxx** ドライバがバージョン 1.26.03 にアップデートされました。これにより、以下を含むアップストリームの変更が適用されました。
  - 2GB 以上の RAM を持つシステムで 3ware 7000 または 8000 シリーズのカードを使用するとデータが破損する原因となっていたバグが修正されました。
  - 4GB 以上の RAM を持つシステムで 3ware 8006 シリーズのカードを使用しても、Anaconda が 64 ビットアーキテクチャでハングしなくなりました。
  - `__tw_shutdown()` を実行すると `irq` ハンドラが開放されるようになりました。これにより、シャットダウン中に割り込みが共有された場合に、ヌルポインタの間接参照を防止します。
  - モードページをキャッシュするための `RCD` ビットが有効になりました。
  - `ioctl` リセットと `scsi` リセットがシリアライズされ、衝突しないようになりました。
- 3ware SATA RAID Controller の **3w-9xxx** ドライバがバージョン 2.26.08 にアップデートされました。このアップデートにより以下を含むアップストリームの変更が適応されました。

- 4GB 以上の RAM を持つシステムでも `pci_unmap_single()` コールが正しく機能するようになりました。
- 書き込み遅延の原因となっていたバグが修正されました。
- 64 ビットに障害が発生すると DMA マスクの設定が 32 ビットに戻るようになりました。
- 3ware 9690SA SAS Controller Device に対するサポートが追加されました。
- `megaraid_sas` ドライバがバージョン **4.01-rh1** にアップデートされました。今回のアップデートでは以下を含むバグ修正が適応されました。
  - `MFI_POLL_TIMEOUT_SECS` が 60 秒になりました。
  - フレーム数の計算によりチップのリセットやコマンドのタイムアウトが継続して発生する原因となっていたバグが修正されました。
  - **LSI Generation 2 Controller (0078、0079)** に対するサポートが追加されました。
  - ファームウェアのシャットダウンを改良するため、シャットダウンルーチンで `DCMD` をシャットダウンするコマンドが追加されました。
  - ハードウェア Linux ドライバで予期せぬ割り込みの原因となっていたバグが修正されました。
- QLogic Fibre Channel Host Bus Adapter の `qla2xxx` ドライバがアップデートされ、ISP84XX タイプのカードに対するサポートが追加されました。
- エミュレートする仮想 SCSI (vSCSI) デバイスの `ibmvscsi` ドライバがアップデートされ、仮想化されたテープデバイスをサポートするようになりました。
- `lpfc` ドライバがバージョン **8.2.0.30** にアップデートされました。このアップデートにより、以下を含むバグ修正や機能の向上が適応されました。
  - PowerPC アーキテクチャにおける PCI アダプタの EEH (拡張エラー処理) が改良されました
  - サポート対象の NPIV 仮想ポートの数が増えました
  - I/O キューの深さを制御するドライバロジックが改良されました
  - FCoE (ファイバチャネルオーバーイーサネット) アダプタのサポートが追加されました
  - 新しいハードウェアに対し、SAN からのブートがサポートされるようになりました
- HP Smart Array コントローラの `cciss` ドライバがバージョン **3.6.20-RH2** にアップデートされました。

## 5. KERNEL-RELATED NOTES

### 5.1. All Architectures

- これまで `relayfs` のバッファサイズの制限は 64M でした。今回の更新では、オンメモリのバッファの `relayfs` に割り当てられるメモリの制限は 4095MB に増加されました。これにより、`relayfs` を用いる `SystemTap` やその他のトレーシングツールがより多くのイベントをトレースできるようになりました。

- **Dell Remote Access Controller 4 (DRAC4)** のドライバが存在しませんでした。そのため、**DRAC4** によって提供された仮想デバイスはカーネルによって検出されませんでした。今回の更新では、適切なドライバを提供する **pata\_sil680** カーネルモジュールが追加されたため、この問題は解決されました。
- **relay\_open()** が呼び出されると、中継インターフェイスのメッセージバッファはオンラインの CPU のみに割り当てられました。そのため、**relay\_open()** が呼び出された後にオフラインの CPU がオンラインになるとカーネルパニックが発生しました。今回の更新では、新しい CPU が追加されると新しいメッセージバッファが動的に割り当てられます。
- **8250** ベースのシリアルポートのドライバが更新され、**DSR/DTR** ハードウェアフロー制御のサポートが追加されました。
- **Dell Wireless Wide Area Network (WWAN)** カードのサポートがカーネルに追加されました。サポートされるデバイスは次の通りです。
  - Dell Wireless 5700 Mobile Broadband CDMA/EVDO Mini-Card
  - Dell Wireless 5500 Mobile Broadband HSDPA Mini-Card
  - Dell Wireless 5505 Mobile Broadband HSDPA Mini-Card
  - Dell Wireless 5700 Mobile Broadband CDMA/EVDO ExpressCard
  - Dell Wireless 5510 Mobile Broadband HSDPA ExpressCard
  - Dell Wireless 5700 Mobile Broadband CDMA/EVDO Mini-Card
  - Dell Wireless 5700 Mobile Broadband CDMA/EVDO Mini-Card
  - Dell Wireless 5720
  - Dell Wireless HSDPA 5520
  - Dell Wireless HSDPA 5520
  - Dell Wireless 5520 Voda I Mobile Broadband (3G HSDPA) Mini-Card
- **thinkpad\_acpi** カーネルモジュールが更新され、新しい Thinkpad モデルへのサポートが改善されました。
- ソフトロックアップ検出機能を設定し、警告メッセージではなくカーネルパニックを生成できるようになりました。これにより、ユーザーはソフトロックアップ中にクラッシュダンプの生成や分析ができるようになりました。

パニックを生成するようソフトロックアップを設定するには、カーネルパラメータ **soft\_lockup** を **1** に設定します。このパラメータはデフォルトで **0** に設定されています。
- **oprofile** は **Next-Generation Intel Microarchitecture (Nehalem)** を基に正しくプロセッサを識別しませんでした。そのため、パフォーマンス監視ユニットが使用できず、プロセッサはタイマー割り込みにフォールバックしました。カーネルが更新されたため、この問題は解決されました。
- **Next-Generation Intel Microarchitecture** (コード名 "Nehalem") 上の CPU 電源状態である **C3** のカーネルに対するサポートが追加されました。**C3** (スリープ状態とも呼ばれる) を入力できるようになったため、アイドル状態にある CPU の電源効率が改善されます。

- Previously, the `MAX_ARG_PAGES` limit that is set in the kernel was too low, and may have resulted in the following error:

```
execve: Argument list too long
```

In this update, this limit has been increased to 25 percent of the stack size, which resolves this issue.

- `autofs4` の更新が、Linux カーネルバージョン 2.6.27 から Red Hat Enterprise Linux 5.3 にバックポートされました。
- Red Hat Enterprise Linux 5.3 では、直接ファイルへではなく、ユーザースペースアプリケーションのフォークされたコピーへコアファイルをパイプするよう指定できるようになりました。この機能を有効にするには、`/proc/sys/kernel/core_pattern` に `|path/to/application` を置くようにします。コアがダンプされると、指定したアプリケーションのコピーが実行され、コアが `stdin` でパイプされます。これにより、コアのダンプ時にコアを拡張、分析、アクティブに処理できるようになります。
- ファイル `/proc/cpuinfo` が、各 CPU によって使用される APIC (Advanced Programmable Interrupt Controller) の ID を報告するようになりました。
- MCE (マシンチェック例外) カーネルサブシステムが改良され、新しいシステムに大型なメモリの設定が必要な場合にサポートされるようになりました。
- Samba にてファイルシステムをマウントする際にマウントコマンドが Kerberos 認証をサポートするようになりました。 `sec=krb5` または `sec=krb5i` スイッチにより、SPNEGO (Simple and Protected GSSAPI Negotiation Mechanism) セキュリティ blob (Binary Large Object) を返すユーザースペースアプリケーションをカーネルが呼び出しできるようになりました (`cifs.upcall`)。カーネルはこの blob を使用してサーバーを認証し、要求されたファイルシステムをマウントすることができます。
- IOAPIC NMI ウォッチドッグメソッドを使用するシステム上に `kernel.unknown_nmi_panic` カーネルパラメータを設定すると、カーネルパニックが発生することがありました。これは、NMI ウォッチドッグが安全に NMI のソースを無効にできなかったためです。

このリリースでは、NMI ウォッチドッグコードが変更され、ユーザーが安全に NMI ソースを無効にできるようになりました。そのため、IOAPIC NMI ウォッチドッグメソッドを使用するシステム上に `kernel.unknown_nmi_panic` カーネルパラメータを安全に設定できるようになりました。

## 5.2. x86 Architectures

- `powernowk8` ドライバは稼働中の CPU の数に対して十分なチェックを実行しませんでした。そのため、ドライバが起動すると、カーネル `oops` エラーメッセージが報告される可能性があります。今回の更新では、`powernowk8` ドライバによってサポートされている CPU の数 (`supported_cpus`) とオンラインの CPU の数 (`num_online_cpus`) が同じであるか検証されるため、この問題が解決されました。

## 5.3. PowerPC Architectures

- CPU の周波数や電圧をスケールするカーネルサブシステム `CPUFreq` が更新され、Cell Processor のサポートが向上されました。今回の更新は、Cell プロセッサの電源管理を向上する SPU (Synergistic Processing Unit) 対応の `CPUFreq` ガバナーを実装します。

- EDAC (Error Detection and Correction) が Red Hat Enterprise Linux 5.3 の Cell Broadband Engine Architecture でサポートされるようになりました。EDAC を有効にするには、コマンド `modprobe cell_edac` を使用します。

このモジュールが実行しているカーネルに追加されたか確認するには、`/var/log/dmesg` の次のような出力を確認してください。

```
EDAC MC: Ver: 2.0.1 Oct  4 2008
EDAC MC0: Giving out device to cell_edac MIC: DEV cbe-mic
EDAC MC1: Giving out device to cell_edac MIC: DEV cbe-mic
```

修正できるメモリーエラーが発生した場合は、コンソールに次のようなメッセージが返されません。

```
EDAC MC0: CE page 0xefff, offset 0x5700, grain 0, syndrome 0x51, row
0, channel
0, label "":
```

- 複数のスレッドが共有する変数を使用してハードウェアウォッチポイントでデバッグを行うと GNU Debugger (GDB) がトリガイベントを見逃すエラーが発生しました。カーネルが更新され、GDB が一貫してウォッチポイントを受信するようになったため、デバッグセッションの信頼性が向上されました。

## 5.4. x86\_64 Architectures

- `kprobe-booster` が ia64 および x86\_64 アーキテクチャでサポートされるようになり、ユーザーによるカーネルイベントのプローブが大幅に高速化されました。この機能は、64 ビットアーキテクチャ上で実行されているサーバーのプロロービングツール (SystemTap や Kprobes など) によるオーバーヘッドも削減します。
- `_PTC` (Processor Throttling Control)、`_TSS` (Throttling Supported States)、`_TPC` (Throttling Present Capabilities) オブジェクトのサポートがカーネルに追加されました。このサポートは、ACPI (Advance Configuration and Power Interface) の仕様の一部で、プロセッサスロットリングの管理が向上されます。

## 5.5. s390x Architectures

- In `zipl.conf`, parameters enclosed with double quotes inside of single quotes (ie `parameters='vmhalt="LOGOFF"'`) were being parsed incorrectly. Consequently, installing the kernel-kdump package may have failed, resulting in the error:

```
grubby fatal error: unable to find a suitable template
```

To resolve this issue, parameters should be enclosed with single quotes inside of double quotes (ie `parameters="vmhalt='LOGOFF'"`)



### 注記

一重引用符を二重引用符で囲む構文構成は、Red Hat Enterprise Linux 5 のデフォルトになっています。

## 5.6. ia64 Architecture

- **Dual-Core Intel Itanium 2** プロセッサの **MCA** (マシンチェックアーキテクチャ) 記録の内容が以前の **Intel Itanium** プロセッサとは異なっていました。キャッシュチェックとバスチェックのターゲット識別子は場合によっては異なるようになりました。正しいターゲット識別子を検出するようカーネルが更新されました。
- **kprobe-booster** が **ia64** および **x86\_64** アーキテクチャでサポートされるようになり、ユーザーによるカーネルイベントのプローブが大幅に高速化されました。この機能は、**64** ビットアーキテクチャ上で実行されているサーバーのプロービングツール (**SystemTap** や **Kprobes** など) によるオーバーヘッドも削減します。
- この更新で、**pselect()** および **ppoll()** システムコールがカーネルに追加されました。

## 6. VIRTUALIZATION

This section contains information about updates made to Red Hat Enterprise Linux suite of Virtualization tools.

### 6.1. Feature Updates

- **blktap (blocktap)** ユーザースペースツールキットが更新され、**blktap** にバックされた仮想化ゲストの転送統計を監視できるようになりました。
- **Intel Extended Page Table (EPT)** 機能に対するサポートが追加され、**EPT** をサポートするハードウェア上の完全仮想化ゲストのパフォーマンスが向上されました。
- ゲストの **e1000** ネットワークデバイスエミュレーションが今回のアップデートに追加され、**ia64** アーキテクチャの **Windows 2003** ゲストのみサポートできるようになりました。**e1000** エミュレーションを使用するには、**xm** コマンドを使用しなければなりません。
- **KVM** の **I/O** 仮想化のプラットフォームである **virtio** のドライバが **Linux Kernel 2.6.27** から **Red Hat Enterprise Linux 5.3** にバックポートされました。これらのドライバにより、**KVM** のゲストの **I/O** パフォーマンスが向上されます。また **virtio** デバイスをサポートするため、**anaconda**、**kudzu**、**lvm**、**selinux**、**mkinitrd** などのユーザースペースコンポーネントも更新されました。
- ネイティブの **Linux** カーネルは自動的に **vmcoreinfo** をサポートしますが、**dom0** ドメインに **kdump** を設定するには **kernel-xen-debuginfo** パッケージが必要でした。このリリースでは、カーネルとハイパーバイザーが変更され、ネイティブに **vmcoreinfo** の読み取りと **kdump** の書き込みがサポートされるようになりました。そのため、**debuginfo** や **debuginfo-common** パッケージをインストールしなくても、**dom0** ドメインでデバッグなどに **kdump** を使用することができるようになりました。
- 完全仮想化された **Red Hat Enterprise Linux 5** のゲストがエミュレートされたディスクやネットワークデバイスを使用すると最適なパフォーマンスを得られませんでした。今回の更新には **kmod-xenpv** パッケージが同梱されたため、完全仮想化ゲストでの準仮想化ディスクやネットワークの使用が簡略化されます。

このようなドライバを完全仮想化ゲストで使用すると、完全仮想化ゲストのパフォーマンスや機能を大幅に改善することができます。**netfront** ドライバと **block front** ドライバのバグ修正は即座に認識され、カーネルパッケージと同期されます。

- ゲストは **2MB** のバッキングページメモリテーブルを使用できるようになったため、システムパフォーマンスを向上できるようになりました。

### 6.2. Resolved Issues



### 6.2.1. All Architectures

- 準仮想化ゲストをシャットダウンすると、**dom0** が一定期間応答しないことがありました。ゲストのメモリが大きい場合 (12GB 以上) 数秒の遅延が発生しました。今回のアップデートでは、仮想カーネルによって大型の準仮想化ゲストのシャットダウンを **pre-emptible** できるようになったため、この問題は解決しました。

- **crash** was unable to read the relocation address of the hypervisor from a vmcore file. Consequently, opening a Virtualized kernel vmcore file with crash would fail, resulting in the error:

```
crash: cannot resolve "idle_pg_table_4"
```

In this update, the hypervisor now saves the address correctly, which resolves this issue.

- これまで、準仮想化ゲストは最大 16 個のディスクデバイスのみを持つことができました。この更新では、ディスクデバイスの最大数が 256 個に増えました。
- **Kdump** カーネルの予約メモリが正しくなかったため、使用不可能な **crash** ダンプの原因となっていました。今回の更新では、メモリ予約が正しく行われるようになったため、適切な **crash** ダンプが生成されるようになりました。
- 特定の名前を持つディスク (**/dev/xvdaa**、**/dev/xvdab**、**/dev/xvdbc** など) を準仮想化ゲストに付加すると、ゲスト内の **/dev** デバイスが破壊されました。今回の更新でこの問題が解決されたため、このような名前を持つディスクを準仮想化ゲストに付加しても、ゲスト内に適切な **/dev** デバイスが作成されるようになりました。
- これまで、ループバックデバイスの数は 4 つまでに制限されていました。そのため、5 つ以上のネットワークデバイスを持つシステムにおけるブリッジの作成が制限されていました。今回の更新では、**netloop** ドライバによって必要な場合に追加のループバックデバイスを作成できるようになりました。
- 仮想ネットワークデバイスを作成したり破壊したりすると競争状態が発生することがありました。特に負荷が高い場合は、仮想デバイスが応答しない原因となっていました。今回の更新により、競争状態が発生しないよう仮想デバイスの状態がチェックされるようになりました。
- アプリケーションを実行したままにすると、**virt-manager** のメモリリークが発生しました。そのため、アプリケーションが常に追加のリソースを消費する状態になり、メモリスタベーションの原因となることがありました。今回の更新ではメモリリークの問題が修正されたため、この問題は解決されました。
- **the crash utility could not analyze x86\_64 vmcores from systems running kernel-xen** because the Red Hat Enterprise Linux hypervisor was relocatable and the relocated physical base address is not passed in the vmcore file's ELF header. The new **--xen\_phys\_start** command line option for the crash utility allows the user to pass crash the relocated base physical address.
- すべてのマウスイベントが **PVFB (準仮想化フレームバッファ)** によってキャプチャされ処理されませんでした。そのため、**Virtual Machine Console** が準仮想化ゲストと対話するとスクロールホイールが機能しませんでした。この更新では、スクロールホイールマウスイベントが正しく処理されるようになったため、この問題が解決されました。
- CPU 数が多いマシンで仮想化を使用すると、ゲストのインストール中にハイパーバイザーがクラッシュすることがありました。今回の更新でこの問題は解決されました。

- **CPUID** ファミリー値として **6** を返す Intel プロセッサでは、1つのパフォーマンスカウンタレジスタのみが **kernel-xen** で有効になっていました。そのため、カウンタ **0** のみがサンプルを提供しました。今回の更新でこの問題は解決されました。

### 6.2.2. x86 Architectures

- On systems with newer CPU's, the CPU APIC ID differs from the CPU ID. Consequently, the virtualized kernel was unable to initialize CPU frequency scaling. In this update, the virtualized kernel now retrieves CPU APIC ID from the hypervisor, allowing CPU frequency scaling to be initialized properly.
- x86 準仮想化ゲストを実行している時にプロセスが無効なメモリにアクセスすると、**SEGV** 信号を取得せずにループで実行されました。これは、ハイパーバイザー下で **execshield** チェックが行われる方法の欠陥によるものでした。今回の更新でこの問題は解決されました。

### 6.2.3. ia64 Architecture

- A **xend** bug that previously caused guest installation failures is now fixed.
- **evtchn** イベントチャネルデバイスにロックとメモリバリアがありませんでした。これが **xenstore** が応答しなくなる原因となりました。今回の更新でこの問題は解決されました。
- **NUMA** (Non-Uniform Memory Access) の情報が **xm info** コマンドによって表示されませんでした。そのため、各ノードの **node\_to\_cpu** 値として誤って **no cpus** が返されました。今回の更新でこの問題は解決されました。
- これまで、**VT-i2** 技術を持つプロセッサ上の **HVM** (ハードウェア仮想マシン) でゲストを作成できませんでした。このアップデートではこの問題が解決されました。

### 6.2.4. x86\_64 Architectures

- ゲストの仮想マシンが使用できる動的 **IRQ** を使い果たすと、**dom0** カーネルがクラッシュしました。この更新では、クラッシュ状態が修正され、使用可能な **IRQ** の数も増えたため、この問題は解決されました。
- On systems with newer CPU's, the CPU APIC ID differs from the CPU ID. Consequently, the virtualized kernel was unable to initialize CPU frequency scaling. In this update, the virtualized kernel now retrieves CPU APIC ID from the hypervisor, allowing CPU frequency scaling to be initialized properly.

## 6.3. Known Issues

### 6.3.1. All Architectures

- 仮想カーネルを使用している時はディスクドライブメディアにはアクセスできません。これに対応するには、ディスクドライブメディアの代わりに **USB** 接続のディスクドライブを使用します。

仮想化されていないカーネルではディスクドライブメディアを問題なく使用できます。

- In live migrations of paravirtualized guests, time-dependent guest processes may function improperly if the corresponding hosts' (dom0) times are not synchronized. Use **NTP** to synchronize system times for all corresponding hosts before migration.

- 2つのホスト間でゲストのライブ移行を繰り返すと、いずれかのホストがパニックを起こす原因となることがあります。1つのゲストをシステムから移行した後、同じゲストを戻す前にホストを起動するとパニックは発生しません。
- ゲストとして **Windows 2008** や **Windows Vista** を実行する場合、ディスクをフォーマットすると、ゲストが複数の仮想 CPU でブートされた際にクラッシュします。この問題に対処するには、フォーマットする際には単一の仮想 CPU でゲストをブートするようにします。
- **virt-manager** によって作成される完全仮想化ゲストが原因で、マウスが画面上で自由に動かなくなることがあります。これに対処するには、**virt-manager** を使用して、ゲストに USB タブレットデバイスを設定します。
- 128 個以上の CPU を持つシステムでは、最大 CPU 数を 128 未満に制限しなければなりません。現在、サポートされる最大数は 126 です。**maxcpus=126** ハイパーバイザー引数を使用してハイパーバイザーを 126 に制限してください。
- 完全仮想ゲストは、ドメインの一時停止や一時停止解除によって損失した時間を修正することができません。準仮想化カーネルの利点の1つが、一時停止や一時停止解除のイベント間で正しく時間を追跡できることです。この問題は、アップストリームでは交換可能なタイマーによって対応されており、完全仮想化ゲストは準仮想化タイマーを持つこととなります。現在、このコードはアップストリームでの開発段階で、今後のバージョンの Red Hat Enterprise Linux で提供される見込みです。
- 準仮想化ゲストを続けて移行すると、**dom0** コンソールに **bad mpa** メッセージが出力されることがあります。また、場合によってはハイパーバイザーがパニックすることがあります。

ハイパーバイザーがカーネルパニックを起こさないようにするため、**bad mpa** メッセージが出力されたら移行したゲストを再起動するようにしてください。

- インターフェイスの結合を **dom0** で設定すると、デフォルトの **network-bridge** スクリプトによって結合されたネットワークインターフェイスが **unavailable** と **available** を交互に切り替えることがあります。この問題は一般的に **フラッピング**と呼ばれています。

フラッピングの発生を防止するには、**/etc/xen/xend-config.sxp** の通常の **network-script** 行を以下の行に置き換えます。

```
(network-script network-bridge-bonding netdev=bond0)
```

これにより、**netloop** デバイスが無効になり、アドレス転送プロセス中に ARP (アドレス解決プロトコル) 監視が障害を起こさないようにします。

- When running multiple guest domains, guest networking may temporarily stop working, resulting in the following error being reported in the dom0 logs:

```
Memory squeeze in netback driver
```

To work around this, raise the amount of memory available to the dom0 with the **dom0\_mem** hypervisor command line option.

### 6.3.2. x86 Architectures

- Migrating paravirtualized guests through **xm migrate [domain] [dom0 IP address]** does not work.

- When installing Red Hat Enterprise Linux 5 on a fully virtualized SMP guest, the installation may freeze. This can occur when the host (**dom0**) is running Red Hat Enterprise Linux 5.2.

この問題が発生しないようにするには、ゲストがインストールで単一のプロセッサを使用するように設定します。これには、**virt-install**で **--vcpus=1** オプションを使用します。インストールが完了した後、**virt-manager** の割り当てられた **vcpus** を変更してゲストを SMP に設定することができます。

### 6.3.3. x86\_64 Architectures

- Migrating paravirtualized guests through **xm migrate [domain] [dom0 IP address]** does not work.
- Installing the Virtualization feature may cause a **time went backwards** warning on HP systems with model numbers **xw9300** and **xw9400**.

**xw9400** マシンでこの問題を回避するには、BIOS 設定を変更して **HPET** タイマーを有効にします。このオプションは **xw9300** マシンには使用不可であることを注意して下さい。

- Installing Red Hat Enterprise Linux 3.9 on a fully virtualized guest may be extremely slow. In addition, booting up the guest after installation may result in **hda: lost interrupt** errors.

このブートアップエラーが発生しないようにするには、**SMP** カーネルを使用するようゲストを設定します。

- Upgrading a host (**dom0**) system to Red Hat Enterprise Linux 5.2 may render existing Red Hat Enterprise Linux 4.5 SMP paravirtualized guests unbootable. This is more likely to occur when the host system has more than 4GB of RAM.

この問題に対処するには、各 Red Hat Enterprise Linux 4.5 ゲストをシングル CPU モードでブートして、そのカーネルを最新バージョン (Red Hat Enterprise Linux 4.5.z) にアップグレードします。

### 6.3.4. ia64 Architecture

- Migrating paravirtualized guests through **xm migrate [domain] [dom0 IP address]** does not work.
- On some **Itanium** systems configured for console output to VGA, the **dom0** virtualized kernel may fail to boot. This is because the virtualized kernel failed to properly detect the default console device from the *Extensible Firmware Interface* (EFI) settings.

この問題が発生する場合は、**/boot/efi/elilo.conf** 内のカーネルブートオプションにブートパラメータ **console=tty** を追加してください。

- On some **Itanium** systems (such as the **Hitachi Cold Fusion 3e**), the serial port cannot be detected in **dom0** when VGA is enabled by the EFI Maintenance Manager. As such, you need to supply the following serial port information to the **dom0** kernel:

- ビット/秒 単位での速度
- データビットの数
- パリティ
- **io\_base** アドレス

このような情報は `/boot/efi/elilo.conf` にある `dom0` カーネルの `append=` の行に指定します。例は次の通りです。

```
append="com1=19200,8n1,0x3f8 -- quiet rhgb console=tty0
console=ttyS0,19200n8"
```

この例では、`com1` がシリアルポート、`19200` が速度（ビット/秒単位）で、`8n1` はデータビット/パリティの設定の数量を指定します。`0x3f8` は `io_base` アドレスになります。

- Virtualization does not work on some architectures that use Non-Uniform Memory Access (NUMA). As such, installing the virtualized kernel on systems that use NUMA will result in a boot failure.

一部のインストール番号はデフォルトで仮想化カーネルをインストールします。このようなインストール番号が存在し、システムが NUMA を使用して `kernel-xen` と動作しない場合は、インストール中に仮想化オプションの選択を解除してください。

- Currently, live migration of fully virtualized guests is not supported on this architecture. In addition, `kexec` and `kdump` are also not supported for virtualization on this architecture.

## 7. TECHNOLOGY PREVIEWS

*Technology Preview* features are currently **not supported** under Red Hat Enterprise Linux subscription services, may not be functionally complete, and are generally not suitable for production use. However, these features are included as a customer convenience and to provide the feature with wider exposure.

Customers may find these features useful in a non-production environment. Customers are also free to provide feedback and functionality suggestions for a Technology Preview feature before it becomes fully supported. Erratas will be provided for high-severity security issues.

During the development of a Technology Preview feature, additional components may become available to the public for testing. It is the intention of Red Hat to fully support Technology Preview features in a future release.

### EMC Clariion の ALUA モード

EMC Clariion ストレージ上で、`dm-multipath` を使用する ALUA (明示的アクティブ/パッシブフェイルオーバー) モードが使用できるようになりました。このモードは T10 仕様に準拠していますが、本リリースでは技術プレビューとしてのみ提供されます。

For more information about T10, refer to <http://www.t10.org>.

### ext4

今リリースには、最新世代の `ext` ファイルシステムである `ext4` が技術プレビューとして含まれています。`Ext4` は Red Hat および Linux コミュニティーによって開発された `ext3` ファイルシステムがインクリメンタルに改良されたものです。技術プレビューにおけるこのファイルシステムのリリース名は `ext4dev` です。

このファイルシステムは、`ext4dev.ko` カーネルモジュールと、`ext4` に使用する `e2fsprogs` 管理ツールの更新バージョンを格納する新しい `e4fsprogs` パッケージによって提供されます。使用するには、`e4fsprogs` をインストールし、`e4fsprogs` プログラムより `mkfs.ext4dev` のようなコマンドを使用して `ext4` ベースのファイルシステムを作成します。マウントコマンドラインまたは `fstab` ファイルシステム上でファイルシステムを参照するには、ファイルシステム名 `ext4dev` を使用します。

## FreeIPMI

*FreeIPMI* は、今回技術プレビューとしてこの更新に含まれています。*FreeIPMI* は Intelligent Platform Management IPMI システムソフトウェアの集合です。これは、Intelligent Platform Management Interface (IPMI v1.5 と v2.0) 基準に準拠する開発ライブラリと共に in-band と out-of-band のソフトウェアを提供します。

For more information about FreeIPMI, refer to <http://www.gnu.org/software/freeipmi/>

## TrouSerS と tpm-tools

*Trusted Platform Module* (TPM) ハードウェアを使用できるようにするため、**TrouSerS** および **tpm-tools** が本リリースに同梱されました。TPM ハードウェアの機能の一部は次の通りです。

- メモリで公開せずに安全に RSA キーを作成、保存、使用する
- 暗号化記号ハッシュを使用してプラットフォームのソフトウェア状態を検証する

**TrouSerS** は、Trusted Computing Group's Software Stack (TSS) 仕様の実装です。**TrouSerS** を使用して、TPM ハードウェアを使用するアプリケーションを書くことができます。**tpm-tools** は TPM ハードウェアを管理活用するために使用されるツールの集合です。

For more information about TrouSerS, refer to <http://trousers.sourceforge.net/>.

## eCryptfs

**eCryptfs** は Linux のスタックされた暗号化ファイルシステムです。**eCryptfs** は、EXT3 など既にマウントされている下位ファイルシステム内の個別のディレクトリにマウントします。**eCryptfs** を使用するために、既存のパーティションやファイルシステムを変更する必要はありません。

本リリースでは、**eCryptfs** がアップストリームバージョン 56 にリベースされ、バグ修正や改良が追加されました。また、この更新は **eCryptfs (ecryptfs-mount-helper-gui)** の設定に便利なグラフィカルプログラムを提供します。

この更新により、一部の **eCryptfs** マウントオプションの構文が変更になりました。このバージョンの **eCryptfs** にアップデートすると、変更の対象となったマウントスクリプトや **/etc/fstab** エントリがアップデートされるはずですが、変更の詳細については、**man** **ecryptfs** を参照してください。

本リリースの **eCryptfs** には、以下の警告が適応されます。

- **eCryptfs** ファイルシステムは、暗号化されたファイルシステムが同じ名前の基礎のディレクトリに一度マウントされた場合のみ正常に動作します。例は次の通りです。

```
mount -t ecryptfs /mnt/secret /mnt/secret
```

保護された部分のファイルシステムは公開されないはずですが、他のマウントポイントやバインドマウントなどにマウントしないようにしてください。

- ネットワーク化されたファイルシステム (NFS、Samba など) にマウントされた **eCryptfs** は正常に動作しません。
- このバージョンの **eCryptfs** カーネルドライバには、**ecryptfs-utils-56-4.el5** またはそれ以降のバージョンで提供される更新されたユーザースペースが必要になります。

For more information about **eCryptfs**, refer to <http://ecryptfs.sf.net>. You can also refer to <http://ecryptfs.sourceforge.net/README> and <http://ecryptfs.sourceforge.net/ecryptfs-faq.html> for basic setup information.

## ステートレス Linux

ステートレス Linux とは、システムの交換を簡単にすることで多数のシステムに対してプロビジョニングや管理を簡略化する、新しいシステム稼働管理方法のコンセプトです。基本的には、多数のステートレスシステム間で複製され管理される準備済みのシステムイメージを確立し、オペレーティングシステムを読み込み専用で実行します (詳細は `/etc/sysconfig/readonly-root` を参照)。

現在の開発段階では、ステートレス機能は目標の状態であるため、技術プレビューとなっています。

ステートレスコードのテストに興味のある方

は、<http://fedoraproject.org/wiki/StatelessLinux/HOWTO> の HOWTO を読んでから、[stateless-list@redhat.com](mailto:stateless-list@redhat.com) に登録してください。

ステートレス Linux 向けに有効にするインフラストラクチャ部分は元来、Red Hat Enterprise Linux 5 で導入されました。

## AIGLX

AIGLX は、完全サポートされる X サーバーの技術プレビューです。この機能は、標準デスクトップで GL 加速による効果を実現するのが目的です、このプロジェクトの構成は次の通りです。

- 軽度に変更された X サーバー
- 新規のプロトコルサポートを追加する Mesa パッケージの更新

これらのコンポーネントをインストールすると、ほとんど変更を加えることなくデスクトップ上で GL 加速による効果を実現できます。また、X サーバーを交換しなくても加速効果を有効にしたり無効することができます。さらに、AIGLX によってリモート GLX アプリケーションがハードウェア GLX 加速を活用できるようになります。

## FireWire

`firewire-sbp2` モジュールはこの更新では、まだ技術プレビューとして含まれています。このモジュールは FireWire ストレージデバイスとスキャナーとの接続を有効にするものです。

現在、FireWire は以下の項目をサポートしません:

- IPv4
- `pcilynx` ホストコントローラ
- 複数 LUN ストレージサービス
- ストレージデバイスへの非独占アクセス

更に、FireWire にはまだ以下のような問題が存在します:

- **SBP2** ドライバー内でのメモリー漏れは、マシンが反応しない原因になる可能性があります。
- このバージョンのコードは **big-endian** マシンでは正常に機能しません。これは、PowerPC で予想外の動作を起こす可能性があります。

## ktune

本リリースには、カーネル調整パラメータを特定のシステムプロファイルに見合った値に設定するサービス、**ktune** (`ktune` パッケージ内) が含まれています。現在、**ktune** はディスク集中アプリ

ケーションやネットワーク集中のアプリケーションを実行する大型メモリのシステムに対してのみプロファイルを提供します。

**ktune** が提供する設定は、`/etc/sysctl.conf` の設定やカーネルコマンドラインによる設定をオーバーライドしません。システムやワークロードによっては、**ktune** の使用が不適切な場合があります。そのため、実稼働システムに導入する前に包括的なテストを行ってください。

**ktune** によって指定された設定を無効にし、通常の設定に戻すには、`root` で **service ktune stop** を実行して **ktune** サービスを停止します。

### dmraid の SGPIO サポート

SGPIO (Serial General Purpose Input Output) は、メインボードと内外部のハードディスクドライブベイ格納装置との間で使用される業界標準の通信方法です。この方法は、AHCI ドライバインターフェイスを介して格納装置の LED ライトを制御するために使用されます。

今リリースには、**dmraid** の SGPIO サポートが技術プレビューとして含まれています。これにより、**dmraid** がディスク格納装置と適切に動作するようになります。

### GCC 4.3

技術プレビューとして **Gnu Compiler Collection** バージョン **4.3 (GCC4.3)** が本リリースに同梱されました。これらのコンパイラには C、C++、Fortran 95 コンパイラやサポートライブラリが含まれています。

**gcc43** パッケージ内の **gnu89-inline** オプションのデフォルトが **-fgnu89-inline** に変更されましたが、Red Hat Enterprise Linux 5 のアップストリームの更新や将来的な更新は **-fno-gnu89-inline** がデフォルトであることに注意してください。これは、Red Hat Enterprise Linux 5 に同梱された多くのヘッダは、ISO C99 セマンティックではなく、GNU インラインセマンティックを要求するためです。これらのヘッダは、属性を介して GNU インラインセマンティックを要求するように調整されていません。

### カーネルトレースポイント機能

今回の更新で、新しいカーネルマーカー/トレースポイント機能が技術プレビューとして実装されました。このインターフェイスは、静的なプローブポイントをカーネルに追加し、**SystemTap** のようなツールと使用します。

### RAID セットのデバイス障害監視

**dmraid** ツールと **dmevent\_tool** ツールを使用するデバイス障害監視が技術プレビューとして Red Hat Enterprise Linux 5.3 に同梱されました。この機能により、RAID セットのコンポーネントデバイス上で発生したデバイス障害を監視報告できるようになります。

## 8. RESOLVED ISSUES

### 8.1. All Architectures

- TTY デバイス活動レポートのデータが正しく生成されなかったため、コマンド **sar -y** の実行に失敗し、次のエラーが返されました。

```
Requested activities not available in file
```

更新されたパッケージでは、**sar** が修正され、**-y** オプションが TTY デバイスの活動を出力するようになりました。



- これまで、`/etc/multipath.conf`内の `max_fds` を `unlimited` に設定すると、`multipathd` デーモンが起動しませんでした。オープンファイル記述子の数をシステムの最大数に設定する必要がある場合は、`max_fds` を `max` に設定してください。
- `mod_perl` が最新のアップストリームリリースであるバージョン `2.0.4` にリベースされました。これにより、`mod_perl` と `Bugzilla 3.0` が適切に動作するためのバグ修正など、複数の更新が適応されました。
- `cups` がバージョン `1.3.7` にリベースされました。この更新により、以下を含むバグ修正や改良が適応されました。
  - Kerberos 認証がサポートされるようになりました。
  - ユーザー定義のプリンタやジョブポリシーが正しくロードされるようになりました。
  - ブラウズを無効するとリモートキューキャッシュがロードされなくなりました。
  - `classes.conf` 設定ファイルに正しいファイルパーミッションが適応されました。
- `lm_sensors` がバージョン `2.10.7` にリベースされました。この更新には複数のアップストリーム改良とバグ修正が適応されました。`k8temp` がロードされた際に `libsensors` が `General parse error` メッセージとクラッシュしないようにする修正がその1つです。
- 以下のバグに対応するため、本リリースで `elfutils` が更新されました。
  - 特定の入力ファイルを読み込むと、`eu-readelf` ユーティリティがクラッシュしました。
  - 新しいバイナリパッケージを作成する `rpmbuild` 手順では `eu-strip` ユーティリティが使用されます。このユーティリティは実行可能コードよりデバッグ情報を分離して `debuginfo` パッケージを作成します。このユーティリティのバグにより、`s390` プラットフォーム上の `ET_REL` ファイルに対するデバッグ情報は使用不可能でした。そのため、Linux カーネルモジュールファイル (`.ko.debug`) に影響があり、生成された `kernel-debuginfo` パッケージは `s390` 上の `Systemtap` とは動作しませんでした。
- `vnc-server` がバージョン `4.1.2-14.el5` にリベースされ、以下のバグ修正が適応されました。
  - `Xvnc` の起動に失敗した際に `vncserver` がエラーメッセージを出力できない原因となっていたバグが修正されました。
  - `Xvnc` は誤った `root` ウィンドウの深さを使用しましたが、`-depth` オプションで指定される正しいウィンドウの深さを使用するようになりました。
  - `libvnc.so` モジュールによって X サーバーがクラッシュする原因となっていたバグが修正されました。
  - `Xvnc` が全てのアーキテクチャ上で `GLX` 拡張と `RENDER` 拡張をサポートするようになりました。
- `smartmontools` がバージョン `5.38` にリベースされました。この更新により、ハードウェアデバイスの自動検出や `CCSISS RAID` アレイへのサポートが改良され、サポート対象デバイスのデータベースが大きくなりました。
 

また、SELinux によって `smartmontools` が `3ware RAID` デバイスを監視できないバグが修正され、`smartmontools` によってこのようなデバイスを監視できるようになりました。
- `python-urlgrabber` がバージョン `3.1.0-5` にリベースされました。これにより、以下を含むアップストリームからのバグ修正が適応されました。

- 部分ダウンロードをサポートしない **yum** レポジトリから **yum** を適切に再ダウンロードできるようにになりました。
- 特定ポートを持つ FTP ベースの **yum** レポジトリでも **yum** が割り込みされたダウンロードを再開できるようになりました。
- 進行バーの大きさがターミナルの幅に対して動的になりました。また、進行バーが改良され、ダウンロードされたデータの合計をパーセントで表示するようになりました。
- **python-urlgrabber** の **keepalive** 信号が修正されました。これまで **keepalive** 信号のバグにより、ダウンロード中にメモリ使用量が正しく増加しませんでした。またこのバグにより、多数のパッケージをダウンロードする際に **reposync** と **yumdownloader** が正しく動作しませんでした。
- **yum-utils** がアップストリームバージョン 1.1.16 にリベースされ、次を含むバグ修正が適応されました。
  - **yum update --security** を実行すると、古いセキュリティのアップデートを正しく検索するようになりました。
  - **yum-versionlock** が廃盤パッケージに対して正しく機能するようになりました。

このアップデートには、**yum** がミラーリストの最速のレポジトリを選択できるようにする **yum-fastestmirror** プラグインも含まれています。

- **Samba** がアップストリームバージョン 3.2.0 にリベースされました。これにより **Windows 2003** をネームサーバーとして使用していたドメインにユーザーが参加できない問題など複数のバグが修正されました。さらに、**net rpc changetrustpw** を使用してシステムパスワードを変更した後、**samba** ドメインのメンバーシップが壊れる原因となっていたバグも修正されました。

For a more comprehensive list of upstream **samba** updates included this release, refer to <http://www.samba.org/samba/history/samba-3.0.32.html>

- **OpenLDAP** がアップストリームバージョン 2.3.43 にリベースされ、以下を含むアップストリームのバグ修正が適応されました。
  - **slapd** デーモンが TLS 証明書ファイルを読み取れないと **init** スクリプトによって警告が報告されるようになりました。
  - **openldap-debuginfo** パッケージのすべてのライブラリが **unstripped** されました。
  - **openldap-devel** パッケージをアンインストールしても **OpenLDAP** ライブラリが破損しなくなりました。

Red Hat は **OpenLDAP** サーバーの追加オーバーレイを提供するようになりました。 **syncprov** 以外のオーバーレイは、個別の **openldap-servers-overlays** パッケージにあり、動的にロード可能なモジュールとしてコンパイルされています。以前の **OpenLDAP** リリースとの互換性を維持するため、 **syncprov** オーバーレイは静的に **OpenLDAP** サーバーへリンクされています。

- **xterm** バイナリにグループ ID 設定 (**setgid**) ビットが設定されていたため、設定されない環境変数がありました (**LD\_LIBRARY\_PATH** や **TMPDIR** など)。本リリースでは、 **xterm** バイナリにモード **0755** パーミッションが設定されているため、この問題は修正されました。
- The recommended method for balancing the load on NIS servers when multiple machines are

connecting with ypbind has changed with this release. The ypbind daemon's behavior has not changed: it still pings all NIS servers listed in the `/etc/ypbind` configuration file and then binds to the single fastest-responding server. Before, it was recommended to list all available NIS servers in each machine's `/etc/ypbind.conf` configuration file. However, because even servers under high load can respond quickly to this ping, thus inadvertently increasing their own load, it is now recommended for administrators to list a smaller number of available NIS servers in each machine's `ypbind.conf`, and to vary this list across machines. In this way, NIS servers are automatically load-balanced due to not every NIS server being listed as being available to every machine.

- **OpenMotif** がアップストリームバージョン 2.3.1 にリベースされ、次を含むバグ修正が適応されました。
  - **OpenMotif** による **Grab** イベントや **Ungrab** イベントの処理方法に存在したバグが修正されました。前のリリースではこのバグによって画面がロックすることがありました。
  - **nedit** グラフィカルユーザーインターフェイスを使用する際に、バグによって **nedit** がクラッシュすることがありました。これは、選択する項目によってはセグメンテーションの失敗を引き起こしたコードの関数が原因でしたが、この問題は修正されました。
- **dbus** はバージョン 1.1.2 にリベースされました。これにより、マルチスレッドのプログラムによって **dbus** でデッドロックが発生するバグが修正されました。以前のリリースでは、1つのスレッドが **dbus** をリスンして、メッセージを処理し、別のスレッドがメッセージを **dbus** に送信していました。
- **strace** がバージョン 4.5.18 にリベースされ、以下を含むバグが修正されました。
  - 一部のマルチスレッドプログラム (特に 64 ビットシステム) で **-f** オプションを使用すると **strace** がクラッシュするバグが修正されました。
  - 64 ビットバージョンの **strace** が 32 ビットプロセスで **vfork()** 関数呼び出しを実行できなかったバグが修正されました。
- **cpuspeed** がバージョン 1.2.1-5 に更新されました。この更新では、**speedstep-centrino** モジュール以外のモジュールロードにすべて失敗すると、**cpuspeed init** スクリプトが **speedstep-centrino** モジュールをロードするようになりました。さらに、**Powernow-k8** モジュールがロードできない原因となっていたユーザースペースのバグが修正されました。
- **frysk** スイートのツールはこのディストリビューションより完全に削除されました。当初、**frysk** は技術プレビューとして Red Hat Enterprise Linux 5.0 に同梱されました。
- これまで、**iostat -x** コマンドが提供するパーティション I/O 統計は不完全でした。この更新では、パーティション統計がディスク統計と同じ要領で計算されるようになったため一貫した総合的なパーティションレベルの I/O 統計を提供できるようになりました。
- **Dovecot** メールサーバーの設定ファイルに、パスワードを公開する欠陥が見つかりました。システムに **ssl\_key\_password** オプションが定義されていると、すべてのローカルユーザーが SSL キーのパスワードを見ることが可能でした (CVE-2008-4870)。



## 注記

この欠陥では、攻撃者が SSL キーの内容を取得することは不可能でした。キーファイルがないと、このパスワードは意味がありません。任意ユーザーはこのキーファイルの読み取り権限を持っていません。

To better protect even this value, however, the `dovecot.conf` file now supports the `!include_try` directive. The `ssl_key_password` option should be moved from `dovecot.conf` to a new file owned by, and only readable and writable by, root (ie 0600). This file should be referenced from `dovecot.conf` by setting the `!include_try /path/to/password/file` option.

## 8.2. x86\_64 Architectures

- `ksh` がバージョン 2008-02-02 にリベースされました。この更新によりマルチバイト文字の処理が追加され、ジョブ制御の問題への対応やアップストリームからのバグ修正が適応されました。`ksh` への更新は既存スクリプトとの互換性を維持します。

## 8.3. s390x Architectures

- バグにより `vmconvert` が `vmur` デバイスノード (`/dev/0.0.000c`) 上で適切に動作しませんでした。これにより、`vmur` デバイス上のダンプにアクセスしようとする、`vmconvert` に失敗し、`vmconvert: Open dump file failed! (Permission denied)` というエラーが発生しました。本リリースの `s390utils` への更新によりこの問題が修正されました。
- `mon_procd` デーモンと `mon_fsstatd` デーモンの `init` スクリプトと `config` ファイルが `s390utils` パッケージに存在しませんでした。そのため、デーモンの使用やビルドができませんでした。今回の更新でこれらのファイルが追加されたため、この問題は解決されました。

## 8.4. PowerPC Architectures

- `ehci_hcd` モジュールがこのアーキテクチャで再ロードできなかったバグが修正されました。これにより、`ehci_hcd` モジュールを使用する際に **Belkin 4-port PCI-Express USB Lily** アダプタ (およびその他の類似デバイス) が Red Hat Enterprise Linux 5 で適切に動作するようになりました。
- `libhugetlbfs` ライブラリがバージョン 1.3 にリベースされました。この更新によりライブラリに複数のアップストリーム改良が適応され、`Huge` ページを使用するアプリケーションのパフォーマンスが向上されます。

`libhugetlbfs` に対する更新の一覧は、次のリンクを参照してください。

[http://sourceforge.net/mailarchive/message.php?msg\\_name=20080515170754.GA1830%40us.ibm.com](http://sourceforge.net/mailarchive/message.php?msg_name=20080515170754.GA1830%40us.ibm.com)

## 9. KNOWN ISSUES

### 9.1. All Architectures

- 新しいディスク暗号化機能を使用してルートファイルシステムを暗号化すると、システムをシャットダウンした際に以下のようなエラーメッセージがコンソールに報告されます。

```
Stopping disk encryption [FAILED]
```

このメッセージは無視しても問題ありません。シャットダウンは最後まで正しく実行されません。

- When using an encrypted device, the following error message may be reported during bootup:

```
insmod: error inserting '/lib/aes_generic.ko': -1 File exists
```

This message can safely be ignored.

- マルチパス上で MD (マルチデバイス) RAID を使用してインストールを行うと、マシンがブートできなくなります。RAID を内部で提供する SAN (ストレージエリアネットワーク) デバイスは影響を受けません。
- When a large number of LUNs are added to a node, multipath can significantly increase the time it takes for udev to create device nodes for them. If you experience this problem, you can correct it by deleting the following line in `/etc/udev/rules.d/40-multipath.rules`:

```
KERNEL!="dm-[0-9]*", ACTION=="add", PROGRAM==" /bin/bash -c
'/sbin/lsmode | /bin/grep ^dm_multipath'", RUN+=" /sbin/multipath -v0
%M:%m"
```

This line causes udev to run multipath every time a block device is added to the node. Even with this line removed, multipathd will still automatically create multipath devices, and multipath will still be called during the boot process, for nodes with multipathed root filesystems. The only change is that multipath devices will not be automatically created when multipathd is not running, which should not be a problem for the vast majority of multipath users.

- 以前のバージョンの Red Hat Enterprise Linux を 5.3 にアップグレードすると、以下のようなエラーが発生することがあります。

```
Updating : mypackage ##### [
472/1655]
rpmdb: unable to lock mutex: Invalid argument
```

このロッキングの問題は、`glibc` 内の共有 `futex` のロッキングが 5.2 と 5.3 間のプロセス毎の `futex` によって強化されたことが原因です。そのため、5.2 `glibc` で実行しているプログラムが、5.3 `glibc` で実行しているプログラムに対して正しく共有 `futex` ロッキングを実行できません。

エラーメッセージは、インストールスクリプトの1つとして `rpm` を呼び出すパッケージによるものです。アップグレードを実行する `rpm` インスタンスはアップグレードが終わるまで以前の `glibc` を使用しますが、スクリプトから開始された `rpm` インスタンスは新しい `glibc` を使用しません。

To avoid this error, upgrade `glibc` first in a separate run:

```
# yum update glibc
# yum update
```

You will also see this error if you downgrade `glibc` to an earlier version on an installed 5.3 system.

- Red Hat Enterprise Linux 5 の `mvapich` および `mvapich2` は、*InfiniBand/iWARP* 相互接続のみをサポートするためにコンパイルされています。そのため、イーサネットやその他のネットワーク相互接続上では実行できません。
- 暗号化されたブロックデバイスを 3 つ以上持つシステム上で、`anaconda` はオプションでグローバルパスフレーズを提供しますが、`init` スクリプトはこの機能をサポートしていません。システムをブートする際にすべての暗号化デバイスに対して個別にパスフレーズを入力する必

必要があります。

- When upgrading openmpi using yum, the following warning may be returned:

```
cannot open `/tmp/openmpi-upgrade-version.*' for reading: No such
file or directory
```

The message is harmless and can be safely ignored.

- ベクトル毎のマスキングができない MSI (メッセージ信号割り込み) を使用するデバイスの一部は、IRQ SMP アフィニティを設定しても設定が反映されません。このようなデバイスの1つが **bnx2** ドライバを使用する **Broadcom NetXtreme Ethernet** デバイスです。

このようなデバイスに対して IRQ アフィニティを設定する必要がある場合は、`/etc/modprobe.d/` 内に次の行を含むファイルを作成し、MSI を無効にします。

```
options bnx2 disable_msi=1
```

また、カーネルブートパラメータ `pci=noms` を使用して MSI を完全に無効にすることもできます。

- 更新済みの `/etc/udev/rules.d/50-udev.rules` ファイル内のバグは、その名前の中に 9 以上の数字を持つテープデバイス用に固執の名前を作成することを阻止します。例えば、`nst12` を持つ名前にはテープデバイス用に固執の名前を作成しません。

これを迂回するには、`/etc/udev/rules.d/50-udev.rules` 内のストリング `nst[0-9]` の全ての表示の後にアスタリスク(\*)を追記します。

- `smartctl` ツールは SATA デバイスから SMART パラメータを正しく読み取れません。
- `openmpi` と `lam` の以前のバージョン内のバグは、これらのパッケージのアップグレードを阻止するかもしれません。このバグは、`openmpi`、又は `lam` のアップグレードを試みるときに以下のエラーにより判明します:

```
error: %preun(openmpi-[version]) scriptlet failed, exit status 2
```

そのため、`openmpi` と `lam` の旧バージョンを手動で削除して、それらの最新バージョンをインストールする必要があります。これを達成するには、以下の `rpm` コマンドを使用します:

```
rpm -qa | grep '^openmpi-|^lam-' | xargs rpm -e --noscripts --
allmatches
```

- When using `dm-multipath`, if features `"1 queue_if_no_path"` is specified in `/etc/multipath.conf` then any process that issues I/O will hang until one or more paths are restored.

To avoid this, set `no_path_retry [N]` in `/etc/multipath.conf` (where `[N]` is the number of times the system should retry a path). When you do, remove the features `"1 queue_if_no_path"` option from `/etc/multipath.conf` as well.

If you need to use `"1 queue_if_no_path"` and experience the issue noted here, use `dmsetup` to edit the policy at runtime for a particular LUN (i.e. for which all the paths are unavailable).

To illustrate: run `dmsetup message [device] 0 "fail_if_no_path"`, where `[device]`

is the multipath device name (e.g. `mpath2`; do not specify the path) for which you want to change the policy from `"queue_if_no_path"` to `"fail_if_no_path"`.

- 同じカーネルモジュールの複数のインストール済みバージョンを有効にすることは、サポートされていません。これに加えて、カーネルモジュールバージョンが構文解析される方法に関するバグが、時として同じカーネルモジュールの旧バージョンを有効にしてしまうことがあります。

Red Hat では、インストール済みのカーネルモジュールの新バージョンをインストールする時には最初に旧バージョンを削除することを推奨します。

- NFS root で設定されている IBM Bladecenter QS21 又は、QS22 上で `kdump` を実行すると、失敗します。これを回避するには、`/etc/kdump.conf` で NFS ダンプターゲットを指定します。
- IBM T60 ラップトップは、サスペンドの時とドッキングステーションに挿入されている時には、完全に電源が切れます。これを回避するには、システムを引数 `acpi_sleep=s3_bios` で起動します。
- IBM Bladecenter 用の QLogic iSCSI Expansion Card はイーサネットと iSCSI の両方の機能を提供します。カードの一部は両方の機能で共有されます。しかし、現在の `qla3xxx` ドライバと `qla4xxx` ドライバはイーサネットと iSCSI の機能を別々にサポートします。いずれのドライバもイーサネットと iSCSI 機能の同時使用はサポートしていません。

この制限のため、連続的なリセット（継続的な `ifdown/ifup` コマンドの使用）はデバイスをハングします。これを回避するには、`ifup` を実行した後に 10 秒ほど経過してから、`ifdown` を実行してください。また、同様に `ifdown` を実行した後は、10 秒ほど経過してから `ifup` を実行して下さい。この間隔により、`ifup` が発行される時に全ての機能を安定させて初期化する時間を十分に与えます。

- Cisco Aironet MPI-350 ワイヤレスカードを装備しているラップトップでは、ワイヤ付きイーサネットポートを使用してネットワークベースのインストールをする間に、DHCP アドレスの取得をしようとしてハングする可能性があります。

これを回避するには、インストール用のローカルメディアを使用します。別の方法として、インストール前にラップトップ BIOS 内のワイヤレスカードを無効にすることも出来ます。（インストールの後にワイヤレスカードは再度、有効にできます）

- `/var/log/boot.log` へのブート時のロギングは、Red Hat Enterprise Linux 5.3 では使用できません。
- X が稼働中で、`vesa` 以外のドライバーを使用している場合、システムは `kexec/kdump` カーネルに正しく再起動しないことがあります。この問題は ATI Rage XL グラフィクスチップセットでのみ発生します。

ATI Rage XL を持つシステムで X が稼働している場合、`kexec/kdump` カーネルに正しく再起動するようにするため `vesa` ドライバを使用するようにしてください。

- nVidia CK804 チップセットを持つマシンで Red Hat Enterprise Linux 5.2 を使用する場合、以下のようなカーネルメッセージを受ける可能性があります:

```
kernel: assign_interrupt_mode Found MSI capability
kernel: pcie_portdrv_probe->Dev[005d:10de] has invalid IRQ. Check vendor BIOS
```

これらのメッセージは特定の PCI-E ポートが IRQ を要求していないことを示します。しかし、これらのメッセージは如何なる面でも操作に影響することはありません。

- 取り出し可能なストレージデバイス (CD や DVD など) は、**root** としてログインしている場合には自動的にマウントしません。その場合、グラフィカルファイルマネージャを通じて手動でデバイスをマウントする必要があります。

別の方法として、以下のコマンドを使用してデバイスを **/media** にマウントします:

```
mount /dev/[device name] /media
```

- 設定済のストレージシステムで LUN が削除されると、その変更はホスト上では反映されません。そのようなケースでは、LUN がその時点で *滞留 (stale)* 状態になるため、**dm-multipath** が使用されると **lvm** コマンドは無限にハングします。

これを迂回するには、滞留している LUN に特有の **/etc/lvm/.cache** 内にある全てのデバイスと **mpath** リンクエントリを削除します。

次のコマンドを使用してこれらのエントリが何かを調べます:

```
ls -l /dev/mpath | grep [stale LUN]
```

例えば、**[stale LUN]** が **3600d0230003414f30000203a7bc41a00** の場合、以下のような結果が出ます:

```
lrwxrwxrwx 1 root root 7 Aug  2 10:33
/3600d0230003414f30000203a7bc41a00 -> ../dm-4
lrwxrwxrwx 1 root root 7 Aug  2 10:33
/3600d0230003414f30000203a7bc41a00p1 -> ../dm-5
```

これは、**3600d0230003414f30000203a7bc41a00** が二つの **mpath** リンク : **dm-4** 及び **dm-5** にマップされているという意味です。

その状況では、以下の行が **/etc/lvm/.cache** から削除される必要があります:

```
/dev/dm-4
/dev/dm-5
/dev/mapper/3600d0230003414f30000203a7bc41a00
/dev/mapper/3600d0230003414f30000203a7bc41a00p1
/dev/mpath/3600d0230003414f30000203a7bc41a00
/dev/mpath/3600d0230003414f30000203a7bc41a00p1
```

- **-ll** オプションを持つ **multipath** コマンドの実行は、パスの1つがブロックデバイス上にある場合、このコマンドがハングする原因になります。デバイスが反応しない場合も、ドライバーはしばらく時間を取ると要求を失敗しないことに注意してください。

これは、パステッカー要求が完了するか、失敗するかを待つクリーンアップコードが原因です。コマンドをハングせずに現在の **multipath** 状態を表示するには、代わりに **multipath -l** を使用します。

- Red Hat Enterprise Linux 5.2 Beta バージョンの **pm-utils** から **pm-utils** をアップグレードしようとする、次のようなエラーが発生し、アップグレードに失敗します。



```
error: unpacking of archive failed on file /etc/pm/sleep.d: cpio:
rename
```

この問題発生を防ぐには、アップグレードを行う前に `/etc/pm/sleep.d/` ディレクトリを削除しておきます。`/etc/pm/sleep.d/` になんらかのファイルがある場合は、そのファイルを `/etc/pm/hooks/` に移動します。

- **Mellanox MT25204** のハードウェアテストにより特定の高負荷条件下で内部エラーが発生することが明らかになりました。`ib_mthca` ドライバがこのハードウェア上で重篤なエラーを報告する場合、通常、ユーザーアプリケーションによって生成される未処理の作業要求数に対して完了できるキューの深さが不十分な場合に関連します。

ドライバがハードウェアをリセットしてこのようなイベントから回復しても、既存の接続はすべてエラー発生時に失われます。これは一般的にユーザーアプリケーションのセグメンテーション障害となります。さらに、`opensm` がエラー発生時に稼働していた場合は、正常な動作を再開させるため手動で再起動する必要があります。

- ゲストに **Red Hat Enterprise Linux 5** をインストールする際に、`dom0` によって提供される一時インストールカーネルをゲストが明示的に使用するよう設定すると、ゲストの最初のリブートに対してシャットダウンを強制した場合のみ、インストール終了後に独自のブートローダを使用することができます。

そのため、ゲストのインストールの最後に表示される **Reboot** ボタンをクリックすると、ゲストはシャットダウンしますが、リブートしません。これは予期される動作です。

この後にゲストをブートすると、独自のブートローダを使用するようになります。

- **KDE** または **qt** 開発パッケージ (`qt-devel` など) がインストールされると `compiz` ソース RPM で `rpmbuild` の実行に失敗します。これは、`compiz` 設定スクリプトのバグが原因です。

このバグに対処するには、**KDE** または **qt** 開発パッケージを削除してから、ソース RPM から `compiz` パッケージをビルドするようにします。

- システムに **ATI Radeon R500** または **R600** グラフィックカードが装備されている場合、インストール後に `firstboot` を実行しようとしても実行されません。システムは直接グラフィカルログイン画面に移り、`firstboot` の実行をスキップします。フェールセーフターミナルなどから手作業で `firstboot` を実行しようとするすると X セッションがクラッシュします。

この問題は **ATI Radeon R500/R600** ハードウェアが使用するドライバが原因となっています。これらのグラフィックカードがデフォルトで使用するドライバは技術プレビューの段階です。これに対処するには、`/etc/X11/xorg.conf` ファイルをバックアップした後、X を設定して以下のコマンドではなく、サポートされる `vesa` ドライバが使用されるようにします。

```
system-config-display --reconfig --set-driver=vesa
```

これで、`firstboot` を実行できるようになります。元の設定に戻すには、元の `/etc/X11/xorg.conf` をリストアします。

- システムが TSC タイマを使用する場合、`gettimeofday` システムコールが後方に移動する場合があります。これは、場合によって TSC タイマが大幅に前方移動するオーバーフローの問題が原因です。この問題が発生すると、TSC タイマは独自に問題の修正を行いますが、最終的に後方移動します。

この問題は、トランザクションシステムやデータベースとして使用される時間依存のシステムにとっては重要な問題です。そのため、正確な時間計測が必要となるシステムには、別のタイマ (HPET など) を使用するよう、カーネルを設定することが推奨されます。

- **sniff** を実行しようとするとうエラーになることがあります。これは、一部の必要なパッケージが **dogtail** と共にインストールされていないことが原因です。

この問題が発生しないようにするには、以下のパッケージを手作業でインストールします。

- **librsvg2**
- **ghostscript-fonts**
- **pygtk2-libglade**
- **Thin Provisioning** (also known as "virtual provisioning") will be first released with **EMC Symmetrix DMX3 and DMX4**. Please refer to the **EMC Support Matrix and Symmetrix Engenuity** code release notes for further details.
- **/etc/multipath.conf**内で **max\_fds** を **unlimited** に設定すると、**multipathd** デーモンが正しく起動しません。そのため、十分に大きい値を使用するようにしてください。
- **SystemTap** は現在 **GCC** を使用してユーザースペースのイベントをプローブします。しかし、**GCC** はパラメータの正確な場所リストを持つデバッガを提供できません。また、**GCC** は一部のパラメータで可視性も提供できないことがあります。そのため、ユーザースペースをプローブする **SystemTap** スクリプトが不正確な読み出しを返す場合があります。
- **IBM T41** ラップトップモデルでは正しく **Suspend Mode** が入力されないため、**Suspend Mode** を選択しても通常通り電源が消費されます。これは、**Red Hat Enterprise Linux 5** には **radeonfb** モジュールが同梱されていないからです。

この問題に対応するには、次の行を含む **hal-system-power-suspend** という名前のスクリプトを **/usr/share/hal/scripts/** に追加します。

```
chvt 1
radeontool light off
radeontool dac off
```

このスクリプトを追加すると、**IBM T41** ラップトップが **Suspend Mode** を正しく入力するようになります。システムが適切に普通の操作に戻るようするため、次の行を含む **restore-after-standby** スクリプトを同じディレクトリに追加します。

```
radeontool dac on
radeontool light on
chvt 7
```

- **edac** モジュールがロードされると、**BIOS** メモリ報告が動作しません。これは、**BIOS** がメモリエラーの報告に使用するレジスタを **edac** モジュールが削除してしまうためです。

現在の **Red Hat Enterprise Linux Driver Update Model** は、デフォルトでカーネルに対して **edac** を含む利用可能なモジュールをすべてロードするよう指示します。システム上の **BIOS** メモリ報告を有効にするには、手作業で **edac** をブラックリストする必要があります。**edac** をブラックリストするには、以下の行を **/etc/modprobe.conf** に追加します。

```
blacklist edac_mc
blacklist i5000_edac
blacklist i3000_edac
blacklist e752x_edac
```

- Red Hat Enterprise Linux 5.3 は、基礎のブロックデバイスのオンライン拡張や縮小を検出できませんが、デバイスのサイズ変更を自動的に検出するメソッドはありません。そのため、デバイスのサイズ変更を認識したり、デバイスに存在するファイルシステムのサイズを変更するには、手作業で行う必要があります。サイズ変更されたブロックデバイスが検出されると、以下のようなメッセージがシステムログに表示されます。

```
VFS: busy inodes on changed media or resized disk sdi
```

ブロックデバイスが拡張された場合は、このメッセージを無視しても問題ありません。しかし、ブロックデバイス上のデータセットが縮小される前にブロックデバイスが縮小された場合、デバイスに存在するデータが破損する場合があります。

LUN (またはブロックデバイス) 全体で作成されたファイルシステムのサイズのみオンラインで変更できます。ブロックデバイスにパーティションテーブルがある場合、ファイルシステムをアンマウントしてパーティションテーブルを更新する必要があります。

- システムに GFS2 ファイルシステムがマウントされている場合、キャッシュされた i ノードが 1 つのノードでアクセスされ、別のノードでリンクされないとノードがハングすることがあります。この問題が発生すると、ハングしたノードをフェンスし、通常のクラスタリカバリメカニズムでリカバリを実行するまでハングしたノードは使用できません。また、ハングしたノードに残されたプロセスのスタックトレースに `gfs2_dinode_dealloc` および `shrink_dcachelmemory` 関数呼び出しが出力されます。

この問題は単一ノードの GFS2 ファイルシステムには関係ありません。

- The following message may be encountered during system boot:

```
Could not detect stabilization, waiting 10 seconds.
Reading all physical volumes. This may take a while...
```

This delay (which may be up to 10 seconds, dependant on the hardware configuration) is necessary to ensure that the kernel has completed scanning the disks.

- 現在 `ipmitool` に実装されている **User Payload Access** により、デバイスは設定できてもデバイスの現在の設定を読み出すことはできません。
- `--maxsize` パラメータを同時に設定せずに `kickstart` ファイルで `swap --grow` パラメータを使用すると、`anaconda` がスワップパーティションの大きさを制限します。拡張してデバイスを満杯にすることはできません。

物理メモリが 2GB 未満のシステムでは、この制限は物理メモリの 2 倍になります。物理メモリが 2GB 以上のシステムでは、物理メモリの大きさに 2GB を足したサイズが制限になります。

- The `gfs2_convert` program may not free up all blocks from the GFS metadata that are no longer used under GFS2. These unused metadata blocks will be discovered and freed the next time `gfs2_fsck` is run on the file system. It is recommended that `gfs2_fsck` be run after the filesystem has been converted to free the unused blocks. These unused blocks will be flagged by `gfs2_fsck` with messages such as:

```

Ondisk and fsck bitmaps differ at block 137 (0x89)
Ondisk status is 1 (Data) but FSCK thinks it should be 0 (Free)
Metadata type is 0 (free)

```

These messages do not indicate corruption in the GFS2 file system, they indicate blocks that should have been freed, but were not. The number of blocks needing to be freed will vary depending on the size of the file system and block size. Many file systems will not encounter this issue at all. Large file systems may have a small number of blocks (typically less than 100).

## 9.2. x86 Architectures

- When running the bare-metal (non-Virtualized) kernel, the X server may not be able to retrieve **EDID** information from the monitor. When this occurs, the graphics driver will be unable to display resolutions higher than 800x600.

これを迂回するには、`/etc/X11/xorg.conf` の **ServerLayout** セクションに次の行を追加します:

```
Option "Int10Backend" "x86emu"
```

- Recording needs to be manually enabled on **Dell M4300** and **M6300**. To do this, perform the following steps:
  1. **alsamixer** を開きます。
  2. **Tab** を押し、**View** フィールドの **[Capture]** を切り替えます (メニューの左上部にあります)。
  3. **Space** バーを押します。
  4. 記録が有効になると、**ADCMux** フィールドに **L R CAPTUR** が表示されます。
- If encryption is enabled on the boot device during system installation, the following message will be logged during system boot:

```
padlock: VIA PadLock not detected.
```

This message can safely be ignored.

## 9.3. x86\_64 Architectures

- Some machines that use **NVIDIA** graphics cards may display corrupted graphics or fonts when using the graphical installer or during a graphical login. To work around this, switch to a virtual console and back to the original X host.
- On an **IBM T61** laptop, Red Hat recommends that you refrain from clicking the **glxgears** window (when **glxgears** is run). Doing so can lock the system.

この問題に対処するには、`/etc/X11/xorg.conf` の **Device** セクションに次の行を追加し、**タイル機能**を無効にします。

```
Option "Tiling" "0"
```

- Recording needs to be manually enabled on **Dell M4300** and **M6300**. To do this, perform the

following steps:

1. **alsamixer** を開きます。
  2. **Tab** を押し、**View**フィールドの **[Capture]** を切り替えます（メニューの左上部にあります）。
  3. **Space** バーを押します。
  4. 記録が有効になると、**ADCMux** フィールドに **L R CAPTUR** が表示されます。
- システムが **Intel 945GM** グラフィックカードを使用する場合は **i810** ドライバは使用しないでください。デフォルトの **intel** ドライバを使用してください。
  - デュアル GPU ラップトップのグラフィックチップの1つが Intel ベースの場合、Intel グラフィックモードは HDMI や DVI、DisplayPort を含む外部のデジタル接続を駆動できません。これは Intel GPU のハードウェア制限です。外部のデジタル接続が必要な場合は、BIOS の個別グラフィックチップを使用するようシステムを設定してください。

#### 9.4. PowerPC Architectures

- When using **Alt-SysRq-W** to debug, the following warning message will appear:

```
Badness in smp_call_function at arch/powerpc/kernel/smp.c:223
```

その後、システムがハングするという警告も表示されますが、システムはハングしないため、このメッセージは無視しても問題ありません。

- Recording needs to be manually enabled on **Dell M4300** and **M6300**. To do this, perform the following steps:
  1. **alsamixer** を開きます。
  2. **Tab** を押し、**View**フィールドの **[Capture]** を切り替えます（メニューの左上部にあります）。
  3. **Space** バーを押します。
  4. 記録が有効になると、**ADCMux** フィールドに **L R CAPTUR** が表示されます。
- The size of the PPC kernel image is too large for OpenFirmware to support. Consequently, network booting will fail, resulting in the following error message:

```
Please wait, loading kernel...
/pci@80000000f8000000/ide@4,1/disk@0:2,vmlinux-anaconda: No such file
or directory
boot:
```

To work around this:

1. Boot to the OpenFirmware prompt, by pressing the '8' key when the IBM splash screen is displayed.
2. 次のコマンドを実行します。

```
setenv real-base 2000000
```

3. 次のコマンドを実行し、SMS (システム管理サービス) で開始します。

```
0> dev /packages/gui obe
```

## 9.5. s390x Architectures

- When running Red Hat Enterprise Linux 5.2 on a z/VM that has more than 2GB of guest storage defined, invalid data can be read from and written to any FCP and OSA device attached in QDIO mode with the Queued-I/O assist (QIOASSIST) option enabled. If your system has any such devices attached, Red Hat recommends that you download and install the corresponding z/VM Program Temporary Fix (PTF) from the following link:

<http://www-1.ibm.com/support/docview.wss?uid=isg1VM64306>

- It is not possible to directly read and convert a z/VM dump into a file. Instead, you should first copy the dump from the z/VM reader into a Linux file system using `vmur` and convert the dump into a Linux-readable file using `vmconvert`.
- The IBM System z does not provide a traditional Unix-style physical console. As such, Red Hat Enterprise Linux 5.2 for the IBM System z does not support the `firstboot` functionality during initial program load.

IBM System z 上で Red Hat Enterprise Linux 5.2 用に正しい初期化を設定するには、インストールの後で、次のコマンドを実行します:

- `/usr/bin/setup – setuptool` パッケージで提供されています。
- `/usr/bin/rhn_register – rhn-setup` パッケージで提供されています

## 9.6. ia64 Architecture

- Some Itanium systems cannot properly produce console output from the `kexec purgatory` code. This code contains instructions for backing up the first 640k of memory after a crash.

`purgatory` コンソール出力は、問題の診断用に役に立ちますが、`kdump` を正常に動作させるには必要ではありません。そのため、ご使用の Itanium システムが `kdump` 操作中にリセットをしてしまう場合は、`/etc/sysconfig/kdump` にある `KEXEC_ARGS` に `--noio` を追加することで、`purgatory` 内のコンソール出力を無効にします。

- Running `perftest` will fail if different CPU speeds are detected. As such, you should disable CPU speed scaling before running `perftest`.
- When the `kdump` kernel is booted, the following error will appear in the boot log:

```
mknod: /tmp/initrd.[numbers]/dev/efirtc: No such file or directory
```

このエラーは、正しくないパスに `efirtc` を作成するよう指示する誤った要求が原因で発生しますが、`kdump` サービスが起動すると、このデバイスパスは `initramfs` で静的に作成されます。そのため、ランタイム時におけるデバイスノードの作成は冗長で、`kdump` のパフォーマンスに影響はないはずで、

- Some systems may be unable to boot the `kdump` kernel properly. In such cases, use the

**machvec=dig** kernel parameter.

- Recording needs to be manually enabled on **Dell M4300** and **M6300**. To do this, perform the following steps:
  1. **alsamixer** を開きます。
  2. **Tab** を押し、**View**フィールドの **[Capture]** を切り替えます (メニューの左上部にあります)。
  3. **Space** バーを押します。
  4. 記録が有効になると、**ADCMux** フィールドに **L R CAPTUR** が表示されます。
- SELinux を enforcing モードで稼働している Intel Itanium ベースのシステムでは、**allow\_unconfined\_execmem\_dyntrans** ブール変数または **allow\_execmem** ブール変数を有効にして、IA-32 実行レイヤ (**ia32el** サービス) が正常に動作するようにしなければなりません。Red Hat Enterprise Linux 5 では、デフォルトで **allow\_unconfined\_execmem\_dyntrans** ブール変数は無効で **allow\_execmem** ブール変数は有効になっています。このデフォルト設定では、**ia32el** サービスによって 32 ビットのエミュレーションがサポートされますが、両方のブール変数が無効になっているとエミュレーションに失敗します。

## 10. ADDED PACKAGES

### cmirror-1.1.36-1.el5

- Group: **System Environment/Base**
- Summary: **cmirror - The Cluster Mirror Package**
- Description:

```
cmirror - Cluster Mirroring
```

### cmirror-kmod-0.1.21-10.el5

- Group: **System Environment/Kernel**
- Summary: **cmirror kernel modules**
- Description:

```
cmirror-kmod - The Cluster Mirror kernel modules
```

### compat-libcom\_err-1.0-7

- Group: **System Environment/Libraries**
- Summary: **A libcom\_err compatibility library**
- Description:

```
The compat-libcom_err package contains libcom_err.so.3, which may be required
```

by applications which were built against older packages of MIT Kerberos.

#### **crash-spu-commands-1.1-1**

- **Group: Development/Debuggers**
- **Summary: Cell/B.E. SPU commands extension for crash**
- **Description:**

Specific commands for debugging SPU run control data using crash.

#### **dapl-2.0.13-4.e15**

- **Group: System Environment/Libraries**
- **Summary: Library providing access to the DAT 1.2 and 2.0 APIs**
- **Description:**

libdat and libdapl provide a userspace implementation of the DAT 1.2 and 2.0 API that is built to natively support InfiniBand/iWARP network technology.

#### **dstat-0.6.6-3.e15**

- **Group: System Environment/Base**
- **Summary: Versatile resource statistics tool**
- **Description:**

Dstat is a versatile replacement for vmstat, iostat, netstat and ifstat.

Dstat overcomes some of their limitations and adds some extra features, more counters and flexibility. Dstat is handy for monitoring systems during performance tuning tests, benchmarks or troubleshooting.

Dstat allows you to view all of your system resources instantly, you can eg. compare disk usage in combination with interrupts from your IDE controller, or compare the network bandwidth numbers directly with the disk throughput (in the same interval).

Dstat gives you detailed selective information in columns and clearly indicates in what magnitude and unit the output is displayed. Less confusion, less mistakes.



**e4fsprogs-1.41.1-2.el5**

- **Group: System Environment/Base**
- **Summary: Utilities for managing the fourth extended (ext4) filesystem**
- **Description:**

The e4fsprogs package contains a number of utilities for creating, checking, modifying, and correcting any inconsistencies in the fourth extended (ext4) filesystem. E4fsprogs contains e4fsck (used to repair filesystem inconsistencies after an unclean shutdown), mke4fs (used to initialize a partition to contain an empty ext4 filesystem), debugfs (used to examine the internal structure of a filesystem, to manually repair a corrupted filesystem, or to create test cases for e4fsck), tune4fs (used to modify filesystem parameters), and most of the other core ext4fs filesystem utilities.

Please note that "e4fsprogs" simply contains renamed static binaries from the equivalent upstream e2fsprogs release; it is packaged this way for Red Hat Enterprise Linux 5 to ensure that the many changes included for ext4 do not destabilize the core e2fsprogs in RHEL5.

You should install the e4fsprogs package if you need to manage the performance of an ext4 filesystem.

**ecryptfs-utils-56-8.el5**

- **Group: System Environment/Base**
- **Summary: The eCryptfs mount helper and support libraries**
- **Description:**

eCryptfs is a stacked cryptographic filesystem that ships in the Linux kernel. This package provides the mount helper and supporting libraries to perform key management and mount functions.

Install ecryptfs-utils if you would like to mount eCryptfs.

**fipscheck-1.0.3-1.el5**

- **Group: System Environment/Libraries**
- **Summary: A library for integrity verification of FIPS validated modules**
- **Description:**

FIPSCheck is a library for integrity verification of FIPS validated modules. The package also provides helper binaries for creation and verification of the HMAC-SHA256 checksum files.

#### **freeipmi-0.5.1-6.el5**

- **Group: Applications/System**
- **Summary: FreeIPMI**
- **Description:**

The FreeIPMI project provides "Remote-Console" (out-of-band) and "System Management Software" (in-band) based on Intelligent Platform Management Interface specification.

This package contains a Technology Preview for FreeIPMI. Please visit <http://www.redhat.com/support/service/> for details on the Red Hat support policies.

#### **gcc43-4.3.2-7.el5**

- **Group: Development/Languages**
- **Summary: Preview of GCC version 4.3**
- **Description:**

The gcc43 package contains preview the GNU Compiler Collection version 4.3.

#### **gtk-vnc-0.3.2-3.el5**

- **Group: Development/Libraries**
- **Summary: A GTK widget for VNC clients**
- **Description:**

gtk-vnc is a VNC viewer widget for GTK. It is built using coroutines allowing it to be completely asynchronous while remaining single threaded.

#### **ibsim-0.4-3.el5**

- **Group: System Environment/Libraries**
- **Summary: InfiniBand fabric simulator for management**

- **Description:**

```
ibsim provides simulation of infiniband fabric for using with OFA
OpenSM,
diagnostic and management tools.
```

#### **infiniband-diags-1.4.1-2.el5**

- **Group: System Environment/Libraries**
- **Summary: OpenFabrics Alliance InfiniBand Diagnostic Tools**
- **Description:**

```
This package provides IB diagnostic programs and scripts needed to
diagnose an IB subnet.
```

#### **isns-utils-0.91-0.1.el5**

- **Group: System Environment/Daemons**
- **Summary: The iSNS daemon and utility programs**
- **Description:**

```
The iSNS package contains the daemon and tools to setup a iSNS
server,
and iSNS client tools. The Internet Storage Name Service (iSNS)
protocol
allows automated discovery, management and configuration of iSCSI
and
Fibre Channel devices (using iFCP gateways) on a TCP/IP network.
```

#### **java-1.6.0-openjdk-1.6.0.0-0.25.b09.el5**

- **Group: Development/Languages**
- **Summary: OpenJDK Runtime Environment**
- **Description:**

```
The OpenJDK runtime environment.
```

#### **ktune-0.2-3.el5**

- **Group: System Environment/Base**
- **Summary: Server performance tuning service**
- **Description:**

```
ktune provides settings for server performance tuning. Please have
a look at
/etc/sysconfig/ktune and /etc/sysctl.ktune for tuning
```

parameters.

#### **libcmptutil-0.4-2.e15**

- **Group: System Environment/Libraries**
- **Summary: CMPI Utility Library**
- **Description:**

Libcmptutil is a library of utility functions for CMPI providers. The goal is to reduce the amount of repetitive work done in most CMPI providers by encapsulating common procedures with more "normal" APIs. This extends from operations like getting typed instance properties to standardizing method dispatch and argument checking.

#### **libcxgb3-1.2.2-1.e15**

- **Group: System Environment/Libraries**
- **Summary: Chelsio T3 iWARP HCA Userspace Driver**
- **Description:**

Userspace hardware driver for use with the libibverbs InfiniBand/iWARP verbs library. This driver enables Chelsio iWARP capable ethernet devices.

#### **libehca-1.2-2.e15**

- **Group: System Environment/Libraries**
- **Summary: IBM InfiniBand HCA Userspace Driver**
- **Description:**

IBM hardware driver for use with libibverbs user space verbs access library.

#### **libibcm-1.0.3-1.e15**

- **Group: System Environment/Libraries**
- **Summary: Userspace InfiniBand Communication Manager.**
- **Description:**

libibcm provides a userspace InfiniBand Communication Management library.

**libibcommon-1.1.1-1.e15**

- Group: **System Environment/Libraries**
- Summary: **OpenFabrics Alliance InfiniBand management common library**
- Description:

```
libibcommon provides common utility functions for the OFA
diagnostic and
management tools.
```

**libibmad-1.2.1-1.e15**

- Group: **System Environment/Libraries**
- Summary: **OpenFabrics Alliance InfiniBand MAD library**
- Description:

```
libibmad provides low layer IB functions for use by the IB
diagnostic
and management programs. These include MAD, SA, SMP, and other
basic
IB functions.
```

**libibumad-1.2.1-1.e15**

- Group: **System Environment/Libraries**
- Summary: **OpenFabrics Alliance InfiniBand umad (user MAD) library**
- Description:

```
libibumad provides the user MAD library functions which sit on top
of
the user MAD modules in the kernel. These are used by the IB
diagnostic
and management tools, including OpenSM.
```

**libibverbs-1.1.2-1.e15**

- Group: **System Environment/Libraries**
- Summary: **Library providing access to InfiniBand/iWARP hardware verbs protocol**
- Description:

```
libibverbs is a library that allows userspace processes to use
InfiniBand/iWARP "verbs" as described in the InfiniBand
Architecture
Specification. This includes direct hardware access for fast path
operations.
```

For this library to be useful, a device-specific plug-in module should also be installed.

#### **libipathverbs-1.1-11.e15**

- **Group: System Environment/Libraries**
- **Summary: QLogic InfiniPath HCA Userspace Driver**
- **Description:**

QLogic hardware driver for use with libibverbs user space verbs access library. This driver supports QLogic InfiniPath based cards.

#### **libmlx4-1.0-4.e15**

- **Group: System Environment/Libraries**
- **Summary: Mellanox ConnectX InfiniBand HCA Userspace Driver**
- **Description:**

Mellanox hardware driver for use with libibverbs user space verbs access library. This driver supports Mellanox ConnectX architecture cards.

#### **libmthca-1.0.5-1.e15**

- **Group: System Environment/Libraries**
- **Summary: Mellanox InfiniBand HCA Userspace Driver**
- **Description:**

Mellanox hardware driver for use with libibverbs user space verbs access library. This driver supports Mellanox based Single Data Rate and Dual Data Rate cards, including those from Cisco, Topspin, and Voltaire. It does not support the Connect-X architecture based Quad Data Rate cards (libmlx4 handles that hardware).

#### **libnes-0.5-4.e15**

- **Group: System Environment/Libraries**
- **Summary: NetEffect RNIC Userspace Driver**
- **Description:**

Userspace hardware driver for use with the libibverbs InfiniBand/iWARP verbs library. This driver enables NetEffect iWARP capable ethernet devices.

#### **librdmacm-1.0.8-1.e15**

- **Group: System Environment/Libraries**
- **Summary: Userspace RDMA Connection Manager.**
- **Description:**

librdmacm provides a userspace RDMA Communication Management API.

#### **libsdp-1.1.99-10.e15\_2**

- **Group: System Environment/Libraries**
- **Summary: A library for direct userspace use of Sockets Direct Protocol**
- **Description:**

libsdp is an LD\_PRELOAD-able library that can be used to have existing applications use InfiniBand Sockets Direct Protocol (SDP) instead of TCP sockets, transparently and without recompilation. For information on how to configure libsdp, see libsdp.conf, which is installed in \$(sysconfdir) (usually /usr/local/etc or /etc).

#### **libsmi-0.4.5-2.e15**

- **Group: System Environment/Libraries**
- **Summary: A library to access SMI MIB information**
- **Description:**

Libsmi is a C library to access MIB module information through a well defined API that hides the nasty details of locating and parsing SMIV1/v2 MIB modules.

This package contains tools to check, dump, and convert MIB definitions and a steadily maintained and revised archive of all IETF and IANA maintained standard MIB modules.

#### **libspe2-2.2.80.121-4.e15**

- **Group: System Environment/Base**
- **Summary: SPE Runtime Management Library**

- **Description:**

SPE Runtime Management Library for the Cell Broadband Engine Architecture.

#### **libvirt-cim-0.5.1-4.e15**

- **Group: Development/Libraries**
- **Summary: A CIM provider for libvirt**
- **Description:**

Libvirt-cim is a CMPI CIM provider that implements the DMTF SVPC virtualization model. The goal is to support most of the features exported by libvirt itself, enabling management of multiple platforms with a single provider.

#### **mpi-selector-1.0.1-1.e15**

- **Group: System Environment/Base**
- **Summary: Provides site-wide and per-user MPI implementation selection**
- **Description:**

A simple tool that allows system administrators to set a site-wide default for which MPI implementation is to be used, but also allow users to set their own default MPI implementation, thereby overriding the site-wide default.

The default can be changed easily via the mpi-selector command -- editing of shell startup files is not required.

#### **mpitests-3.0-2.e15**

- **Group: Applications**
- **Summary: MPI Benchmarks and tests**
- **Description:**

Set of popular MPI benchmarks:  
IMB-2.3  
Presta-1.4.0  
OSU benchmarks ver 2.2

#### **mstflint-1.3-1.e15**

- **Group: Applications/System**
- **Summary: Mellanox firmware burning tool**



- **Description:**

This package contains a burning tool for Mellanox manufactured HCA cards.  
It also provides access to the relevant source code.

#### **mvapich-1.1.0-0.2931.3.e15**

- **Group: Development/Libraries**
- **Summary: MPI implementation over Infiniband RDMA-enabled interconnect**
- **Description:**

This is high performance and scalable MPI-1 implementation over Infiniband and RDMA-enabled interconnect.  
This implementation is based on MPICH and MVICH. MVAPICH is pronounced as `em-vah-pich`.

#### **mvapich2-1.0.3-3.e15**

- **Group: Development/Libraries**
- **Summary: OSU MVAPICH2 MPI package**
- **Description:**

This is an MPI-2 implementation which includes all MPI-1 features.  
It is based on MPICH2 and MVICH.

#### **nedit-5.5-21.e15**

- **Group: Applications/Editors**
- **Summary: A GUI text editor for systems with X**
- **Description:**

NEdit is a GUI text editor for the X Window System. NEdit is very easy to use, especially if you are familiar with the Macintosh(TM) or Microsoft(TM) Windows(TM) style of interface.

#### **nspluginwrapper-0.9.91.5-22.e15**

- **Group: Networking/WWW**
- **Summary: A compatibility layer for Netscape 4 plugins**
- **Description:**

nspluginwrapper makes it possible to use Netscape 4 compatible plugins

compiled for ppc into Mozilla for another architecture, e.g. x86\_64.

This package consists in:

- \* npviewer: the plugin viewer
- \* npwrapper.so: the browser-side plugin
- \* mozilla-plugin-config: a tool to manage plugins installation and update

#### **ofed-docs-1.3.2-0.20080728.0355.1.e15**

- **Group: Documentation/Man**
- **Summary: OpenFabrics Enterprise Distribution documentation**
- **Description:**

Documentation from OFED 1.3

#### **opensm-3.2.2-3.e15**

- **Group: System Environment/Daemons**
- **Summary: OpenIB InfiniBand Subnet Manager and management utilities**
- **Description:**

OpenSM is the OpenIB project's Subnet Manager for Infiniband networks. The subnet manager is run as a system daemon on one of the machines in the infiniband fabric to manage the fabric's routing state. This package also contains various tools for diagnosing and testing Infiniband networks that can be used from any machine and do not need to be run on a machine running the opensm daemon.

#### **openswan-2.6.14-1.e15\_2.1**

- **Group: System Environment/Daemons**
- **Summary: Openswan IPSEC implementation**
- **Description:**

Openswan is a free implementation of IPSEC & IKE for Linux. IPSEC is the Internet Protocol Security and uses strong cryptography to provide both authentication and encryption services. These services allow you to build secure tunnels through untrusted networks. Everything passing

through the untrusted net is encrypted by the ipsec gateway machine and decrypted by the gateway at the other end of the tunnel. The resulting tunnel is a virtual private network or VPN.

This package contains the daemons and userland tools for setting up Openswan on a freeswan enabled kernel.

#### **perftest-1.2-11.e15**

- **Group: Productivity/Networking/Diagnostic**
- **Summary: IB Performance tests**
- **Description:**

gen2 uverbs microbenchmarks

#### **perl-Archive-Zip-1.16-1.2.1**

- **Group: Development/Libraries**
- **Summary: Perl library for accessing Zip archives**
- **Description:**

The Archive::Zip module allows a Perl program to create, manipulate, read, and write Zip archive files. Zip archives can be created, or you can read from existing zip files. Once created, they can be written to files, streams, or strings. Members can be added, removed, extracted, replaced, rearranged, and enumerated. They can also be renamed or have their dates, comments, or other attributes queried or modified. Their data can be compressed or uncompressed as needed. Members can be created from members in existing Zip files, or from existing directories, files, or strings.

#### **perl-Config-General-2.40-1.e15**

- **Group: Development/Libraries**
- **Summary: Generic configuration module for Perl**
- **Description:**

This module opens a config file and parses it's contents for you. After parsing the module returns a hash structure which contains

the representation of the config file.  
The format of config files supported by Config::General is inspired by the well known apache config format, in fact, this module is 100% read-compatible to apache configs, but you can also just use simple name/value pairs in your config files.  
In addition to the capabilities of a apache config file it supports some enhancements such as here-documents, C- style comments or multiline options. It is also possible to save the config back to disk, which makes the module a perfect backend for configuration interfaces.  
It is possible to use variables in config files and there exists also support for object oriented access to the configuration.

### **pexpect-2.3-1.e15**

- **Group: Development/Languages**
- **Summary: Pure Python Expect-like module**
- **Description:**

Pexpect is a pure Python module for spawning child applications; controlling them; and responding to expected patterns in their output. Pexpect works like Don Libes' Expect. Pexpect allows your script to spawn a child application and control it as if a human were typing commands.

Pexpect can be used for automating interactive applications such as ssh, ftp, passwd, telnet, etc. It can be used to automate setup scripts for duplicating software package installations on different servers. And it can be used for automated software testing. Pexpect is in the spirit of Don Libes' Expect, but Pexpect is pure Python. Unlike other Expect-like modules for Python, Pexpect does not require TCL or Expect nor does it require C extensions to be compiled. It should work on any platform that supports the standard Python pty module.

### **python-iniparse-0.2.3-4.e15**

- **Group: Development/Libraries**
- **Summary: Python Module for Accessing and Modifying Configuration Data in INI files**

- **Description:**

```
iniparse is an INI parser for Python which is API compatible
with the standard library's ConfigParser, preserves structure of
INI
files (order of sections & options, indentation, comments, and
blank
lines are preserved when data is updated), and is more convenient
to
use.
```

#### **python-setuptools-0.6c5-2.el5**

- **Group: Development/Languages**

- **Summary: Download, build, install, upgrade, and uninstall Python packages**

- **Description:**

```
setuptools is a collection of enhancements to the Python distutils
that allow
you to more easily build and distribute Python packages,
especially ones that
have dependencies on other packages.
```

#### **qlvnictools-0.0.1-10.el5**

- **Group: System Environment/Base**

- **Summary: VNIC ULP service**

- **Description:**

```
VNIC ULP service
```

#### **qperf-0.4.1-2.el5**

- **Group: Networking/Diagnostic**

- **Summary: Measure socket and RDMA performance**

- **Description:**

```
Measure socket and RDMA performance.
```

#### **rsyslog-2.0.6-1.el5**

- **Group: System Environment/Daemons**

- **Summary: Enhanced system logging and kernel message trapping daemons**

- **Description:**

Rsyslog is an enhanced multi-threaded syslogd supporting, among others, MySQL, syslog/tcp, RFC 3195, permitted sender lists, filtering on any message part, and fine grain output format control. It is quite compatible to stock syslogd and can be used as a drop-in replacement. Its advanced features make it suitable for enterprise-class, encryption protected syslog relay chains while at the same time being very easy to setup for the novice user.

#### **setroubleshoot-plugins-2.0.4-2.el5**

- **Group: Applications/System**
- **Summary: Analysis plugins for use with setroubleshoot**
- **Description:**

This package provides a set of analysis plugins for use with setroubleshoot. Each plugin has the capacity to analyze SELinux AVC data and system data to provide user friendly reports describing how to interpret SELinux AVC denials.

#### **sgpio-1.2.0\_10-2.el5**

- **Group: System Environment/Base**
- **Summary: SGPIO captive backplane tool**
- **Description:**

Intel SGPIO enclosure management utility  
This package contains (part of) a Technology Preview for Application for AHCI driver with SGPIO support.  
Please visit <http://www.redhat.com/support/service/> for details on the Red Hat support policies.

#### **srptools-0.0.4-2.el5**

- **Group: System Environment/Base**
- **Summary: Tools for using the InfiniBand SRP protocol devices**
- **Description:**

In conjunction with the kernel `ib_srp` driver, `srptools` allows you to discover and use SCSI devices via the SCSI RDMA Protocol over InfiniBand.

**system-config-netboot-0.1.45.1-1.el5**

- Group: **Applications/System**
- Summary: **network booting/install configuration utility (GUI)**
- Description:

system-config-netboot is a utility which allows you to configure diskless environments and network installations.

**tpm-tools-1.3.1-1.el5**

- Group: **Applications/System**
- Summary: **Management tools for the TPM hardware**
- Description:

tpm-tools is a group of tools to manage and utilize the Trusted Computing Group's TPM hardware. TPM hardware can create, store and use RSA keys securely (without ever being exposed in memory), verify a platform's software state using cryptographic hashes and more.

**trousers-0.3.1-4.el5**

- Group: **System Environment/Libraries**
- Summary: **TCG's Software Stack v1.2**
- Description:

TrouSerS is an implementation of the Trusted Computing Group's Software Stack (TSS) specification. You can use TrouSerS to write applications that make use of your TPM hardware. TPM hardware can create, store and use RSA keys securely (without ever being exposed in memory), verify a platform's software state using cryptographic hashes and more.

**tvflash-0.9.0-2.el5**

- Group: **Applications/System**
- Summary: **Tool to manage Mellanox HCA firmware flash memory**
- Description:

tvflash is used to query and update the firmware flash memory attached

to Mellanox InfiniBand HCAs.

#### **udftools-1.0.0b3-0.1.el5**

- Group: **Applications/Archiving**
- Summary: **Linux UDF Filesystem userspace utilities**
- Description:

Linux UDF Filesystem userspace utilities.

#### **virt-viewer-0.0.2-2.el5**

- Group: **Applications/System**
- Summary: **Virtual Machine Viewer**
- Description:

Virtual Machine Viewer provides a graphical console client for connecting to virtual machines. It uses the GTK-VNC widget to provide the display, and libvirt for looking up VNC server details.

#### **wacomexpresskeys-0.4.1-1.el5**

- Group: **System Environment/Base**
- Summary: **Wacom ExpressKeys and Touch Strips configuration utility**
- Description:

Configuration utility to bind Wacom tablet's ExpressKeys and Touch Strips to generate other input events.

#### **wdaemon-0.14-2**

- Group: **User Interface/X Hardware Support**
- Summary: **Hotplug helper for Wacom X.org driver**
- Description:

Helper application which emulates persistent input devices for Wacom tablets so they can be plugged and unplugged while X.org server is running. This should go away as soon X.org properly supports hotplugging.

#### **xulrunner-1.9.0.5-1.el5\_2**



- Group: **Applications/Internet**
- Summary: **XUL Runtime for Gecko Applications**
- Description:

XULRunner provides the XUL Runtime environment for Gecko applications.

#### **yum-updatesd-0.9-2.el5**

- Group: **System Environment/Base**
- Summary: **Update notification daemon**
- Description:

yum-updatesd provides a daemon which checks for available updates and can notify you when they are available via email, syslog or dbus.

## **11. DROPPED PACKAGES**

#### **cachefilesd-0.8-2.el5**

- Group: **System Environment/Daemons**
- Summary: **CacheFiles userspace management daemon**
- Description:

The cachefilesd daemon manages the caching files and directory that are used by network filesystems such as AFS and NFS to do persistent caching to the local disk.

#### **frysk-0.0.1.2007.06.21.rh2-4.el5**

- Group: **Development/System**
- Summary: **Frysk execution analysis tool**
- Description:

Frysk is an execution-analysis technology implemented using native Java and C++. It is aimed at providing developers and sysadmins with the ability to both examine and analyze running multi-host, multi-process, multi-threaded systems. Frysk allows the monitoring of running processes and threads, of locking

primitives and will also expose deadlocks, gather data and debug any given process in the system.

#### **gfs2-kmod-1.52-1.16.el5**

- **Group: System Environment/Kernel**
- **Summary: gfs2 kernel module**
- **Description:**

GFS2 - The GFS2 filesystem provided for RHEL5.

#### **sysreport-1.4.3-13.el5**

- **Group: Development/Debuggers**
- **Summary: Gathers system hardware and configuration information.**
- **Description:**

Sysreport is a utility that gathers information about a system's hardware and configuration. The information can then be used for diagnostic purposes and debugging. Sysreport is commonly used to help support technicians and developers by providing a "snapshot" of a system's current layout.

## **12. UPDATED PACKAGES**

#### **Cluster\_Administration-5.1.0-7 - Cluster\_Administration-5.2-1**

- **Group: Documentation**
- **Summary: Red Hat Cluster for Red Hat Enterprise Linux**
- **Description:**

Configuring and Managing a Red Hat Cluster describes the configuration and management of Red Hat cluster systems for Red Hat Enterprise Linux 5.2 It does not include information about Red Hat Linux Virtual Servers (LVS). Information about installing and configuring LVS is in a separate document.

- **No added dependencies**
- **No removed dependencies**

#### **Deployment\_Guide-5.1.0-11 - Deployment\_Guide-5.2-11**

- Group: **Documentation**
- Summary: **Deployment Guide**
- Description:

This Deployment Guide documents relevant information regarding the deployment, configuration and administration of Red Hat Enterprise Linux 5.2.

- No added dependencies
- No removed dependencies

#### **Global\_File\_System-5.1.0-6 - Global\_File\_System-5.2-1**

- Group: **Documentation**
- Summary: **Red Hat Global File System**
- Description:

This book provides information about installing, configuring, and maintaining Red Hat GFS (Red Hat Global File System) for Red Hat Enterprise Linux 5.2.

- No added dependencies
- No removed dependencies

#### **ImageMagick-6.2.8.0-3.el5.4 - ImageMagick-6.2.8.0-4.el5\_1.1**

- Group: **Applications/Multimedia**
- Summary: **An X application for displaying and manipulating images.**
- Description:

ImageMagick(TM) is an image display and manipulation tool for the X Window System. ImageMagick can read and write JPEG, TIFF, PNM, GIF, and Photo CD image formats. It can resize, rotate, sharpen, color reduce, or add special effects to an image, and when finished you can either save the completed work in the original format or a different one. ImageMagick also includes command line programs for creating animated or transparent .gifs, creating composite images, creating thumbnail images, and more.

ImageMagick is one of your choices if you need a program to manipulate

and display images. If you want to develop your own applications which use ImageMagick code or APIs, you need to install ImageMagick-devel as well.

- No added dependencies
- No removed dependencies

#### **NetworkManager-0.6.4-6.el5 - NetworkManager-0.7.0-3.el5**

- **Group: System Environment/Base**
- **Summary: Network connection manager and user applications**
- **Description:**

NetworkManager attempts to keep an active network connection available at all times. It is intended only for the desktop use-case, and is not intended for usage on servers. The point of NetworkManager is to make networking configuration and setup as painless and automatic as possible. If using DHCP, NetworkManager is intended to replace default routes, obtain IP addresses from a DHCP server, and change nameservers whenever it sees fit.

- **Added Dependencies:**
  - autoconf
  - automake
  - dbus-devel >= 1.1
  - dbus-glib-devel >= 0.73-6
  - dhclient
  - doxygen
  - gtk-doc
  - intltool
  - libdaemon-devel
  - libnotify-devel >= 0.4.2
  - libtool
  - nss-devel >= 3.11.7
  - perl(XML::Parser)
  - ppp >= 2.2.4

- wireless-tools-devel >= 1:28-2
- **Removed Dependencies:**
  - dbus-devel >= 0.90
  - dbus-glib-devel >= 0.70
  - dhcdd
  - gnome-panel-devel
  - libgnomeui-devel
  - libnl-devel
  - libnotify-devel >= 0.3
  - perl-XML-Parser
  - wireless-tools-devel >= 1:28-0pre9

#### **ORBit2-2.14.3-4.e15 - ORBit2-2.14.3-5.e15**

- **Group: System Environment/Daemons**
- **Summary: A high-performance CORBA Object Request Broker**
- **Description:**

ORBit is a high-performance CORBA (Common Object Request Broker Architecture) ORB (object request broker). It allows programs to send requests and receive replies from other programs, regardless of the locations of the two programs. CORBA is an architecture that enables communication between program objects, regardless of the programming language they're written in or the operating system they run on.

You will need to install this package and ORBit-devel if you want to write programs that use CORBA technology.

- **No added dependencies**
- **No removed dependencies**

#### **OpenIPMI-2.0.6-5.e15.4 - OpenIPMI-2.0.6-11.e15**

- **Group: System Environment/Base**
- **Summary: OpenIPMI (Intelligent Platform Management Interface) library and tools**
- **Description:**

-

The Open IPMI project aims to develop an open code base to allow access to platform information using Intelligent Platform Management Interface (IPMI).  
This package contains the tools of the OpenIPMI project.

- No added dependencies
- No removed dependencies

#### **SysVinit-2.86-14 - SysVinit-2.86-15.el5**

- Group: **System Environment/Base**
- Summary: **Programs which control basic system processes.**
- Description:

The SysVinit package contains a group of processes that control the very basic functions of your system. SysVinit includes the `init` program, the first program started by the Linux kernel when the system boots. Init then controls the startup, running, and shutdown of all other programs.

- No added dependencies
- No removed dependencies

#### **Virtualization-5.1.0-12 - Virtualization-5.2-11**

- Group: **Documentation**
- Summary: **Virtualization Guide**
- Description:

The Red Hat Enterprise Linux Virtualization Guide contains information on installation, configuring, administering, tips, tricks and troubleshooting virtualization technologies used in Red Hat Enterprise Linux.

- No added dependencies
- No removed dependencies

#### **a2ps-4.13b-57.1.el5 - a2ps-4.13b-57.2.el5**

- Group: **Applications/Publishing**
- Summary: **Converts text and other types of files to PostScript(TM).**
- Description:

The a2ps filter converts text and other types of files to PostScript(TM). A2ps has pretty-printing capabilities and includes support for a wide number of programming languages, encodings (ISO Latins, Cyrillic, etc.), and medias.

- Added Dependencies:
  - psutils
- No removed dependencies

#### **acl-2.2.39-2.1.el5 - acl-2.2.39-3.el5**

- Group: **System Environment/Base**
- Summary: **Access control list utilities.**
- Description:

This package contains the getfacl and setfacl utilities needed for manipulating access control lists.

- No added dependencies
- No removed dependencies

#### **acpid-1.0.4-5 - acpid-1.0.4-7.el5**

- Group: **System Environment/Daemons**
- Summary: **ACPI Event Daemon**
- Description:

acpid is a daemon that dispatches ACPI events to user-space programs.

- No added dependencies
- No removed dependencies

#### **alsa-lib-1.0.14-1.rc4.el5 - alsa-lib-1.0.17-1.el5**

- Group: **System Environment/Libraries**
- Summary: **The Advanced Linux Sound Architecture (ALSA) library.**
- Description:

The Advanced Linux Sound Architecture (ALSA) provides audio and MIDI functionality to the Linux operating system.

This package includes the ALSA runtime libraries to simplify application programming and provide higher level functionality as well as support for the older OSS API, providing binary compatibility for most OSS programs.

- No added dependencies
- No removed dependencies

#### **alsa-utils-1.0.14-2.rc4.el5 - alsa-utils-1.0.17-1.el5**

- Group: **Applications/Multimedia**
- Summary: **Advanced Linux Sound Architecture (ALSA) utilities**
- Description:

This package contains command line utilities for the Advanced Linux Sound Architecture (ALSA).

- Added Dependencies:
  - alsa-lib-devel >= 1.0.17
- Removed Dependencies:
  - alsa-lib-devel >= 1.0.14

#### **amtu-1.0.4-4 - amtu-1.0.6-1.el5**

- Group: **System Environment/Base**
- Summary: **Abstract Machine Test Utility (AMTU)**
- Description:

Abstract Machine Test Utility (AMTU) is an administrative utility to check whether the underlying protection mechanism of the hardware are still being enforced. This is a requirement of the Controlled Access Protection Profile FPT\_AMT.1, see [http://www.radium.ncsc.mil/tpep/library/protection\\_profiles/CAPP-1.d.pdf](http://www.radium.ncsc.mil/tpep/library/protection_profiles/CAPP-1.d.pdf)

- No added dependencies
- No removed dependencies

#### **anaconda-11.1.2.87-1 - anaconda-11.1.2.168-1**



- Group: **Applications/System**
- Summary: **Graphical system installer**
- Description:

The anaconda package contains the program which was used to install your system. These files are of little use on an already installed system.

- Added Dependencies:
  - iscsi-initiator-utils >= 6.2.0.868-0.9
  - kudzu-devel >= 1.2.57.1.18
  - libdhcp-devel >= 1.20-5
  - libnl-devel >= 1.0-0.10.pre5.5
- Removed Dependencies:
  - glib2-devel >= 2.11.1-5
  - kudzu-devel >= 1.2.57.1.15
  - libdhcp-devel >= 1.16

#### **apr-util-1.2.7-6 - apr-util-1.2.7-7.e15**

- Group: **System Environment/Libraries**
- Summary: **Apache Portable Runtime Utility library**
- Description:

The mission of the Apache Portable Runtime (APR) is to provide a free library of C data structures and routines. This library contains additional utility interfaces for APR; including support for XML, LDAP, database interfaces, URI parsing and more.

- No added dependencies
- No removed dependencies

#### **at-spi-1.7.11-2.fc6 - at-spi-1.7.11-3.e15**

- Group: **System Environment/Libraries**
- Summary: **Assistive Technology Service Provider Interface**
- Description:

at-spi allows assistive technologies to access GTK-based applications. Essentially it exposes the internals of applications

for automation, so tools such as screen readers, magnifiers, or even scripting interfaces can query and interact with GUI controls.

- No added dependencies
- No removed dependencies

#### **audit-1.5.5-7.el5 - audit-1.7.7-6.el5**

- Group: **System Environment/Daemons**
- Summary: **User space tools for 2.6 kernel auditing**
- Description:

The audit package contains the user space utilities for storing and searching the audit records generate by the audit subsystem in the Linux 2.6 kernel.

- Added Dependencies:
  - openldap-devel
  - tcp\_wrappers
- No removed dependencies

#### **authconfig-5.3.12-2.el5 - authconfig-5.3.21-5.el5**

- Group: **System Environment/Base**
- Summary: **Command line tool for setting up authentication from network services**
- Description:

Authconfig is a command line utility which can configure a workstation to use shadow (more secure) passwords. Authconfig can also configure a system to be a client for certain networked user information and authentication schemes.

- Added Dependencies:
  - python >= 2.4.1
- Removed Dependencies:
  - python

#### **autofs-5.0.1-0.rc2.55 - autofs-5.0.1-0.rc2.102**

- Group: **System Environment/Daemons**

- **Summary: A tool for automatically mounting and unmounting filesystems.**

- **Description:**

```
autofs is a daemon which automatically mounts filesystems when you
use
them, and unmounts them later when you are not using them. This
can
include network filesystems, CD-ROMs, floppies, and so forth.
```

- No added dependencies
- No removed dependencies

#### **bash-3.1-16.1 - bash-3.2-24.e15**

- **Group: System Environment/Shells**
- **Summary: The GNU Bourne Again shell (bash) version 3.2**
- **Description:**

```
The GNU Bourne Again shell (Bash) is a shell or command language
interpreter that is compatible with the Bourne shell (sh). Bash
incorporates useful features from the Korn shell (ksh) and the C
shell
(csh). Most sh scripts can be run by bash without modification.
This
package (bash) contains bash version 3.2, which improves POSIX
compliance over previous versions.
```

- **Added Dependencies:**
  - autoconf
  - gettext
- No removed dependencies

#### **bind-9.3.3-10.e15 - bind-9.3.4-10.P1.e15**

- **Group: System Environment/Daemons**
- **Summary: The Berkeley Internet Name Domain (BIND) DNS (Domain Name System) server.**
- **Description:**

```
BIND (Berkeley Internet Name Domain) is an implementation of the
DNS
(Domain Name System) protocols. BIND includes a DNS server
(named),
```

which resolves host names to IP addresses; a resolver library (routines for applications to use when interfacing with DNS); and tools for verifying that the DNS server is operating properly.

- No added dependencies
- No removed dependencies

#### **binutils-2.17.50.0.6-5.e15 - binutils-2.17.50.0.6-9.e15**

- Group: **Development/Tools**
- Summary: **A GNU collection of binary utilities.**
- Description:

Binutils is a collection of binary utilities, including ar (for creating, modifying and extracting from archives), as (a family of GNU assemblers), gprof (for displaying call graph profile data), ld (the GNU linker), nm (for listing symbols from object files), objcopy (for copying and translating object files), objdump (for displaying information from object files), ranlib (for generating an index for the contents of an archive), size (for listing the section sizes of an object or archive file), strings (for listing printable strings from files), strip (for discarding symbols), and addr2line (for converting addresses to file and line).

- No added dependencies
- No removed dependencies

#### **bluez-libs-3.7-1 - bluez-libs-3.7-1.1**

- Group: **System Environment/Libraries**
- Summary: **Bluetooth libraries**
- Description:

Libraries for use in Bluetooth applications.

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- No added dependencies
- No removed dependencies

#### **bluez-utils-3.7-2 - bluez-utils-3.7-2.2**

- Group: **Applications/System**
- Summary: **Bluetooth utilities**
- Description:

```
Bluetooth utilities (bluez-utils):
```

- hcitool
- hciattach
- hciconfig
- hcid
- l2ping
- start scripts (Red Hat)
- pcmcia configuration files

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- Added Dependencies:
  - bluez-libs-devel >= 3.7-1.1
- Removed Dependencies:
  - bluez-libs-devel >= 3.7

#### **booty-0.80.4-5 - booty-0.80.6-5**

- Group: **System Environment/Libraries**
- Summary: **simple python bootloader config lib**
- Description:

```
Small python library for use with bootloader configuration by
anaconda
and up2date.
```

- No added dependencies
- No removed dependencies

#### **busybox-1.2.0-3 - busybox-1.2.0-4.el5**

- Group: **System Environment/Shells**
- Summary: **Statically linked binary providing simplified versions of system commands**
- Description:

```
Busybox is a single binary which includes versions of a large
number
of system commands, including a shell. This package can be very
useful for recovering from certain types of system failures,
particularly those involving broken shared libraries.
```

- No added dependencies
- No removed dependencies

**bzip2-1.0.3-3 - bzip2-1.0.3-4.el5\_2**

- Group: **Applications/File**
- Summary: **A file compression utility.**
- Description:

Bzip2 is a freely available, patent-free, high quality data compressor. Bzip2 compresses files to within 10 to 15 percent of the capabilities of the best techniques available. However, bzip2 has the added benefit of being approximately two times faster at compression and six times faster at decompression than those techniques. Bzip2 is not the fastest compression utility, but it does strike a balance between speed and compression capability.

Install bzip2 if you need a compression utility.

- No added dependencies
- No removed dependencies

**cairo-1.2.4-2.el5 - cairo-1.2.4-5.el5**

- Group: **System Environment/Libraries**
- Summary: **A vector graphics library**
- Description:

Cairo is a vector graphics library designed to provide high-quality display and print output. Currently supported output targets include the X Window System, OpenGL (via glitz), in-memory image buffers, and image files (PDF, PostScript, and SVG). Cairo is designed to produce identical output on all output media while taking advantage of display hardware acceleration when available (eg. through the X Render Extension or OpenGL).

- No added dependencies
- No removed dependencies

**ccid-1.0.1-6.el5 - ccid-1.3.8-1.el5**

- Group: **System Environment/Libraries**
- Summary: **Generic USB CCID smart card reader driver**

## ● Description:

Generic USB CCID (Chip/Smart Card Interface Devices) driver.

## ● Added Dependencies:

- pcsc-lite-devel >= 1.3.3

## ● Removed Dependencies:

- pcsc-lite-devel >= %{pcsc-lite\_ver}

**cdrtools-2.01-10 - cdrtools-2.01-10.7.el5**

- Group: **Applications/System**
- Summary: **A collection of CD/DVD utilities.**

## ● Description:

cdrtools is a collection of CD/DVD utilities.

- No added dependencies
- No removed dependencies

**checkpolicy-1.33.1-2.el5 - checkpolicy-1.33.1-4.el5**

- Group: **Development/System**
- Summary: **SELinux policy compiler**

## ● Description:

Security-enhanced Linux is a feature of the Linux® kernel and a number of utilities with enhanced security functionality designed to add mandatory access controls to Linux. The Security-enhanced Linux kernel contains new architectural components originally developed to improve the security of the Flask operating system. These architectural components provide general support for the enforcement of many kinds of mandatory access control policies, including those based on the concepts of Type Enforcement®, Role-based Access Control, and Multi-level Security.

This package contains checkpolicy, the SELinux policy compiler. Only required for building policies.

- 
- No added dependencies
- No removed dependencies

**chkconfig-1.3.30.1-1 - chkconfig-1.3.30.1-2**

- Group: **System Environment/Base**
- Summary: **A system tool for maintaining the /etc/rc\*.d hierarchy.**
- Description:

```
Chkconfig is a basic system utility. It updates and queries
runlevel
information for system services. Chkconfig manipulates the
numerous
symbolic links in /etc/rc.d, to relieve system administrators of
some
of the drudgery of manually editing the symbolic links.
```

- No added dependencies
- No removed dependencies

**clustermon-0.10.0-5.e15 - clustermon-0.12.1-2.e15**

- Group: **System Environment/Base**
- Summary: **Monitoring and management of Red Hat Enterprise Linux Cluster Suite**
- Description:

```
This package contains Red Hat Enterprise Linux Cluster Suite
SNMP/CIM module/agent/provider.
```

- Added Dependencies:
  - cman-devel
- No removed dependencies

**cman-2.0.73-1.e15 - cman-2.0.98-1.e15**

- Group: **System Environment/Base**
- Summary: **cman - The Cluster Manager**
- Description:

```
cman - The Cluster Manager
```

- Added Dependencies:



- kernel-headers
- No removed dependencies

#### conga-0.10.0-6.el5 - conga-0.12.1-7.el5

- Group: **System Environment/Base**
- Summary: **Remote Management System**
- Description:

```
Conga is a project developing management system for remote
stations.
It consists of luci, https frontend, and ricci, secure daemon that
dispatches
incoming messages to underlying management modules.
```

- No added dependencies
- Removed Dependencies:
  - cman-devel

#### control-center-2.16.0-14.el5 - control-center-2.16.0-16.el5

- Group: **User Interface/Desktops**
- Summary: **GNOME Control Center**
- Description:

```
GNOME (the GNU Network Object Model Environment) is an attractive
and
easy-to-use GUI desktop environment. The control-center package
provides the GNOME Control Center utilities that allow you to
setup
and configure your system's GNOME environment (things like the
desktop
background and theme, the screensaver, system sounds, and mouse
behavior).
```

```
If you install GNOME, you need to install control-center.
```

- No added dependencies
- No removed dependencies

#### coolkey-1.1.0-5.el5 - coolkey-1.1.0-6.el5

- Group: **System Environment/Libraries**
- Summary: **CoolKey PKCS #11 module**
- Description:

-

Linux Driver support for the CoolKey and CAC products.

- No added dependencies
- No removed dependencies

#### **coreutils-5.97-12.1.el5 - coreutils-5.97-19.el5**

- Group: **System Environment/Base**
- Summary: **The GNU core utilities: a set of tools commonly used in shell scripts**
- Description:

These are the GNU core utilities. This package is the combination of the old GNU fileutils, sh-utils, and textutils packages.

- No added dependencies
- No removed dependencies

#### **cpufreq-utils-002-1.1.43.el5 - cpufreq-utils-005-1.el5**

- Group: **System Environment/Base**
- Summary: **CPU Frequency changing related utilities**
- Description:

cpufreq-utils contains several utilities that can be used to control the cpufreq interface provided by the kernel on hardware that supports CPU frequency scaling.

- No added dependencies
- No removed dependencies

#### **cpuspeed-1.2.1-1.48.el5 - cpuspeed-1.2.1-5.el5**

- Group: **System Environment/Base**
- Summary: **CPU frequency adjusting daemon**
- Description:

cpuspeed is a daemon that dynamically changes the speed of your processor(s) depending upon its current workload if it is capable (needs Intel Speedstep, AMD PowerNow!, or similar support).

This package also supports enabling cpu frequency scaling via in-kernel governors on Intel Centrino and AMD Athlon64/Opteron platforms.

- No added dependencies
- No removed dependencies

#### **crash-4.0-4.6.1 - crash-4.0-7.2.3**

- Group: **Development/Debuggers**
- Summary: **crash utility for live systems; netdump, diskdump, kdump, LKCD or mcore dumpfiles**
- Description:

The core analysis suite is a self-contained tool that can be used to investigate either live systems, kernel core dumps created from the netdump, diskdump and kdump packages from Red Hat Linux, the mcore kernel patch offered by Mission Critical Linux, or the LKCD kernel patch.

- No added dependencies
- No removed dependencies

#### **createrepo-0.4.4-2.fc6 - createrepo-0.4.11-3.el5**

- Group: **System Environment/Base**
- Summary: **Creates a common metadata repository**
- Description:

This utility will generate a common metadata repository from a directory of rpm packages.

- Added Dependencies:
  - python
- No removed dependencies

#### **crypto-utils-2.3-1 - crypto-utils-2.3-2.el5**

- Group: **Applications/System**
- Summary: **SSL certificate and key management utilities**
- Description:

This package provides tools for managing and generating SSL certificates and keys.

- No added dependencies
- No removed dependencies

#### **cryptsetup-luks-1.0.3-2.2.el5 - cryptsetup-luks-1.0.3-4.el5**

- Group: **Applications/System**
- Summary: **A utility for setting up encrypted filesystems**
- Description:

This package contains cryptsetup, a utility for setting up encrypted filesystems using Device Mapper and the dm-crypt target.

- No added dependencies
- No removed dependencies

#### **cups-1.2.4-11.14.el5 - cups-1.3.7-8.el5**

- Group: **System Environment/Daemons**
- Summary: **Common Unix Printing System**
- Description:

The Common UNIX Printing System provides a portable printing layer for UNIX® operating systems. It has been developed by Easy Software Products to promote a standard printing solution for all UNIX vendors and users. CUPS provides the System V and Berkeley command-line interfaces.

- Added Dependencies:
  - avahi-compat-libdns\_sd-devel
  - krb5-devel
- No removed dependencies

#### **cyrus-imapd-2.3.7-1.1.el5 - cyrus-imapd-2.3.7-2.el5**

- Group: **System Environment/Daemons**
- Summary: **A high-performance mail server with IMAP, POP3, NNTP and SIEVE support**
- Description:

The cyrus-imapd package contains the core of the Cyrus IMAP server.

It is a scaleable enterprise mail system designed for use from small to large enterprise environments using standards-based internet mail technologies.

A full Cyrus IMAP implementation allows a seamless mail and bulletin board environment to be set up across multiple servers. It differs from other IMAP server implementations in that it is run on "sealed" servers, where users are not normally permitted to log in and have no system account on the server. The mailbox database is stored in parts of the filesystem that are private to the Cyrus IMAP server. All user access to mail is through software using the IMAP, POP3 or KPOP protocols. It also includes support for virtual domains, NNTP, mailbox annotations, and much more. The private mailbox database design gives the server large advantages in efficiency, scalability and administratability. Multiple concurrent read/write connections to the same mailbox are permitted. The server supports access control lists on mailboxes and storage quotas on mailbox hierarchies.

The Cyrus IMAP server supports the IMAP4rev1 protocol described in RFC 3501. IMAP4rev1 has been approved as a proposed standard. It supports any authentication mechanism available from the SASL library, imaps/pop3s/nntps (IMAP/POP3/NNTP encrypted using SSL and TLSv1) can be used for security. The server supports single instance store where possible when an email message is addressed to multiple recipients, SIEVE provides server side email filtering.

- No added dependencies
- No removed dependencies

#### **dbus-1.0.0-6.e15 - dbus-1.1.2-12.e15**

- **Group: System Environment/Libraries**
- **Summary: D-BUS message bus**
- **Description:**

D-BUS is a system for sending messages between applications. It is used both for the systemwide message bus service, and as a per-user-login-session messaging facility.

- Added Dependencies:
  - doxygen
  - libxslt
  - xmlto
- No removed dependencies

#### **dbus-glib-0.70-5 - dbus-glib-0.73-8.e15**

- Group: **System Environment/Libraries**
- Summary: **GLib bindings for D-Bus**
- Description:

D-Bus add-on library to integrate the standard D-Bus library with the GLib thread abstraction and main loop.

- No added dependencies
- No removed dependencies

#### **desktop-printing-0.19-20.e15 - desktop-printing-0.19-20.2.e15**

- Group: **Applications/File**
- Summary: **Desktop print icon**
- Description:

Desktop-printing contains egg cups, a program for user print job notification and control.

- No added dependencies
- No removed dependencies

#### **devhelp-0.12-11.e15 - devhelp-0.12-20.e15**

- Group: **Development/Tools**
- Summary: **API document browser**
- Description:

An API document browser for GNOME 2.

- Added Dependencies:
  - gecko-devel-unstable >= 1.9

- Removed Dependencies:
  - gecko-devel = 1.8.0.12

#### **device-mapper-1.02.20-1.el5 - device-mapper-1.02.28-2.el5**

- Group: **System Environment/Base**
- Summary: **device mapper library**
- Description:

```
This package contains the supporting userspace files (libdevmapper
and
dmsetup) for the device-mapper.
```

- No added dependencies
- No removed dependencies

#### **device-mapper-multipath-0.4.7-12.el5 - device-mapper-multipath-0.4.7-23.el5**

- Group: **System Environment/Base**
- Summary: **Tools to manage multipath devices using device-mapper.**
- Description:

```
device-mapper-multipath provides tools to manage multipath devices
by instructing the
device-mapper multipath kernel module what to do.
The tools are :
* multipath : Scan the system for multipath devices and assemble
them.
* multipathd : Detects when paths fail and execs multipath to
update things.
```

- No added dependencies
- No removed dependencies

#### **dhcdbd-2.2-1.el5 - dhcdbd-2.2-2.el5**

- Group: **System Environment/Daemons**
- Summary: **DHCP D-BUS daemon (dhcdbd) controls dhclient sessions with D-BUS, stores and presents DHCP options.**
- Description:

```
dhcdbd provides a D-BUS interface to the ISC dhclient software.
The
daemon provides access to DHCP configuration operations and stores
those
```

options persistently. Other D-BUS applications can receive notifications of changes in the client's DHCP configuration.

- No added dependencies
- No removed dependencies

#### **dhcp-3.0.5-7.el5 - dhcp-3.0.5-18.el5**

- Group: **System Environment/Daemons**
- Summary: **DHCP (Dynamic Host Configuration Protocol) server and relay agent.**
- Description:

DHCP (Dynamic Host Configuration Protocol) is a protocol which allows individual devices on an IP network to get their own network configuration information (IP address, subnetmask, broadcast address, etc.) from a DHCP server. The overall purpose of DHCP is to make it easier to administer a large network. The dhcp package includes the ISC DHCP service and relay agent.

To use DHCP on your network, install a DHCP service (or relay agent), and on clients run a DHCP client daemon. The dhcp package provides the ISC DHCP service and relay agent.

- No added dependencies
- No removed dependencies

#### **dhcpv6-0.10-33.el5 - dhcpv6-1.0.10-16.el5**

- Group: **System Environment/Daemons**
- Summary: **DHCPv6 - DHCP server and client for IPv6**
- Description:

Implements the Dynamic Host Configuration Protocol (DHCP) for Internet Protocol version 6 (IPv6) networks in accordance with RFC 3315: Dynamic Host Configuration Protocol for IPv6 (DHCPv6). Consists of dhcp6s(8), the server DHCP daemon, and dhcp6r(8), the DHCPv6 relay agent.



Install this package if you want to support dynamic configuration of IPv6 addresses and parameters on your IPv6 network.

- **Added Dependencies:**
  - kernel-headers
- **Removed Dependencies:**
  - openssl-devel

#### **diffstat-1.41-1.2.2 - diffstat-1.41-1.2.3.el5**

- **Group: Development/Tools**
- **Summary: A utility which provides statistics based on the output of diff.**
- **Description:**

The diff command compares files line by line. Diffstat reads the output of the diff command and displays a histogram of the insertions, deletions and modifications in each file. Diffstat is commonly used to provide a summary of the changes in large, complex patch files.

Install diffstat if you need a program which provides a summary of the diff command's output. You'll need to also install diffutils.

- No added dependencies
- No removed dependencies

#### **diffutils-2.8.1-15.2.2 - diffutils-2.8.1-15.2.3.el5**

- **Group: Applications/Text**
- **Summary: A GNU collection of diff utilities.**
- **Description:**

Diffutils includes four utilities: diff, cmp, diff3 and sdiff. Diff compares two files and shows the differences, line by line. The cmp command shows the offset and line numbers where two files differ, or cmp can show the characters that differ between the two files. The diff3 command shows the differences between three files. Diff3 can be used when two people have made independent changes to a common original; diff3 can produce a merged file that contains both sets of

changes and warnings about conflicts. The `sdiff` command can be used to merge two files interactively.

Install `diffutils` if you need to compare text files.

- No added dependencies
- No removed dependencies

#### **dmraid-1.0.0.rc13-4.el5 - dmraid-1.0.0.rc13-33.el5**

- Group: **System Environment/Base**
- Summary: **dmraid (Device-mapper RAID tool and library)**
- Description:

DMRAID supports RAID device discovery, RAID set activation and display of properties for ATARAID on Linux  $\geq$  2.4 using device-mapper.

- No added dependencies
- No removed dependencies

#### **dnsmasq-2.39-2.el5 - dnsmasq-2.45-1.el5\_2.1**

- Group: **System Environment/Daemons**
- Summary: **A lightweight DHCP/caching DNS server**
- Description:

Dnsmasq is lightweight, easy to configure DNS forwarder and DHCP server. It is designed to provide DNS and, optionally, DHCP, to a small network. It can serve the names of local machines which are not in the global DNS. The DHCP server integrates with the DNS server and allows machines with DHCP-allocated addresses to appear in the DNS with names configured either in each host or in a central configuration file. Dnsmasq supports static and dynamic DHCP leases and BOOTP for network booting of diskless machines.

- No added dependencies
- No removed dependencies

#### **dosfstools-2.11-6.2.el5 - dosfstools-2.11-7.el5**

- Group: **Applications/System**
- Summary: **Utilities for making and checking MS-DOS FAT filesystems on Linux.**
- Description:
 

The dosfstools package includes the mkdosfs and dosfsck utilities, which respectively make and check MS-DOS FAT filesystems on hard drives or on floppies.
- No added dependencies
- No removed dependencies

#### **dovecot-1.0-1.2.rc15.e15 - dovecot-1.0.7-7.e15**

- Group: **System Environment/Daemons**
- Summary: **Dovecot Secure imap server**
- Description:
 

Dovecot is an IMAP server for Linux/UNIX-like systems, written with security primarily in mind. It also contains a small POP3 server. It supports mail in either of maildir or mbox formats.
- No added dependencies
- No removed dependencies

#### **dvgrab-2.0-1.2.2 - dvgrab-3.0-1.e15**

- Group: **Applications/Multimedia**
- Summary: **Utility to capture video from a DV camera**
- Description:
 

The dvgrab utility will capture digital video from a DV source on the firewire (IEEE-1394) bus.
- No added dependencies
- No removed dependencies

#### **e2fsprogs-1.39-10.e15 - e2fsprogs-1.39-20.e15**

- Group: **System Environment/Base**
- Summary: **Utilities for managing the second and third extended (ext2/ext3) filesystems**

- **Description:**

The e2fsprogs package contains a number of utilities for creating, checking, modifying, and correcting any inconsistencies in second and third extended (ext2/ext3) filesystems. E2fsprogs contains e2fsck (used to repair filesystem inconsistencies after an unclean shutdown), mke2fs (used to initialize a partition to contain an empty ext2 filesystem), debugfs (used to examine the internal structure of a filesystem, to manually repair a corrupted filesystem, or to create test cases for e2fsck), tune2fs (used to modify filesystem parameters), and most of the other core ext2fs filesystem utilities.

You should install the e2fsprogs package if you need to manage the performance of an ext2 and/or ext3 filesystem.

- No added dependencies
- No removed dependencies

#### **eclipse-3.2.1-18.el5 - eclipse-3.2.1-19.el5**

- **Group: Text Editors/Integrated Development Environments (IDE)**
- **Summary: An open, extensible IDE**
- **Description:**

The Eclipse Platform is designed for building integrated development environments (IDEs) that can be used to create applications as diverse as web sites, embedded Java(tm) programs, C++ programs, and Enterprise JavaBeans(tm).

- No added dependencies
- **Removed Dependencies:**
  - firefox-devel
  - nspr-devel

#### **ed-0.2-38.2.2 - ed-0.2-39.el5\_2**

- **Group: Applications/Text**
- **Summary: The GNU line editor.**
- **Description:**

Ed is a line-oriented text editor, used to create, display, and modify

text files (both interactively and via shell scripts). For most purposes, ed has been replaced in normal usage by full-screen editors (emacs and vi, for example).

Ed was the original UNIX editor, and may be used by some programs. In general, however, you probably don't need to install it and you probably won't use it.

- No added dependencies
- No removed dependencies

#### **edac-utils-0.9-5.el5 - edac-utils-0.9-6.el5**

- Group: **System Environment/Base**
- Summary: **Userspace helper for kernel EDAC drivers**
- Description:

EDAC is the current set of drivers in the Linux kernel that handle detection of ECC errors from memory controllers for most chipsets on i386 and x86\_64 architectures. This userspace component consists of an init script which makes sure EDAC drivers and DIMM labels are loaded at system startup, as well as a library and utility for reporting current error counts from the EDAC sysfs files.

- No added dependencies
- No removed dependencies

#### **elfutils-0.125-3.el5 - elfutils-0.137-3.el5**

- Group: **Development/Tools**
- Summary: **A collection of utilities and DSOs to handle compiled objects**
- Description:

Elfutils is a collection of utilities, including ld (a linker), nm (for listing symbols from object files), size (for listing the section sizes of an object or archive file), strip (for discarding symbols), readelf (to see the raw ELF file structures), and elflint (to check for well-formed ELF files).

- No added dependencies
- No removed dependencies

**emacs-21.4-19.e15 - emacs-21.4-20.e15**

- Group: **Applications/Editors**
- Summary: **GNU Emacs text editor**
- Description:

Emacs is a powerful, customizable, self-documenting, modeless text editor. Emacs contains special code editing features, a scripting language (elisp), and the capability to read mail, news, and more without leaving the editor.

This package provides an emacs binary with support for X windows.

- No added dependencies
- No removed dependencies

**emacspeak-23.0-2.1 - emacspeak-23.0-3.e15**

- Group: **Applications/Editors**
- Summary: **emacspeak -- The Complete Audio Desktop**
- Description:

Emacspeak is a speech interface that allows visually impaired users to interact independently and efficiently with the computer. Emacspeak has dramatically changed how the author and hundreds of blind and visually impaired users around the world interact with the personal computer and the Internet. A rich suite of task-oriented speech-enabled tools provides efficient speech-enabled access to the evolving semantic WWW. When combined with Linux running on low-cost PC hardware, Emacspeak/Linux provides a reliable, stable speech-friendly solution that opens up the Internet to visually impaired users around the world.

- No added dependencies
- No removed dependencies

**enscript-1.6.4-4.1.e15 - enscript-1.6.4-4.1.1.e15\_2**

- Group: **Applications/Publishing**
- Summary: **A plain ASCII to PostScript converter.**
- Description:

GNU enscript is a free replacement for Adobe's Enscript

program. Enscript converts ASCII files to PostScript(TM) and spools generated PostScript output to the specified printer or saves it to a file. Enscript can be extended to handle different output media and includes many options for customizing printouts.

- No added dependencies
- No removed dependencies

#### **esc-1.0.0-32.el5 - esc-1.0.0-39.el5**

- Group: **Applications/Internet**
- Summary: **Enterprise Security Client Smart Card Client**
- Description:

Enterprise Security Client allows the user to enroll and manage their cryptographic smartcards.

- Added Dependencies:
  - xulrunner
  - xulrunner-devel
- No removed dependencies

#### **ethtool-5-1.el5 - ethtool-6-2.el5**

- Group: **Applications/System**
- Summary: **Ethernet settings tool for PCI ethernet cards**
- Description:

This utility allows querying and changing of ethernet card settings, such as speed, port, autonegotiation, and PCI locations.

- No added dependencies
- No removed dependencies

#### **evolution-data-server-1.8.0-25.el5 - evolution-data-server-1.12.3-6.el5\_2.3**

- Group: **System Environment/Libraries**
- Summary: **Backend data server for Evolution**
- Description:

The evolution-data-server package provides a unified backend for programs that work with contacts, tasks, and calendar information.

It was originally developed for Evolution (hence the name), but is now used by other packages.

- **Added Dependencies:**
  - gtk-doc
  - intltool >= 0.35.0
  - openldap-evolution-devel
  - openssl-devel
- **Removed Dependencies:**
  - intltool
  - openldap-devel >= 2.0.11

#### **file-4.17-9.0.1.e15 - file-4.17-15**

- **Group: Applications/File**
- **Summary: A utility for determining file types.**
- **Description:**

The file command is used to identify a particular file according to the type of data contained by the file. File can identify many different file types, including ELF binaries, system libraries, RPM packages, and different graphics formats.

You should install the file package, since the file command is such a useful utility.

- No added dependencies
- No removed dependencies

#### **filesystem-2.4.0-1 - filesystem-2.4.0-2**

- **Group: System Environment/Base**
- **Summary: The basic directory layout for a Linux system.**
- **Description:**

■



The filesystem package is one of the basic packages that is installed on a Red Hat Linux system. Filesystem contains the basic directory layout for a Linux operating system, including the correct permissions for the directories.

- No added dependencies
- No removed dependencies

#### **findutils-4.2.27-4.1 - findutils-4.2.27-5.el5**

- Group: **Applications/File**
- Summary: **The GNU versions of find utilities (find and xargs).**
- Description:

The findutils package contains programs which will help you locate files on your system. The find utility searches through a hierarchy of directories looking for files which match a certain set of criteria (such as a filename pattern). The xargs utility builds and executes command lines from standard input arguments (usually lists of file names generated by the find command).

You should install findutils because it includes tools that are very useful for finding things on your system.

- No added dependencies
- No removed dependencies

#### **firefox-1.5.0.12-3.el5 - firefox-3.0.5-1.el5\_2**

- Group: **Applications/Internet**
- Summary: **Mozilla Firefox Web browser**
- Description:

Mozilla Firefox is an open-source web browser, designed for standards compliance, performance and portability.

- Added Dependencies:
  - startup-notification-devel
  - xulrunner-devel >= 1.9.0.5-1

- xulrunner-devel-unstable >= 1.9.0.5-1
- **Removed Dependencies:**
  - cairo-devel >= 0.5
  - libjpeg-devel
  - libpng-devel
  - nspr-devel >= 4.6
  - nss-devel >= 3.11.1
  - zlib-devel

#### **firstboot-1.4.27.3-1.e15 - firstboot-1.4.27.7-1.e15**

- **Group: System Environment/Base**
- **Summary: Initial system configuration utility**
- **Description:**

The firstboot utility runs after installation. It guides the user through a series of steps that allows for easier configuration of the machine.

- No added dependencies
- No removed dependencies

#### **flac-1.1.2-27 - flac-1.1.2-28.e15\_0.1**

- **Group: Applications/Multimedia**
- **Summary: An encoder/decoder for the Free Lossless Audio Codec.**
- **Description:**

FLAC stands for Free Lossless Audio Codec. Grossly oversimplified, FLAC is similar to Ogg Vorbis, but lossless. The FLAC project consists of the stream format, reference encoders and decoders in library form, flac, a command-line program to encode and decode FLAC files, metaflac, a command-line metadata editor for FLAC files and input plugins for various music players.

- No added dependencies
- No removed dependencies

**fontconfig-2.4.1-6.el5 - fontconfig-2.4.1-7.el5**

- Group: **System Environment/Libraries**
- Summary: **Font configuration and customization library**
- Description:

Fontconfig is designed to locate fonts within the system and select them according to requirements specified by applications.

- No added dependencies
- No removed dependencies

**fonts-indic-2.0.13-1.el5 - fonts-indic-2.3.1-1.el5**

- Group: **User Interface/X**
- Summary: **Free Indian truetype/opentype fonts**
- Description:

This package provides the Hindi, Bengali, Gujarati, Punjabi, Tamil, Kannada, Malayalam, Oriya, Telugu TrueType/OpenType fonts.

- No added dependencies
- No removed dependencies

**freeradius-1.1.3-1.2.el5 - freeradius-1.1.3-1.4.el5**

- Group: **System Environment/Daemons**
- Summary: **High-performance and highly configurable free RADIUS server.**
- Description:

The FreeRADIUS Server Project is a high performance and highly configurable GPL'd free RADIUS server. The server is similar in some respects to Livingston's 2.0 server. While FreeRADIUS started as a variant of the Cistron RADIUS server, they don't share a lot in common any more. It now has many more features than Cistron or Livingston, and is much more configurable.

FreeRADIUS is an Internet authentication daemon, which implements the RADIUS protocol, as defined in RFC 2865 (and others). It allows Network Access

Servers (NAS boxes) to perform authentication for dial-up users. There are also RADIUS clients available for Web servers, firewalls, Unix logins, and more. Using RADIUS allows authentication and authorization for a network to be centralized, and minimizes the amount of re-configuration which has to be done when adding or deleting new users.

- No added dependencies
- No removed dependencies

#### **freetype-2.2.1-19.e15 - freetype-2.2.1-20.e15\_2**

- Group: **System Environment/Libraries**
- Summary: **A free and portable font rendering engine**
- Description:

The FreeType engine is a free and portable font rendering engine, developed to provide advanced font support for a variety of platforms and environments. FreeType is a library which can open and manages font files as well as efficiently load, hint and render individual glyphs. FreeType is not a font server or a complete text-rendering library.

- No added dependencies
- No removed dependencies

#### **ftp-0.17-33.fc6 - ftp-0.17-35.e15**

- Group: **Applications/Internet**
- Summary: **The standard UNIX FTP (File Transfer Protocol) client.**
- Description:

The ftp package provides the standard UNIX command-line FTP (File Transfer Protocol) client. FTP is a widely used protocol for transferring files over the Internet and for archiving files.

If your system is on a network, you should install ftp in order to do file transfers.

- No added dependencies
- No removed dependencies

**gcc-4.1.2-14.el5 - gcc-4.1.2-44.el5**

- Group: **Development/Languages**
- Summary: **Various compilers (C, C++, Objective-C, Java, ...)**

- Description:

```
The gcc package contains the GNU Compiler Collection version 4.1.
You'll need this package in order to compile C code.
```

- Added Dependencies:

- xulrunner-devel

- Removed Dependencies:

- firefox-devel

**gd-2.0.33-9.3.fc6 - gd-2.0.33-9.4.el5\_1.1**

- Group: **System Environment/Libraries**
- Summary: **A graphics library for quick creation of PNG or JPEG images**

- Description:

```
The gd graphics library allows your code to quickly draw images
complete with lines, arcs, text, multiple colors, cut and paste
from
other images, and flood fills, and to write out the result as a
PNG or
JPEG file. This is particularly useful in Web applications, where
PNG
and JPEG are two of the formats accepted for inline images by most
browsers. Note that gd is not a paint program.
```

- No added dependencies
- No removed dependencies

**gdb-6.5-25.el5 - gdb-6.8-27.el5**

- Group: **Development/Debuggers**
- Summary: **A GNU source-level debugger for C, C++, Java and other languages**

- Description:

```
GDB, the GNU debugger, allows you to debug programs written in C,
C++,
Java, and other languages, by executing them in a controlled
fashion
and printing their data.
```

- **Added Dependencies:**
  - expat-devel
  - readline-devel
- **Removed Dependencies:**
  - /lib/libc.so.6
  - /lib64/libc.so.6
  - /usr/lib/libc.so
  - /usr/lib64/libc.so

#### **gdm-2.16.0-31.0.1.e15 - gdm-2.16.0-46.e15**

- **Group: User Interface/X**
- **Summary: The GNOME Display Manager.**
- **Description:**

Gdm (the GNOME Display Manager) is a highly configurable reimplementation of xdm, the X Display Manager. Gdm allows you to log into your system with the X Window System running and supports running several different X sessions on your local machine at the same time.

- **No added dependencies**
- **No removed dependencies**

#### **gedit-2.16.0-5.e15 - gedit-2.16.0-9.e15**

- **Group: Applications/Editors**
- **Summary: gEdit is a small but powerful text editor for GNOME**
- **Description:**

gEdit is a small but powerful text editor designed specifically for the GNOME GUI desktop. gEdit includes a plug-in API (which supports extensibility while keeping the core binary small), support for editing multiple documents using notebook tabs, and standard text editor functions.

You'll need to have GNOME and GTK+ installed to use gEdit.

- **No added dependencies**

- No removed dependencies

#### **gfs-kmod-0.1.19-7.el5 - gfs-kmod-0.1.31-3.el5**

- Group: **System Environment/Kernel**
- Summary: **gfs kernel modules**
- Description:

```
gfs - The Global File System is a symmetric, shared-disk, cluster
file
system.
```

- Added Dependencies:
  - kernel-devel-ia64 = 2.6.18-128.el5
  - kernel-xen-devel-ia64 = 2.6.18-128.el5
- Removed Dependencies:
  - kernel-devel-ia64 = 2.6.18-53.el5
  - kernel-xen-devel-ia64 = 2.6.18-53.el5

#### **gfs-utils-0.1.12-1.el5 - gfs-utils-0.1.18-1.el5**

- Group: **System Environment/Kernel**
- Summary: **Utilities for managing the global filesystem (GFS)**
- Description:

```
The gfs-utils package contains a number of utilities for creating,
checking, modifying, and correcting any inconsistencies in GFS
filesystems.
```

- No added dependencies
- No removed dependencies

#### **gfs2-utils-0.1.38-1.el5 - gfs2-utils-0.1.53-1.el5**

- Group: **System Environment/Kernel**
- Summary: **Utilities for managing the global filesystem (GFS)**
- Description:

```
The gfs2-utils package contains a number of utilities for
creating,
checking, modifying, and correcting any inconsistencies in GFS
filesystems.
```

- No added dependencies
- No removed dependencies

**ghostscript-8.15.2-9.1.e15 - ghostscript-8.15.2-9.4.e15**

- **Group: Applications/Publishing**
- **Summary: A PostScript(TM) interpreter and renderer.**
- **Description:**

Ghostscript is a set of software that provides a PostScript(TM) interpreter, a set of C procedures (the Ghostscript library, which implements the graphics capabilities in the PostScript language) and an interpreter for Portable Document Format (PDF) files. Ghostscript translates PostScript code into many common, bitmapped formats, like those understood by your printer or screen. Ghostscript is normally used to display PostScript files and to print PostScript files to non-PostScript printers.

If you need to display PostScript files or print them to non-PostScript printers, you should install ghostscript. If you install ghostscript, you also need to install the ghostscript-fonts package.

- No added dependencies
- No removed dependencies

**gimp-print-4.2.7-22 - gimp-print-4.2.7-22.2.e15**

- **Group: System Environment/Libraries**
- **Summary: A collection of high-quality printer drivers.**
- **Description:**

These drivers provide printing quality for UNIX/Linux in many cases equal to or better than proprietary vendor-supplied drivers, and can be used for many of the most demanding printing tasks.

- No added dependencies
- No removed dependencies

**glibc-2.5-18 - glibc-2.5-34**

- **Group: System Environment/Libraries**



- **Summary: The GNU libc libraries.**
- **Description:**

The glibc package contains standard libraries which are used by multiple programs on the system. In order to save disk space and memory, as well as to make upgrading easier, common system code is kept in one place and shared between programs. This particular package contains the most important sets of shared libraries: the standard C library and the standard math library. Without these two libraries, a Linux system will not function.

- No added dependencies
- No removed dependencies

#### **gnbd-1.1.5-1.el5 - gnbd-1.1.7-1.el5**

- **Group: System Environment/Kernel**
- **Summary: GFS's Network Block Device**
- **Description:**

gnbd - GFS's Network Block Device

- No added dependencies
- No removed dependencies

#### **gnbd-kmod-0.1.4-12.el5 - gnbd-kmod-0.1.5-2.el5**

- **Group: System Environment/Kernel**
- **Summary: gnbd kernel modules**
- **Description:**

gnbd - The Global Network Block Device

- **Added Dependencies:**
  - kernel-devel-ia64 = 2.6.18-98.el5
  - kernel-xen-devel-ia64 = 2.6.18-98.el5
- **Removed Dependencies:**
  - kernel-devel-ia64 = 2.6.18-53.el5
  - kernel-xen-devel-ia64 = 2.6.18-53.el5

**gnome-panel-2.16.1-6.el5 - gnome-panel-2.16.1-7.el5**

- Group: **User Interface/Desktops**
- Summary: **GNOME panel**
- Description:

The GNOME panel provides the window list, workspace switcher, menus, and other features for the GNOME desktop.

- No added dependencies
- No removed dependencies

**gnome-power-manager-2.16.0-8.el5 - gnome-power-manager-2.16.0-10.el5**

- Group: **Applications/System**
- Summary: **GNOME Power Manager**
- Description:

GNOME Power Manager uses the information and facilities provided by HAL displaying icons and handling user callbacks in an interactive GNOME session. GNOME Power Preferences allows authorised users to set policy and change preferences.

- No added dependencies
- No removed dependencies

**gnome-python2-desktop-2.16.0-1.fc6 - gnome-python2-desktop-2.16.0-2.el5**

- Group: **Development/Languages**
- Summary: **The sources for additional PyGNOME Python extension modules for the GNOME desktop**
- Description:

The gnome-python-desktop package contains the source packages for additional Python bindings for GNOME. It should be used together with gnome-python.

- No added dependencies
- No removed dependencies

**gnome-python2-extras-2.14.2-4.fc6 - gnome-python2-extras-2.14.2-6.el5**

- Group: **Development/Languages**

- Group: **Development/Languages**

- Summary: **The sources for additional. PyGNOME Python extension modules.**

- Description:

The gnome-python-extra package contains the source packages for additional Python bindings for GNOME. It should be used together with gnome-python.

- Added Dependencies:

- gecko-devel-unstable >= 1.9

- Removed Dependencies:

- firefox-devel >= 1.5.0.5

### gnome-screensaver-2.16.1-5.el5 - gnome-screensaver-2.16.1-8.el5

- Group: **Amusements/Graphics**

- Summary: **GNOME Screensaver**

- Description:

gnome-screensaver is a screen saver and locker that aims to have simple, sane, secure defaults and be well integrated with the desktop.

- Added Dependencies:

- libXxf86misc-devel
- libXxf86vm-devel

- No removed dependencies

### gnome-terminal-2.16.0-3.el5 - gnome-terminal-2.16.0-5.3.el5

- Group: **User Interface/Desktops**

- Summary: **GNOME Terminal**

- Description:

GNOME terminal emulator application.

- No added dependencies

- No removed dependencies

### gnome-utils-2.16.0-3.el5 - gnome-utils-2.16.0-5.el5

- Group: **Applications/System**
- Summary: **GNOME utility programs**
- Description:

GNOME (GNU Network Object Model Environment) is a user-friendly set of GUI applications and desktop tools to be used in conjunction with a window manager for the X Window System. The gnome-utils package includes a set of small "desk accessory" utility applications for GNOME.

- No added dependencies
- No removed dependencies

#### **gnome-volume-manager-2.15.0-4.e15 - gnome-volume-manager-2.15.0-5.e15**

- Group: **Applications/System**
- Summary: **The GNOME Volume Manager**
- Description:

The GNOME Volume Manager monitors volume-related events and responds with user-specified policy. The GNOME Volume Manager can automount hot-plugged drives, automount inserted removable media, autorun programs, automatically play audio CDs and video DVDs, and automatically import photos from a digital camera. The GNOME Volume Manager does this entirely in user-space and without polling.

The GNOME Volume Manager sits at the top end of a larger picture that aims to integrate the Linux system from the kernel on up through the desktop and its applications.

- No added dependencies
- No removed dependencies

#### **gnupg-1.4.5-13 - gnupg-1.4.5-14**

- Group: **Applications/System**
- Summary: **A GNU utility for secure communication and data storage.**
- Description:

-

GnuPG (GNU Privacy Guard) is a GNU utility for encrypting data and creating digital signatures. GnuPG has advanced key management capabilities and is compliant with the proposed OpenPGP Internet standard described in RFC2440. Since GnuPG doesn't use any patented algorithm, it is not compatible with any version of PGP2 (PGP2.x uses only IDEA for symmetric-key encryption, which is patented worldwide).

- No added dependencies
- No removed dependencies

#### **gnuplot-4.0.0-12 - gnuplot-4.0.0-14.e15**

- Group: **Applications/Engineering**
- Summary: **A program for plotting mathematical expressions and data.**
- Description:

Gnuplot is a command-line driven, interactive function plotting program especially suited for scientific data representation. Gnuplot can be used to plot functions and data points in both two and three dimensions and in many different formats.

Install gnuplot if you need a graphics package for scientific data representation.

- Added Dependencies:
  - gd-devel
- No removed dependencies

#### **gnutls-1.4.1-2 - gnutls-1.4.1-3.e15\_2.1**

- Group: **System Environment/Libraries**
- Summary: **A TLS protocol implementation.**
- Description:

GnuTLS is a project that aims to develop a library which provides a secure layer, over a reliable transport layer. Currently the GnuTLS library implements the proposed standards by the IETF's TLS working group.

- No added dependencies
- No removed dependencies

**grub-0.97-13 - grub-0.97-13.2**

- Group: **System Environment/Base**
- Summary: **GRUB - the Grand Unified Boot Loader.**
- Description:

GRUB (Grand Unified Boot Loader) is an experimental boot loader capable of booting into most free operating systems - Linux, FreeBSD, NetBSD, GNU Mach, and others as well as most commercial operating systems.

- No added dependencies
- No removed dependencies

**gststreamer-0.10.9-3.e15 - gststreamer-0.10.20-3.e15**

- Group: **Applications/Multimedia**
- Summary: **GStreamer streaming media framework runtime**
- Description:

GStreamer is a streaming media framework, based on graphs of filters which operate on media data. Applications using this library can do anything from real-time sound processing to playing videos, and just about anything else media-related. Its plugin-based architecture means that new data types or processing capabilities can be added simply by installing new plugins.

- Added Dependencies:
  - PyXML
  - autoconf
  - automake
  - docbook-style-dsssl
  - docbook-style-xsl
  - docbook-utils
  - gettext-devel
  - ghostscript

- jadetex
- libtool
- libxslt
- netpbm-progs
- openjade
- python2
- tetex-dvips
- transfig
- xfig
- No removed dependencies

#### **gstreamer-plugins-base-0.10.9-6.e15 - gstreamer-plugins-base-0.10.20-3.e15**

- **Group: Applications/Multimedia**
- **Summary: GStreamer streaming media framework base plug-ins**
- **Description:**

```
GStreamer is a streaming media framework, based on graphs of
filters which
operate on media data. Applications using this library can do
anything
from real-time sound processing to playing videos, and just about
anything
else media-related. Its plugin-based architecture means that new
data
types or processing capabilities can be added simply by installing
new
plug-ins.
```

This package contains a set of well-maintained base plug-ins.

- **Added Dependencies:**
  - autoconf
  - automake
  - gnome-vfs2-devel
  - gstreamer-devel >= 0.10.20
- **Removed Dependencies:**
  - gnome-vfs2-devel > 1.9.4.00
  - gstreamer-devel >= 0.10.6

- o liboil-devel >= 0.3.2

#### **gstreamer-plugins-good-0.10.4-4.e15 - gstreamer-plugins-good-0.10.9-1.e15**

- **Group: Applications/Multimedia**
- **Summary: GStreamer plug-ins with good code and licensing**
- **Description:**

GStreamer is a streaming media framework, based on graphs of filters which operate on media data. Applications using this library can do anything from real-time sound processing to playing videos, and just about anything else media-related. Its plugin-based architecture means that new data types or processing capabilities can be added simply by installing new plug-ins.

GStreamer Good Plug-ins is a collection of well-supported plug-ins of good quality and under the LGPL license.

- No added dependencies
- No removed dependencies

#### **gthumb-2.7.8-5.e15 - gthumb-2.7.8-8.e15**

- **Group: User Interface/X**
- **Summary: Image viewer, editor, organizer**
- **Description:**

gthumb is an application for viewing, editing, and organizing collections of images.

- No added dependencies
- No removed dependencies

#### **gtk2-2.10.4-19.e15 - gtk2-2.10.4-20.e15**

- **Group: System Environment/Libraries**
- **Summary: The GIMP ToolKit (GTK+), a library for creating GUIs for X**
- **Description:**

GTK+ is a multi-platform toolkit for creating graphical user interfaces. Offering a complete set of widgets, GTK+ is suitable



for projects ranging from small one-off tools to complete application suites.

- No added dependencies
- No removed dependencies

#### **gtkhtml3-3.12.0-1.fc6 - gtkhtml3-3.16.3-1.el5**

- Group: **System Environment/Libraries**
- Summary: **gtkhtml library**
- Description:

GtkHTML is a lightweight HTML rendering/printing/editing engine. It was originally based on KHTMLW, but is now being developed independently of it.

- Added Dependencies:
  - intltool >= 0.35.0
- Removed Dependencies:
  - intltool
  - libgnomeprint22-devel >= 2.7.1
  - libgnomeprintui22-devel >= 2.7.1

#### **gzip-1.3.5-9.el5 - gzip-1.3.5-10.el5**

- Group: **Applications/File**
- Summary: **The GNU data compression program.**
- Description:

The gzip package contains the popular GNU gzip data compression program. Gzipped files have a .gz extension.

Gzip should be installed on your Red Hat Linux system, because it is a very commonly used data compression program.

- No added dependencies
- No removed dependencies

#### **hal-0.5.8.1-25.el5 - hal-0.5.8.1-38.el5**

- Group: **System Environment/Libraries**

- **Summary: Hardware Abstraction Layer**

- **Description:**

```
HAL is daemon for collection and maintaining information from
several
sources about the hardware on the system. It provides a live
device
list through D-BUS.
```

- **Added Dependencies:**

- gperf >= 3.0.1

- **No removed dependencies**

#### **hal-cups-utils-0.6.2-5 - hal-cups-utils-0.6.2-5.2.e15**

- **Group: Applications/System**

- **Summary: Halified CUPS utilities**

- **Description:**

```
Halified utilities for CUPS:
- hal_lpadmin
- hal CUPS backend
```

- **No added dependencies**

- **No removed dependencies**

#### **hplip-1.6.7-4.1.e15 - hplip-1.6.7-4.1.e15\_2.4**

- **Group: System Environment/Daemons**

- **Summary: HP Linux Imaging and Printing Project**

- **Description:**

```
The Hewlett-Packard Linux Imaging and Printing Project provides
drivers for HP printers and multi-function peripherals.
```

- **Added Dependencies:**

- openssl-devel

- **No removed dependencies**

#### **htdig-3.2.0b6-9.e15 - htdig-3.2.0b6-9.0.1.e15\_1**

- **Group: Applications/Internet**

- **Summary: ht://Dig - Web search engine**

- **Description:**

The ht://Dig system is a complete world wide web indexing and searching system for a small domain or intranet. This system is not meant to replace the need for powerful internet-wide search systems like Lycos, Infoseek, Webcrawler and AltaVista. Instead it is meant to cover the search needs for a single company, campus, or even a particular sub section of a web site. As opposed to some WAIS-based or web-server based search engines, ht://Dig can span several web servers at a site. The type of these different web servers doesn't matter as long as they understand the HTTP 1.0 protocol. ht://Dig is also used by KDE to search KDE's HTML documentation.

ht://Dig was developed at San Diego State University as a way to search the various web servers on the campus network.

- No added dependencies
- No removed dependencies

#### htmlview-4.0.0-1.e15 - htmlview-4.0.0-2.e15

- **Group: Applications/Internet**
- **Summary: Launcher of Preferred Web Browser**
- **Description:**

htmlview and launchmail are tools for launching Preferred Applications. This package exists for compatibility reasons and is likely to be removed later when equivalent functionality is implemented elsewhere.

- No added dependencies
- No removed dependencies

#### httpd-2.2.3-11.e15 - httpd-2.2.3-22.e15

- **Group: System Environment/Daemons**
- **Summary: Apache HTTP Server**
- **Description:**

The Apache HTTP Server is a powerful, efficient, and extensible web server.

- No added dependencies
- No removed dependencies

**hwbrowser-0.30-1.el5 - hwbrowser-0.30-2.el5**

- Group: **Applications/System**
- Summary: **A hardware browser.**
- Description:

┆ A browser for your current hardware configuration.

- No added dependencies
- No removed dependencies

**hwdata-0.211-1 - hwdata-0.213.11-1.el5**

- Group: **System Environment/Base**
- Summary: **Hardware identification and configuration data**
- Description:

┆ hwdata contains various hardware identification and configuration data, such as the pci.ids database and MonitorsDb databases.

- No added dependencies
- No removed dependencies

**ibutils-1.2-2.el5 - ibutils-1.2-9.el5**

- Group: **System Environment/Libraries**
- Summary: **OpenIB Mellanox InfiniBand Diagnostic Tools**
- Description:

┆ ibutils provides IB network and path diagnostics.

- Added Dependencies:
  - autoconf
  - libibumad-devel
  - libtool
  - opensm-devel >= 3.2.0
- Removed Dependencies:

- o opensm-devel >= 3.0.3

#### icu-3.6-5.11 - icu-3.6-5.11.1

- Group: **System Environment/Libraries**
- Summary: **International Components for Unicode**
- Description:

The International Components for Unicode (ICU) libraries provide robust and full-featured Unicode services on a wide variety of platforms. ICU supports the most current version of the Unicode standard, and they provide support for supplementary Unicode characters (needed for GB 18030 repertoire support). As computing environments become more heterogeneous, software portability becomes more important. ICU lets you produce the same results across all the various platforms you support, without sacrificing performance. It offers great flexibility to extend and customize the supplied services.

- No added dependencies
- No removed dependencies

#### initscripts-8.45.17.EL-1 - initscripts-8.45.25-1.el5

- Group: **System Environment/Base**
- Summary: **The inittab file and the /etc/init.d scripts.**
- Description:

The initscripts package contains the basic system scripts used to boot your Red Hat system, change runlevels, and shut the system down cleanly. Initscripts also contains the scripts that activate and deactivate most network interfaces.

- No added dependencies
- No removed dependencies

#### inn-2.4.3-6.fc6 - inn-2.4.3-8.el5

- Group: **System Environment/Daemons**
- Summary: **The InterNetNews (INN) system, an Usenet news server.**
- Description:

INN (InterNetNews) is a complete system for serving Usenet news and/or private newsgroups. INN includes innd, an NNTP (NetNews Transport Protocol) server, and nnrpd, a newsreader that is spawned for each

client. Both innd and nnrpd vary slightly from the NNTP protocol, but not in ways that are easily noticed.

Install the inn package if you need a complete system for serving and reading Usenet news. You may also need to install inn-devel, if you are going to use a separate program which interfaces to INN, like newsgate or tin.

- No added dependencies
- No removed dependencies

#### **iproute-2.6.18-4.el5 - iproute-2.6.18-9.el5**

- **Group: Applications/System**
- **Summary: Advanced IP routing and network device configuration tools.**
- **Description:**

The iproute package contains networking utilities (ip and rtmon, for example) which are designed to use the advanced networking capabilities of the Linux 2.4.x and 2.6.x kernel.

- No added dependencies
- No removed dependencies

#### **iprutils-2.2.6-1.el5 - iprutils-2.2.8-2.el5**

- **Group: System Environment/Base**
- **Summary: Utilities for the IBM Power Linux RAID adapters**
- **Description:**

Provides a suite of utilities to manage and configure SCSI devices supported by the ipr SCSI storage device driver.

- No added dependencies
- No removed dependencies

#### **ipsec-tools-0.6.5-8.el5 - ipsec-tools-0.6.5-13.el5**

- **Group: System Environment/Base**
- **Summary: Tools for configuring and using IPSEC**
- **Description:**

This is the IPsec-Tools package. You need this package in order to really use the IPsec functionality in the linux-2.5+ kernels. This package builds:

- setkey, a program to directly manipulate policies and SAs
- racoon, an IKEv1 keying daemon

- Added Dependencies:
  - kernel-headers >= 2.6.18-92
- No removed dependencies

#### iptables-1.3.5-1.2.1 - iptables-1.3.5-4.e15

- Group: **System Environment/Base**
- Summary: **Tools for managing Linux kernel packet filtering capabilities.**
- Description:

The iptables utility controls the network packet filtering code in the Linux kernel. If you need to set up firewalls and/or IP masquerading, you should install this package.

- No added dependencies
- No removed dependencies

#### iputils-20020927-43.e15 - iputils-20020927-45.e15

- Group: **System Environment/Daemons**
- Summary: **Network monitoring tools including ping.**
- Description:

The iputils package contains basic utilities for monitoring a network, including ping. The ping command sends a series of ICMP protocol ECHO\_REQUEST packets to a specified network host to discover whether the target machine is alive and receiving network traffic.

- No added dependencies
- No removed dependencies

#### irqbalance-0.55-6.e15 - irqbalance-0.55-10.e15

- Group: **System Environment/Base**

- Summary: **IRQ balancing daemon.**

- Description:

```
irqbalance is a daemon that evenly distributes IRQ load across multiple CPUs for enhanced performance.
```

- No added dependencies
- No removed dependencies

#### **iscsi-initiator-utils-6.2.0.865-0.8.e15 - iscsi-initiator-utils-6.2.0.868-0.18.e15**

- Group: **System Environment/Daemons**
- Summary: **iSCSI daemon and utility programs**
- Description:

```
The iscsi package provides the server daemon for the iSCSI protocol, as well as the utility programs used to manage it. iSCSI is a protocol for distributed disk access using SCSI commands sent over Internet Protocol networks.
```

- Added Dependencies:
  - bison
  - flex
- No removed dependencies

#### **isd4k-utils-3.2-50.1 - isdn4k-utils-3.2-51.e15**

- Group: **Applications/System**
- Summary: **Utilities for configuring an ISDN subsystem.**
- Description:

```
The isdn4k-utils package contains a collection of utilities needed for configuring an ISDN subsystem.
```

- No added dependencies
- No removed dependencies

#### **jakarta-commons-collections-3.1-6jpp.1 - jakarta-commons-collections-3.2-2jpp.3**

- Group: **Development/Libraries/Java**
- Summary: **Jakarta Commons Collections Package**



- **Description:**

The introduction of the Collections API by Sun in JDK 1.2 has been a boon to quick and effective Java programming. Ready access to powerful data structures has accelerated development by reducing the need for custom container classes around each core object. Most Java2 APIs are significantly easier to use because of the Collections API. However, there are certain holes left unfilled by Sun's implementations, and the Jakarta-Commons Collections Component strives to fulfill them. Among the features of this package are:

- special-purpose implementations of Lists and Maps for fast access
- adapter classes from Java1-style containers (arrays, enumerations) to Java2-style collections.
- methods to test or create typical set-theory properties of collections such as union, intersection, and closure.

- **Added Dependencies:**

- xml-commons-apis >= 1.3

- **No removed dependencies**

#### **java-1.4.2-gcj-compat-1.4.2.0-40jpp.112 - java-1.4.2-gcj-compat-1.4.2.0-40jpp.115**

- **Group: Development/Languages**

- **Summary: JPackage runtime scripts for GCJ**

- **Description:**

This package installs directory structures, shell scripts and symbolic links to simulate a JPackage-compatible runtime environment with GCJ.

- **No added dependencies**

- **No removed dependencies**

#### **kbd-1.12-19.el5 - kbd-1.12-21.el5**

- **Group: System Environment/Base**

- **Summary: Tools for configuring the console (keyboard, virtual terminals, etc.)**

- **Description:**

-

The kbd package contains tools for managing a Linux system's console's behavior, including the keyboard, the screen fonts, the virtual terminals and font files.

- No added dependencies
- No removed dependencies

#### **kdeadmin-3.5.4-2.fc6 - kdeadmin-3.5.4-3.el5**

- **Group: User Interface/Desktops**
- **Summary: Administrative tools for KDE.**
- **Description:**

The kdeadmin package includes administrative tools for the K Desktop Environment (KDE) including:

kcron - Crontab editor  
kdat - Tape backup tool  
kuser - Frontend for configuring users and user groups

- No added dependencies
- No removed dependencies

#### **kdebase-3.5.4-13.6.el5 - kdebase-3.5.4-19.el5**

- **Group: User Interface/Desktops**
- **Summary: K Desktop Environment - core files**
- **Description:**

Core applications for the K Desktop Environment. Included are: kdm (replacement for xdm), kwin (window manager), konqueror (filemanager, web browser, ftp client, ...), konsole (xterm replacement), kpanel (application starter and desktop pager), kaudio (audio server), kdehelp (viewer for kde help files, info and man pages), kthememgr (system for managing alternate theme packages) plus other KDE components (kcheckpass, kikbd, kscreensaver, kcontrol, kfind, kfontmanager, kmenuedit).

- **Added Dependencies:**
  - libutempter-devel
- No removed dependencies

#### **kdebindings-3.5.4-1.fc6 - kdebindings-3.5.4-6.el5**

- **Group: User Interface/Desktops**

- **Summary: KDE bindings to non-C++ languages**
- **Description:**
  - ▮ KDE/DCOP bindings to non-C++ languages
- **Added Dependencies:**
  - libutempter-devel
  - perl >= 5.8.8
- **Removed Dependencies:**
  - perl >= 5.8

#### **kdelibs-3.5.4-13.el5 - kdelibs-3.5.4-18.el5**

- **Group: System Environment/Libraries**
- **Summary: K Desktop Environment - Libraries**
- **Description:**
  - ▮ Libraries for the K Desktop Environment:  
KDE Libraries included: kdecop (KDE core library), kdeui (user interface), kfm (file manager), khtmlw (HTML widget), kio (Input/Output, networking), kspell (spelling checker), jscript (javascript), kab (addressbook), kimgio (image manipulation).
- No added dependencies
- No removed dependencies

#### **kdenetwork-3.5.4-4.fc6 - kdenetwork-3.5.4-8.el5**

- **Group: Applications/Internet**
- **Summary: K Desktop Environment - Network Applications**
- **Description:**
  - ▮ Networking applications for the K Desktop Environment.
- **Added Dependencies:**
  - libutempter-devel
- No removed dependencies

#### **kernel-2.6.18-53.el5 - kernel-2.6.18-128.el5**

- **Group: System Environment/Kernel**

**kernel-2.6.32-117.el5 - kernel-2.6.32-117.el5**

- **Summary: The Linux kernel (the core of the Linux operating system)**

- **Description:**

The kernel package contains the Linux kernel (vmlinuz), the core of any Linux operating system. The kernel handles the basic functions of the operating system: memory allocation, process allocation, device input and output, etc.

- No added dependencies
- No removed dependencies

**kexec-tools-1.101-194.4.el5 - kexec-tools-1.102pre-56.el5**

- **Group: Applications/System**
- **Summary: The kexec/kdump userspace component.**

- **Description:**

kexec-tools provides /sbin/kexec binary that facilitates a new kernel to boot using the kernel's kexec feature either on a normal or a panic reboot. This package contains the /sbin/kexec binary and ancillary utilities that together form the userspace component of the kernel's kexec feature.

- No added dependencies
- No removed dependencies

**krb5-1.6.1-17.el5 - krb5-1.6.1-31.el5**

- **Group: System Environment/Libraries**
- **Summary: The Kerberos network authentication system.**

- **Description:**

Kerberos V5 is a trusted-third-party network authentication system, which can improve your network's security by eliminating the insecure practice of cleartext passwords.

- No added dependencies
- No removed dependencies

**ksh-20060214-1.4 - ksh-20080202-2.el5**

- **Group: Applications/Shells**

- **Summary: The Original ATT Korn Shell**

- **Description:**

KSH-93 is the most recent version of the KornShell by David Korn of AT&T Bell Laboratories. KornShell is a shell programming language, which is upward compatible with "sh" (the Bourne Shell).

- No added dependencies
- No removed dependencies

#### **kudzu-1.2.57.1.15-1 - kudzu-1.2.57.1.21-1**

- **Group: Applications/System**

- **Summary: The Red Hat Linux hardware probing tool.**

- **Description:**

Kudzu is a hardware probing tool run at system boot time to determine what hardware has been added or removed from the system.

- No added dependencies
- No removed dependencies

#### **lam-7.1.2-8.fc6 - lam-7.1.2-14.el5**

- **Group: Development/Libraries**

- **Summary: The LAM (Local Area Multicomputer) programming environment.**

- **Description:**

LAM (Local Area Multicomputer) is an Message-Passing Interface (MPI) programming environment and development system for heterogeneous computers on a network. With LAM/MPI, a dedicated cluster or an existing network computing infrastructure can act as one parallel computer to solve one problem. LAM/MPI is considered to be "cluster friendly" because it offers daemon-based process startup/control as well as fast client-to-client message passing protocols. LAM/MPI can use TCP/IP and/or shared memory for message passing (different RPMs are supplied for this -- see the main LAM website at <http://www.mpi.nd.edu/lam/> for details).<

LAM features a full implementation of MPI version 1 (with the exception that LAM does not support cancelling of sends), and much of version 2. Compliant applications are source code portable between LAM and any other implementation of MPI. In addition to meeting the standard, LAM/MPI offers extensive monitoring capabilities to support debugging. Monitoring happens on two levels: On one level, LAM/MPI has the hooks to allow a snapshot of a process and message status to be taken at any time during an application run. The status includes all aspects of synchronization plus datatype map/signature, communicator group membership and message contents (see the XMPI application on the main LAM website). On the second level, the MPI library can produce a cumulative record of communication, which can be visualized either at runtime or post-mortem.

- No added dependencies
- No removed dependencies

#### **libX11-1.0.3-8.0.1.e15 - libX11-1.0.3-9.e15**

- Group: **System Environment/Libraries**
- Summary: **X.Org X11 libX11 runtime library**
- Description:

X.Org X11 libX11 runtime library

- No added dependencies
- No removed dependencies

#### **libXfont-1.2.2-1.0.2.e15 - libXfont-1.2.2-1.0.3.e15\_1**

- Group: **System Environment/Libraries**
- Summary: **X.Org X11 libXfont runtime library**
- Description:

X.Org X11 libXfont runtime library

- No added dependencies
- No removed dependencies

**libao-0.8.6-5 - libao-0.8.6-7**

- Group: **System Environment/Libraries**
- Summary: **Cross Platform Audio Output Library.**
- Description:

```
Libao is a cross platform audio output library. It currently
supports
ESD, OSS, Solaris, and IRIX.
```

- No added dependencies
- No removed dependencies

**libchewing-0.3.0-7.e15 - libchewing-0.3.0-8.e15**

- Group: **System Environment/Libraries**
- Summary: **Intelligent phonetic input method library for Traditional Chinese**
- Description:

```
libchewing is an intelligent phonetic input method library for
Chinese.
```

```
It provides the core algorithm and logic that can be used by
various
input methods. The Chewing input method is a smart bopomofo
phonetics
input method that is useful for inputting Mandarin Chinese.
```

- No added dependencies
- No removed dependencies

**libdhcp-1.20-2.e15 - libdhcp-1.20-6.e15**

- Group: **Development/Libraries**
- Summary: **A library for network interface configuration with DHCP**
- Description:

```
libdhcp enables programs to invoke and control the Dynamic Host
Configuration
Protocol (DHCP) clients: the Internet Software Consortium (ISC)
IPv4 DHCP
client library, libdhcp4client, and the IPv6 DHCPv6 client
library,
libdhcp6client, and provides Network Interface Configuration (NIC)
services
for network parameter autoconfiguration with DHCP.
```

- **Added Dependencies:**
  - `dhcp-devel >= 12:3.0.5-13`
  - `libdhcp4client-devel >= 12:3.0.5-13`
  - `libdhcp6client-devel >= 1.0.9-1`
- **Removed Dependencies:**
  - `dhcp-devel`
  - `libdhcp4client-devel >= 12:3.0.4-17`
  - `libdhcp6client-devel`

#### **liberation-fonts-0.2-2.e15 - liberation-fonts-1.0-1.e15**

- **Group: User Interface/X**
- **Summary: Fonts to replace commonly used Microsoft Windows Fonts**
- **Description:**

The Liberation Fonts are intended to be replacements for the three most commonly used fonts on Microsoft systems: Times New Roman, Arial, and Courier New.

- **No added dependencies**
- **No removed dependencies**

#### **libexif-0.6.13-4.0.2.e15 - libexif-0.6.13-4.0.2.e15\_1.1**

- **Group: System Environment/Libraries**
- **Summary: Library for extracting extra information from image files**
- **Description:**

Most digital cameras produce EXIF files, which are JPEG files with extra tags that contain information about the image. The EXIF library allows you to parse an EXIF file and read the data from those tags.

- **No added dependencies**
- **No removed dependencies**

#### **libgcrypt-1.2.3-1 - libgcrypt-1.2.4-1.e15**

- **Group: System Environment/Libraries**
- **Summary: A general-purpose cryptography library.**



- **Description:**

```
Libgcrypt is a general purpose crypto library based on the code
used
in GNU Privacy Guard. This is a development version.
```

- No added dependencies
- No removed dependencies

#### **libgnomeprint22-2.12.1-9.e15 - libgnomeprint22-2.12.1-10.e15**

- **Group: System Environment/Base**
- **Summary: Printing library for GNOME.**
- **Description:**

```
GNOME (GNU Network Object Model Environment) is a user-friendly
set of
applications and desktop tools to be used in conjunction with a
window
manager for the X Window System. The gnome-print package contains
libraries and fonts needed by GNOME applications for printing.
```

```
You should install the gnome-print package if you intend to use
any of
the GNOME applications that can print. If you would like to
develop
GNOME applications that can print you will also need to install
the
gnome-print devel package.
```

- No added dependencies
- No removed dependencies

#### **libhugetlbfs-1.0.1-1.e15 - libhugetlbfs-1.3-3.e15**

- **Group: System Environment/Libraries**
- **Summary: Library to access the Huge TLB Filesystem**
- **Description:**

```
The libhugetlbfs library interacts with the Linux hugetlbfs to
make large pages
available to applications in a transparent manner.
```

- No added dependencies
- No removed dependencies

#### **libica-1.3.7-5.e15 - libica-1.3.7-8.e15**

- **Group: System Environment/Libraries**
- **Summary: A library of functions for accessing ICA hardware crypto on IBM zSeries**
- **Description:**  

```
A library of functions for accessing ICA hardware crypto on IBM zSeries
```
- **Added Dependencies:**
  - autoconf
  - automake
  - libtool
- **No removed dependencies**

#### **libnl-1.0-0.10.pre5.4 - libnl-1.0-0.10.pre5.5**

- **Group: Development/Libraries**
- **Summary: Convenience library for kernel netlink sockets**
- **Description:**  

```
This package contains a convenience library to simplify using the Linux kernel's netlink sockets interface for network manipulation
```
- **No added dependencies**
- **No removed dependencies**

#### **libpng-1.2.10-7.0.2 - libpng-1.2.10-7.1.el5\_0.1**

- **Group: System Environment/Libraries**
- **Summary: A library of functions for manipulating PNG image format files**
- **Description:**  

```
The libpng package contains a library of functions for creating and manipulating PNG (Portable Network Graphics) image format files. PNG is a bit-mapped graphics format similar to the GIF format. PNG was created to replace the GIF format, since GIF uses a patented data compression algorithm.
```

Libpng should be installed if you need to manipulate PNG format image files.

- No added dependencies
- No removed dependencies

#### **libraw1394-1.2.1-1.fc6 - libraw1394-1.3.0-1.el5**

- Group: **System Environment/Libraries**
- Summary: **Library providing low-level IEEE-1394 access**
- Description:

The libraw1394 library provides direct access to the IEEE-1394 bus through the Linux 1394 subsystem's raw1394 user space interface.

- Added Dependencies:
  - autoconf
  - automake
  - libtool
- No removed dependencies

#### **librtas-1.2.4-3.el5 - librtas-1.3.3-1.el5**

- Group: **System Environment/Libraries**
- Summary: **Libraries to provide access to RTAS calls and RTAS events**
- Description:

The librtas shared library provides userspace with an interface through which certain RTAS calls can be made. The library uses either of the RTAS User Module or the RTAS system call to direct the kernel in making these calls.

The librtasevent shared library provides users with a set of definitions and common routines useful in parsing and dumping the contents of RTAS events.

- No added dependencies
- No removed dependencies

#### **libselinux-1.33.4-4.el5 - libselinux-1.33.4-5.1.el5**

- Group: **System Environment/Libraries**

- **Summary: SELinux library and simple utilities**

- **Description:**

Security-enhanced Linux is a feature of the Linux® kernel and a number of utilities with enhanced security functionality designed to add mandatory access controls to Linux. The Security-enhanced Linux kernel contains new architectural components originally developed to improve the security of the Flask operating system. These architectural components provide general support for the enforcement of many kinds of mandatory access control policies, including those based on the concepts of Type Enforcement®, Role-based Access Control, and Multi-level Security.

libselinux provides an API for SELinux applications to get and set process and file security contexts and to obtain security policy decisions. Required for any applications that use the SELinux API.

- No added dependencies
- No removed dependencies

#### **libtiff-3.8.2-7.el5 - libtiff-3.8.2-7.el5\_2.2**

- **Group: System Environment/Libraries**
- **Summary: Library of functions for manipulating TIFF format image files**
- **Description:**

The libtiff package contains a library of functions for manipulating TIFF (Tagged Image File Format) image format files. TIFF is a widely used file format for bitmapped images. TIFF files usually end in the .tif extension and they are often quite large.

The libtiff package should be installed if you need to manipulate TIFF format image files.

- No added dependencies
- No removed dependencies

#### **libuser-0.54.7-2.el5.2 - libuser-0.54.7-2.el5.5**

- **Group: System Environment/Base**

- **Summary: A user and group account administration library.**

- **Description:**

The libuser library implements a standardized interface for manipulating and administering user and group accounts. The library uses pluggable back-ends to interface to its data sources.

Sample applications modeled after those included with the shadow password suite are included.

- No added dependencies
- No removed dependencies

#### **libutempter-1.1.4-3.fc6 - libutempter-1.1.4-4.el5**

- **Group: System Environment/Libraries**
- **Summary: A privileged helper for utmp/wtmp updates**
- **Description:**

This library provides interface for terminal emulators such as screen and xterm to record user sessions to utmp and wtmp files.

- No added dependencies
- No removed dependencies

#### **libvirt-0.2.3-9.el5 - libvirt-0.3.3-14.el5**

- **Group: Development/Libraries**
- **Summary: Library providing a simple API virtualization**
- **Description:**

Libvirt is a C toolkit to interact with the virtualization capabilities of recent versions of Linux (and other OSes).

- **Added Dependencies:**
  - avahi-devel
  - bridge-utils
  - dnsmasq
  - gnutls-devel

- **Removed Dependencies:**

- /sbin/iptables
- libsysfs-devel

#### **libvorbis-1.1.2-3.el5.0 - libvorbis-1.1.2-3.el5\_1.2**

- **Group: System Environment/Libraries**
- **Summary: The Vorbis General Audio Compression Codec.**
- **Description:**

Ogg Vorbis is a fully open, non-proprietary, patent-and royalty-free, general-purpose compressed audio format for audio and music at fixed and variable bitrates from 16 to 128 kbps/channel.

The libvorbis package contains runtime libraries for use in programs that support Ogg Vorbis.

- **No added dependencies**
- **No removed dependencies**

#### **libxml2-2.6.26-2.1.2 - libxml2-2.6.26-2.1.2.7**

- **Group: Development/Libraries**
- **Summary: Library providing XML and HTML support**
- **Description:**

This library allows to manipulate XML files. It includes support to read, modify and write XML and HTML files. There is DTDs support this includes parsing and validation even with complex DTDs, either at parse time or later once the document has been modified. The output can be a simple SAX stream or an in-memory DOM like representations. In this case one can use the built-in XPath and XPointer implementation to select subnodes or ranges. A flexible Input/Output mechanism is available, with existing HTTP and FTP modules and combined to an URI library.

- **No added dependencies**
- **No removed dependencies**

**libxslt-1.1.17-2 - libxslt-1.1.17-2.el5\_2.2**

- Group: **Development/Libraries**
- Summary: **Library providing the Gnome XSLT engine**
- Description:

This C library allows to transform XML files into other XML files (or HTML, text, ...) using the standard XSLT stylesheet transformation mechanism. To use it you need to have a version of libxml2 >= 2.6.25 installed. The xsltproc command is a command line interface to the XSLT engine

- No added dependencies
- No removed dependencies

**linuxwacom-0.7.4.3-2.el5 - linuxwacom-0.7.8.3-5.el5**

- Group: **User Interface/X Hardware Support**
- Summary: **Wacom Drivers from Linux Wacom Project**
- Description:

The Linux Wacom Project manages the drivers, libraries, and documentation for configuring and running Wacom tablets under the Linux operating system. It contains diagnostic applications as well as X.org XInput drivers.

- Added Dependencies:
  - desktop-file-utils
  - tcl-devel
  - tk-devel
- No removed dependencies

**lm\_sensors-2.10.0-3.1 - lm\_sensors-2.10.7-4.el5**

- Group: **Applications/System**
- Summary: **Hardware monitoring tools.**
- Description:

The lm\_sensors package includes a collection of modules for general SMBus access and hardware monitoring. NOTE: this requires special

support which  
is not in standard 2.2-vintage kernels.

- No added dependencies
- No removed dependencies

#### **logrotate-3.7.4-7 - logrotate-3.7.4-9**

- Group: **System Environment/Base**
- Summary: **Rotates, compresses, removes and mails system log files.**
- Description:

The logrotate utility is designed to simplify the administration of log files on a system which generates a lot of log files. Logrotate allows for the automatic rotation compression, removal and mailing of log files. Logrotate can be set to handle a log file daily, weekly, monthly or when the log file gets to a certain size. Normally, logrotate runs as a daily cron job.

Install the logrotate package if you need a utility to deal with the log files on your system.

- No added dependencies
- No removed dependencies

#### **logwatch-7.3-5 - logwatch-7.3-6.e15**

- Group: **Applications/System**
- Summary: **A log file analysis program**
- Description:

Logwatch is a customizable, pluggable log-monitoring system. It will go through your logs for a given period of time and make a report in the areas that you wish with the detail that you wish. Easy to use - works right out of the package on many systems.

- No added dependencies
- No removed dependencies

#### **ltrace-0.5-6.45svn.fc6 - ltrace-0.5-7.45svn.e15**



- **Group: Development/Debuggers**
- **Summary: Tracks runtime library calls from dynamically linked executables.**
- **Description:**

Ltrace is a debugging program which runs a specified command until the command exits. While the command is executing, ltrace intercepts and records both the dynamic library calls called by the executed process and the signals received by the executed process. Ltrace can also intercept and print system calls executed by the process.

You should install ltrace if you need a sysadmin tool for tracking the execution of processes.

- No added dependencies
- No removed dependencies

#### **lvm2-2.02.26-3.el5 - lvm2-2.02.40-6.el5**

- **Group: System Environment/Base**
- **Summary: Userland logical volume management tools**
- **Description:**

LVM2 includes all of the support for handling read/write operations on physical volumes (hard disks, RAID-Systems, magneto optical, etc., multiple devices (MD), see mdadm(8) or even loop devices, see losetup(8)), creating volume groups (kind of virtual disks) from one or more physical volumes and creating one or more logical volumes (kind of logical partitions) in volume groups.

- **Added Dependencies:**
  - device-mapper >= 1.02.28-2
- **Removed Dependencies:**
  - device-mapper >= 1.02.20-1

#### **lvm2-cluster-2.02.26-1.el5 - lvm2-cluster-2.02.40-7.el5**

- **Group: System Environment/Base**
- **Summary: Cluster extensions for userland logical volume management tools**

- **Description:**

Extensions to LVM2 to support clusters.

- **Added Dependencies:**

- device-mapper >= 1.02.28-2

- **Removed Dependencies:**

- device-mapper >= 1.02.20-1

#### **lynx-2.8.5-28.1 - lynx-2.8.5-28.1.el5\_2.1**

- **Group: Applications/Internet**

- **Summary: A text-based Web browser.**

- **Description:**

Lynx is a text-based Web browser. Lynx does not display any images, but it does support frames, tables, and most other HTML tags. One advantage Lynx has over graphical browsers is speed; Lynx starts and exits quickly and swiftly displays webpages.

- **No added dependencies**

- **No removed dependencies**

#### **m17n-db-1.3.3-46.el5 - m17n-db-1.3.3-48.el5**

- **Group: System Environment/Libraries**

- **Summary: Multilingualization datafiles for m17n-lib**

- **Description:**

This package contains multilingualization (m17n) datafiles for m17n-lib which describe input maps, encoding maps, and OpenType font data for many languages.

- **No added dependencies**

- **No removed dependencies**

#### **m2crypto-0.16-6.el5.1 - m2crypto-0.16-6.el5.3**

- **Group: System Environment/Libraries**

- **Summary: Support for using OpenSSL in python scripts**

- **Description:**

This package allows you to call OpenSSL functions from python scripts.

- No added dependencies
- No removed dependencies

#### mailman-2.1.9-2 - mailman-2.1.9-4.e15

- **Group: Applications/Internet**
- **Summary: Mailing list manager with built in Web access.**
- **Description:**

Mailman is software to help manage email discussion lists, much like Majordomo and Smartmail. Unlike most similar products, Mailman gives each mailing list a webpage, and allows users to subscribe, unsubscribe, etc. over the Web. Even the list manager can administer his or her list entirely from the Web. Mailman also integrates most things people want to do with mailing lists, including archiving, mail <-> news gateways, and so on.

Documentation can be found in: /usr/share/doc/mailman-2.1.9

When the package has finished installing, you will need to perform some additional installation steps, these are described in: /usr/share/doc/mailman-2.1.9/INSTALL.REDHAT

- No added dependencies
- No removed dependencies

#### make-3.81-1.1 - make-3.81-3.e15

- **Group: Development/Tools**
- **Summary: A GNU tool which simplifies the build process for users.**
- **Description:**

A GNU tool for controlling the generation of executables and other non-source files of a program from the program's source files. Make allows users to build and install packages without any significant knowledge about the details of the build process. The details about how the program should be built are provided for make in the program's

makefile.

The GNU make tool should be installed on your system because it is commonly used to simplify the process of installing programs.

- No added dependencies
- No removed dependencies

#### **man-pages-2.39-10.el5 - man-pages-2.39-12.el5**

- Group: **Documentation**
- Summary: **Man (manual) pages from the Linux Documentation Project.**
- Description:

A large collection of man pages (documentation) from the Linux Documentation Project (LDP).

- No added dependencies
- No removed dependencies

#### **man-pages-ja-20060815-5 - man-pages-ja-20060815-9.el5**

- Group: **Documentation**
- Summary: **Japanese man (manual) pages from the Japanese Manual Project**
- Description:

Japanese Manual pages, translated by JM-Project (Japanese Manual Project).

- No added dependencies
- No removed dependencies

#### **mcstrans-0.2.6-1.el5 - mcstrans-0.2.11-3.el5**

- Group: **System Environment/Daemons**
- Summary: **SELinux Translation Daemon**
- Description:

Security-enhanced Linux is a feature of the Linux® kernel and a number of utilities with enhanced security functionality designed to add mandatory access controls to Linux. The Security-enhanced Linux kernel contains new architectural components originally developed to improve the security of the Flask operating system. These

architectural components provide general support for the enforcement of many kinds of mandatory access control policies, including those based on the concepts of Type Enforcement®, Role-based Access Control, and Multi-level Security.

mcstrans provides a translation daemon to translate SELinux categories from internal representations to user defined representation.

- No added dependencies
- No removed dependencies

#### **mdadm-2.5.4-3.el5 - mdadm-2.6.4-1.el5**

- **Group: System Environment/Base**
- **Summary: mdadm controls Linux md devices (software RAID arrays)**
- **Description:**

mdadm is used to create, manage, and monitor Linux MD (software RAID) devices. As such, it provides similar functionality to the raidtools package. However, mdadm is a single program, and it can perform almost all functions without a configuration file, though a configuration file can be used to help with some common tasks.

- No added dependencies
- No removed dependencies

#### **mesa-6.5.1-7.5.el5 - mesa-6.5.1-7.7.el5**

- **Group: System Environment/Libraries**
- **Summary: Mesa graphics libraries**
- **Description:**

Mesa

- No added dependencies
- No removed dependencies

#### **metacity-2.16.0-8.el5 - metacity-2.16.0-12.el5**

- **Group: User Interface/Desktops**
- **Summary: Metacity window manager**

- Description:

Metacity is a simple window manager that integrates nicely with GNOME 2.

- No added dependencies
- No removed dependencies

#### **microcode\_ctl-1.17-1.42.el5 - microcode\_ctl-1.17-1.47.el5**

- Group: **System Environment/Base**
- Summary: **Tool to update x86/x86-64 CPU microcode.**
- Description:

microcode\_ctl - updates the microcode on Intel x86/x86-64 CPU's

- No added dependencies
- No removed dependencies

#### **mkinitrd-5.1.19.6-19 - mkinitrd-5.1.19.6-44**

- Group: **System Environment/Base**
- Summary: **Creates an initial ramdisk image for preloading modules.**
- Description:

Mkinitrd creates filesystem images for use as initial ramdisk (initrd) images. These ramdisk images are often used to preload the block device modules (SCSI or RAID) needed to access the root filesystem.

In other words, generic kernels can be built without drivers for any SCSI adapters which load the SCSI driver as a module. Since the kernel needs to read those modules, but in this case it isn't able to address the SCSI adapter, an initial ramdisk is used. The initial ramdisk is loaded by the operating system loader (normally LILO) and is available to the kernel as soon as the ramdisk is loaded. The ramdisk image loads the proper SCSI adapter and allows the kernel to mount the root filesystem. The mkinitrd program creates such a ramdisk using information found in the /etc/modules.conf file.

- Added Dependencies:
  - libdhcp-devel >= 1.20-6

- **Removed Dependencies:**

- libdhcp-devel >= 1.9

#### **mlocate-0.15-1.el5 - mlocate-0.15-1.el5.1**

- **Group: Applications/System**
- **Summary: An utility for finding files by name**
- **Description:**

mlocate is a locate/updatedb implementation. It keeps a database of all existing files and allows you to lookup files by name.

The 'm' stands for "merging": updatedb reuses the existing database to avoid rereading most of the file system, which makes updatedb faster and does not trash the system caches as much as traditional locate implementations.

- No added dependencies
- No removed dependencies

#### **mod\_nss-1.0.3-4.el5 - mod\_nss-1.0.3-6.el5**

- **Group: System Environment/Daemons**
- **Summary: SSL/TLS module for the Apache HTTP server**
- **Description:**

The mod\_nss module provides strong cryptography for the Apache Web server via the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) protocols using the Network Security Services (NSS) security library.

- No added dependencies
- No removed dependencies

#### **mod\_perl-2.0.2-6.3.el5 - mod\_perl-2.0.4-6.el5**

- **Group: System Environment/Daemons**
- **Summary: An embedded Perl interpreter for the Apache HTTP Server**
- **Description:**

Mod\_perl incorporates a Perl interpreter into the Apache web server, so that the Apache web server can directly execute Perl code.

Mod\_perl links the Perl runtime library into the Apache web server and provides an object-oriented Perl interface for Apache's C language API. The end result is a quicker CGI script turnaround process, since no external Perl interpreter has to be started.

Install mod\_perl if you're installing the Apache web server and you'd like for it to directly incorporate a Perl interpreter.

- **Added Dependencies:**
  - perl
  - perl(ExtUtils::Embed)
- **Removed Dependencies:**
  - perl >= 1:5.6.1

#### **module-init-tools-3.3-0.pre3.1.34.e15 - module-init-tools-3.3-0.pre3.1.42.e15**

- **Group: System Environment/Kernel**
- **Summary: Kernel module management utilities.**
- **Description:**

The modutils package includes various programs needed for automatic loading and unloading of modules under 2.6 and later kernels, as well as other module management programs. Device drivers and filesystems are two examples of loaded and unloaded modules.

- No added dependencies
- No removed dependencies

#### **mozldap-6.0.4-1.e15 - mozldap-6.0.5-1.e15**

- **Group: System Environment/Libraries**
- **Summary: Mozilla LDAP C SDK**
- **Description:**

The Mozilla LDAP C SDK is a set of libraries that allow applications to communicate with LDAP directory servers. These libraries are derived from the University of Michigan and Netscape LDAP libraries. They use Mozilla NSPR and NSS for crypto.



- No added dependencies
- No removed dependencies

#### mysql-5.0.22-2.1.0.1 - mysql-5.0.45-7.e15

- Group: **Applications/Databases**
- Summary: **MySQL client programs and shared libraries.**
- Description:

```
MySQL is a multi-user, multi-threaded SQL database server. MySQL
is a
client/server implementation consisting of a server daemon
(mysql)
and many different client programs and libraries. The base package
contains the MySQL client programs, the client shared libraries,
and
generic MySQL files.
```

- Added Dependencies:
  - gawk
- No removed dependencies

#### nautilus-2.16.2-6.e15 - nautilus-2.16.2-7.e15

- Group: **User Interface/Desktops**
- Summary: **Nautilus is a file manager for GNOME.**
- Description:

```
Nautilus integrates access to files, applications, media,
Internet-based resources and the Web. Nautilus delivers a dynamic
and
rich user experience. Nautilus is an free software project
developed
under the GNU General Public License and is a core component of
the
GNOME desktop project.
```

- No added dependencies
- No removed dependencies

#### neon-0.25.5-5.1 - neon-0.25.5-10.e15

- Group: **Applications/Publishing**
- Summary: **An HTTP and WebDAV client library**
- Description:

-

neon is an HTTP and WebDAV client library, with a C interface; providing a high-level interface to HTTP and WebDAV methods along with a low-level interface for HTTP request handling. neon supports persistent connections, proxy servers, basic, digest and Kerberos authentication, and has complete SSL support.

- No added dependencies
- No removed dependencies

#### **net-snmp-5.3.1-19.e15 - net-snmp-5.3.2.2-5.e15**

- Group: **System Environment/Daemons**
- Summary: **A collection of SNMP protocol tools and libraries.**
- Description:

SNMP (Simple Network Management Protocol) is a protocol used for network management. The NET-SNMP project includes various SNMP tools:

an extensible agent, an SNMP library, tools for requesting or setting information from SNMP agents, tools for generating and handling SNMP traps, a version of the netstat command which uses SNMP, and a Tk/Perl mib browser. This package contains the snmpd and snmptrapd daemons, documentation, etc.

You will probably also want to install the net-snmp-utils package, which contains NET-SNMP utilities.

Building option:

--without tcp\_wrappers : disable tcp\_wrappers support

- No added dependencies
- No removed dependencies

#### **net-tools-1.60-73 - net-tools-1.60-78.e15**

- Group: **System Environment/Base**
- Summary: **Basic networking tools.**
- Description:

The net-tools package contains basic networking tools, including ifconfig, netstat, route, and others.

- No added dependencies
- No removed dependencies

**newt-0.52.2-9 - newt-0.52.2-12.e15**

- **Group: System Environment/Libraries**
- **Summary: A development library for text mode user interfaces.**
- **Description:**

Newt is a programming library for color text mode, widget based user interfaces. Newt can be used to add stacked windows, entry widgets, checkboxes, radio buttons, labels, plain text fields, scrollbars, etc., to text mode user interfaces. This package also contains the shared library needed by programs built with newt, as well as a /usr/bin/dialog replacement called whiptail. Newt is based on the slang library.

- No added dependencies
- No removed dependencies

**nfs-utils-1.0.9-24.e15 - nfs-utils-1.0.9-40.e15**

- **Group: System Environment/Daemons**
- **Summary: NFS utilities and supporting clients and daemons for the kernel NFS server.**
- **Description:**

The nfs-utils package provides a daemon for the kernel NFS server and related tools, which provides a much higher level of performance than the traditional Linux NFS server used by most users.

This package also contains the showmount program. Showmount queries the mount daemon on a remote host for information about the NFS (Network File System) server on the remote host. For example, showmount can display the clients which are mounted on that host.

This package also contains the mount.nfs and umount.nfs program.

- **Added Dependencies:**
  - tcp\_wrappers
- No removed dependencies

**notification-daemon-0.3.5-8.e15 - notification-daemon-0.3.5-9.e15**

- **Group: System Environment/Libraries**

- **Summary: Notification Daemon**

- **Description:**

notification-daemon is the server implementation of the freedesktop.org desktop notification specification.

- No added dependencies
- No removed dependencies

#### **nspr-4.6.5-3.e15 - nspr-4.7.3-2.e15**

- **Group: System Environment/Libraries**

- **Summary: Netscape Portable Runtime**

- **Description:**

NSPR provides platform independence for non-GUI operating system facilities. These facilities include threads, thread synchronization, normal file and network I/O, interval timing and calendar time, basic memory management (malloc and free) and shared library linking.

- No added dependencies
- No removed dependencies

#### **nss-3.11.7-1.3.e15 - nss-3.12.2.0-2.e15**

- **Group: System Environment/Libraries**

- **Summary: Network Security Services**

- **Description:**

Network Security Services (NSS) is a set of libraries designed to support cross-platform development of security-enabled client and server applications. Applications built with NSS can support SSL v2 and v3, TLS, PKCS #5, PKCS #7, PKCS #11, PKCS #12, S/MIME, X.509 v3 certificates, and other security standards.

- **Added Dependencies:**
  - nspr-devel >= 4.6.99
  - zlib-devel
- **Removed Dependencies:**
  - nspr-devel >= 4.6.2

**nss\_db-2.2-35.1 - nss\_db-2.2-35.3**

- Group: **System Environment/Libraries**
- Summary: **An NSS library for the Berkeley DB.**
- Description:

Nss\_db is a set of C library extensions which allow Berkeley Databases to be used as a primary source of aliases, ethers, groups, hosts, networks, protocol, users, RPCs, services, and shadow passwords (instead of or in addition to using flat files or NIS). Install nss\_db if your flat name service files are too large and lookups are slow.

- No added dependencies
- No removed dependencies

**nss\_ldap-253-5.e15 - nss\_ldap-253-17.e15**

- Group: **System Environment/Base**
- Summary: **NSS library and PAM module for LDAP.**
- Description:

This package includes two LDAP access clients: nss\_ldap and pam\_ldap. Nss\_ldap is a set of C library extensions that allow X.500 and LDAP directory servers to be used as a primary source of aliases, ethers, groups, hosts, networks, protocol, users, RPCs, services, and shadow passwords (instead of or in addition to using flat files or NIS). Pam\_ldap is a module for Linux-PAM that supports password changes, V2 clients, Netscape's SSL, ypldapd, Netscape Directory Server password policies, access authorization, and crypted hashes.

- Added Dependencies:
  - fipscheck-devel
  - keyutils-libs-devel
  - libselinux-devel
- No removed dependencies

**ntp-4.2.2p1-7.e15 - ntp-4.2.2p1-9.e15**

- **Group:** System Environment/Daemons
- **Summary:** Synchronizes system time using the Network Time Protocol (NTP).
- **Description:**

The Network Time Protocol (NTP) is used to synchronize a computer's time with another reference time source. The ntp package contains utilities and daemons that will synchronize your computer's time to Coordinated Universal Time (UTC) via the NTP protocol and NTP servers.

The ntp package includes ntpdate (a program for retrieving the date and time from remote machines via a network) and ntpd (a daemon which continuously adjusts system time).

Install the ntp package if you need tools for keeping your system's time synchronized via the NTP protocol.

- **Added Dependencies:**
  - perl-HTML-Parser
- **No removed dependencies**

#### **numactl-0.9.8-2.el5 - numactl-0.9.8-7.el5**

- **Group:** System Environment/Base
- **Summary:** library for tuning for Non Uniform Memory Access machines
- **Description:**

Simple NUMA policy support. It consists of a numactl program to run other programs with a specific NUMA policy and a libnuma to do allocations with NUMA policy in applications.

- **No added dependencies**
- **No removed dependencies**

#### **odddjob-0.27-7 - oddjob-0.27-9.el5**

- **Group:** System Environment/Daemons
- **Summary:** A D-BUS service which runs odd jobs on behalf of client applications
- **Description:**

oddjob is a D-BUS service which performs particular tasks for clients which connect to it and issue requests using the system-wide message bus.

- No added dependencies
- No removed dependencies

#### **openCryptoki-2.2.4-16.el5 - openCryptoki-2.2.4-22.el5**

- Group: **Productivity/Security**
- Summary: **Implementation of Cryptoki v2.11 for IBM Crypto Hardware**
- Description:

The PKCS#11 Version 2.11 api implemented for the IBM Crypto cards. This package includes support for the IBM 4758 Cryptographic CoProcessor (with the PKCS#11 firmware loaded) and the IBM eServer Cryptographic Accelerator (FC 4960 on pSeries)

- Added Dependencies:
  - trousers-devel
- No removed dependencies

#### **openais-0.80.3-7.el5 - openais-0.80.3-22.el5**

- Group: **System Environment/Base**
- Summary: **The openais Standards-Based Cluster Framework executive and APIs**
- Description:

This package contains the openais executive, openais service handlers, default configuration files and init script.

- No added dependencies
- No removed dependencies

#### **openhpi-2.8.1-2.el5.7 - openhpi-2.10.2-1.el5**

- Group: **System Environment/Base**
- Summary: **openhpi Hardware Platform Interface (HPI) library and tools**
- Description:

OpenHPI is an open source project created with the intent of providing an

implementation of the SA Forum's Hardware Platform Interface (HPI). HPI provides an abstracted interface to managing computer hardware, typically for chassis and rack based servers. HPI includes resource modeling; access to and control over sensor, control, watchdog, and inventory data associated with resources; abstracted System Event Log interfaces; hardware events and alerts; and a managed hotswap interface.

OpenHPI provides a modular mechanism for adding new hardware and device support easily. Many plugins exist in the OpenHPI source tree to provide access to various types of hardware. This includes, but is not limited to, IPMI based servers, Blade Center, and machines which export data via sysfs.

- No added dependencies
- No removed dependencies

#### **openib-1.2-6.e15 - openib-1.3.2-0.20080728.0355.3.e15**

- Group: **System Environment/Base**
- Summary: **OpenIB Infiniband Driver Stack**
- Description:

User space initialization scripts for the kernel InfiniBand drivers

- No added dependencies
- Removed Dependencies:
  - autoconf
  - automake
  - libsysfs-devel
  - libtool
  - pciutils-devel
  - zlib-devel

#### **openldap-2.3.27-8 - openldap-2.3.43-3.e15**

- Group: **System Environment/Daemons**



- **Summary: The configuration files, libraries, and documentation for OpenLDAP.**

- **Description:**

OpenLDAP is an open source suite of LDAP (Lightweight Directory Access Protocol) applications and development tools. LDAP is a set of protocols for accessing directory services (usually phone book style information, but other information is possible) over the Internet, similar to the way DNS (Domain Name System) information is propagated over the Internet. The openldap package contains configuration files, libraries, and documentation for OpenLDAP.

- No added dependencies
- No removed dependencies

#### **openmotif-2.3.0-0.3.e15 - openmotif-2.3.1-2.e15**

- **Group: System Environment/Libraries**
- **Summary: Open Motif runtime libraries and executables.**
- **Description:**

This is the Open Motif 2.3.1 runtime environment. It includes the Motif shared libraries, needed to run applications which are dynamically linked against Motif, and the Motif Window Manager "mwm".

- No added dependencies
- No removed dependencies

#### **openmpi-1.2.3-4.e15 - openmpi-1.2.7-6.e15**

- **Group: Development/Libraries**
- **Summary: Open Message Passing Interface**
- **Description:**

Open MPI is an open source, freely available implementation of both the MPI-1 and MPI-2 standards, combining technologies and resources from several other projects (FT-MPI, LA-MPI, LAM/MPI, and PACX-MPI) in order to build the best MPI library available. A completely new MPI-2 compliant implementation, Open MPI offers advantages for system

and software vendors, application developers, and computer science researchers. For more information, see <http://www.open-mpi.org/> .

- **Added Dependencies:**

- compat-dapl-devel

- **Removed Dependencies:**

- dapl-devel
- libsysfs-devel

#### **openssh-4.3p2-24.el5 - openssh-4.3p2-29.el5**

- **Group: Applications/Internet**

- **Summary: The OpenSSH implementation of SSH protocol versions 1 and 2**

- **Description:**

SSH (Secure SHell) is a program for logging into and executing commands on a remote machine. SSH is intended to replace rlogin and rsh, and to provide secure encrypted communications between two untrusted hosts over an insecure network. X11 connections and arbitrary TCP/IP ports can also be forwarded over the secure channel.

OpenSSH is OpenBSD's version of the last free version of SSH, bringing it up to date in terms of security and features, as well as removing all patented algorithms to separate libraries.

This package includes the core files necessary for both the OpenSSH client and server. To make this package useful, you should also install openssh-clients, openssh-server, or both.

- **Added Dependencies:**

- openssl-devel >= 0.9.8e

- **Removed Dependencies:**

- openssl-devel

#### **openssl-0.9.8b-8.3.el5\_0.2 - openssl-0.9.8e-7.el5**

- **Group: System Environment/Libraries**

- **Summary: The OpenSSL toolkit**

- **Description:**

The OpenSSL toolkit provides support for secure communications between machines. OpenSSL includes a certificate management tool and shared libraries which provide various cryptographic algorithms and protocols.

- Added Dependencies:
  - fipscheck
- No removed dependencies

#### **openssl097a-0.9.7a-9 - openssl097a-0.9.7a-9.e15\_2.1**

- Group: **System Environment/Libraries**
- Summary: **The OpenSSL toolkit**
- Description:

The OpenSSL toolkit provides support for secure communications between machines. OpenSSL includes a certificate management tool and shared libraries which provide various cryptographic algorithms and protocols.

- No added dependencies
- No removed dependencies

#### **oprofile-0.9.2-6.e15 - oprofile-0.9.3-18.e15**

- Group: **Development/System**
- Summary: **System wide profiler**
- Description:

OProfile is a profiling system for systems running Linux. The profiling runs transparently during the background, and profile data can be collected at any time. OProfile makes use of the hardware performance counters provided on Intel P6, and AMD Athlon family processors, and can use the RTC for profiling on other x86 processor types.

See the HTML documentation for further details.

- No added dependencies
- No removed dependencies

**pam-0.99.6.2-3.26.el5 - pam-0.99.6.2-4.el5**

- **Group:** System Environment/Base
- **Summary:** A security tool which provides authentication for applications
- **Description:**

PAM (Pluggable Authentication Modules) is a system security tool that allows system administrators to set authentication policy without having to recompile programs that handle authentication.
- **Added Dependencies:**
  - audit-libs-devel >= 1.6.5
  - kernel-headers >= 2.6.18-114
- **Removed Dependencies:**
  - audit-libs-devel >= 1.0.8

**pam\_krb5-2.2.14-1 - pam\_krb5-2.2.14-10**

- **Group:** System Environment/Base
- **Summary:** A Pluggable Authentication Module for Kerberos 5.
- **Description:**

This is pam\_krb5, a pluggable authentication module that can be used with Linux-PAM and Kerberos 5. This module supports password checking, ticket creation, and optional TGT verification and conversion to Kerberos IV tickets. The included pam\_krb5afs module also gets AFS tokens if so configured.
- **Added Dependencies:**
  - autoconf
  - automake
  - libtool
- **No removed dependencies**

**paps-0.6.6-17.el5 - paps-0.6.6-18.el5**

- **Group:** Applications/Publishing
- **Summary:** Plain Text to PostScript converter

- **Description:**

paps is a PostScript converter from plain text file using Pango.

- No added dependencies
- No removed dependencies

#### **parted-1.8.1-12.el5 - parted-1.8.1-23.el5**

- **Group: Applications/System**
- **Summary: The GNU disk partition manipulation program**
- **Description:**

The GNU Parted program allows you to create, destroy, resize, move, and copy hard disk partitions. Parted can be used for creating space for new operating systems, reorganizing disk usage, and copying data to new hard disks.

- No added dependencies
- No removed dependencies

#### **patch-2.5.4-29.2.2 - patch-2.5.4-29.2.3.el5**

- **Group: Development/Tools**
- **Summary: The GNU patch command, for modifying/upgrading files.**
- **Description:**

The patch program applies diff files to originals. The diff command is used to compare an original to a changed file. Diff lists the changes made to the file. A person who has the original file can then use the patch command with the diff file to add the changes to their original file (patching the file).

Patch should be installed because it is a common way of upgrading applications.

- No added dependencies
- No removed dependencies

#### **pciutils-2.2.3-4 - pciutils-2.2.3-5**

- **Group: Applications/System**

- **Summary: PCI bus related utilities.**

- **Description:**

The pciutils package contains various utilities for inspecting and setting devices connected to the PCI bus. The utilities provided require kernel version 2.1.82 or newer (which support the /proc/bus/pci interface).

- No added dependencies
- No removed dependencies

#### **pcre-6.6-1.1 - pcre-6.6-2.el5\_1.7**

- **Group: System Environment/Libraries**

- **Summary: Perl-compatible regular expression library**

- **Description:**

Perl-compatible regular expression library. PCRE has its own native API, but a set of "wrapper" functions that are based on the POSIX API are also supplied in the library libpcreposix. Note that this just provides a POSIX calling interface to PCRE: the regular expressions themselves still follow Perl syntax and semantics. The header file for the POSIX-style functions is called pcreposix.h.

- No added dependencies
- No removed dependencies

#### **pcsc-lite-1.3.1-7 - pcsc-lite-1.4.4-0.1.el5**

- **Group: System Environment/Daemons**

- **Summary: PC/SC Lite smart card framework and applications**

- **Description:**

The purpose of PC/SC Lite is to provide a Windows(R) SCard interface in a very small form factor for communicating to smartcards and readers. PC/SC Lite uses the same winscard API as used under Windows(R). This package includes the PC/SC Lite daemon, a resource manager that coordinates communications with smart card readers and smart cards that are connected to the system, as well as other command line tools.

- No added dependencies
- No removed dependencies

#### perl-5.8.8-10 - perl-5.8.8-18.el5

- Group: **Development/Languages**
- Summary: **The Perl programming language**
- Description:

Perl is a high-level programming language with roots in C, sed, awk and shell scripting. Perl is good at handling processes and files, and is especially good at handling text. Perl's hallmarks are practicality and efficiency. While it is used to do a lot of different things, Perl's most common applications are system administration utilities and web programming. A large proportion of the CGI scripts on the web are written in Perl. You need the perl package installed on your system so that your system can handle Perl scripts.

Install this package if you want to program in Perl or enable your system to handle Perl scripts.

- No added dependencies
- No removed dependencies

#### perl-DBD-MySQL-3.0007-1.fc6 - perl-DBD-MySQL-3.0007-2.el5

- Group: **Development/Libraries**
- Summary: **A MySQL interface for perl**
- Description:

An implementation of DBI for MySQL for Perl.

- Added Dependencies:
  - perl-DBI >= 1.52-2
- Removed Dependencies:
  - perl(DBI)

#### perl-DBD-Pg-1.49-1.fc6 - perl-DBD-Pg-1.49-2.el5

- Group: **Development/Libraries**
- Summary: **A PostgreSQL interface for perl**

- **Description:**

An implementation of DBI for PostgreSQL for Perl.

- **Added Dependencies:**

- perl-DBI >= 1.52-2

- **Removed Dependencies:**

- perl-DBI >= 1.38

#### **perl-DBI-1.52-1.fc6 - perl-DBI-1.52-2.el5**

- **Group: Development/Libraries**

- **Summary: A database access API for perl**

- **Description:**

DBI is a database access Application Programming Interface (API) for the Perl Language. The DBI API Specification defines a set of functions, variables and conventions that provide a consistent database interface independent of the actual database being used.

- **No added dependencies**

- **No removed dependencies**

#### **pfmon-3.2-0.060926.4.el5 - pfmon-3.2-0.060926.5.el5**

- **Group: Development/Tools**

- **Summary: a performance monitoring tool for Linux/ia64**

- **Description:**

This package contains pfmon 3.x, a tool to monitor performance using the Performance Monitor Unit (PMU). Pfmon can monitor standalone programs or the entire system on both UP and SMP Linux systems. This version of pfmon requires a kernel perfmon-2.x (found in 2.6 kernels) subsystem to function properly.

- **No added dependencies**

- **No removed dependencies**

#### **php-5.1.6-15.el5 - php-5.1.6-23.el5**

- **Group: Development/Languages**



- **Summary: The PHP HTML-embedded scripting language. (PHP: Hypertext Preprocessor)**

- **Description:**

PHP is an HTML-embedded scripting language. PHP attempts to make it easy for developers to write dynamically generated webpages. PHP also offers built-in database integration for several commercial and non-commercial database management systems, so writing a database-enabled webpage with PHP is fairly simple. The most common use of PHP coding is probably as a replacement for CGI scripts.

The php package contains the module which adds support for the PHP language to Apache HTTP Server.

- No added dependencies
- No removed dependencies

#### **php-pear-1.4.9-4 - php-pear-1.4.9-4.el5.1**

- **Group: System**
- **Summary: PHP Extension and Application Repository framework**
- **Description:**

PEAR is a framework and distribution system for reusable PHP components. This package contains the basic PEAR components.

- No added dependencies
- No removed dependencies

#### **piranha-0.8.4-7.el5 - piranha-0.8.4-11.el5**

- **Group: System Environment/Base**
- **Summary: Cluster administration tools**
- **Description:**

Various tools to administer and configure the Linux Virtual Server as well as heartbeating and failover components. The LVS is a dynamically adjusted kernel routing mechanism that provides load balancing primarily for web and ftp servers though other services are supported.

- No added dependencies

- No removed dependencies

**pirut-1.2.10-1.e15 - pirut-1.3.28-13.e15**

- Group: **Applications/System**
- Summary: **Package Installation, Removal and Update Tools**
- Description:

```
pirut (pronounced "pirate") provides a set of graphical tools for
managing
software.
```

- No added dependencies
- No removed dependencies

**pkgconfig-0.21-1.fc6 - pkgconfig-0.21-2.e15**

- Group: **Development/Tools**
- Summary: **A tool for determining compilation options.**
- Description:

```
The pkgconfig tool determines compilation options. For each
required
library, it reads the configuration file and outputs the necessary
compiler and linker flags.
```

- No added dependencies
- No removed dependencies

**pkinit-nss-0.7.3-1.e15 - pkinit-nss-0.7.6-1.e15**

- Group: **System Environment/Libraries**
- Summary: **PKINIT for MIT Kerberos**
- Description:

```
The pkinit-nss package implements the PKINIT standard for MIT
Kerberos. It
does so using the Mozilla NSS library.
```

- No added dependencies
- No removed dependencies

**pm-utils-0.99.3-6.e15.17 - pm-utils-0.99.3-10.e15**

- Group: **System Environment/Base**

- **Summary: Power management utilities and scripts for Fedora Core**

- **Description:**

The pm-utils package contains utilities and scripts for Fedora Core useful for power management.

- No added dependencies
- No removed dependencies

#### **policycoreutils-1.33.12-12.el5 - policycoreutils-1.33.12-14.2.el5**

- **Group: System Environment/Base**
- **Summary: SELinux policy core utilities.**
- **Description:**

Security-enhanced Linux is a feature of the Linux® kernel and a number of utilities with enhanced security functionality designed to add mandatory access controls to Linux. The Security-enhanced Linux kernel contains new architectural components originally developed to improve the security of the Flask operating system. These architectural components provide general support for the enforcement of many kinds of mandatory access control policies, including those based on the concepts of Type Enforcement®, Role-based Access Control, and Multi-level Security.

policycoreutils contains the policy core utilities that are required for basic operation of a SELinux system. These utilities include load\_policy to load policies, setfiles to label filesystems, newrole to switch roles, and run\_init to run /etc/init.d scripts in the proper context.

- No added dependencies
- No removed dependencies

#### **poppler-0.5.4-4.1.el5 - poppler-0.5.4-4.4.el5\_1**

- **Group: Development/Libraries**
- **Summary: PDF rendering library**
- **Description:**

Poppler, a PDF rendering library, it's a fork of the xpdf PDF viewer developed by Derek Noonburg of Glyph and Cog, LLC.

- No added dependencies
- No removed dependencies

#### **postfix-2.3.3-2 - postfix-2.3.3-2.1.e15\_2**

- **Group: System Environment/Daemons**
- **Summary: Postfix Mail Transport Agent**
- **Description:**

Postfix is a Mail Transport Agent (MTA), supporting LDAP, SMTP AUTH (SASL), TLS

- No added dependencies
- No removed dependencies

#### **postgresql-8.1.9-1.e15 - postgresql-8.1.11-1.e15\_1.1**

- **Group: Applications/Databases**
- **Summary: PostgreSQL client programs and libraries.**
- **Description:**

PostgreSQL is an advanced Object-Relational database management system (DBMS) that supports almost all SQL constructs (including transactions, subselects and user-defined types and functions). The postgresql package includes the client programs and libraries that you'll need to access a PostgreSQL DBMS server. These PostgreSQL client programs are programs that directly manipulate the internal structure of PostgreSQL databases on a PostgreSQL server. These client programs can be located on the same machine with the PostgreSQL server, or may be on a remote machine which accesses a PostgreSQL server over a network connection. This package contains the docs in HTML for the whole package, as well as command-line utilities for managing PostgreSQL databases on a PostgreSQL server.

If you want to manipulate a PostgreSQL database on a remote PostgreSQL server, you need this package. You also need to install this package if you're installing the postgresql-server package.

- No added dependencies

- No removed dependencies

#### **ppc64-utils-0.11-2 - ppc64-utils-0.11-10.e15**

- Group: **System Environment/Base**
- Summary: **Linux/PPC64 specific utilities**
- Description:

A collection of utilities for Linux on PPC64 platforms.

- Added Dependencies:
  - db4-devel
  - librtas-devel >= 1.3.3
  - libstdc++-devel
  - libtool
  - sg3\_utils-devel
  - zlib-devel
- Removed Dependencies:
  - librtas-devel

#### **ppp-2.4.4-1.e15 - ppp-2.4.4-2.e15**

- Group: **System Environment/Daemons**
- Summary: **The PPP (Point-to-Point Protocol) daemon.**
- Description:

The ppp package contains the PPP (Point-to-Point Protocol) daemon and documentation for PPP support. The PPP protocol provides a method for transmitting datagrams over serial point-to-point links. PPP is usually used to dial in to an ISP (Internet Service Provider) or other organization over a modem and phone line.

- No added dependencies
- No removed dependencies

#### **prelink-0.3.9-2.1 - prelink-0.4.0-2.e15**

- Group: **System Environment/Base**
- Summary: **An ELF prelinking utility**

- **Description:**

The prelink package contains a utility which modifies ELF shared libraries and executables, so that far fewer relocations need to be resolved at runtime and thus programs come up faster.

- No added dependencies
- No removed dependencies

#### **privoxy-3.0.3-9.2.2 - privoxy-3.0.3-9.3.e15**

- **Group: System Environment/Daemons**
- **Summary: Privoxy - privacy enhancing proxy**
- **Description:**

Privoxy is a web proxy with advanced filtering capabilities for protecting privacy, filtering web page content, managing cookies, controlling access, and removing ads, banners, pop-ups and other obnoxious Internet junk. Privoxy has a very flexible configuration and can be customized to suit individual needs and tastes. Privoxy has application for both stand-alone systems and multi-user networks.

Privoxy is based on the Internet Junkbuster.

- **Added Dependencies:**
  - pcre-devel
- No removed dependencies

#### **procps-3.2.7-8.1.e15 - procps-3.2.7-11.1.e15**

- **Group: Applications/System**
- **Summary: System and process monitoring utilities.**
- **Description:**

The procps package contains a set of system utilities that provide system information. Procps includes ps, free, skill, pkill, pgrep, snice, tload, top, uptime, vmstat, w, watch and pdwx. The ps command displays a snapshot of running processes. The top command provides a repetitive update of the statuses of running processes. The free command displays the amounts of free and used memory on your system. The skill command sends a terminate command (or another specified signal) to a specified set of processes. The snice command is used to change the scheduling priority of specified

processes. The `tload` command prints a graph of the current system load average to a specified `tty`. The `uptime` command displays the current time, how long the system has been running, how many users are logged on, and system load averages for the past one, five, and fifteen minutes. The `w` command displays a list of the users who are currently logged on and what they are running. The `watch` program watches a running program. The `vmstat` command displays virtual memory statistics about processes, memory, paging, block I/O, traps, and CPU activity. The `pwdx` command reports the current working directory of a process or processes.

- No added dependencies
- No removed dependencies

#### **psacct-6.3.2-41.1 - psacct-6.3.2-44.el5**

- **Group: Applications/System**
- **Summary: Utilities for monitoring process activities.**
- **Description:**

The `psacct` package contains several utilities for monitoring process activities, including `ac`, `lastcomm`, `accton` and `sa`. The `ac` command displays statistics about how long users have been logged on. The `lastcomm` command displays information about previous executed commands. The `accton` command turns process accounting on or off. The `sa` command summarizes information about previously executed commands.

- No added dependencies
- No removed dependencies

#### **psmisc-22.2-5 - psmisc-22.2-6**

- **Group: Applications/System**
- **Summary: Utilities for managing processes on your system.**
- **Description:**

The `psmisc` package contains utilities for managing processes on your system: `pstree`, `killall` and `fuser`. The `pstree` command displays a tree structure of all of the running processes on your system. The `killall` command sends a specified signal (`SIGTERM` if nothing is specified) to processes identified by name. The `fuser` command identifies the PIDs of processes that are using specified files or filesystems.

- 
- No added dependencies
- No removed dependencies

**pygtk2-2.10.1-8.e15 - pygtk2-2.10.1-12.e15**

- Group: **Development/Languages**
- Summary: **Python bindings for the GTK+ widget set.**
- Description:

```
PyGTK is an extension module for python that gives you access to the GTK+ widget set. Just about anything you can write in C with GTK+ you can write in python with PyGTK (within reason), but with all the benefits of python.
```

- No added dependencies
- No removed dependencies

**pykickstart-0.43-1.e15 - pykickstart-0.43.3-1.e15**

- Group: **System Environment/Libraries**
- Summary: **A python library for manipulating kickstart files**
- Description:

```
The pykickstart package is a python library for manipulating kickstart files.
```

- No added dependencies
- No removed dependencies

**python-2.4.3-19.e15 - python-2.4.3-24.e15**

- Group: **Development/Languages**
- Summary: **An interpreted, interactive, object-oriented programming language.**
- Description:

```
Python is an interpreted, interactive, object-oriented programming language often compared to Tcl, Perl, Scheme or Java. Python includes modules, classes, exceptions, very high level dynamic data types and dynamic typing. Python supports interfaces to many system calls
```



and libraries, as well as to various windowing systems (X11, Motif, Tk, Mac and MFC).

Programmers can write new built-in modules for Python in C or C++. Python can be used as an extension language for applications that need a programmable interface. This package contains most of the standard Python modules, as well as modules for interfacing to the Tix widget set for Tk and RPM.

Note that documentation for Python is provided in the python-docs package.

- No added dependencies
- No removed dependencies

#### **python-pyblock-0.26-1.e15 - python-pyblock-0.26-3.e15**

- Group: **System Environment/Libraries**
- Summary: **Python modules for dealing with block devices**
- Description:

The pyblock contains Python modules for dealing with block devices.

- Added Dependencies:
  - dmraid-devel >= 1.0.0.rc13-14
- Removed Dependencies:
  - dmraid-devel >= 1.0.0.rc11-FC6.3

#### **python-urlgrabber-3.1.0-2 - python-urlgrabber-3.1.0-5.e15**

- Group: **Development/Libraries**
- Summary: **A high-level cross-protocol url-grabber**
- Description:

A high-level cross-protocol url-grabber for python supporting HTTP, FTP and file locations. Features include keepalive, byte ranges, throttling, authentication, proxies and more.

- No added dependencies

- No removed dependencies

#### **python-virtinst-0.103.0-3.el5 - python-virtinst-0.300.2-12.el5**

- Group: **Development/Libraries**
- Summary: **Python modules for starting Xen guest installations**
- Description:

```
virtinst is a module to help in starting installations of
Fedora/Red
Hat Enterprise Linux related distributions inside of virtual
machines. It
supports both paravirt guests (for which only FC and RHEL guests
are
currently supported) as well as fully virtualized guests. It uses
libvirt (http://www.libvirt.org) for starting things.
```

```
Also contained is a simple script virt-install which uses
virtinst in a command line mode.
```

- Added Dependencies:
  - gettext
  - python
- Removed Dependencies:
  - python-devel

#### **quota-3.13-1.2.3.2.el5 - quota-3.13-1.2.5.el5**

- Group: **System Environment/Base**
- Summary: **System administration tools for monitoring users' disk usage.**
- Description:

```
The quota package contains system administration tools for
monitoring
and limiting user and or group disk usage per filesystem.
```

- No added dependencies
- No removed dependencies

#### **rdate-1.4-6 - rdate-1.4-8.el5**

- Group: **Applications/System**
- Summary: **Tool for getting the date/time from a remote machine.**

- **Description:**

The rdate utility retrieves the date and time from another machine on your network, using the protocol described in RFC 868. If you run rdate as root, it will set your machine's local time to the time of the machine that you queried.

- No added dependencies
- No removed dependencies

#### **rdesktop-1.4.1-4 - rdesktop-1.4.1-6**

- **Group: User Interface/Desktops**
- **Summary: X client for remote desktop into Windows Terminal Server**
- **Description:**

rdesktop is an open source client for Windows NT Terminal Server and Windows 2000 & 2003 Terminal Services, capable of natively speaking Remote Desktop Protocol (RDP) in order to present the user's NT desktop. Unlike Citrix ICA, no server extensions are required.

- No added dependencies
- No removed dependencies

#### **redhat-menus-6.7.8-2.el5 - redhat-menus-6.7.8-3.el5**

- **Group: User Interface/Desktops**
- **Summary: Configuration and data files for the desktop menus**
- **Description:**

This package contains the XML files that describe the menu layout for GNOME and KDE, and the .desktop files that define the names and icons of "subdirectories" in the menus.

- No added dependencies
- No removed dependencies

#### **redhat-release-5Server-5.1.0.2 - redhat-release-5Server-5.3.0.3**

- **Group: System Environment/Base**

- **Summary: Red Hat Enterprise Linux release file**
- **Description:**
  - Red Hat Enterprise Linux release files
- No added dependencies
- No removed dependencies

#### **redhat-release-notes-5Server-9 - redhat-release-notes-5Server-25**

- **Group: System Environment/Base**
- **Summary: Red Hat Enterprise Linux release notes files**
- **Description:**
  - Red Hat Enterprise Linux release notes files.
- No added dependencies
- No removed dependencies

#### **redhat-rpm-config-8.0.45-22.el5 - redhat-rpm-config-8.0.45-29.el5**

- **Group: Development/System**
- **Summary: Red Hat specific rpm configuration files.**
- **Description:**
  - Red Hat specific rpm configuration files.
- No added dependencies
- No removed dependencies

#### **rgmanager-2.0.31-1.el5 - rgmanager-2.0.46-1.el5**

- **Group: System Environment/Base**
- **Summary: Open Source HA Resource Group Failover for Red Hat Enterprise Linux**
- **Description:**
  - Red Hat Resource Group Manager provides high availability of critical server applications in the event of planned or unplanned system downtime.
- **Added Dependencies:**
  - slang-devel

- No removed dependencies

#### **rhel-instnum-1.0.7-1.el5 - rhel-instnum-1.0.9-1.el5**

- Group: **System Environment/Base**
- Summary: **A library for decoding RHEL installation numbers**
- Description:

```
rhel-instnum provides methods for decoding RHEL installation numbers
```

- No added dependencies
- Removed Dependencies:
  - python

#### **rhn-client-tools-0.4.16-1.el5 - rhn-client-tools-0.4.19-17.el5**

- Group: **System Environment/Base**
- Summary: **Support programs and libraries for Red Hat Network**
- Description:

```
Red Hat Network Client Tools provides programs and libraries to allow your system to receive software updates from Red Hat Network.
```

- No added dependencies
- No removed dependencies

#### **rhnlib-2.2.5-1.el5 - rhnlib-2.2.6-2.el5**

- Group: **Development/Libraries**
- Summary: **Python libraries for the RHN project**
- Description:

```
rhnlib is a collection of python modules used by the Red Hat Network (http://rhn.redhat.com) software.
```

- No added dependencies
- No removed dependencies

#### **rhpxl-0.41.1-1.el5 - rhpxl-0.41.1-7.el5**

- Group: **System Environment/Libraries**
- Summary: **Python library for configuring and running X.**

- **Description:**

The rhpX1 (pronounced 'rapunzel') package contains a Python library for configuring and running X.

- No added dependencies
- No removed dependencies

#### **rpm-4.4.2-47.el5 - rpm-4.4.2.3-9.el5**

- **Group: System Environment/Base**
- **Summary: The RPM package management system**
- **Description:**

The RPM Package Manager (RPM) is a powerful command line driven package management system capable of installing, uninstalling, verifying, querying, and updating software packages. Each software package consists of an archive of files along with information about the package like its version, a description, etc.

- **Added Dependencies:**
  - doxygen
  - gawk
  - nss-devel
  - redhat-rpm-config
- **Removed Dependencies:**
  - autoconf
  - beecrypt-devel >= 4.1.2
  - sed

#### **rsh-0.17-37.el5 - rsh-0.17-38.el5**

- **Group: Applications/Internet**
- **Summary: Clients for remote access commands (rsh, rlogin, rcp).**
- **Description:**

The rsh package contains a set of programs which allow users to run commands on remote machines, login to other machines and copy files between machines (rsh, rlogin and rcp). All three of these

commands  
 use rhosts style authentication. This package contains the clients  
 needed for all of these services.  
 The rsh package should be installed to enable remote access to  
 other  
 machines.

- No added dependencies
- No removed dependencies

#### **ruby-1.8.5-5.e15 - ruby-1.8.5-5.e15\_2.6**

- **Group: Development/Languages**
- **Summary: An interpreter of object-oriented scripting language**
- **Description:**

Ruby is the interpreted scripting language for quick and easy  
 object-oriented programming. It has many features to process text  
 files and to do system management tasks (as in Perl). It is  
 simple,  
 straight-forward, and extensible.

- No added dependencies
- No removed dependencies

#### **s390utils-1.5.3-10.e15.14 - s390utils-1.5.3-21.e15**

- **Group: System Environment/Base**
- **Summary: Linux/390 specific utilities.**
- **Description:**

This package contains utilities related to Linux for S/390.  
 The most important programs contained in this package are:

- The cmstools suite to list, check, copy and cat files from a CMS  
 volume.
- chccwdev, a script to generically change attributes of a ccw  
 device.
- dasdfmt, which is used to low-level format eckd-dasds with  
 either the classic linux disk layout or the new z/OS  
 compatible disk layout.
- dasdview, which displays DASD and VTOC information and dumps the  
 content  
 of a DASD to the console.
- fdasd, which is used to create or modify partitions on  
 eckd-dasds formatted with the z/OS compatible disk layout.
- osasmpd, a subagent for net-snmp to access the OSA hardware.
- getharp to query and purge address data in the OSA and  
 HiperSockets hardware
- gethconf to configure IBM QETH function IPA, VIPA and Proxy ARP.

- `src_vipa.sh` to start applications using VIPA capabilities
- `tunedasd`, a tool to adjust tunable parameters on DASD devices
- `vmconvert`, a tool to convert vm dumps to lkcd compatible dumps.
- `vmcp`, a tool to send CP commands from a Linux guest to the VM.
- `zipl`, which is used to make either dasds or tapes bootable for system IPL or system dump.
- `zdump`, which is used to retrieve system dumps from either tapes or dasds.

- No added dependencies
- No removed dependencies

#### **sabayon-2.12.4-5.e15 - sabayon-2.12.4-6.e15**

- Group: **Applications/System**
- Summary: **Tool to maintain user profiles in a GNOME desktop**
- Description:

Sabayon is a tool to help sysadmins and user change and maintain the default behaviour of the GNOME desktop. This package contains the graphical tools which a sysadmin use to manage Sabayon profiles.

- No added dependencies
- No removed dependencies

#### **salinfo-1.1-3.e15 - salinfo-1.1-4.e15**

- Group: **Utilities/System**
- Summary: **Sal info tool.**
- Description:

The IA64 Linux kernel has a Software Abstraction Layer (SAL). One of SAL's tasks is to record machine problems such as CMC (correctable machine checks), CPE (correctable platform errors), MCA (machine check architecture) and INIT (cpu initialized after boot). These records are provided by SAL to user space. `salinfo` saves and decodes CMC/CPE/MCA and INIT records.

- No added dependencies
- No removed dependencies

#### **samba-3.0.25b-0.e15.4 - samba-3.0.33-3.7.e15**



- Group: **System Environment/Daemons**
- Summary: **The Samba SMB server.**
- Description:

Samba is the suite of programs by which a lot of PC-related machines share files, printers, and other information (such as lists of available files and printers). The Windows NT, OS/2, and Linux operating systems support this natively, and add-on packages can enable the same thing for DOS, Windows, VMS, UNIX of all kinds, MVS, and more. This package provides an SMB server that can be used to provide network services to SMB (sometimes called "Lan Manager") clients. Samba uses NetBIOS over TCP/IP (NetBT) protocols and does NOT need the NetBEUI (Microsoft Raw NetBIOS frame) protocol.

- No added dependencies
- No removed dependencies

#### **sblim-1-29.EL5 - sblim-1-31.e15\_2.1**

- Group: **Applications/System**
- Summary: **Standards Based Linux Instrumentation for Manageability**
- Description:

SBLIM stands for Standards Based Linux Instrumentation for Manageability, and consists of a set of standards based Web Based Enterprise Management (WBEM) modules that use the Common Information Model (CIM) standard to gather and provide systems management information, events, and methods to local or networked consumers via an CIM object services broker using the CMPI (Common Manageability Programming Interface) standard. This package provides a set of core providers and development tools for systems management applications.

- Added Dependencies:
  - sed
- No removed dependencies

#### **scim-1.4.4-39.e15 - scim-1.4.4-41.e15**

- **Group: System Environment/Libraries**
- **Summary: Smart Common Input Method platform**
- **Description:**

SCIM is a user friendly and full featured input method user interface and also a development platform to make life easier for Input Method developers.

- No added dependencies
- No removed dependencies

#### **scim-anthy-1.2.0-5.e15 - scim-anthy-1.2.0-6.e15**

- **Group: System Environment/Libraries**
- **Summary: SCIM IMEngine for anthy for Japanese input**
- **Description:**

Scim-anthy is a SCIM IMEngine module for anthy to support Japanese input.

- No added dependencies
- No removed dependencies

#### **scim-bridge-0.4.5-7.e15 - scim-bridge-0.4.5-8.e15**

- **Group: System Environment/Libraries**
- **Summary: SCIM Bridge Gtk IM module**
- **Description:**

SCIM Bridge is a C implementation of a Gtk IM module for SCIM.

- No added dependencies
- No removed dependencies

#### **scim-chewing-0.3.1-10.e15 - scim-chewing-0.3.1-11.e15**

- **Group: System Environment/Libraries**
- **Summary: Chewing Chinese input method for SCIM**
- **Description:**

This package provides Chewing Chinese input method for SCIM.

- No added dependencies

- No removed dependencies

#### **scim-pinyin-0.5.91-15.el5 - scim-pinyin-0.5.91-16.el5**

- Group: **System Environment/Libraries**
- Summary: **Smart Pinyin IMEngine for Smart Common Input Method platform**

- Description:

█ Simplified Chinese Smart Pinyin IMEngine for SCIM.

- No added dependencies
- No removed dependencies

#### **scsi-target-utils-0.0-0.20070620snap.el5 - scsi-target-utils-0.0-5.20080917snap.el5**

- Group: **System Environment/Daemons**
- Summary: **The SCSI target daemon and utility programs**

- Description:

█ The SCSI target package contains the daemon and tools to setup a SCSI targets.  
Currently, software iSCSI targets are supported.

- Added Dependencies:
  - libibverbs-devel
  - librdmacm-devel
- No removed dependencies

#### **selinux-policy-2.4.6-104.el5 - selinux-policy-2.4.6-203.el5**

- Group: **System Environment/Base**
- Summary: **SELinux policy configuration**

- Description:

█ SELinux Reference Policy - modular.

- No added dependencies
- No removed dependencies

#### **setroubleshoot-1.8.11-4.el5 - setroubleshoot-2.0.5-3.el5**

- Group: **Applications/System**

- **Summary: Helps troubleshoot SELinux problems**

- **Description:**

setroubleshoot gui. Application that allows you to view setroubleshoot-server messages. Provides tools to help diagnose SELinux problems. When AVC messages are generated an alert can be generated that will give information about the problem and help track its resolution. Alerts can be configured to user preference. The same tools can be run on existing log files.

- **Added Dependencies:**

- desktop-file-utils
- htmlview

- **No removed dependencies**

#### **setup-2.5.58-1.el5 - setup-2.5.58-4.el5**

- **Group: System Environment/Base**

- **Summary: A set of system configuration and setup files.**

- **Description:**

The setup package contains a set of important system configuration and setup files, such as passwd, group, and profile.

- **No added dependencies**
- **No removed dependencies**

#### **sg3\_utils-1.20-2.1 - sg3\_utils-1.25-1.el5**

- **Group: Utilities/System**

- **Summary: Utils for Linux's SCSI generic driver devices + raw devices**

- **Description:**

Collection of Linux utilities for devices that use the SCSI command set. Includes utilities to copy data based on "dd" syntax and semantics (called sg\_dd, sgp\_dd and sgm\_dd); check INQUIRY data and VPD pages (sg\_inq); check mode and log pages (sginfo, sg\_modes and sg\_logs); spin up and down

disks (sg\_start); do self tests (sg\_senddiag); and various other functions.

See the README, CHANGELOG and COVERAGE files. Requires the linux kernel 2.4

series or later. In the 2.4 series SCSI generic device names (e.g. /dev/sg0)

must be used. In the 2.6 series other device names may be used as well (e.g. /dev/sda).

Warning: Some of these tools access the internals of your system and the incorrect usage of them may render your system inoperable.

- No added dependencies
- No removed dependencies

#### **shadow-utils-4.0.17-12.el5 - shadow-utils-4.0.17-14.el5**

- Group: **System Environment/Base**
- Summary: **Utilities for managing accounts and shadow password files.**
- Description:

The shadow-utils package includes the necessary programs for converting UNIX password files to the shadow password format, plus programs for managing user and group accounts. The pwconv command converts passwords to the shadow password format. The pwunconv command

unconverts shadow passwords and generates an npasswd file (a standard

UNIX password file). The pwck command checks the integrity of password

and shadow files. The lastlog command prints out the last login times

for all users. The useradd, userdel, and usermod commands are used for

managing user accounts. The groupadd, groupdel, and groupmod commands

are used for managing group accounts.

- No added dependencies
- No removed dependencies

#### **shared-mime-info-0.19-3.el5 - shared-mime-info-0.19-5.el5**

- Group: **System Environment/Libraries**
- Summary: **Shared MIME information database**
- Description:

This is the freedesktop.org shared MIME info database.

Many programs and desktops use the MIME system to represent the

types of files. Frequently, it is necessary to work out the correct MIME type for a file. This is generally done by examining the file's name or contents, and looking up the correct MIME type in a database.

- No added dependencies
- No removed dependencies

#### **smartmontools-5.36-3.1.e15 - smartmontools-5.38-2.e15**

- Group: **System Environment/Base**
- Summary: **Tools for monitoring SMART capable hard disks**
- Description:

The smartmontools package contains two utility programs (smartctl and smartd) to control and monitor storage systems using the Self-Monitoring, Analysis and Reporting Technology System (SMART) built into most modern ATA and SCSI hard disks. In many cases, these utilities will provide advanced warning of disk degradation and failure.

- Added Dependencies:
  - libselinux-devel
- No removed dependencies

#### **sos-1.7-9.1.e15 - sos-1.7-9.16.e15**

- Group: **Development/Libraries**
- Summary: **A set of tools to gather troubleshooting information from a system**
- Description:

Sos is a set of tools that gathers information about system hardware and configuration. The information can then be used for diagnostic purposes and debugging. Sos is commonly used to help support technicians and developers.

- No added dependencies
- No removed dependencies

#### **spamassassin-3.1.9-1.e15 - spamassassin-3.2.5-1.e15**

- Group: **Applications/Internet**

- **Summary: Spam filter for email which can be invoked from mail delivery agents.**

- **Description:**

```
SpamAssassin provides you with a way to reduce if not completely
eliminate
Unsolicited Commercial Email (SPAM) from your incoming email. It
can
be invoked by a MDA such as sendmail or postfix, or can be called
from
a procmail script, .forward file, etc. It uses a genetic-algorithm
evolved scoring system to identify messages which look spammy,
then
adds headers to the message so they can be filtered by the user's
mail
reading software. This distribution includes the spamd/spamc
components
which create a server that considerably speeds processing of mail.

To enable spamassassin, if you are receiving mail locally, simply
add
this line to your ~/.procmailrc:
INCLUDERC=/etc/mail/spamassassin/spamassassin-default.rc

To filter spam for all users, add that line to /etc/procmailrc
(creating if necessary).
```

- **Added Dependencies:**
  - perl-HTML-Parser >= 3.43
- **No removed dependencies**

#### **speex-1.0.5-4 - speex-1.0.5-4.e15\_1.1**

- **Group: System Environment/Libraries**
- **Summary: A voice compression format (codec)**
- **Description:**

```
Speex is a patent-free compression format designed especially for
speech. It is specialized for voice communications at low bit-
rates in
the 2-45 kbps range. Possible applications include Voice over IP
(VoIP), Internet audio streaming, audio books, and archiving of
speech
data (e.g. voice mail).
```

- **No added dependencies**
- **No removed dependencies**

#### **squid-2.6.STABLE6-4.e15 - squid-2.6.STABLE21-3.e15**

- **Group:** System Environment/Daemons
- **Summary:** The Squid proxy caching server.
- **Description:**

Squid is a high-performance proxy caching server for Web clients, supporting FTP, gopher, and HTTP data objects. Unlike traditional caching software, Squid handles all requests in a single, non-blocking, I/O-driven process. Squid keeps meta data and especially hot objects cached in RAM, caches DNS lookups, supports non-blocking DNS lookups, and implements negative caching of failed requests.

Squid consists of a main server program squid, a Domain Name System lookup program (dnsserver), a program for retrieving FTP data (ftpget), and some management and client tools.

- No added dependencies
- No removed dependencies

#### **strace-4.5.16-1.el5.1 - strace-4.5.18-2.el5**

- **Group:** Development/Debuggers
- **Summary:** Tracks and displays system calls associated with a running process
- **Description:**

The strace program intercepts and records the system calls called and received by a running process. Strace can print a record of each system call, its arguments and its return value. Strace is useful for diagnosing problems and debugging, as well as for instructional purposes.

Install strace if you need a tool to track the system calls made and received by a process.

- **Added Dependencies:**
  - libacl-devel
  - libaio-devel
- No removed dependencies

#### **stunnel-4.15-2 - stunnel-4.15-2.el5.1**

- **Group:** Applications/Internet



- Group: **Applications/Internet**

- Summary: **An SSL-encrypting socket wrapper.**

- Description:

Stunnel is a socket wrapper which can provide SSL (Secure Sockets Layer) support to ordinary applications. For example, it can be used in conjunction with `imapd` to create an SSL secure IMAP server.

- No added dependencies
- No removed dependencies

#### **subversion-1.4.2-2.e15 - subversion-1.4.2-4.e15**

- Group: **Development/Tools**

- Summary: **Modern Version Control System designed to replace CVS**

- Description:

Subversion is a concurrent version control system which enables one or more users to collaborate in developing and maintaining a hierarchy of files and directories while keeping a history of all changes. Subversion only stores the differences between versions, instead of every complete file. Subversion is intended to be a compelling replacement for CVS.

- Added Dependencies:
  - `neon-devel >= 0:0.25.5-6.e15`
- Removed Dependencies:
  - `neon-devel >= 0:0.24.7-1`

#### **sudo-1.6.8p12-10 - sudo-1.6.9p17-3.e15**

- Group: **Applications/System**

- Summary: **Allows restricted root access for specified users.**

- Description:

Sudo (superuser do) allows a system administrator to give certain users (or groups of users) the ability to run some (or all) commands as root while logging all commands and arguments. Sudo operates on a per-command basis. It is not a replacement for the shell. Features include: the ability to restrict what commands a user may run on a per-host basis, copious logging of each command (providing a clear audit trail of who did what), a configurable timeout of the sudo

command, and the ability to use the same configuration file (sudoers) on many different machines.

- **Added Dependencies:**
  - audit-libs-devel
  - autoconf
  - automake
  - libcap-devel
  - libtool
- No removed dependencies

#### **syslogd-1.4.1-40.e15 - syslogd-1.4.1-44.e15**

- **Group: System Environment/Daemons**
- **Summary: System logging and kernel message trapping daemons.**
- **Description:**

The syslogd package contains two system utilities (syslogd and klogd) which provide support for system logging. Syslogd and klogd run as daemons (background processes) and log system messages to different places, like sendmail logs, security logs, error logs, etc.

- No added dependencies
- No removed dependencies

#### **sysstat-7.0.0-3.e15 - sysstat-7.0.2-3.e15**

- **Group: Applications/System**
- **Summary: The sar and iostat system monitoring commands.**
- **Description:**

This package provides the sar and iostat commands for Linux. Sar and iostat enable system monitoring of disk, network, and other IO activity.

- No added dependencies
- No removed dependencies

#### **system-config-bind-4.0.3-2.e15 - system-config-bind-4.0.3-4.e15**

- Group: **Applications/System**
- Summary: **The Red Hat BIND DNS Configuration Tool.**
- Description:

The system-config-bind package provides a graphical user interface (GUI) to configure the Berkeley Internet Name Domain (BIND) Domain Name System (DNS) server, "named", with a set of python modules. Users new to BIND configuration can use this tool to quickly set up a working DNS server.

- No added dependencies
- No removed dependencies

#### **system-config-cluster-1.0.50-1.3 - system-config-cluster-1.0.55-1.0**

- Group: **Applications/System**
- Summary: **system-config-cluster is a utility which allows you to manage cluster configuration in a graphical setting.**
- Description:

system-config-cluster is a utility which allows you to manage cluster configuration in a graphical setting.

- No added dependencies
- No removed dependencies

#### **system-config-date-1.8.12-1.e15 - system-config-date-1.8.12-3.e15**

- Group: **System Environment/Base**
- Summary: **A graphical interface for modifying system date and time**
- Description:

system-config-date is a graphical interface for changing the system date and time, configuring the system time zone, and setting up the NTP daemon to synchronize the time of the system with an NTP time server.

- No added dependencies
- No removed dependencies

#### **system-config-httpd-1.3.3.1-1.e15 - system-config-httpd-1.3.3.3-1.e15**

- Group: **Applications/System**
- Summary: **Apache configuration tool**
- Description:

A RHN configuration tool for apache.

- Added Dependencies:
  - gettext
- No removed dependencies

#### **system-config-kdump-1.0.12-1.el5 - system-config-kdump-1.0.14-4.el5**

- Group: **System Environment/Base**
- Summary: **A graphical interface for configuring kernel crash dumping**
- Description:

system-config-kdump is a graphical tool for configuring kernel crash dumping via kdump and kexec.

- No added dependencies
- No removed dependencies

#### **system-config-kickstart-2.6.19.1-1.el5 - system-config-kickstart-2.6.19.8-2.el5**

- Group: **System Environment/Base**
- Summary: **A graphical interface for making kickstart files.**
- Description:

Kickstart Configurator is a graphical tool for creating kickstart files.

- No added dependencies
- No removed dependencies

#### **system-config-language-1.1.18-1.el5 - system-config-language-1.1.18-2.el5**

- Group: **System Environment/Base**
- Summary: **A graphical interface for modifying the system language**
- Description:

system-config-language is a graphical user interface that allows the user to change the default language of the system.

- No added dependencies
- No removed dependencies

#### **system-config-lvm-1.0.22-1.0.e15 - system-config-lvm-1.1.5-1.0.e15**

- Group: **Applications/System**
- Summary: **A utility for graphically configuring Logical Volumes**
- Description:

system-config-lvm is a utility for graphically configuring Logical Volumes

- Added Dependencies:
  - intltool
- No removed dependencies

#### **system-config-network-1.3.99-2.e15 - system-config-network-1.3.99.12-1.e15**

- Group: **Applications/System**
- Summary: **The GUI of the NETwork Administration Tool**
- Description:

This is the GUI of the network configuration tool, supporting Ethernet, Wireless, TokenRing, ADSL, ISDN and PPP.

- No added dependencies
- No removed dependencies

#### **system-config-printer-0.7.32.5-1.e15 - system-config-printer-0.7.32.10-1.e15**

- Group: **System Environment/Base**
- Summary: **A printer administration tool**
- Description:

system-config-printer is a graphical user interface that allows the user to configure a CUPS print server.

- No added dependencies
- No removed dependencies

#### **system-config-samba-1.2.39-1.e15 - system-config-samba-1.2.41-3.e15**

- Group: **System Environment/Base**

- **Summary: Samba server configuration tool**

- **Description:**

system-config-samba is a graphical user interface for creating, modifying, and deleting samba shares.

- No added dependencies
- No removed dependencies

#### **system-config-securitylevel-1.6.29.1-1.el5 - system-config-securitylevel-1.6.29.1-2.1.el5**

- **Group: System Environment/Base**

- **Summary: A graphical interface for modifying the system security level**

- **Description:**

system-config-securitylevel is a graphical user interface for setting basic firewall rules.

- No added dependencies
- No removed dependencies

#### **system-config-users-1.2.51-1.el5 - system-config-users-1.2.51-4.el5**

- **Group: Applications/System**

- **Summary: A graphical interface for administering users and groups**

- **Description:**

system-config-users is a graphical utility for administering users and groups. It depends on the libuser library.

- No added dependencies
- No removed dependencies

#### **systemtap-0.5.14-1.el5 - systemtap-0.7.2-2.el5**

- **Group: Development/System**

- **Summary: Instrumentation System**

- **Description:**

SystemTap is an instrumentation system for systems running Linux 2.6. Developers can write instrumentation to collect data on the operation of the system.

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- **Added Dependencies:**
  - /usr/bin/dvips
  - /usr/bin/latex
  - /usr/bin/ps2pdf
  - crash-devel
  - elfutils-devel >= 0.127
  - latex2html
  - zlib-devel
- **Removed Dependencies:**
  - dejagnu
  - glib2-devel >= 2.0.0

#### **tcp\_wrappers-7.6-40.4.el5 - tcp\_wrappers-7.6-40.6.el5**

- **Group: System Environment/Daemons**
- **Summary: A security tool which acts as a wrapper for TCP daemons.**
- **Description:**

The tcp\_wrappers package provides small daemon programs which can monitor and filter incoming requests for systat, finger, FTP, telnet, rlogin, rsh, exec, tftp, talk and other network services.

Install the tcp\_wrappers program if you need a security tool for filtering incoming network services requests.

This version also supports IPv6.

- **No added dependencies**
- **No removed dependencies**

#### **tcpdump-3.9.4-11.el5 - tcpdump-3.9.4-14.el5**

- **Group: Applications/Internet**
- **Summary: A network traffic monitoring tool.**
- **Description:**

Tcpdump is a command-line tool for monitoring network traffic. Tcpdump can capture and display the packet headers on a particular network interface or on all interfaces. Tcpdump can display all of

the packet headers, or just the ones that match particular criteria.

Install tcpdump if you need a program to monitor network traffic.

- **Added Dependencies:**
  - /usr/sbin/sendmail
- **No removed dependencies**

#### **tcsh-6.14-12.e15 - tcsh-6.14-14.e15**

- **Group: System Environment/Shells**
- **Summary: An enhanced version of csh, the C shell.**
- **Description:**

Tcsh is an enhanced but completely compatible version of csh, the C shell. Tcsh is a command language interpreter which can be used both as an interactive login shell and as a shell script command processor. Tcsh includes a command line editor, programmable word completion, spelling correction, a history mechanism, job control and a C language like syntax.

- **No added dependencies**
- **No removed dependencies**

#### **telnet-0.17-38.e15 - telnet-0.17-39.e15**

- **Group: Applications/Internet**
- **Summary: The client program for the telnet remote login protocol.**
- **Description:**

Telnet is a popular protocol for logging into remote systems over the Internet. The telnet package provides a command line telnet client.

- **No added dependencies**
- **No removed dependencies**

#### **tetex-3.0-33.1.e15 - tetex-3.0-33.2.e15\_1.2**

- **Group: Applications/Publishing**



- **Summary: The TeX text formatting system.**

- **Description:**

TeX is an implementation of TeX for Linux or UNIX systems. TeX takes a text file and a set of formatting commands as input and creates a typesetter-independent .dvi (DeVice Independent) file as output. Usually, TeX is used in conjunction with a higher level formatting package like LaTeX or PlainTeX, since TeX by itself is not very user-friendly. The output format needn't to be DVI, but also PDF, when using pdflatex or similar tools.

Install tetex if you want to use the TeX text formatting system. Consider to install tetex-latex (a higher level formatting package which provides an easier-to-use interface for TeX). Unless you are an expert at using TeX, you should also install the tetex-doc package, which includes the documentation for TeX.

- No added dependencies
- No removed dependencies

#### tk-8.4.13-3.fc6 - tk-8.4.13-5.el5\_1.1

- **Group: Development/Languages**
- **Summary: Tk graphical toolkit for the Tcl scripting language**
- **Description:**

When paired with the Tcl scripting language, Tk provides a fast and powerful way to create cross-platform GUI applications.

- No added dependencies
- No removed dependencies

#### tmpwatch-2.9.7-1.1.el5.1 - tmpwatch-2.9.7-1.1.el5.2

- **Group: System Environment/Base**
- **Summary: A utility for removing files based on when they were last accessed.**
- **Description:**

The tmpwatch utility recursively searches through specified directories and removes files which have not been accessed in a specified period of time. Tmpwatch is normally used to clean up

directories which are used for temporarily holding files (for example, /tmp). Tmpwatch ignores symlinks, won't switch filesystems and only removes empty directories and regular files.

- No added dependencies
- No removed dependencies

#### **tog-pegasus-2.6.1-2.el5 - tog-pegasus-2.7.1-2.el5**

- Group: **Systems Management/Base**
- Summary: **OpenPegasus WBEM Services for Linux**
- Description:

OpenPegasus WBEM Services for Linux enables management solutions that deliver increased control of enterprise resources. WBEM is a platform and resource independent DMTF standard that defines a common information model and communication protocol for monitoring and controlling resources from diverse sources.

- Added Dependencies:
  - net-snmp-devel
- No removed dependencies

#### **tomcat5-5.5.23-0jpp.3.0.2.el5 - tomcat5-5.5.23-0jpp.7.el5\_2.1**

- Group: **Networking/Daemons**
- Summary: **Apache Servlet/JSP Engine, RI for Servlet 2.4/JSP 2.0 API**
- Description:

Tomcat is the servlet container that is used in the official Reference Implementation for the Java Servlet and JavaServer Pages technologies. The Java Servlet and JavaServer Pages specifications are developed by Sun under the Java Community Process.

Tomcat is developed in an open and participatory environment and released under the Apache Software License. Tomcat is intended to be a collaboration of the best-of-breed developers from around the world.

We invite you to participate in this open development project. To

learn more about getting involved, [click here](#).

- No added dependencies
- No removed dependencies

#### **totem-2.16.7-1.el5 - totem-2.16.7-4.el5**

- Group: **Applications/Multimedia**
- Summary: **Movie player for GNOME 2**
- Description:

Totem is simple movie player for the Gnome desktop. It features a simple playlist, a full-screen mode, seek and volume controls, as well as a pretty complete keyboard navigation.

- Added Dependencies:
  - gecko-devel-unstable >= 1.9
- Removed Dependencies:
  - firefox-devel

#### **traceroute-2.0.1-2.el5 - traceroute-2.0.1-5.el5**

- Group: **Applications/Internet**
- Summary: **Traces the route taken by packets over an IPv4/IPv6 network**
- Description:

The traceroute utility displays the route used by IP packets on their way to a specified network (or Internet) host. Traceroute displays the IP number and host name (if possible) of the machines along the route taken by the packets. Traceroute is used as a network debugging tool. If you're having network connectivity problems, traceroute will show you where the trouble is coming from along the route.

Install traceroute if you need a tool for diagnosing network connectivity problems.

- No added dependencies
- No removed dependencies

#### **tzdata-2007d-1.el5 - tzdata-2008i-1.el5**

- Group: **System Environment/Base**

- Summary: **Timezone data**

- Description:

This package contains data files with rules for various timezones around the world.

- No added dependencies
- No removed dependencies

#### **udev-095-14.9.e15 - udev-095-14.19.e15**

- Group: **System Environment/Base**

- Summary: **A userspace implementation of devfs**

- Description:

The udev package contains an implementation of devfs in userspace using sysfs and netlink.

- No added dependencies
- No removed dependencies

#### **unzip-5.52-2.2.1 - unzip-5.52-3.e15**

- Group: **Applications/Archiving**

- Summary: **A utility for unpacking zip files.**

- Description:

The unzip utility is used to list, test, or extract files from a zip archive. Zip archives are commonly found on MS-DOS systems. The zip utility, included in the zip package, creates zip archives. Zip and unzip are both compatible with archives created by PKWARE(R)'s PKZIP for MS-DOS, but the programs' options and default behaviors do differ in some respects.

Install the unzip package if you need to list, test or extract files from a zip archive.

- No added dependencies

- No removed dependencies

#### **usermode-1.88-3.el5 - usermode-1.88-3.el5.2**

- Group: **Applications/System**
- Summary: **Tools for certain user account management tasks.**
- Description:

The usermode package contains the userhelper program, which can be used to allow configured programs to be run with superuser privileges by ordinary users.

- No added dependencies
- No removed dependencies

#### **util-linux-2.13-0.45.el5 - util-linux-2.13-0.50.el5**

- Group: **System Environment/Base**
- Summary: **A collection of basic system utilities.**
- Description:

The util-linux package contains a large variety of low-level system utilities that are necessary for a Linux system to function. Among others, Util-linux contains the fdisk configuration tool and the login program.

- No added dependencies
- No removed dependencies

#### **vim-7.0.109-3.el5.3 - vim-7.0.109-4.el5\_2.4z**

- Group: **Applications/Editors**
- Summary: **The VIM editor.**
- Description:

VIM (VISual editor iMproved) is an updated and improved version of the vi editor. Vi was the first real screen-based editor for UNIX, and is still very popular. VIM improves on vi by adding new features: multiple windows, multi-level undo, block highlighting and more.

- No added dependencies

- No removed dependencies

#### **virt-manager-0.4.0-3.e15 - virt-manager-0.5.3-10.e15**

- Group: **Applications/Emulators**
- Summary: **Virtual Machine Manager**
- Description:

Virtual Machine Manager provides a graphical tool for administering virtual machines such as Xen. It uses libvirt as the backend management API.

- No added dependencies
- No removed dependencies

#### **vixie-cron-4.1-72.e15 - vixie-cron-4.1-76.e15**

- Group: **System Environment/Base**
- Summary: **The Vixie cron daemon for executing specified programs at set times.**
- Description:

The vixie-cron package contains the Vixie version of cron. Cron is a standard UNIX daemon that runs specified programs at scheduled times. Vixie cron adds better security and more powerful configuration options to the standard version of cron.

- No added dependencies
- No removed dependencies

#### **vnc-4.1.2-9.e15 - vnc-4.1.2-14.e15**

- Group: **User Interface/Desktops**
- Summary: **A remote display system.**
- Description:

Virtual Network Computing (VNC) is a remote display system which allows you to view a computing 'desktop' environment not only on the machine where it is running, but from anywhere on the Internet and from a wide variety of machine architectures. This package contains a

client which will allow you to connect to other desktops running a VNC server.

- **Added Dependencies:**
  - libselinux-devel
  - mesa-source
- **Removed Dependencies:**
  - libdrm-devel

#### **vsftpd-2.0.5-10.el5 - vsftpd-2.0.5-12.el5**

- **Group: System Environment/Daemons**
- **Summary: vsftpd - Very Secure Ftp Daemon**
- **Description:**

vsftpd is a Very Secure FTP daemon. It was written completely from scratch.

- No added dependencies
- No removed dependencies

#### **wireshark-0.99.6-1.el5 - wireshark-1.0.3-4.el5\_2**

- **Group: Applications/Internet**
- **Summary: Network traffic analyzer**
- **Description:**

Wireshark is a network traffic analyzer for Unix-ish operating systems.

This package lays base for libpcap, a packet capture and filtering library, contains command-line utilities, contains plugins and documentation for wireshark. A graphical user interface is packaged separately to GTK+ package.

- **Added Dependencies:**
  - bison
  - flex
  - libsmi-devel
- **Removed Dependencies:**

- o net-snmp-devel >= 5.3
- o net-snmp-utils >= 5.3

**words-3.0-9 - words-3.0-9.1**

- Group: **System Environment/Libraries**
- Summary: **A dictionary of English words for the /usr/share/dict directory.**
- Description:

The words file is a dictionary of English words for the /usr/share/dict directory. Some programs use this database of words to check spelling. Password checkers use it to look for bad passwords.

- No added dependencies
- No removed dependencies

**wpa\_supplicant-0.4.8-10.1.fc6 - wpa\_supplicant-0.5.10-8.el5**

- Group: **System Environment/Base**
- Summary: **WPA/WPA2/IEEE 802.1X Supplicant**
- Description:

wpa\_supplicant is a WPA Supplicant for Linux, BSD and Windows with support for WPA and WPA2 (IEEE 802.11i / RSN). Supplicant is the IEEE 802.1X/WPA component that is used in the client stations. It implements key negotiation with a WPA Authenticator and it controls the roaming and IEEE 802.11 authentication/association of the wlan driver.

- Added Dependencies:
  - o dbus-devel
- No removed dependencies

**x3270-3.3.4p7-3.el5.1 - x3270-3.3.4p7-3.el5.4**

- Group: **Applications/Internet**
- Summary: **An X Window System based IBM 3278/3279 terminal emulator**
- Description:

The x3270 package contains files needed for emulating the IBM



3278/3279  
terminals, commonly used with mainframe applications.

You will also need to install a frontend for x3270. Available frontends are x3270-x11 (for the X Window System) and x3270-text (for text mode).

- **Added Dependencies:**
  - /usr/bin/makeconv
  - libicu-devel
- **No removed dependencies**

### xen-3.0.3-41.el5 - xen-3.0.3-80.el5

- **Group: Development/Libraries**
- **Summary: Xen is a virtual machine monitor**
- **Description:**

This package contains the Xen tools and management daemons needed to run virtual machines on x86, x86\_64, and ia64 systems. Information on how to use Xen can be found at the Xen project pages.

The Xen system also requires the Xen hypervisor and domain-0 kernel, which can be found in the kernel-xen\* package.

Virtualization can be used to run multiple operating systems on one physical system, for purposes of hardware consolidation, hardware abstraction, or to test untrusted applications in a sandboxed environment.

- **No added dependencies**
- **No removed dependencies**

### xfig-3.2.4-21.2.el5 - xfig-3.2.4-21.3.el5

- **Group: Applications/Multimedia**
- **Summary: An X Window System tool for drawing basic vector graphics.**
- **Description:**

Xfig is an X Window System tool for creating basic vector graphics, including bezier curves, lines, rulers and more. The resulting graphics can be saved, printed on PostScript printers or converted to a variety of other formats (e.g., X11 bitmaps, Encapsulated

PostScript, LaTeX).

You should install xfig if you need a simple program to create vector graphics.

- No added dependencies
- No removed dependencies

#### **xorg-x11-drv-ati-6.6.3-3.2.e15 - xorg-x11-drv-ati-6.6.3-3.22.e15**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 ati video driver**
- Description:

X.Org X11 ati video driver.

- Added Dependencies:
  - autoconf
  - automake
  - libtool
  - xorg-x11-server-randr-source >= 1.1.1-48.52.e15
- No removed dependencies

#### **xorg-x11-drv-i810-1.6.5-9.6.e15 - xorg-x11-drv-i810-1.6.5-9.21.e15**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 i810 video driver(s)**
- Description:

X.Org X11 i810 video driver.

- Added Dependencies:
  - xorg-x11-server-randr-source >= 1.1.1-48.46.e15
- No removed dependencies

#### **xorg-x11-drv-keyboard-1.1.0-2.1 - xorg-x11-drv-keyboard-1.1.0-3**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 keyboard input driver**
- Description:

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X.Org X11 keyboard input driver.

- No added dependencies
- No removed dependencies

#### **xorg-x11-drv-mga-1.4.2-6.e15 - xorg-x11-drv-mga-1.4.2-10.e15**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 mga video driver**
- Description:

X.Org X11 mga video driver.

- No added dependencies
- No removed dependencies

#### **xorg-x11-drv-mutouch-1.1.0-2 - xorg-x11-drv-mutouch-1.1.0-3**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 mutouch input driver**
- Description:

X.Org X11 mutouch input driver.

- No added dependencies
- No removed dependencies

#### **xorg-x11-drv-nv-2.1.2-1.e15 - xorg-x11-drv-nv-2.1.12-3.e15**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 nv video driver**
- Description:

X.Org X11 nv video driver.

- Added Dependencies:
  - xorg-x11-server-randr-source >= 1.1.1-48.46.e15
- No removed dependencies

#### **xorg-x11-drv-sis-0.9.1-7 - xorg-x11-drv-sis-0.9.1-7.1.e15**

- Group: **User Interface/X Hardware Support**
- Summary: **Xorg X11 sis video driver**

- Description:

X.Org X11 sis video driver.

- No added dependencies
- No removed dependencies

#### **xorg-x11-server-1.1.1-48.26.e15 - xorg-x11-server-1.1.1-48.52.e15**

- Group: **User Interface/X**
- Summary: **X.Org X11 X server**
- Description:

X.Org X11 X server

- No added dependencies
- No removed dependencies

#### **xorg-x11-xinit-1.0.2-13.e15 - xorg-x11-xinit-1.0.2-15.e15**

- Group: **User Interface/X**
- Summary: **X.Org X11 X Window System xinit startup scripts**
- Description:

X.Org X11 X Window System xinit startup scripts

- No added dependencies
- No removed dependencies

#### **xsane-0.991-4.e15 - xsane-0.991-5.e15**

- Group: **Applications/Multimedia**
- Summary: **An X Window System front-end for the SANE scanner interface.**
- Description:

XSane is an X based interface for the SANE (Scanner Access Now Easy) library, which provides access to scanners, digital cameras, and other capture devices. XSane is written in GTK+ and provides control for performing the scan and then manipulating the captured image.

- No added dependencies
- No removed dependencies

**xterm-215-5.e15 - xterm-215-8.e15**

- Group: **User Interface/X**
- Summary: **xterm terminal emulator for the X Window System**
- Description:

```
The xterm program is a terminal emulator for the X Window System.
It
provides DEC VT102 and Tektronix 4014 compatible terminals for
programs that can't use the window system directly.
```

- No added dependencies
- No removed dependencies

**yaboot-1.3.13-5.e15 - yaboot-1.3.13-7.e15**

- Group: **System Environment/Base**
- Summary: **Linux bootloader for Power Macintosh "New World" computers.**
- Description:

```
yaboot is a bootloader for PowerPC machines which works on New
World ROM
machines (Rev. A iMac and newer) and runs directly from Open
Firmware,
eliminating the need for Mac OS.
yaboot can also bootload IBM pSeries machines.
```

- Added Dependencies:
  - e2fsprogs-devel
- No removed dependencies

**yelp-2.16.0-15.e15 - yelp-2.16.0-22.e15**

- Group: **Applications/System**
- Summary: **A system documentation reader from the Gnome project**
- Description:

```
Yelp is the Gnome 2 help/documentation browser. It is designed
to help you browse all the documentation on your system in
one central tool.
```

- Added Dependencies:
  - gecko-devel-unstable >= 1.9
- Removed Dependencies:

- o gecko-devel >= 1.8.0.12

#### **ypbind-1.19-8.e15 - ypbind-1.19-11.e15**

- **Group: System Environment/Daemons**
- **Summary: The NIS daemon which binds NIS clients to an NIS domain.**
- **Description:**

The Network Information Service (NIS) is a system that provides network information (login names, passwords, home directories, group information) to all of the machines on a network. NIS can allow users to log in on any machine on the network, as long as the machine has the NIS client programs running and the user's password is recorded in the NIS passwd database. NIS was formerly known as Sun Yellow Pages (YP).

This package provides the ypbind daemon. The ypbind daemon binds NIS clients to an NIS domain. Ypbind must be running on any machines running NIS client programs.

Install the ypbind package on any machines running NIS client programs (included in the yp-tools package). If you need an NIS server, you also need to install the ypserv package to a machine on your network.

- **No added dependencies**
- **No removed dependencies**

#### **ypserv-2.19-3 - ypserv-2.19-5.e15**

- **Group: System Environment/Daemons**
- **Summary: The NIS (Network Information Service) server.**
- **Description:**

The Network Information Service (NIS) is a system that provides network information (login names, passwords, home directories, group information) to all of the machines on a network. NIS can allow users to log in on any machine on the network, as long as the machine has the NIS client programs running and the user's password is recorded in the NIS passwd database. NIS was formerly known as Sun Yellow

Pages  
(YP).

This package provides the NIS server, which will need to be running on your network. NIS clients do not need to be running the server.

Install ypserv if you need an NIS server for your network. You also need to install the yp-tools and ypbind packages on any NIS client machines.

- No added dependencies
- No removed dependencies

#### **yum-3.0.1-5.el5 - yum-3.2.19-18.el5**

- Group: **System Environment/Base**
- Summary: **RPM installer/updater**
- Description:

Yum is a utility that can check for and automatically download and install updated RPM packages. Dependencies are obtained and downloaded automatically prompting the user as necessary.

- Added Dependencies:
  - intltool
- No removed dependencies

#### **yum-metadata-parser-1.0-8.fc6 - yum-metadata-parser-1.1.2-2.el5**

- Group: **Development/Libraries**
- Summary: **A fast metadata parser for yum**
- Description:

Fast metadata parser for yum implemented in C.

- No added dependencies
- No removed dependencies

#### **yum-rhn-plugin-0.5.2-3.el5 - yum-rhn-plugin-0.5.3-30.el5**

- Group: **System Environment/Base**
- Summary: **RHN support for yum**

- **Description:**

This yum plugin provides support for yum to access a Red Hat Network server for software updates.

- No added dependencies
- No removed dependencies

#### **yum-utils-1.0.4-3.el5 - yum-utils-1.1.16-13.el5**

- **Group: Development/Tools**

- **Summary: Utilities based around the yum package manager**

- **Description:**

yum-utils is a collection of utilities and examples for the yum package manager. It includes utilities by different authors that make yum easier and more powerful to use. These tools include: debuginfo-install, package-cleanup, repoclosure, repodiff, repo-graph, repomanage, repoquery, reporss, reposync, repotrack, verifytree, yum-builddep, yum-complete-transaction, yumdownloader, yum-debug-dump and yum-groups-manager.

- No added dependencies
- No removed dependencies

#### **zip-2.31-1.2.2 - zip-2.31-2.el5**

- **Group: Applications/Archiving**

- **Summary: A file compression and packaging utility compatible with PKZIP.**

- **Description:**

The zip program is a compression and file packaging utility. Zip is analogous to a combination of the UNIX tar and compress commands and is compatible with PKZIP (a compression and file packaging utility for MS-DOS systems).

Install the zip package if you need to compress files using the zip program.



- No added dependencies
- No removed dependencies

## 13. CONFIGURATION CHANGES FROM PREVIOUS RELEASE

```

iscsi-initiator-utils-6.2.0.868-0.7.el5.i386.rpm:
/etc/rc.d/init.d/iscsid
---
+++
@@ -59,9 +59,7 @@

    echo -n $"Stopping iSCSI daemon: "

- # iscsid does not have a nice shutdown process.
- # It really should never be stopped
- pkill -KILL iscsid
+ iscsiadm -k 0
    echo

    modprobe -r ib_iser 2>/dev/null
ypbind-1.19-8.el5.i386.rpm: /etc/rc.d/init.d/ypbind
---
+++
@@ -37,7 +37,7 @@
    [ -x /usr/sbin/selinuxenabled ] && /usr/sbin/selinuxenabled ||
return
    allow_ypbind=0
    . /etc/selinux/config
- if [ -e /etc/selinux/${SELINUXTYPE}/modules1/active/booleans.local ];
then
+ if [ -e /etc/selinux/${SELINUXTYPE}/modules/active/booleans.local ];
then
    . /etc/selinux/${SELINUXTYPE}/modules/active/booleans.local
    fi
    if [ $allow_ypbind == 0 ]; then
@@ -52,6 +52,7 @@
        if [ -n "$NISDOMAIN" ]; then
            action $"Setting NIS domain name $NISDOMAIN: " domainname $NISDOMAIN
        else
+ action $"Error: NIS domain name is not set." false
            exit 1
        fi
    fi
@@ -112,7 +113,7 @@
    fi
    fi
    echo
-     selinux_off
+     #selinux_off
    return $RETVAL
}

udev-095-14.16.el5.i386.rpm: /etc/sysconfig/modules/udev-stw.modules
---
```

```

+++
@@ -1,4 +1,6 @@
  #!/bin/sh
  -for i in nvram floppy parport lp snd-powermac;do
+MODULES="nvram floppy parport lp snd-powermac"
+[ -f /etc/sysconfig/udev-stw ] && . /etc/sysconfig/udev-stw
+for i in $MODULES ; do
    modprobe $i >/dev/null 2>&1
  done
dhcp-3.0.5-13.el5.i386.rpm: /etc/rc.d/init.d/dhcpd
---
+++
@@ -62,6 +62,11 @@
    [ -f $conf ] || return 6
    $dhcpd -q -t -cf $conf
    RETVAL=$?
+   if [ $RETVAL -eq 1 ]; then
+       $dhcpd -t -cf $conf
+   else
+       echo "Syntax: OK" >&2
+   fi
    return $RETVAL
}

initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/init.d/netconsole
---
+++
@@ -92,7 +92,7 @@

SYSLOGOPTS="netconsole=$LOCALPORT@$LOCALADDR/$DEV,$SYSLOGPORT@$SYSLOGADDR/
$SYSLOGMACADDR "

- logger -p daemon.info -t netconsole: inserting netconsole module with
arguments \
+ /usr/bin/logger -p daemon.info -t netconsole: inserting netconsole
module with arguments \
  $SYSLOGOPTS
  if [ -n "$SYSLOGOPTS" ]; then
    action $"Initializing netconsole" modprobe netconsole \
bind-9.3.4-6.P1.el5.i386.rpm: /etc/rc.d/init.d/named
---
+++
@@ -253,7 +253,7 @@
    fi

    [ "$RETVAL" -eq 0 ] && success "$named reload" || failure "$named
reload"

    echo
- return $?
+ return $RETVAL
}
probe() {
  # named knows how to reload intelligently; we don't want linuxconf
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/ifup-
ipp
---

```

```

+++
@@ -30,20 +30,20 @@
# check that ippdd is available for syncppp
if [ "$ENCAP" = "syncppp" ]; then
    if [ ! -x /usr/sbin/ippdd -a ! -x /sbin/ippdd ] ; then
-        logger -p daemon.info -t ifup-ippd "ippdd does not exist or is
not executable"
+        /usr/bin/logger -p daemon.info -t ifup-ippd "ippdd does not exist
or is not executable"
        exit 1
    fi
fi

# check that isdnctrl is available
if [ ! -x /usr/sbin/isdnctrl -a ! -x /sbin/isdnctrl ] ; then
-    logger -p daemon.info -t ifup-ippd "isdnctrl does not exist or is not
executable"
+    /usr/bin/logger -p daemon.info -t ifup-ippd "isdnctrl does not exist
or is not executable"
    exit 1
fi

# check all ISDN devices
if ! isdnctrl list all >/dev/null 2>&1 ; then
-    logger -p daemon.info -t ifup-ippd "cannot list ISDN devices"
+    /usr/bin/logger -p daemon.info -t ifup-ippd "cannot list ISDN
devices"
    exit 1
fi

@@ -52,12 +52,12 @@

function log_echo()
{
-    logger -p daemon.info -t ifup-ippd "$$"
+    /usr/bin/logger -p daemon.info -t ifup-ippd "$$"
}

function log_isdnctrl()
{
-    logger -p daemon.info -t ifup-ippd isdnctrl $*
+    /usr/bin/logger -p daemon.info -t ifup-ippd isdnctrl $*
    isdnctrl $* >/dev/null 2>&1 || exit 1
}

@@ -338,12 +338,12 @@
[ -n "$NETMASK" ] && netmask="netmask $NETMASK"

# activate ISDN device
-    logger -p daemon.info -t ifup-ippd "ifconfig $DEVICE $IPADDR
pointopoint $GATEWAY $netmask up"
+    /usr/bin/logger -p daemon.info -t ifup-ippd "ifconfig $DEVICE $IPADDR
pointopoint $GATEWAY $netmask up"
    ifconfig $DEVICE $IPADDR pointopoint $GATEWAY $netmask up >/dev/null
2>&1

```

```

        if [ "$ENCAP" = "syncppp" ]; then
            # start ippdp daemon
-         logger -p daemon.info -t ifup-ippd "ippdp $options $netmask"
+         /usr/bin/logger -p daemon.info -t ifup-ippd "ippdp $options
$netmask"
            ippdp $options $netmask >/dev/null 2>&1

            # start ibod daemon
lynx-2.8.5-28.1.i386.rpm: /etc/lynx.cfg
---
+++
@@ -1026,7 +1026,7 @@
# ====
# Do not define this.
#
-#TRUSTED_LYNXCGI:none
+TRUSTED_LYNXCGI:none

.h2 LYNXCGI_ENVIRONMENT
nfs-utils-1.0.9-33.el5.i386.rpm: /etc/rc.d/init.d/rpcgssd
---
+++
@@ -28,19 +28,23 @@
case "$1" in
start|condstart)
# Check that networking is up.
- [ "${NETWORKING}" = "no" ] && exit 6
+ [ "${NETWORKING}" != "yes" ] && exit 6
[ ! -x /usr/sbin/rpc.gssd ] && exit 5
-
- # List of kernel modules to load
- [ -z "${SECURE_NFS_MODS}" ] && SECURE_NFS_MODS="des rpcsec_gss_krb5"

# Make sure the daemon is not already running.
if status $prog > /dev/null ; then
exit 0
fi
+
+ # During condstart need to check again to see
+ # if we are configured to start
+ [ "${SECURE_NFS}" != "yes" ] && exit 6
+
rm -f $LOCKFILE
+ echo -n "$Starting RPC gssd: "

- echo -n "$Starting RPC gssd: "
+ # List of kernel modules to load
+ [ -z "${SECURE_NFS_MODS}" ] && SECURE_NFS_MODS="des rpcsec_gss_krb5"

# Make sure the rpc_pipefs filesystem is available
[ "${RPCMTAB}" != "no" ] && {
dovecot-1.0.7-2.el5.i386.rpm: /etc/rc.d/init.d/dovecot
---
+++
@@ -7,27 +7,61 @@

```

```

# chkconfig: - 65 35
# description: Dovecot Imap Server
# processname: dovecot
+# config: /etc/dovecot.conf
+# config: /etc/sysconfig/dovecot
+# pidfile: /var/run/dovecot/master.pid
+
+### BEGIN INIT INFO
+# Provides: dovecot
+# Required-Start: $local_fs $network
+# Required-Stop: $local_fs $network
+# Should-Start: $remote_fs
+# Should-Stop: $remote_fs
+# Default-Start:
+# Default-Stop: 0 1 2 3 4 5 6
+# Short-Description: start and stop Dovecot Imap server
+# Description: Dovecot is an IMAP server for Linux/UNIX-like systems,
+#               written with security primarily in mind. It also
contains
+#               a small POP3 server.
+### END INIT INFO
+
# Source function library.
. /etc/init.d/functions

-test -x /usr/sbin/dovecot || exit 0
+if [ -f /etc/sysconfig/dovecot ]; then
+    . /etc/sysconfig/dovecot
+fi

RETVAL=0
prog="Dovecot Imap"
+exec="/usr/sbin/dovecot"
+config="/etc/dovecot.conf"
+pidfile="/var/run/dovecot/master.pid"
+lockfile="/var/lock/subsys/dovecot"

start() {
+ [ -x $exec ] || exit 5
+ [ -f $config ] || exit 6
+
+    echo -n "Starting $prog: "
- daemon /usr/sbin/dovecot
+ daemon --pidfile $pidfile $exec $OPTIONS
RETVAL=$?
- [ $RETVAL -eq 0 ] && touch /var/lock/subsys/dovecot
+ [ $RETVAL -eq 0 ] && touch $lockfile
echo
}

stop() {
echo -n "Stopping $prog: "
- killproc /usr/sbin/dovecot
+ killproc -p $pidfile $exec
RETVAL=$?
- [ $RETVAL -eq 0 ] && rm -f /var/lock/subsys/dovecot

```

```

+ [ $RETVAL -eq 0 ] && rm -f $lockfile
+ echo
+}
+
+reload() {
+ echo -n "Reloading $prog: "
+ killproc -p $pidfile $exec -HUP
+ RETVAL=$?
  echo
}

@@ -41,24 +75,27 @@
  stop)
  stop
  ;;
- reload|restart)
+ reload)
+ reload
+ ;;
+ force-reload|restart)
  stop
  start
  RETVAL=$?
  ;;
- condrestart)
- if [ -f /var/lock/subsys/dovecot ]; then
+ condrestart|try-restart)
+ if [ -f $lockfile ]; then
  stop
  start
  fi
  ;;
  status)
- status /usr/sbin/dovecot
+ status -p $pidfile $exec
  RETVAL=$?
  ;;
  *)
- echo $"Usage: $0 {condrestart|start|stop|restart|reload|status}"
- exit 1
+ echo $"Usage: $0 {condrestart|try-
restart|start|stop|restart|reload|force-reload|status}"
+ exit 2
  esac

  exit $RETVAL
device-mapper-multipath-0.4.7-17.el5.i386.rpm: /etc/rc.d/init.d/multipathd
---
+++
@@ -4,7 +4,7 @@
#
# Starts the multipath daemon
#
-# chkconfig: - 13 87
+# chkconfig: - 06 87
# description: Manage device-mapper multipath devices

```

```

# processname: multipathd

@@ -13,6 +13,7 @@
initdir=/etc/rc.d/init.d
lockdir=/var/lock/subsys
sysconfig=/etc/sysconfig
+syspath=/sys/block

system=redhat
@@ -25,6 +26,35 @@
test -r $sysconfig/$prog && . $sysconfig/$prog

RETVAL=0
+
+teardown_slaves()
+{
+cd $1;
+if [ -d "slaves" ]; then
+for slave in slaves/*;
+do
+ if [ "$slave" = "slaves/*" ]; then
+ read dev < $1/dev
+ tablename=`dmsetup table --target multipath | sed -n "s/\(.*\): .* $dev
+.*\/\1/p"`
+ if ! [ -z $tablename ]; then
+ echo "Root is on a multipathed device, multipathd can not be stopped"
+ exit 1
+ fi
+ else
+ local_slave=`readlink -f $slave`;
+ teardown_slaves $local_slave;
+ fi
+ done
+
+else
+ read dev < $1/dev
+ tablename=`dmsetup table --target multipath | sed -n "s/\(.*\): .* $dev
+.*\/\1/p"`
+ if ! [ -z $tablename ]; then
+ echo "Root is on a multipathed device, multipathd can not be stopped"
+ exit 1
+ fi
+fi
+}

#
# See how we were called.
@@ -40,6 +70,11 @@
}

stop() {
+ root_dev=$(awk '{ if ($1 !~ /^[ \t]*#/ && $2 == "/" ) { print $1;
+ }}' /etc/mstab)
+ dm_num=`dmsetup info -c --noheadings -o minor $root_dev`
+ root_dm_device="dm-$dm_num"

```

```

+ [ -d $syspath/$root_dm_device ] && teardown_slaves
$syspath/$root_dm_device
+
  echo -n "Stopping $prog daemon: "
  killproc $DAEMON
  RETVAL=$?
initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/rc6.d/S01reboot
---
+++
@@ -10,6 +10,9 @@

  NOLOCALE=1
  . /etc/init.d/functions
+
+UMOUNT="umount"
+[ ! -w /etc ] && UMOUNT="umount -n"

  action() {
    echo -n "$1 "
@@ -131,7 +134,7 @@
  # Try to unmount tmpfs filesystems to avoid swapping them in. Ignore
  failures.
  tmpfs=$(awk '$2 ~ /\^\/($|proc|dev)/ { next; }
    $3 == "tmpfs" { print $2; }' /proc/mounts | sort -r)
- [ -n "$tmpfs" ] && fstab-decode umount $tmpfs 2>/dev/null
+ [ -n "$tmpfs" ] && fstab-decode $UMOUNT $tmpfs 2>/dev/null

  # Turn off swap, then unmount file systems.
  [ -f /proc/swaps ] && SWAPS=`awk '! /^Filename/ { print $1 }'
/proc/swaps`
@@ -143,8 +146,6 @@
    backdev=$(/sbin/cryptsetup status "$dst" \
  | awk '$1 == "device:" { print $2 }')
  /sbin/cryptsetup remove "$dst"
- # Leave partition with a blank plain-text swap
- mkswap "$backdev" > /dev/null
  fi
done
fi
@@ -170,7 +171,7 @@
  "$Unmounting file systems (retry): " \
  -f

- [ -f /proc/bus/usb/devices ] && umount /proc/bus/usb
+ [ -f /proc/bus/usb/devices ] && $UMOUNT /proc/bus/usb

  [ -f /etc/crypttab ] && \
    LANG=C action "Stopping disk encryption: " halt_crypto
@@ -183,7 +184,7 @@
  awk '$2 !~ /\^\/(|dev|proc|selinux)$/ && $1 !~ /\^\/dev\/ram/ { print $2 }'
\
  /proc/mounts | sort -r | \
  while read line; do
-   fstab-decode umount -f $line
+   fstab-decode $UMOUNT -f $line
  done

```



```

if [ -x /sbin/halt.local ]; then
alsa-lib-1.0.14-1.rc4.el5.i386.rpm: /etc/alsa/alsa.conf
---
+++
@@ -67,7 +67,7 @@
 defaults.pcm.ipc_perm 0600
 defaults.pcm.dmix.max_periods 0
 defaults.pcm.dmix.rate 48000
-defaults.pcm.dmix.format S16_LE
+defaults.pcm.dmix.format "unchanged"
 defaults.pcm.dmix.card defaults.pcm.card
 defaults.pcm.dmix.device defaults.pcm.device
 defaults.pcm.dsnoop.card defaults.pcm.card
@@ -94,6 +94,9 @@
 defaults.pcm.iec958.device defaults.pcm.device
 defaults.pcm.modem.card defaults.pcm.card
 defaults.pcm.modem.device defaults.pcm.device
+# truncate files via file or tee PCM
+defaults.pcm.file_format "raw"
+defaults.pcm.file_truncate true
 defaults.rawmidi.card 0
 defaults.rawmidi.device 0
 defaults.rawmidi.subdevice -1
@@ -124,6 +127,7 @@
 pcm.surround71 cards.pcm.surround71
 pcm.iec958 cards.pcm.iec958
 pcm.spdif iec958
+pcm.hdmi cards.pcm.hdmi
 pcm.dmix cards.pcm.dmix
 pcm.dsnoop cards.pcm.dsnoop
 pcm.modem cards.pcm.modem
@@ -262,12 +266,19 @@
 }
 @args.FORMAT {
 type string
- default raw
+ default {
+ @func refer
+ name defaults.pcm.file_format
+ }
 }
 type file
 slave.pcm $SLAVE
 file $FILE
 format $FORMAT
+ truncate {
+ @func refer
+ name defaults.pcm.file_truncate
+ }
 }

pcm.file {
@@ -277,12 +288,19 @@
 }
 @args.FORMAT {

```

```

    type string
-   default raw
+   default {
+   @func refer
+   name defaults.pcm.file_format
+   }
  }
  type file
  slave.pcm null
  file $FILE
  format $FORMAT
+ truncate {
+ @func refer
+ name defaults.pcm.file_truncate
+ }
}

pcm.null {
@@ -316,7 +334,7 @@
}

ctl.hw {
- @args[ CARD ]
+ @args [ CARD ]
  @args.CARD {
    type string
    default {
caching-nameserver-9.3.4-6.P1.el5.i386.rpm: /etc/named.caching-
nameserver.conf
---
+++
@@ -18,8 +18,12 @@
  dump-file "/var/named/data/cache_dump.db";
    statistics-file "/var/named/data/named_stats.txt";
    memstatistics-file "/var/named/data/named_mem_stats.txt";
- query-source    port 53;
- query-source-v6 port 53;
+
+ // Those options should be used carefully because they disable port
+ // randomization
+ // query-source    port 53;
+ // query-source-v6 port 53;
+
  allow-query      { localhost; };
};
logging {
kexec-tools-1.102pre-21.el5.i386.rpm: /etc/rc.d/init.d/kdump
---
+++
@@ -26,6 +26,7 @@
  KDUMP_KERNELVER=""
  KDUMP_INITRDEXT=""
  KDUMP_COMMANDLINE=""
+KDUMP_IDE_NOPROBE_COMMANDLINE=""
  KEXEC_ARGS=""
  KDUMP_CONFIG_FILE="/etc/kdump.conf"

```

```

@@ -107,8 +108,15 @@
    #check to see if config file or kdump post has been modified
    #since last build of the image file
    image_time=`stat -c "%Y" $kdump_initrd`
-   KDUMP_POST=`grep ^kdump_post $KDUMP_CONFIG_FILE | cut -d\ -f2`
-   files="$KDUMP_CONFIG_FILE $kdump_kernel $KDUMP_POST"
+   EXTRA_FILES=`grep ^kdump_post $KDUMP_CONFIG_FILE | cut -d\ -f2`
+   CHECK_FILE=`grep ^kdump_pre $KDUMP_CONFIG_FILE | cut -d\ -f2`
+   EXTRA_FILES="$EXTRA_FILES $CHECK_FILE"
+   CHECK_FILE=`grep ^extra_modules $KDUMP_CONFIG_FILE | cut -d\ -f2`
+   EXTRA_FILES="$EXTRA_FILES $CHECK_FILE"
+   CHECK_FILE=`grep ^extra_bins $KDUMP_CONFIG_FILE | cut -d\ -f2`
+   EXTRA_FILES="$EXTRA_FILES $CHECK_FILE"
+   FORCE_REBUILD=`grep ^extra_modules $KDUMP_CONFIG_FILE`
+   files="$KDUMP_CONFIG_FILE $kdump_kernel $EXTRA_FILES"
    modified_files=""
    for file in $files; do
        time_stamp=0
@@ -123,9 +131,17 @@
    fi
done

- if [ -n "$modified_files" -a "$modified_files" != " " ]; then
- echo "Detected change(s) the following file(s):"
- echo -n " "; echo "$modified_files" | sed 's/\s/\n /g'
+ if [ -n "$FORCE_REBUILD" -a "$modified_files"!=" " ]
+ then
+ modified_files="force_rebuild"
+ fi
+
+ if [ -n "$modified_files" -a "$modified_files"!=" " ]; then
+ if [ "$modified_files" != "force_rebuild" ]
+ then
+ echo "Detected change(s) the following file(s):"
+ echo -n " "; echo "$modified_files" | sed 's/\s/\n /g'
+ fi
+ echo "Rebuilding $kdump_initrd"
+ /sbin/mkdumprd -d -f $kdump_initrd $kdump_kver
+ if [ $? != 0 ]; then
@@ -174,6 +190,33 @@
    return 1
fi
return 0
+}
+
+function avoid_cdrom_drive()
+{
+ local DRIVE=""
+ local MEDIA=""
+ local IDE_DRIVES=(`echo hd{a,b,c,d}`)
+ local COUNTER="0"
+
+ for DRIVE in ${IDE_DRIVES[@]}
+ do
+ if ! $(echo "$KDUMP_COMMANDLINE" |grep -q "$DRIVE=");then

```

```

+   if [ -f /proc/ide/$DRIVE/media ];then
+     MEDIA=$(cat /proc/ide/$DRIVE/media)
+     if [ x"$MEDIA" == x"cdrom" ]; then
+       KDUMP_IDE_NOPROBE_COMMANDLINE="$KDUMP_IDE_NOPROBE_COMMANDLINE
$DRIVE=cdrom"
+       COUNTER=$((COUNTER+1))
+     fi
+   fi
+ else
+     KDUMP_IDE_NOPROBE_COMMANDLINE="$KDUMP_IDE_NOPROBE_COMMANDLINE
$DRIVE=noprobe"
+   fi
+ done
+ # We don't find cdrom drive.
+ if [ $COUNTER -eq 0 ]; then
+   KDUMP_IDE_NOPROBE_COMMANDLINE=""
+ fi
+ }

# Load the kdump kernel specified in /etc/sysconfig/kdump
@@ -226,6 +269,8 @@

    KDUMP_COMMANDLINE=`echo $KDUMP_COMMANDLINE | sed -e 's/crashkernel=[0-
9]\+[MmKkGg]@[0-9]\+[MmGgKk]//'\`
    KDUMP_COMMANDLINE="{KDUMP_COMMANDLINE} ${KDUMP_COMMANDLINE_APPEND}"
+ avoid_cdrom_drive
+ KDUMP_COMMANDLINE="{KDUMP_COMMANDLINE}
${KDUMP_IDE_NOPROBE_COMMANDLINE}"

    KEXEC_OUTPUT=`$KEXEC $KEXEC_ARGS $standard_kexec_args \
    --command-line="$KDUMP_COMMANDLINE" \
@@ -364,13 +409,7 @@

function do_final_action()
{
- FINAL_ACTION=`grep default $KDUMP_CONFIG_FILE | grep -vm1 ^\# \
- | cut -d\ -f2`
- if [[ $FINAL_ACTION != "halt" ]]; then
-   FINAL_ACTION="reboot"
- fi
-
- $FINAL_ACTION
+ reboot
+ }

case "$1" in
initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/init.d/network
---
+++
@@ -171,7 +171,7 @@
stop)
# Don't shut the network down if root is on NFS or a network
# block device.
-   rootfs=$(awk '{ if ($1 !~ /^[ \t]*#/ && $2 == "/") { print $3;
}}' /etc/mtab)
+   rootfs=$(awk '{ if ($1 !~ /^[ \t]*#/ && $2 == "/" && $3 !=

```

```

"rootfs") { print $3; }}' /proc/mounts)
    rootopts=$(awk '{ if ($1 !~ /^[ \t]*#/ && $2 == "/") { print $4;
}}' /etc/mstab)

    if [[ "$rootfs" =~ "^nfs" ]] || [[ "$rootopts" =~ "_netdev|_rnetdev" ]]
; then
nfs-utils-1.0.9-33.el5.i386.rpm: /etc/rc.d/init.d/rpcidmapd
---
+++
@@ -24,7 +24,7 @@
    case "$1" in
        start|condstart)
            # Check that networking is up.
            - [ "${NETWORKING}" = "no" ] && exit 6
            + [ "${NETWORKING}" != "yes" ] && exit 6

            [ ! -x /usr/sbin/rpc.idmapd ] && exit 5

@@ -32,6 +32,11 @@
    [ "$1" = "condstart" -a -n "`pidofproc $prog`" ] && {
        killproc $prog "-SIGHUP" > /dev/null
        exit 0
    + }
    + [ "$1" = "start" ] && {
    + if status $prog > /dev/null ; then
    +     exit 0
    + fi
    + }
    rm -f $LOCKFILE

@@ -55,8 +60,6 @@
    }
    }
    }
-
- # Make sure the mount worked.

    # Start daemon.
    daemon $prog ${RPCIDMAPDARGS}
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/ifup-sl
---
+++
@@ -31,7 +31,7 @@
    [ -x /usr/sbin/dip ] || {
        echo $"/usr/sbin/dip does not exist or is not executable"
        echo $"ifup-sl for $DEVICE exiting"
        - logger -p daemon.info -t ifup-sl \
        + /usr/bin/logger -p daemon.info -t ifup-sl \
            $"/usr/sbin/dip does not exist or is not executable for $DEVICE"
        exit 1
    }
@@ -43,14 +43,14 @@
    [ -f $DIPSCRIPT ] || {
        echo $"/etc/sysconfig/network-scripts/dip-$DEVICE does not exist"
        echo $"ifup-sl for $DEVICE exiting"
        - logger -p daemon.info -t ifup-sl \

```

```

+ /usr/bin/logger -p daemon.info -t ifup-sl \
    "$/etc/sysconfig/network-scripts/dip-$DEVICE does not exist for
$DEVICE"
    exit 1
}

while : ; do
    echo > /var/run/sl-$DEVICE.dev
- (logger -p daemon.info -t ifup-sl \
+ (/usr/bin/logger -p daemon.info -t ifup-sl \
    "$dip started for $DEVICE on $MODEMPORT at $LINESPEED" &)&
    doexec /usr/sbin/dip dip-$DEVICE $DIPSCRIPT
    if [ "$PERSIST" != "yes" -o ! -f /var/run/sl-$DEVICE.dev ] ; then
ypserv-2.19-3.i386.rpm: /var/yp/Makefile
---
+++
@@ -98,10 +98,18 @@
    YPSERVERS = $(YPPDIR)/ypservers # List of all NIS servers for a domain

target: Makefile
+ifeq ($(shell /bin/domainname), (none))
+ @echo "Domain name cannot be (none)"
+else
+ifeq ($(shell /bin/domainname), )
+ @echo "Domain name must be set"
+else
    @test ! -d $(LOCALDOMAIN) && mkdir $(LOCALDOMAIN) ; \
    cd $(LOCALDOMAIN) ; \
    $(NOPUSH) || $(MAKE) -f ../Makefile ypservers; \
    $(MAKE) -f ../Makefile all
+endif
+endif

# If you don't want some of these maps built, feel free to comment
# them out from this list.
initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/init.d/netfs
---
+++
@@ -35,6 +35,8 @@
# See how we were called.
case "$1" in
    start)
+ # Let udev handle any backlog before trying to mount file systems
+ /sbin/udevsettle --timeout=30
        [ -n "$NFSSTAB" ] &&
        {
            [ ! -f /var/lock/subsys/portmap ] && service portmap start
nfs-utils-1.0.9-33.el5.i386.rpm: /etc/rc.d/init.d/rpcsvcgssd
---
+++
@@ -27,12 +27,9 @@
case "$1" in
    start|condstart)
        # Check that networking is up.
- [ "${NETWORKING}" = "no" ] && exit 6
+ [ "${NETWORKING}" != "yes" ] && exit 6

```

```

[ "${SECURE_NFS}" != "yes" ] && exit 6
[ ! -x /usr/sbin/rpc.svcgssd ] && exit 5
-
- # List of kernel modules to load
- [ -z "${SECURE_NFS_MODS}" ] && SECURE_NFS_MODS="des rpcsec_gss_krb5"

# Make sure the daemon is not already running.
if status $prog > /dev/null ; then
@@ -41,6 +38,9 @@
    rm -f $LOCKFILE

    echo -n "$Starting RPC svcgssd: "
+ # List of kernel modules to load
+ [ -z "${SECURE_NFS_MODS}" ] && SECURE_NFS_MODS="des rpcsec_gss_krb5"
+

# Make sure the rpc_pipefs filesystem is available
[ "${RPCMTAB}" != "noload" ] && {
openldap-servers-2.3.27-8.el5_1.3.i386.rpm: /etc/rc.d/init.d/ldap
---
+++
@@ -21,7 +21,7 @@

# Source an auxiliary options file if we have one, and pick up OPTIONS,
# SLAPD_OPTIONS, SLURPD_OPTIONS, SLAPD_LDAPS, SLAPD_LDAPI, and maybe
-# KRB5_KTNAME.
+# KRB5_KTNAME and SLURPD_KRB5CCNAME.
if [ -r /etc/sysconfig/ldap ] ; then
. /etc/sysconfig/ldap
fi
@@ -114,7 +114,7 @@
    echo -n "$file is not readable by \"$user\"" ; warning ; echo
    fi
# Unaccessible TLS configuration files.
- tlsconffigs=`LANG=C egrep
'^(\TLSCACertificateFile|TLSCertificateFile|TLSCertificateKeyFile)
[[:space:]]' /etc/openldap/slapd.conf | awk '{print $2}'`
+ tlsconffigs=`LANG=C egrep
'^(\TLS_CACERT|TLSCACertificateFile|TLSCertificateFile|TLSCertificateKeyFil
e)[[:space:]]' /etc/openldap/slapd.conf /etc/openldap/ldap.conf | awk
'{print $2}'`
for file in $tlsconffigs ; do
if ! testasuser $user -r $file ; then
echo -n "$file is not readable by \"$user\"" ; warning ; echo
@@ -167,6 +167,9 @@
    if grep -q "^replugfile" /etc/openldap/slapd.conf; then
prog=`basename ${slurpd}`
echo -n "$Starting $prog: "
+ if [ -n "$SLURPD_KRB5CCNAME" ]; then
+ export KRB5CCNAME="$SLURPD_KRB5CCNAME";
+ fi
daemon ${slurpd} $OPTIONS $SLURPD_OPTIONS
RETVAL=$?
echo
initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/rc.sysinit
---

```

```

+++
@@ -143,7 +143,7 @@
    skip=""
    # Parse the src field for UUID= and convert to real device names
    if [ "${src%%=*}" == "UUID" ]; then
-   src=`/sbin/blkid -t "$src" -o device|(read oneline;echo $oneline)`
+   src=$(/sbin/blkid -t "$src" -l -o device)
    elif [ "${src/^\/dev\/disk\/by-uuid\/}" != "$src" ]; then
        src=$(__readlink $src)
    fi
@@ -458,6 +458,13 @@
    fi
    fi

+if [ -f /etc/crypttab ]; then
+ s="$Starting disk encryption:"
+ echo "$s"
+ init_crypto 0 && success "$s" || failure "$s"
+ echo
+fi
+
+ if [ -f /fastboot ] || strstr "$cmdline" fastboot ; then
+   fastboot=yes
+ fi
@@ -533,7 +540,7 @@
    mountopts=

    # Scan partitions for local scratch storage
-   rw_mount_dev=$(blkid -t LABEL="$RW_LABEL" -o device | awk '{ print ;
exit }')
+   rw_mount_dev=$(blkid -t LABEL="$RW_LABEL" -l -o device)

    # First try to mount scratch storage from /etc/fstab, then any
    # partition with the proper label.  If either succeeds, be sure
@@ -590,12 +597,12 @@

    # First try to mount persistent data from /etc/fstab, then any
    # partition with the proper label, then fallback to NFS
-   state_mount_dev=$(blkid -t LABEL="$STATE_LABEL" -o device | awk '{ print
; exit }')
-   if mount $mountopts "$STATE_MOUNT" > /dev/null 2>&1 ; then
+   state_mount_dev=$(blkid -t LABEL="$STATE_LABEL" -l -o device)
+   if mount $mountopts $STATE_OPTIONS "$STATE_MOUNT" > /dev/null 2>&1 ;
then
        /bin/true
        elif [ x$state_mount_dev != x ] && mount $state_mount_dev $mountopts
"$STATE_MOUNT" > /dev/null 2>&1; then
            /bin/true
-   elif [ -n "$CLIENTSTATE" ]; then
+   elif [ ! -z "$CLIENTSTATE" ]; then
        # No local storage was found.  Make a final attempt to find
        # state on an NFS server.
@@ -730,23 +737,29 @@
    restorecon /etc/mtab /etc/ld.so.cache /etc/blkid/blkid.tab
    /etc/resolv.conf >/dev/null 2>&1

```





```
---
+++
@@ -35,7 +35,7 @@

kill -KILL $PID > /dev/null 2>&1
if [ -d /proc/$PID ]; then
- logger -p daemon.info -t ifdown-ppp "ifdown-ppp unable to kill pppd-
$DEVICE" &
+ /usr/bin/logger -p daemon.info -t ifdown-ppp "ifdown-ppp unable to kill
pppd-$DEVICE" &
else
  /etc/sysconfig/network-scripts/ifdown-post $1
fi
NetworkManager-0.6.4-8.el5.i386.rpm: /etc/rc.d/init.d/NetworkManager
---
+++
@@ -4,7 +4,7 @@
#
# chkconfig: - 98 02
# description: This is a daemon for automatically switching network \
-# connections to the best available connection. \
+# connections to the best available connection.
#
# processname: NetworkManager
# pidfile: /var/run/NetworkManager/NetworkManager.pid
@@ -19,11 +19,11 @@
# Sanity checks.
[ -x $NETWORKMANAGER_BIN ] || exit 1

-# We need /sbin/ip
-[ -x /sbin/ip ] || exit 1
-
# Source function library.
. /etc/rc.d/init.d/functions
+
+# Source network configuration
+. /etc/sysconfig/network

# so we can rearrange this easily
processname=NetworkManager
@@ -34,17 +34,23 @@

start()
{
- echo $"Setting network parameters... "
+ echo -n $"Setting network parameters... "
  sysctl -e -p /etc/sysctl.conf >/dev/null 2>&1
-
- if [ ! -e /var/lock/subsys/dhcdbd ]; then
-   service dhcdbd start
- fi
+ success
+ echo

  echo -n $"Starting NetworkManager daemon: "
- daemon --check $servicename $processname --pid-file=$pidfile
```

```

+ daemon --check $servicename $processname --pid-file=$pidfile --ppp-dns-
workaround
    RETVAL=$?
    echo
+ if [ -n "${NETWORKWAIT}" ]; then
+ [ -z "${LINKDELAY}" ] && LINKDELAY=10
+ echo -n "Waiting for network..."
+ nm-online -q --timeout=$LINKDELAY || nm-online -q -x --timeout=30
+ [ "$?" = "0" ] && success "network startup" || failure "network
startup"
+ echo
+ [ -n "${NETWORKDELAY}" ] && /bin/sleep ${NETWORKDELAY}
+ fi
    [ $RETVAL -eq 0 ] && touch /var/lock/subsys/$servicename
}

initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/network-
functions-ipv6
---
+++
@@ -138,14 +138,14 @@
    ;;
    'syslog')
    # note: logger resides in /usr/bin, but not used by default
- if ! [ -x logger ]; then
+ if ! [ -x /usr/bin/logger ]; then
    echo $"ERROR: [ipv6_log] Syslog is chosen, but binary 'logger' doesn't
exist or isn't executable" >/dev/stderr
    return 3
    fi
    if [ -z "$txt_name" ]; then
- logger -p $facility.$priority $message
+ /usr/bin/logger -p $facility.$priority $message
    else
- logger -p $facility.$priority -t "$txt_name" "$message"
+ /usr/bin/logger -p $facility.$priority -t "$txt_name" "$message"
    fi
    ;;
    *)
nfs-utils-1.0.9-33.el5.i386.rpm: /etc/rc.d/init.d/nfs
---
+++
@@ -19,6 +19,9 @@
# Check for and source configuration file otherwise set defaults
[ -f /etc/sysconfig/nfs ] && . /etc/sysconfig/nfs

+# Remote quota server
+[ -z "$RQUOTAD" ] && RQUOTAD=`type -path rpc.rquotad`
+
    RETVAL=0

    # See how we were called.
@@ -26,11 +29,16 @@
    start)

    # Check that networking is up.

```

```

- [ "${NETWORKING}" = "no" ] && exit 6
+ [ "${NETWORKING}" != "yes" ] && exit 6

[ -x /usr/sbin/rpc.nfsd ] || exit 5
[ -x /usr/sbin/rpc.mountd ] || exit 5
[ -x /usr/sbin/exportfs ] || exit 5
+
+ # Make sure the rpc.mountd is not already running.
+ if status rpc.mountd > /dev/null ; then
+ exit 0
+ fi

# Don't fail if /etc/exports doesn't exist; create a bare-bones
# version and continue.
@@ -42,9 +50,6 @@

# Number of servers to be started by default
[ -z "$RPCNFSDCOUNT" ] && RPCNFSDCOUNT=8
-
- # Remote quota server
- [ -z "$RQUOTAD" ] && RQUOTAD=`type -path rpc.rquotad`

# Start daemons.
[ -x /usr/sbin/rpc.svcgssd ] && /sbin/service rpcsvcgssd start
@@ -67,6 +72,12 @@
    RETVAL=$?
    echo
fi
+
+ # Load preload module so arguments to rpc.nfsd will take effect
+ [ -n "$RPCNFSDARGS" -a "$NFSD_MODULE" != "noload" ] && {
+ [ -x /sbin/modprobe ] && /sbin/modprobe nfsd
+ }
+
echo -n "Starting NFS daemon: "
daemon rpc.nfsd $RPCNFSDARGS $RPCNFSDCOUNT
RETVAL=$?
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/network-
functions
---
+++
@@ -28,7 +28,7 @@

get_config_by_subchannel ()
{
- LANG=C grep -il "^[[[:space:]]*SUBCHANNELS=${1}\([[[:space:]]#\|$\|,\|)"
/etc/sysconfig/network-scripts/ifcfg-* \
+ LANG=C egrep -i -l "^[[[:space:]]*SUBCHANNELS=([0-9]\.[0-9]\.[a-f0-
9]+,){0,2}${1}([0-9]\.[0-9]\.[a-f0-9]+){0,2}([[[:space:]]+##|
[[[:space:]]*$)" /etc/sysconfig/network-scripts/ifcfg-* \
| LC_ALL=C sed -e "$__sed_discard_ignored_files"
}

@@ -434,7 +434,7 @@
(echo "$s" > /etc/resolv.conf;) >/dev/null 2>&1;
r=$?

```

```

        if [ $r -eq 0 ]; then
- logger -p local7.notice -t "NET" -i "$0 : updated /etc/resolv.conf";
+ /usr/bin/logger -p local7.notice -t "NET" -i "$0 : updated
/etc/resolv.conf";
    [ -e /var/lock/subsys/nscd ] && /usr/sbin/nscd -i hosts; # invalidate
cache
        fi;
        return $r;
initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/rc0.d/S01halt
---
+++
@@ -10,6 +10,9 @@

    NOLOCALE=1
    . /etc/init.d/functions
+
+UMOUNT="umount"
+[ ! -w /etc ] && UMOUNT="umount -n"

    action() {
        echo -n "$1 "
@@ -131,7 +134,7 @@
    # Try to unmount tmpfs filesystems to avoid swapping them in. Ignore
failures.
    tmpfs=$(awk '$2 ~ /\^\/($|proc|dev)/ { next; }
        $3 == "tmpfs" { print $2; }' /proc/mounts | sort -r)
- [ -n "$tmpfs" ] && fstab-decode umount $tmpfs 2>/dev/null
+ [ -n "$tmpfs" ] && fstab-decode $UMOUNT $tmpfs 2>/dev/null

    # Turn off swap, then unmount file systems.
    [ -f /proc/swaps ] && SWAPS=`awk '! /^Filename/ { print $1 }'
/proc/swaps`
@@ -143,8 +146,6 @@
        backdev=$(/sbin/cryptsetup status "$dst" \
| awk '$1 == "device:" { print $2 }')
        /sbin/cryptsetup remove "$dst"
- # Leave partition with a blank plain-text swap
- mkswap "$backdev" > /dev/null
    fi
done
fi
@@ -170,7 +171,7 @@
    "$Unmounting file systems (retry): " \
-f

- [ -f /proc/bus/usb/devices ] && umount /proc/bus/usb
+ [ -f /proc/bus/usb/devices ] && $UMOUNT /proc/bus/usb

    [ -f /etc/crypttab ] && \
        LANG=C action "$Stopping disk encryption: " halt_crypto
@@ -183,7 +184,7 @@
    awk '$2 !~ /\^\/(|dev|proc|selinux)$/ && $1 !~ /\^\/dev\/ram/ { print $2 }'
\
        /proc/mounts | sort -r | \
    while read line; do
-        fstab-decode umount -f $line

```

```

+   fstab-decode $UMOUNT -f $line
done

if [ -x /sbin/halt.local ]; then
initscripts-8.45.19.EL-1.i386.rpm: /etc/rc.d/init.d/halt
---
+++
@@ -10,6 +10,9 @@

NOLOCALE=1
. /etc/init.d/functions
+
+UMOUNT="umount"
+[ ! -w /etc ] && UMOUNT="umount -n"

action() {
    echo -n "$1 "
@@ -131,7 +134,7 @@
# Try to unmount tmpfs filesystems to avoid swapping them in. Ignore
failures.
tmpfs=$(awk '$2 ~ /\^\/($|proc|dev)/ { next; }
           $3 == "tmpfs" { print $2; }' /proc/mounts | sort -r)
-[ -n "$tmpfs" ] && fstab-decode umount $tmpfs 2>/dev/null
+[ -n "$tmpfs" ] && fstab-decode $UMOUNT $tmpfs 2>/dev/null

# Turn off swap, then unmount file systems.
[ -f /proc/swaps ] && SWAPS=`awk '! /^Filename/ { print $1 }'
/proc/swaps`
@@ -143,8 +146,6 @@
    backdev=$(/sbin/cryptsetup status "$dst" \
| awk '$1 == "device:" { print $2 }')
    /sbin/cryptsetup remove "$dst"
-   # Leave partition with a blank plain-text swap
-   mkswap "$backdev" > /dev/null
fi
done
fi
@@ -170,7 +171,7 @@
"$Unmounting file systems (retry): " \
-f

-[ -f /proc/bus/usb/devices ] && umount /proc/bus/usb
+[ -f /proc/bus/usb/devices ] && $UMOUNT /proc/bus/usb

[ -f /etc/crypttab ] && \
LANG=C action "$Stopping disk encryption: " halt_crypto
@@ -183,7 +184,7 @@
awk '$2 !~ /\^\/(|dev|proc|selinux)$/ && $1 !~ /\^\/dev\/ram/ { print $2 }'
\
    /proc/mounts | sort -r | \
while read line; do
-   fstab-decode umount -f $line
+   fstab-decode $UMOUNT -f $line
done

if [ -x /sbin/halt.local ]; then

```

```

nfs-utils-1.0.9-33.el5.i386.rpm: /etc/rc.d/init.d/nfslock
---
+++
@@ -33,7 +33,7 @@
  RETVAL=0
  start() {
    # Check that networking is up.
- [ "${NETWORKING}" = "no" ] && exit 6
+ [ "${NETWORKING}" != "yes" ] && exit 6

    if [ "$USERLAND_LOCKD" ] ; then
      [ -x /sbin/rpc.lockd ] || exit 5
@@ -46,9 +46,12 @@
  STATDARG=""
  fi

- if [ -f /var/lock/subsys/nfslock ]; then
- return $RETVAL
+ # Make sure the rpc.statd is not already running.
+ if status rpc.statd > /dev/null ; then
+ exit 0
  fi
+ rm -f /var/lock/subsys/nfslock
+
  # Start daemons.
  if [ "$USERLAND_LOCKD" ]; then
    echo -n "Starting NFS locking: "
@@ -64,10 +67,14 @@
    /sbin/sysctl -w fs.nfs.nlm_udpport=$LOCKD_UDPPORT >/dev/null 2>&1
  fi
  echo -n "Starting NFS statd: "
+ # Set statd's local hostname if defined
+ [ -n "${STATD_HOSTNAME}" ] && STATDARG="$STATDARG -n ${STATD_HOSTNAME}"
+
  # See if a statd's ports has been defined
  [ -n "$STATD_PORT" ] && STATDARG="$STATDARG -p $STATD_PORT"
  [ -n "$STATD_OUTGOING_PORT" ] \
    && STATDARG="$STATDARG -o $STATD_OUTGOING_PORT"
+
  # See if we have an HA-callout program specified
  [ -n "$STATD_HA_CALLOUT" ] \
    && STATDARG="$STATDARG -H $STATD_HA_CALLOUT"
@@ -91,6 +98,7 @@
  RETVAL=$?
  echo
  rm -f /var/lock/subsys/nfslock
+ rm -f /var/run/sm-notify.pid
  return $RETVAL
}

dbus-1.0.0-7.el5.i386.rpm: /etc/dbus-1/system.conf
---
+++
@@ -15,10 +15,16 @@
  <type>system</type>

```

```

    <!-- Run as special user -->
- <user>81</user>
+ <user>dbus</user>

    <!-- Fork into daemon mode -->
    <fork/>
+
+ <!-- We use system service launching using a helper -->
+ <standard_system_servicedirs/>
+
+ <!-- This is a setuid helper that is used to launch system services -->
+ <servicehelper>/lib/dbus-1/dbus-daemon-launch-helper</servicehelper>

    <!-- Write a pid file -->
    <pidfile>/var/run/messagebus.pid</pidfile>
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/ifup-eth
---
+++
@@ -105,9 +105,10 @@

# slave device?
if [ "${SLAVE}" = yes -a "${ISALIAS}" = no -a "${MASTER}" != "" ]; then
- /sbin/ip link set dev ${DEVICE} down
- echo "+${DEVICE}" > /sys/class/net/${MASTER}/bonding/slaves
2>/dev/null
-
+ grep -wq "${DEVICE}" /sys/class/net/${MASTER}/bonding/slaves || {
+ /sbin/ip link set dev ${DEVICE} down
+ echo "+${DEVICE}" > /sys/class/net/${MASTER}/bonding/slaves 2>/dev/null
+ }
    if [ -n "$ETHTOOL_OPTS" ] ; then
        /sbin/ethtool -s ${REALDEVICE} $ETHTOOL_OPTS
    fi
@@ -125,7 +126,7 @@
    for arg in $BONDING_OPTS ; do
        key=${arg%%=*};
        value=${arg##*=};
-        if [ "${key}" = "arp_ip_target" ]; then
+        if [ "${key}" = "arp_ip_target" -a "${value:0:1}" != "+" ]; then
            OLDIFS=$IFS;
            IFS=',';
            for arp_ip in $value; do
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/ifup-ppp
---
+++
@@ -44,7 +44,7 @@
[ -x /sbin/pppd -o -x /usr/sbin/pppd ] || {
echo "$pppd does not exist or is not executable"
echo "ifup-ppp for ${DEVICE} exiting"
- logger -p daemon.info -t ifup-ppp \
+ /usr/bin/logger -p daemon.info -t ifup-ppp \
    "$pppd does not exist or is not executable for ${DEVICE}"
exit 1
}
@@ -55,7 +55,7 @@
    adsl-start /etc/sysconfig/network-scripts/$CONFIG

```



```

        exit $?
    else
-       logger -p daemon.info -t ifup-ppp \
+       /usr/bin/logger -p daemon.info -t ifup-ppp \
            "$adsl-start does not exist or is not executable for
${DEVICE}"
        exit 1
    fi
@@ -76,12 +76,12 @@
    [ -f ${CHATSCRIPT} ] || {
        echo "$/etc/sysconfig/network-scripts/chat-${DEVNAME} does not
exist"
        echo "$ifup-ppp for ${DEVNAME} exiting"
-       logger -p daemon.info -t ifup-ppp \
+       /usr/bin/logger -p daemon.info -t ifup-ppp \
            "$/etc/sysconfig/network-scripts/chat-${DEVNAME} does not exist
for ${DEVICE}"
        exit 1
    }
    fi
-   logger -s -p daemon.notice -t ifup-ppp \
+   /usr/bin/logger -s -p daemon.notice -t ifup-ppp \
        "$Setting up a new ${PEERCONF} config file"
    if [ -f /etc/ppp/peers/${DEVICE} ]; then
        cp -f /etc/ppp/peers/${DEVICE} ${PEERCONF}
@@ -141,7 +141,7 @@
    exec=exec
    fi

-(logger -p daemon.info -t ifup-ppp \
+(/usr/bin/logger -p daemon.info -t ifup-ppp \
    "$pppd started for ${DEVNAME} on ${MODEMPORT} at ${LINESPEED}" &)&

$exec pppd $opts ${MODEMPORT} ${LINESPEED} \
tog-pegasus-2.7.0-2.el5.i386.rpm: /etc/rc.d/init.d/tog-pegasus
---
+++
@@ -8,6 +8,8 @@
    CIMSERVER_BIN=/usr/sbin/cimserver
    prog=cimserver
    LOCKFILE=/var/lock/subsys/tog-pegasus
+LOCKFILE2=/var/run/tog-pegasus/cimserver_start.lock
+PIDFILE=/var/run/tog-pegasus/cimserver.pid
    . /etc/rc.d/init.d/functions

[ -e /etc/sysconfig/tog-pegasus ] && . /etc/sysconfig/tog-pegasus;
@@ -75,6 +77,7 @@
    success;
    else
        failure;
+    RETVAL=7
    fi
    echo
    ;;
@@ -86,8 +89,16 @@
    echo -n "$CIM server ($pid) is running";

```

```

        RETVAL=0
    else
-       echo -n "CIM server is not running";
-       RETVAL=3
+       if [ -e $PIDFILE ]; then
+           echo -n "CIM server is not running and pid file
exists";
+           RETVAL=1
+           elif [ -e $LOCKFILE ] || [ -e $LOCKFILE2 ]; then
+               echo -n "CIM server is not running and lock file
exists";
+               RETVAL=2
+           else
+               echo -n "CIM server is not running";
+               RETVAL=3
+           fi
        fi
    echo
    ;;
udev-095-14.16.el5.i386.rpm: /etc/udev/rules.d/50-udev.rules
---
+++
@@ -174,7 +174,7 @@
    KERNEL=="mice",    NAME="input/%k"
    KERNEL=="mouse*",  NAME="input/%k"

-KERNEL=="event*",  SYSFS{idVendor}=="03f0",
SYSFS{device/interface}=="Virtual Mouse",
SYSFS{device/bInterfaceProtocol}=="02", NAME="input/%k",
SYMLINK+="input/hp_ilo_mouse"
+KERNEL=="event*",  SYSFS{idVendor}=="03f0",
SYSFS{device/interface}=="Virtual Mouse",
SYSFS{device/bInterfaceProtocol}=="02", SYMLINK+="input/hp_ilo_mouse"

    KERNEL=="event*",  NAME="input/%k"
    KERNEL=="js*",     NAME="input/%k", SYMLINK+="%k"
@@ -220,13 +220,6 @@
    KERNEL=="pcd[0-9]*", SYMLINK+="cdrom cdrom-%k"
    KERNEL=="fd[0-9]*",  SYMLINK+="floppy floppy-%k"

-# Section for zaptel device
-KERNEL=="zapctl",     NAME="zap/ctl"
-KERNEL=="zaptimer",   NAME="zap/timer"
-KERNEL=="zapchannel", NAME="zap/channel"
-KERNEL=="zappseudo",  NAME="zap/pseudo"
-KERNEL=="zap[0-9]*",  NAME="zap/%n"
-
    KERNEL=="pktcdvd",  NAME="%k/control"

    KERNEL=="hd[a-z]",  BUS=="ide", SYSFS{removable}=="1", \
@@ -291,12 +284,14 @@
    KERNEL=="sd*[^0-9]|sr*", ENV{ID_SERIAL}=="",
IMPORT{program}="/lib/udev/scsi_id -g -x -a -s %p -d $tempnode"
    KERNEL=="dasd*[^0-9]", IMPORT{program}="/lib/udev/dasd_id --export
$tempnode"
    KERNEL=="nst[0-9]*|st*|sd*[^0-9]|sr*|dasd*[^0-9]|cciss?c",

```

```

ENV{ID_SERIAL}=="?*", SYMLINK+="disk/by-id/$env{ID_BUS}-$env{ID_SERIAL}"
+KERNEL=="nst[0-9]*|st*|sd*[!0-9]|sr*|dasd*[!0-9]|cciss?c",
ENV{ID_UID}=="?*", SYMLINK+="disk/by-id/$env{ID_BUS}-$env{ID_UID}"

# for partitions import parent information
KERNEL=="sd*[0-9]|dasd*[0-9]", IMPORT{parent}=="ID_*"
KERNEL=="cciss?c[0-9]d[0-9]", ENV{ID_SERIAL}!="?*",
IMPORT{program}="scsi_id -g -x -s %p -d $tempnode", ENV{ID_BUS}="cciss"
KERNEL=="cciss?c[0-9]d[0-9]", ENV{ID_SERIAL}!="?*",
IMPORT{program}="scsi_id -g -x -a -s %p -d $tempnode", ENV{ID_BUS}="cciss"
KERNEL=="sd*[0-9]|dasd*[0-9]|cciss*p[0-9]", ENV{ID_SERIAL}=="?*",
SYMLINK+="disk/by-id/$env{ID_BUS}-$env{ID_SERIAL}-part%n"
+KERNEL=="sd*[0-9]|dasd*[0-9]|cciss*p[0-9]", ENV{ID_UID}=="?*",
SYMLINK+="disk/by-id/$env{ID_BUS}-$env{ID_UID}-part%n"

# by-path (shortest physical path)
KERNEL=="*[!0-9]|sr*", ENV{ID_TYPE}=="?*",
IMPORT{program}="/lib/udev/path_id %p", SYMLINK+="disk/by-
path/$env{ID_PATH}"
dbus-1.0.0-7.el5.i386.rpm: /etc/dbus-1/session.conf
---
+++
@@ -14,12 +14,16 @@

    <policy context="default">
        <!-- Allow everything to be sent -->
-       <allow send_destination="*" />
+       <allow send_destination="*" eavesdrop="true" />
        <!-- Allow everything to be received -->
        <allow eavesdrop="true" />
        <!-- Allow anyone to own anything -->
        <allow own="*" />
    </policy>
+
+ <!-- Config files are placed here that among other things,
+      further restrict the above policy for specific services. -->
+ <includedir>session.d</includedir>

    <!-- This is included last so local configuration can override what's
          in this standard file -->
@@ -27,4 +31,27 @@

    <include if_selinux_enabled="yes"
selinux_root_relative="yes">contexts/dbus_contexts</include>

+ <!-- For the session bus, override the default relatively-low limits
+      with essentially infinite limits, since the bus is just running
+      as the user anyway, using up bus resources is not something we
need
+      to worry about. In some cases, we do set the limits lower than
+      "all available memory" if exceeding the limit is almost certainly
a bug,
+      having the bus enforce a limit is nicer than a huge memory leak.
But the
+      intent is that these limits should never be hit. -->
+

```

```
+ <!-- the memory limits are 1G instead of say 4G because they can't
+ exceed 32-bit signed int max -->
+ <limit name="max_incoming_bytes">1000000000</limit>
+ <limit name="max_outgoing_bytes">1000000000</limit>
+ <limit name="max_message_size">1000000000</limit>
+ <limit name="service_start_timeout">120000</limit>
+ <limit name="auth_timeout">240000</limit>
+ <limit name="max_completed_connections">100000</limit>
+ <limit name="max_incomplete_connections">10000</limit>
+ <limit name="max_connections_per_user">100000</limit>
+ <limit name="max_pending_service_starts">10000</limit>
+ <limit name="max_names_per_connection">50000</limit>
+ <limit name="max_match_rules_per_connection">50000</limit>
+ <limit name="max_replies_per_connection">50000</limit>
+ <limit name="reply_timeout">300000</limit>
+
+ </busconfig>
```

## A. 改訂履歷

**改訂 3-6.33.400**  
Rebuild with publican 4.0.0

**2013-10-31**

**Rüdiger Landmann**

**改訂 3-6.33**  
Rebuild for Publican 3.0

**2012-07-18**

**Anthony Towns**

**改訂 2.1-0**

**Wed Jan 21 2009**

**Ryan Lerch**

Removed iSCSI **target capability** note from Technology Previews section. This feature is fully supported. For more details on this newly supported feature, refer to the Feature Updates Section of this document.