Red Hat Enterprise Linux 5

5.3 Release Notes

Notes de sortie pour toutes les architectures.

Édition 3

Last Updated: 2017-10-16

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Notice légale

Résumé

Ce document nous décrit en détail les notes de sortie pour Red Hat Enterprise Linux 5.3.

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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

Mise à jour de l'audit

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 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 Re-base

sudo a été ré-basé sur la version en amont 1.6.9. Cette version de sudo prend maintenant en charge LDAP, et permet d'effectuer des recherches au niveau des sous-arborescences, à la place de recherches de base (c'est à dire au niveau de l'arborescence simplement) pour les privilèges **sudo** rights. Cela permet aux administrateurs de ranger les privilèges **sudo** par catégories, rendant ainsi les privilèges d'utilisation plus faciles à gérer.

NOTE

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 **mthca** driver the **libmthca** 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

- Un bogue dans la pile du pilote IDE/ATA, qui pouvait empêcher un système utilisant **kernel-xen** de démarrer dans l'environnement **kdump** est maintenant résolu. Dans les versions précédentes, on rencontrait ce problème si le système faisait face à une panique du noyau tandis que le périphérique IDE était entrain de faire une E/S et que le périphérique IDE était contrôlé par un pilote de périphérique autre que **libata**.

- 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 XII 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 **libcmpiutil-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 **libcmpiutil-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 iwlagn
  options iwlagn 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.open-fcoe.org/openfc/wiki/index.php/FCoE_Initiator_Quickstart.

Red Hat Enterprise Linux 5.3 fournit son support total pour FCoE sur trois implémentations de matériel: le pilote Cisco **`fnic`**, le pilote Emulex **`lpfc`**, et le pilote Qlogic **`qla2xx`**.

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 **`mthca`** 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 Enteprise 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

- L'installation **Text Mode** d'**Anaconda** offre maintenant l'option de passer à Virtual Network Computing (VNC) pour terminer l'installation.

- Créer ou utiliser des disques de logiciels RAID membre cryptés (c'est à dire des partitions **`software RAID`**) n'est pas pris en charge. Mais, créer des réseaux de logiciels RAID cryptés (c'est à dire **`/dev/md0`**) est pris en charge.

- 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.

- L'installation à partir de CD-ROM ou DVD-ROM sur un système comprenant un périphérique réseau configuré-iBFT **Anaconda** ne comprendra aucun système de stockage configuré-IBFT à moins que le réseau ne soit ainsi configuré. Pour permettre une installation en réseautage, utiliser la commande **`linux updates=http://`*`[any]`*** au niveau du message-guide d'amorçage. A noter que ***`[any]`*** peut être remplacé par n'importe quel URL.

  Si votre système requiert une configuration statique IP, utiliser la commande **`linux updates=http://`*`[any]`*** **`ip=`*`[IP address]`*** **`netmask=`*`[netmask]`*** **`dns=`*`[dns]`***.

- Lors de l'installation de Red Hat Enterprise Linux 5.3 sur un invité pleinement virtuel, n'utiliser *pas* le noyau **`kernel-xen`**. L'utilisation de ce noyau sur des invités pleinement virtuels peut causer l'interruption de votre système.

  Si vous utilisez un numéro d'installation lors de l'installation de Red Hat Enterprise Linux 5.3 sur un invité pleinement virtuel, assurez-vous de dé-sélectionner le groupe de paquetages **`Virtualization`** durant l'installation. Les options du groupe de paquetages **`Virtualization`** installent le noyau **`kernel-xen`**.

  Noter que les invités pleinement paravirtuels ne sont pas affectés par ce problème. Les invités paravirtuels utilisent toujours le noyau **`kernel-xen`**.

- Si vous utilisez le noyau virtuel lors de la mise à niveau de Red Hat Enterprise Linux 5 à 5.2, vous devez redémarrer le système en utilisant le noyau virtuel mis à jour.

  Les hyperviseurs de Red Hat Enterprise Linux 5 et 5.2 ne sont pas compatibles avec ABI. Si vous ne redémarrez pas entre les mises à niveau à l'aide du noyau virtuel mis à jour, les RPMs de virtualisation mis à niveau ne correspondront pas au noyau en cours d'exécution.

- Lors de la mise à niveau de Red Hat Enterprise Linux 5.1 ou de Red Hat Enterprise Linux 4.6, **`gcc4`** peut entraîner l'échec de la mise à niveau. De ce fait, vous devez retirer manuellement le paquetage **`gcc4`** avant d'effectuer la mise à niveau.

- Le plugin du langage **firstboot** a été retiré, car le système ne peut être correctement et totalement reconfiguré lorsque qu'un nouveau langage est sélectionné.

- Lorsque vous provisionnez des invités en cours d'installation, l'option **RHN tools for guests** ne sera pas disponible. Dans un tel cas, le système aura besoin d'un privilège supplémentaire, distinct de celui qui a été utilisé par **dom0**.

  Pour éviter la consommation de privilèges supplémentaires pour les invités, installez le paquetage **rhn-virtualization-common** manuellement avant de tenter d'enregistrer le système dans le réseau Red Hat Network.

- L'installation de Red Hat Enterprise Linux 5.3 sur un système comprenant des interfaces de réseaux multiples et spécifier les adresses IPv6 manuellement peut aboutir à une installation de réseau incorrecte. Dans ce cas, vos paramètres IPv6 n'apparaîtront pas sur le système installé.

  Pour contourner cette difficulté, configurez **NETWORKING_IPV6** à **yes** dans **/etc/sysconfig/network**. Puis, redémarrez votre connexion de réseau en utilisant la commande **service network restart**.

- SI votre système a **yum-rhn-plugin-0.5.2-5.el5_1.2** (or an earlier version) d'installé, vous serez en mesure de le mettre à niveau vers Red Hat Enterprise Linux 5.3 par **yum update**. Pour contourner cette difficulté, procédez à la mise à niveau de **yum-rhn-plugin** vers la dernière version (en utilisant **yum update yum-rhn-plugin**) avant d'exécuter **yum update**.

- Auparavant, **anaconda**ne pouvait pas accéder à plus de 8 contrôleurs *SmartArray*.Dans cette mise à jour, ce problème a été réglé.

- Un disque de pilote, fourni par un OEM, est un fichier image simple, (***.img**) qui peut comprendre des paquetages de pilotes et des modules de noyau multiples. Ces pilotes sont utilisés pendant l'installation pour prendre en charge le matériel qui ne serait normalement pas reconnu par Red Hat Enterprise Linux 5. Une fois que les paquetages du pilote et que les modules du noyau sont installés sur le système, ils sont placés dans le disque RAM (**initrd**) pour qu'ils puissent être chargés dans le système quand il démarre.

  Dans cette version, l'installation peut détecter automatiquement un disque de pilote (basé sur son label de système de fichiers), utilisant ainsi le contenu de ce disque pendant l'installation. Ce comportement est contrôlé par l'option de ligne de commande d'installation **dlabel=on**, qui active la recherche automatique. **dlabel=on** est le paramètre par défaut pour cette version.

  Tous les périphériques bloc qui ont l'étiquette de système de fichiers **OEMDRV** sont passés en revue et les pilotes sont chargés à partir de ces unités par ordre de détection.

- Les périphériques en bloc crytpés existants contiennent des systèmes de fichiers **vfat** apparaîtront sous le type **foreign** (étrange) dans l'interface de partition; ainsi, ces périphériques ne seront pas montés automatiquement pendant en cours d'initialisation du système. Pour s'assurer que ces périphériques soient montés automatiquement, ajouter l'entrée qui convient dans **/etc/fstab**. Pour davantage d'informations sur la façon de procéder, consultez **man fstab**.

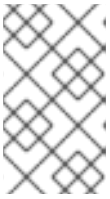
2.2. PowerPC Architectures

- 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.

De plus, les machines PPC qui ont 1 Go de mémoire RAM connaissent des problèmes de performance significatifs avec certaines charges de travail qui demandent une utilisation intensive de la mémoire RAM. Pour qu'un système Red Hat Enterprise Linux 5.2 puisse accomplir de manière optimale des traitements qui demandent une utilisation intensive de la mémoire RAM, il est recommandé d'équiper les machines avec 4 Go de RAM. Cela permet de s'assurer que le système a le même nombre de pages physiques que celui des machines PPC utilisant 512 Mo de RAM utilisant Red Hat Enterprise Linux 4.5 ou une version plus récente.

2.3. s390x Architectures

- **anaconda** supporte maintenant les deux ports CHPID pour *OSA Express3 cards*. L'installateur vous invitera à indiquer le numéro du port dans la phase initiale de l'installation. La valeur qui est proposée pour le port, affecte également le script de démarrage de l'interface de réseau installé. Quand le port 1 est sélectionné, la valeur **portno=1** iest ajoutée au paramètre d'OPTIONS du fichier **ifcfg-eth***.

  NOTE

  Lorsque vous installez sous z/VM, vous pouvez soit ajouter **PORTNO=0** (pour utiliser port 0) ou **PORTNO=1** (pour utiliser port 1) au fichier de configuration CMS pour éviter d'être prompté au niveau du mode.

- L'installation sur une machine comprenant des systèmes de fichiers existant Linux ou non-Linux sur les périphériques bloc DASD pourrait entraîner l'arrêt de l'installateur. Si cela se produit, il faut supprimer toutes les partitions existantes sur les périphériques DASD que vous souhaitez utiliser et redémarrer l'installateur.

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
  ```

  Une fois que la clé GPG Red Hat est importée, vous pouvez utiliser **yum** pour installer les paquetages à partir du disque pour la **couche de compatibilité 32 bits**.

  Noter que durant l'installation à partir de ce disque, nous vous conseillons d'utiliser **yum** à la place de **rpm** afin de vous assurer que les dépendances OS de base soient résolues durant l'installation.

3. FEATURE UPDATES

Cryptage des périphériques bloc

Red Hat Enterprise Linux 5.3 inclut un support pour le cryptage des périphériques en bloc en utilisant la spécification Linux Unified Key Setup (LUKS). Le cryptage d'un périphérique protège toutes les données d'un périphérique bloc contre toute violation d'accès, même si le périphérique n'a pas été

physiquement retiré d'un système. Pour accéder aux contenus d'un périphérique crypté, un utilisateur devra produire une phrase de passe ou une clé pour s'authentifier.

Pour toute information sur l'installation du cryptage disque, consultez le guide d'installation Red Hat Enterprise Linux :http://redhat.com/docs/

mac80211 802.11a/b/g pile protocole WIFI (mac80211)

La pile *mac80211* (précédemment connue en tant que pile *devicescape/d80211*) est une fonctionnalité maintenant supportée par Red Hat Enterprise Linux 5.3. Elle active le pilote sans fil **`iwlwifi 4965GN`**.pour le matériel 4965G Wifi Link *Intel®*. Cette pile permet à certains périphériques sans fil de se connecter à des réseaux Wi-Fi.

Malgré que le composant mac80211 soit pris en charge par Red Hat Enterprise Linux 5.3, les symboles ne sont pas inclus dans la liste blanche du noyau.

Global File System 2 (GFS2)

GFS2 est une amélioration progressive de GFS. Cette mise à jour apporte d'importantes améliorations qui requièrent un changement dans le format du système de fichiers on-disk. Les systèmes de fichiers GFS peuvent être convertis à GFS2 en utilisant l'utilitaire **`gfs2_convert`**, qui met à jour les méta-données d'un système de fichiers GFS en conséquence.

Dans Red Hat Enterprise Linux 5.2, **GFS2** était fourni en tant que module de noyau dans un but d'évaluation. Dans Red Hat Enterprise Linux 5.3 **GFS2** fait maintenant partie du paquetage noyau. Si les modules de noyau Red Hat Enterprise Linux 5.2 GFS2 ont été installés, ils doivent être retirés pour utiliser GFS2 dans Red Hat Enterprise Linux 5.3.

Améliorations du Driver Disk Support

Un disque de pilote, fourni par un constructeur OEM, est un fichier à image unique (**`*.img`**), qui contient potentiellement des RPM de pilotes multiples et des modules de noyau. Ces pilotes sont utilisés en cours d'installation pour prendre en charge le matériel qui ne serait normalement pas reconnu. Les RPM sont installés sur le sytème et placés dans le initrd de façon à pouvoir être pris en charge quand la machine redémarre.

Dans Red Hat Enterprise Linux 5.3, l'installation peut détecter automatiquement la présence de disques de pilotes sur la base de l'étiquetage du système de fichiers, et utiliser le contenu de ce disque pendant l'installation. Ce comportement est contrôlé par l'option de ligne de commande de l'installation **`dlabel=on`**, qui permet la recherche automatique. Toutes les unités en bloc avec l'étiquette de système de fichier **`OEMDRV`**sont examinées et les pilotes sont chargés à partir de ces unités au fur et à mesure qu'on les rencontre.

iSCSI Boot Firmware Table

Red Hat Enterprise Linux 5.3 prend maintenant totalement en charge *iSCSI Boot Firmware Table (iBFT)* ce qui permet l'initialisation à partir des périphériques iSCSI. ce support nécessitait que les disques iSCSI (noeuds) ne soient plus sélectionnés pour démarrer automatiquement. Le système installé ne se connectera et ne s'authentifiera plus automatiquement aux disques iSCSI aux niveaux d'exécution 3 ou 5.

iSCSI est normalement utilisé dans le système de fichiers racine, dans lequel cas, ce changement ne fait aucune différence car le initrd se connectera et s'authentifiera aux disques iSCSI avant même qu'on saisisse le niveau d'exécution.

Malgré tout, si les disques iSCSI ont besoin d'être montés sur des répertoires non racine, comme par exemple **`/home`** ou **`/srv`**, alors ce changement aura un impact sur vous, puisque le système installé ne connectera plus automatiquement, ni ne s'authentifiera auprès de disques iSCSI qui ne sont pas

utilisés dans le système de fichiers racine.

L'utilisation de disques iSCSI montés sur des répertoires non racine est toujours possible, mais requiert l'utilisation d'une des solutions suivantes :

1. Installer le système sans utiliser des disques iSCSI montés sur des répertoires non racines et configurer plus tard les disques qui conviennent et les points de montage manuellement.

2. Démarrer le système installé au niveau d'exécution 1, et sélectionnez tous les disques iSCSI qui ne sont pas utilisés par le système de fichiers racine pour le démarrage automatique en utilisant la commande suivante une fois par disque :

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

rhythmbox

rhythmbox a été mis à jour à la version 0.11.6. Cette version comprend maintenant une option qui permet d'y ajouter les plugins propriétaires GStreamer.

lftp Rebase

lftp a été mis à jour à la version 3.7.1. Cette version comprend maintenant les améliorations suivantes :

- On a réglé un défaut de sécurité du système d'exploitation **lftp** qui citait des scripts générés par **`mirror --script`** (qui pourrait entraîner une escalade au niveau des privilèges non autorisés).

- L'utilisation de **lftp** avec l'option **`-c`** ne cause plus la suspension de**lftp**.

- **lftp** ne corrompt plus les fichiers pendant un transfert par **`sftp`**.

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

TTY Input Auditing

TTY input auditing est maintenant pris en charge. Si un processus est sélectionné pour la vérification des données, les données qu'il lit sur les TTY sont contrôlées. Cela apparaîtra sur les enregistrements audit avec pour type **`TTY`**.

Vous pouvez utiliser le module **`pam_tty_audit`** pour sélectionner un processus (et ses processus enfant) pour le processus de vérification des données de TTY. Vous trouverez les instructions relatives dans **`man pam_tty_audit(8)`**.

Les enregistrements audit TTY contiennent les touches précises lues par le processus d'audit. Pour faciliter le décodage des données, **`bash`** audite la ligne de commande exacte, utilisant le type d'enregistrement **`USER_TTY`**.

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 Re-Base

SystemTap a été re-basé sur la version 0.7.2. Cette mise à jour de SystemTap introduit plusieurs légères améliorations, ainsi que certaines fonctionnalités importantes. Ces nouvelles fonctionnalités comprennent :

- SystemTap supporte maintenant le sondage symbolique sur les architectures PowerPC, x86, x86-64. Cela permet aux scripts SystemTap de placer des sondes dans les applications d'espace-utilisateur et dans les bibliothèques partagées. Ainsi, SystemTap peut maintenant fournir le même niveau de sondage de débogage que le sondage de noyau sur les applications d'espace-utilisateur.

  Ainsi, si **`coreutils-debuginfo`** est installé, vous pouvez imprimer un callgraph (graphique d'appels) de la commande **`ls`** en utilisant **`/usr/share/doc/systemtap-`*`version`*`/examples/general/callgraph.stp`**, comme dans:

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

  Afin de pouvoir réduire la possibilité d'une incompatibilité de versoin non détectée entre le binaire et ses RPM debuginfo, Red Hat vous conseille d'utiliser la variable d'environnement **`SYSTEMTAP_DEBUGINFO_PATH`** pour la valeur siuvante : **`+:.debug:/usr/lib/debug:build`**.

  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 prend également en charge les services de compilation distants. Cela permet à un ordinateur de se comporter sur le réseau comme un serveur deboginfo/compiler pour les clients SystemTap locaux. Les clients auto-localisent le serveur en utilisant mDNS (**avahi**), et a seulement besoin des paquetages **`systemtap-client`** et de **`systemtap-runtime`** pour fonctionner.

  A présent, cette fonctionnalité n'utilise pas de mécanismes de sécurité comme le cryptage. Donc, il est conseillé d'utiliser les services de compilation à distance. Pour davantage d'informations, veuillez consulter **`man stap-server`**.

- La mise à jour du noyau de cette version inclut une extension API de noyau qui améliore énormément la fermeture des scripts SystemTap. Cette extension API de noyau ajoutée, élimine la synchronisation inutile entre les opérations de retrait de probes individuelles. De ce fait, les scripts SystemTap qui comptent des centaines de probes de noyaux sont traités plus rapidement.

  C'est surtout utile pour les administrateurs qui utilisent des scripts avec des probes qui contiennent des caractères de remplacement qui capturent de nombreux événements de noyau, comme **`probe syscall.* {}`**.

Pour une liste complète des mises à jour de SystemTap inclus dans cette version, veuillez consulter l'URL suivant :

http://sources.redhat.com/git/gitweb.cgi?p=systemtap.git;a=blob_plain;f=NEWS;hb=rhel53

Mise à jour du gestionnaire de clusters

L'utilitaire du gestionnaire de clusters (**cman**) a été mis à jour à la version 2.0.97. Cette version comprend maintenant les améliorations principales suivantes :

- **cman** utilise maintenant les versions de microprocesseurs suivantes : APC AOS v3.5.7 and APC rpdu v3.5.6. Cela apporte la solution à un bogue qui empêchait *APC 7901* d'utiliser le protocole de gestion de réseau simple (SNMP) correctement.

- Les agents **fence_drac**, **fence_ilo**, **fence_egenera**, et **fence_bladecenter** prennent maintenant en charge **ssh**.

- Les fichiers clé **fence_xvmd** sont maintenant rechargés sans besoin de nouveau démarrage.

- Une méthode simple de clôture peut maintenant prendre en charge jusqu'à 8 périphériques de clôture.

RPM Re-Base

Le **RedHat Package Manager** (RPM) est maintenant ré-aligné sur la version en amont de Fedora 9. **rpm** ajoute maintenant des fichiers macro particuliers à l'architecture secondaire sur les systèmes multi-arch. De plus, **rpm** remplit maintenant tous les critères de certification pour son inclusion dans Red Hat Enterprise Linux 5.

Cette mise à jour applique à **rpm** plusieurs améliorations en amont et des résolutions de bogues, y compris :

- **rpm** ne génère plus de fichiers inutiles **.rpmnew** ou **.rpmsave** sur les systèmes multi-arch.

- Un bogue dans la fonction **rpmgiNext()** de **rpm** empêche de reporter les erreurs correctement. Cette mise à jour applique la sémantique qui s'applique au report d'erreurs, garantissant ainsi que **rpm** retourne le code de sortie correct pour toutes les instances.

Open Fabrics Enterprise Distribution (OFED) / opensm

opensm a été mis à jour vers la version en amont 3.2, qui comprend un changement mineur par rapport à l'API de bibliothèque opensm.

- Le format du fichier **opensm.conf** a changé. Si vous avez fait des modifications pour personnaliser votre fichier **opensm.conf** existant, rpm va automatiquement installer le nouveau fichier **opensm.conf** en tant que **/etc/ofed/opensm.conf.rpmnew**. Vous aurez tout simplement besoin de faire migrer vos modifications vers ce fichier, puis de remplacer le fichier opensm.config existant par le résultat.

- Red Hat surveille de près la base code OFED (Open Fabrics Enterprise Distribution) pour pouvoir fournir un niveau maximum de capacités à cette technologie en pleine évolution. Ainsi, Red Hat ne peut préserver la compatibilité API/ABI qu'à travers quelques versions de sortie mineures au même niveau que celui du projet en amont. Il s'agit d'une exception des bonnes pratiques du développement de Red Hat Enterprise Linux.

  De ce fait, les applications construites au dessus de la pile OFED (listée ci-dessous), auraient peut-être besoin de changements de recompilation ou même des codes au niveau-source quand on passe d'une version mineur de Red Hat Enterprise Linux à une autre plus récente.

  Cela n'est généralement pas utile pour les autres applications, qui sont construites sur la pile informatique Red Hat Enterprise Linux. Les composants affectés sont les suivants :

  - 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 (futur)
- srptools
- tvflash

Net-SNMP Re-Base

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** — supprime le logging des tentatives de connexions.
- **v1trapaddress** — enables administrators to set an agent's IP address inside outgoing SNMP traps.

Cette mise à jour apporte plusieurs améliorations en amont, y compris :

- Le démon **snmpd** fonctionne maintenant correctement sur des systèmes de plus de 255 interfaces de réseau. De plus, **snmpd** reporte également une erreur lorsqu'il est configuré pour écouter à un port au dessus de 65535.
- Un état de concurrence qui entraîne le démon **snmpd** à dévoiler des descripteurs de fichiers lorsqu'ils lisent **/proc** est maintenant résolu.
- Le démon **snmpd** reporte maintenant correctement les IDs d'objet (OID)**hrProcessorLoad**, même sur le matériel multi-CPU. Notez, cependant, qu'il faut environ une minute à partir du démarrage du démon pour calculer la valeur de l'OID.
- Le paquetage **net-snmp-devel** dépend maintenant du paquetage **lm_sensors-devel**.

OpenSSL Re-Base pour la certification FIPS

Les paquetages **openssl** mettent à niveau la bibliothèque **OpenSSL** vers une nouvelle version en amont, qui est actuellement sous procédure de validation aux standards Federal Information Processing Standards (FIPS-140-2). Le mode FIPS est désactivé par défaut, pour veiller à ce que la bibliothèque OpenSSL maintienne une parité fonctionnelle et une compatibilité API avec les versions précédentes des paquetages mode **openssl** de Red Hat Enterprise Linux 5.

Cette mise à jour apporte également les changements suivants en amont :

- Par défaut, la compression **zlib** est utilisée pour les connexions SSL et TLS. Sur les architectures *IBM System z* possédant Central Processor Assist pour Cryptographic Function (CPACF), la compression est devenue le gros de la charge CPU, et la performance générale était déterminée par la vitesse de la compression (et non pas la vitesse de cryptage). Quand la compression était désactivée, la performance générale est bien supérieure. Dans ces paquetages mis à jour, la compression **zlib** pour les connexions SSL et TLS peuvent être désactivées par la variable d'environnement **OPENSSL_NO_DEFAULT_ZLIB**. Pour les connexions TLS sur un réseau lent, il vaut mieux laisser la compression active, de façon à ce que le montant de données à transférer soit réduit.
- Lorsqu'on utilise la commande **openssl** avec les options **s_client** et **s_server**, le fichier de certificats CA par défaut (**/etc/pki/tls/certs/ca-bundle.crt**) n'était pas lu. Cela aboutissait à des certificats non vérifiés. Pour que les certificats passent la vérification,

l'option **-CAfile /etc/pki/tls/certs/ca-bundle.crt** devait être utilisée. Dans ces paquetages mis à jour, le fichier de certificats CA par défaut est lu, et n'a plus besoin d'être spécifié par l'option **-CAfile**.

yum Re-Base

yum a été re-aligné sur la version en amont 3.2.18. Cette mise à jour améliore la vitesse à laquelle **yum** opère, en redressant ainsi le problème posé par le nombre de paquetages grandissant sans cesse dans chaque nouvelle version, De plus, cette mise à jour introduit également la commande 'reinstall', améliorant l'interface entre plusieurs commandes, et appliquant plusieurs résolutions de bogues, y compris :

- Toute commande yum serait mise en échec si l'option **-c** était utilisée pour spécifier un fichier de configuration résidant sur une adresse web (http). Ce bogue est maintenant résolu.
- Une focntion **checkSignal()** de **yum** a appelé une fonction de sortie incorrecte, et de ce fait, le yum actuel résulterait en un traceback à la place. Yum fait une sortie correcte dans ces nouvelles notes de sortie mises à jour.

flash-plugin Re-Base

Le paquetage **flash-plugin** a été re-basé sur la version 10.0.12.36. Cette mise à jour applique plusieurs résolutions de sécurité qui étaient incluses dans une mise à jour précédente ASYNC **flash-plugin**. De plus, ce plug-in mis à jour contient également **flash-plugin**, qui inclut les résolutions de bogues et les améliorations de fonctionnalité suivantes :

- Amélioration de la stabilité de la plate-forme Linux par la résolution de l'état de concurrence dans la sortie son.
- Nouveau support pour les filtres et les effets personnalisés, la transformation 3D et l'animation, le traitement audio avancé, un nouveau text engine plus flexible et une accélération du matériel GPU.

Pour davantage d'informations sur cette mise à jour, consultez les notes de sortie **Adobe Flash Player 10** sur le lien suivant :

http://www.adobe.com/support/documentation/en/flashplayer/10/Flash_Player_10_Release_Notes.pdf

gdb Rebase

gdb est basé à nouveau sur la version 6.8. Cela permet d'appliquer plusieurs mises à jour de fonctionnalités en amont et de réparations de bogues, et plus particulièrement : un support pour les points d'interruption dans les modèles **C++**, les constructeurs et les fonctions enligne.

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.

IBS (de l'anglais Instrution Based Samplings / Echantillons basés-instruction) sur des processeurs AMD Family10h

Un support de profilage de nouveau matériel pour les processeurs AMD Family10h a été ajouté à Red Hat Enterprise Linux 5.3. Ces nouveaux CPU AMD supportent les ISB (Instruction Based Samplings). Le support exige quelques changements au niveau du pilote oProfile pour récupérer cette information et pour initialiser les nouveaux MSR (Model Specific Registers / Registres spécifiques aux modèles) associés à ces nouvelles fonctionnalités.

Cette mise à jour ajoute les nouveaux échantillons de profilage **IBS_FETCH** et **IBS_OP** aux tampons par CPU et aux tampons événement. Des nouvelles entrées de contrôle ont également été ajoutées

au **/dev/oprofile** pour contrôler les échantillons IBS. Ces changements sont rétro-compatibles avec l'unique version antérieure PMC du pilote, et une retouche séparée est disponible à oProfile 0.9.3 pour utiliser ces nouvelles données.

Pour plus d'informations sur IBS, consultez le document: Instruction-Based Sampling: A New Performance Analysis Technique for AMD Family 10h Processors, November 19, 2007

Squid Re-base

Squid a été re-basé sur la dernière version stable en amont (STABLE21). Cette mise à jour résout plusieurs bogues, notamment :

- Le script **squid init** retournait toujours un code de sortie de 0 par erreur. Ce bogue est maintenant résolu, rendant ainsi squid compatible avec Linux Standard Base.
- L'utilisation de la directive **refresh_stale_hit** cause le message d'erreur **Clock going backwards** (horloge qui va en sens inverse) dans le fichier de journalisation de **squid**.
- Le processus d'installation **squid**n'a pas été configuré avec la propriété convenable du répertoire**/usr/local/squid**. Grâce à cette nouvelle version, **squid** est maintenant le propriétaire par défaut de **/usr/local/squid**.
- A chaque fois que **squid** tente d'utiliser la fonction **hash_lookup()**, il peut abandonner avec **signal 6**.
- L'utilisation de **squid_unix_group** pourrait entraîner l'échec de **squid**.

Evênement MPM (de l'anglais Multi Processing Model / Modèle multi-traitement) dans Apache

httpd, le paquetage Apache HTTP Server package, inclut maintenant le Multi-Processing Model (MPM) expérimental *event*. Ce MPM améliore la performance en utilisant des threads spécialement dédiés pour gérer les connexions keepalive.

libgomp re-base

libgomp a été basé à nouveau sur la version 4.3.2-7.el5. Cela améliore la performance **OpenMP** et ajoute un support à **OpenMP** version 3.0 lorsqu'il est utilisé avec le compilateur **gcc43**.

Capacité de ciblage d'iSCSI

La capacité de ciblage d'ISCSI, fournie avec l'infrastructure de développement Linux Target (tgt), passe de l'aperçu technologique à la totale prise en charge par Red Hat Enterprise Linux 5.3. L'infrastructure de ciblage Linux permet à un système de servir le stockage SCSI niveau-block à d'autres systèmes dotés d'un initiateur SCSI. Cette capacité est tout d'abord déployée en tant que cible iSCSI, servant le stockage à travers un réseau vers n'importe quel initiateur iSCSI.

Pour configurer la cible iSCSI, installer le RPM scsi-target-utils et consulter les instructions dans : **/usr/share/doc/scsi-target-utils-*[version]*/README** et **/usr/share/doc/scsi-target-utils-*[version]*/README.iscsi**

4. DRIVER UPDATES

4.1. All Architectures

General Driver/Platform Updates

- Le pilote audio Intel High Definition Audio d'ALSA a été mis à jour.
- Le support audio High-Definition Multimedia Interface (HDMI) est maintenant supporté sur les chipsets intégrés AMD ATI.
- Les chipsets suivants sont maintenant supportés par les pilotes **linuxwacom**:
  - Cintiq 20WSX
  - Intuos3 4x6
- le pilote **lpfc** pour les adaptateurs Emulex Fibre Channel Host Bus ont été mis à jour à la version 8.2.0.33.2p. . Cette mise à niveau apporte plusieurs changements en amont, notamment :
  - le socket NETLINK_SCSITRANSPORT est maintenant utilisé
  - Accès noeud non initialisé résolu.
  - a réparé un bogue qui causait l'échec de l'échotest quand NPIV était activé.
  - **fcauthd** 1.19 est maintenant exigé pour l'authentification Fibre channel.
- **dm-multipath** a maintenant le support corbeille d'arrivée pour IBM DS4000.
- le pilote **ixgbe**: supporte maintenant l'adaptateur à port-double *82598AT* et l'adaptateur *82598 CX4*.
- le pilote **jsm** a été mis à jour pour ajouter son support aux adaptateurs E/S **Digi Neo PCI Express 4 HiProfile**.
- *hp-ilo*: pilote ajouté, procurant son support pour la technologie HP Integrated Lights Out (iLO) .
- Le pilote **radeon_tp** est maintenant inclus dans cette nouvelle version. Ce pilote active les chipsets *ATI R500/R600*.

  Le pilote est également capable de :
  - Chipsets de réglage de mode sur *R500/R600*
  - Chipsets d'accélération 2D sur *R500*
  - Chipsets d'accélération du framebuffer (tampon de trame) double sur *R600*
- Le pilote **powernow-k8** est maintenant inclus dans cette version en tant que module chargeable. Cela permet aux structures existantes du pilote (comme le *Red Hat Driver Update Model* ou *Dell DKMS*) puissent délivrer des mises à jour du pilote **powernow-k8** aux utilisateurs sous forme de paquetages RPM, sans avoir à mettre le noyau à niveau.
- Pour cette version, Red Hat rajoute **pnm2ppa** pour pouvoir prendre en charge les anciennes imprimantes. Notez, cependant, que ce support est déprécié et ne continuera pas dans les versions majeures à venir.
- Le pilote **ccid** a été re-basé pour ajouter son support aux claviers Smartcard USB.
- les pilotes **uvcvideo** pour les périphériques video USB ont été ajoutés au noyau dans Red Hat Enterprise Linux 5.3.

Network

- Le pilote **bnx2** pour les cartes d'interface réseau Broadcom NetXtreme II a été mis à jour à la version 1.7.9. Cette mise à jour règle le problème des options éthernet 'ring buffer' sur les contrôleurs qui utilisent **bnx2** pour régler un bogue qui aurait entraîné la panique du système au démarrage.

- Le pilote **e1000e** des périphériques Intel PRO/1000 éthernet ont été mis à jour pour la version en amont de la version 0.3.3.3-k2. Avec cette mise à jour, les EEPROM et NVM des périphériques pris en charge, sont maintenant protégé-écriture.

- **igb**: pilote pour IntelGigabit Ethernet Adapters a été mis à jour à la version 1.2.45-k2, ajoutant son support pour les périphériques basés 82576.

- le pilote **ixgbe** pour les périphériques de réseau Intel(R) 10 Gigabit PCI Express a été mis à jour à la version 1.3.18-k4.

- le pilote **niu** a été ajouté à Red Hat Enterprise Linux 5.3, ajoutant son support aux périphériques 10Gbps éthernet sur les systèmes Sun CP3220 .

- les pilotes **ipw2100** et **ipw2200** des périphériques Intel PRO Sans fil ont été rétro-ajustés dans Red Hat Enterprise Linux 5.3 de Linux Kernel 2.6.25.

- le pilote **bcm43xx** pour les périphériques Broadcom sans fil ont été réalignés dans Red Hat Enterprise Linux 5.3 depuis Linux Kernel 2.6.25.

- Le composant de support **ieee80211** pour les périphériques sans fil a été réalignés dans Red Hat Enterprise Linux 5.3 depuis Linux Kernel 2.6.25.

- le pilote **zd1211rw** pour les périphériques ZyDas a été mis à jour pour correspondre à la dernière version non-mac80211 précédant de peu Linux 2.6.25.

- Le pilotes **iwlwifi** ont été mis à jour depuis versions 2.6.26, ajoutant le support 802.11n aux périphériques sans fil **iwl4965**. De nombreuses solutions de bogues incluses dans les versions post-2.6.26 du pilote ont également été incorporées dans le pilote.

- Le pilote **myri10ge** des périphériques Myricom Myri-10G Ethernet a été mis à jour à la version 1.3.2-10269

- Pilote **netxen** pour les cartes réseau NetXen mis à jour vers la version 3.4.18.

- Le pilote **bnx2** pour les périphériques de réseau Broadcom Everest : mis à niveau vers la version 1.45.23 pour la prise en charge du matériel 57711.

- Le pilote **forcedeth-msi** a été mis à jour pour réparer un bogue qui empêchait une bonne détection de jonction.

- le pilote **ath5k** des périphériques Atheros sans fil a été réaligné sur Red Hat Enterprise Linux 5.3 depuis Linux Kernel 2.6.26.

- les pilotes **rt2x00** pour les périphériques Ralink ont été réalignés pour Red Hat Enterprise Linux 5.3 depuis Linux Kernel 2.6.26.

- les pilotes **rtl8180** et **rtl8187** pour les périphériques Realtek sans fil ont été réalignés dans Red Hat Enterprise Linux 5.3 depuis Linux Kernel 2.6.26.

Storage

- **3w-xxxx**: pilote pour les contrôleurs 3ware SATA RAID mis à jour à la version 1.26.03. On applique plusieurs changements en amont, notamment :
  - Solution de bogue qui a causé des corruptions de données au cours de l'utilisation des cartes de série 3ware 7000 ou 8000 dans un système de plus de 2GB de RAM.
  - Anaconda ne repose plus sur des architectures 64-bit avec l'utilisation de cartes de séries 3ware 8006 dans un système de plus de 4Go de RAM.
  - Le gestionnaire d'irq est maintenant libéré quand **__tw_shutdown()** est initié. Cela empêche la possibilité d'un pointer null de-référence si une interruption a été partagée pendant la fermeture.
  - RCD bit pour la page en cache mode est maintenant activé.
  - Les resets **ioctl** et **scsi** sont maintenant sérialisés de façon à ce qu'ils n'entrent pas en collision.
- **3w-9xxx**: pilote pour les contrôleurs 3ware SATA RAID mis à jour à la version 2.26.08. Cette mise à jour apporte plusieurs changements en amont, notamment :
  - L'appel **pci_unmap_single()** fonctionne correctement maintenant sur les systèmes supérieurs à 4Go de RAM
  - Solution de bogue qui causait le ralentissement de la performance d'écriture.
  - La configuration du mask DMA retourne à 32-bit si 64-bit échoue.
  - Support ajouté pour le périphérique de contrôle 3ware 9690SA SAS.
- **megaraid_sas**: mis à jour pour la version 4.01-rh1. Cette mise à jour apporte plusieurs changements, notamment :
  - **MFI_POLL_TIMEOUT_SECS** ne dure plus que 60 secondes.
  - A réglé un bogue qui a causé des resets de puces continus et des délais de commande pour cause de comptage par image.
  - Support ajouté au *LSI Generation 2 Controllers* (0078, 0079).
  - A ajouté une commande pour fermer DCMD dans la phase routinière de fermeture pour améliorer la fermeture des micrologiciels.
  - A réglé un bogue qui a causé des interruptions impromptues du pilote Linux du matériel.
- le pilote **qla2xxx** pour les adaptateurs QLogic Fibre Channel Host Bus a été ajouté, ajoutant un support pour les cartes de type ISP84XX.
- les pilotes **ibmvscsi** pour émuler les périphériques SCSI (vSCSI) ont été mis à jour, procurant leur support aux équipements à bande virtualisés.
- le pilote **lpfc**: mis à jour pour la version 8.2.0.30. Cette mise à jour apporte plusieurs changements, notamment:

  - Une gestion des erreurs EEH (de l'anglais Enhanced Error Handling) améliorée pour les adaptateurs PCI sur les architectures PowerPC.
  - Augmentation du nombre de ports virtuels NPIV pris en charge.
  - Logique du pilote améliorée pour contrôler la taille de la file d'attente E/S
  - Support ajouté pour Fibre Channel sur les adaptateurs (FCoE) Ethernet
  - Initialisation à partir de SAN est maintenant prise en charge pour le nouveau matériel.
- the **cciss** driver for HP Smart Array controllers has been updated to version 3.6.20-RH2.

5. KERNEL-RELATED NOTES

5.1. All Architectures

- **relayfs** avait auparavant une taille de mémoire tampon limitée à 64Mo. Dans cette mise à jour, la taille de la mémoire allouée à relayfs pour les on-memory buffers a été augmentée à 4095MB. Cela permet à **SystemTap** et aux autres outils de traçage qui utilisent **relayfs** la possibilité de garder la trace de davantage d'événements.
- Le pilote de **Dell Remote Access Controller 4** (DRAC4) n'était pas présent. De ce fait, tous les périphériques virtuels fournis par DRAC4 n'étaient pas détectés par le noyau. Dans cette mise à jour, le module de noyau pata_sil680 qui fournit le pilote qui convient, a été ajouté, ce qui règle ce problème.
- Les tampons/régulateurs de messages de l'interface relais étaient uniquement alloués aux CPU en ligne quand **relay_open()** était appelé. Par conséquence, si un CPU hors-ligne était activé après que **relay_open()** a été appelé, on assistait à une panique de noyau. Dans cette mise à jour, un nouveau tampon/régulateur de message est alloué de façon dynamique si un nouveau CPU est ajouté.
- Le pilote pour les ports de série basés 8250 a été mis à jour pour ajouter son support au contrôle de flux du matériel DSR/DTR.
- La prise en charge des cartes *Dell Wireless Wide Area Network (WWAN)* ont été ajoutées au noyau. Les périphériques qui ne sont pas pris en charge sont :
  - 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

- Le module de noyau **thinkpad_acpi** a été mis à jour pour offrir un meilleur support aux nouveaux modèles Thinkpad.

- Le logiciel détecteur de verrouillage peut maintenant être configuré pour déclencher une panique de noyau à la place d'un message d'avertissement. Cela permet aux utilisateurs de générer et d'analyser un vidage sur incident au cours d'un verrouillage déclenché dans des buts d'investigation.

  Pour configurer le détecteur de verrouillage pour créer une panique, fixer le paramètre de noyau **soft_lockup** à **1**. Ce paramètre est normalement fixé à **0**par défaut.

- **oprofile** n'identifiait par correctement les processeurs basés sur la Next-Generation Intel Microarchitecture (du nom de code "Nehalem".). De ce fait, l'unité de contrôle de la performance ne pouvait pas être utilisée et le processeur se repliait suite à l'interruption de l'horloge. Le noyau a du être mis à jour pour régler ce problème.

- On a ajouté un support au noyau pour l'état de puissance CPU, C3, sur Next-Generation Intel Microarchitecture (du nom de code "Nehalem"). Le fait qu'on puisse entrer C3 (également connu sous le nom d'état dormant) améliore l'efficacité de la puissance du CPU lorsqu'il est au repos.

- 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.

- Les mises à jour de **autofs4** ont été transférées à Red Hat Enterprise Linux 5.3 depuis linux kernel version 2.6.27.

- Red Hat Enterprise Linux 5.3 comprend maintenant la possibilité de spécifier que les fichiers principaux soient transmis (piped) dans une copie à fourche (forked) d'une application d'espace utilisateur, plutôt que directement dans un fichier. Cela est rendu possible en plaçant **|** ***path/to/application***dans **/proc/sys/kernel/core_pattern**. Quand le core

- Le fichier **/proc/cpuinfo** rapporte maintenant l'ID de l'Advanced Programmable Interrupt Controller (APIC) qui est utilisé par chaque individuel CPU.

- Le sous-système du noyau de Machine Check Exception (MCE) a été amélioré pour pouvoir prendre ne charge des configurations de mémoires plus grandes, suivant les besoins des nouveaux systèmes.

- La commande de montage prend maintenant en charge l'authentification au moment du montage de systèmes via Samba. Les commutateurs **sec=krb5** ou **sec=krb5i** permet au noyau d'appeler une application espace-utilisateur (**cifs.upcall**) qui retourne un blob de sécurité (Objet binaire) SPNEGO (Simple and Protected GSSAPI Negotiation Mechanism).

- Si vousconfigurez le paramètre de noyau **kernel.unknown_nmi_panic** sur un système qui utilisait la méthode de surveillance IOAPIC NMI, cela peut résulter par une panique de noyau. Cela est dû au fait que le système de surveillance NMI n'était pas en mesure de désactiver la source des NMI en toute sécurité.

Dans cette version, le code du système de surveillance NMI a été révisé pour permettre aux utilisateurs de désactiver la source NMI en toute sécurité. Ainsi, vouspouvez maintenant configurer le paramètre du noyau en toute sécurité **kernel.unknown_nmi_panic** sur des systèmes qui utilisent la méthode de surveillance IOAPIC NMI.

5.2. x86 Architectures

- Le pilote **powernowk8** n'opérait pas suffisamment de contrôle sur le nombre de CPU en cours d'exécution. De ce fait, quand le pilote était démarré, un message d'erreur 'oops' de noyau pourrait était susceptible d'apparaître. Dans cette mise à jour, le pilote **powernowk8** vérifie que le nombre de CPU pris en charge (**supported_cpus**) correspond au nombre de CPU en ligne (**num_online_cpus**), ce qui résout ce problème.

5.3. PowerPC Architectures

- **CPUFreq**, le sous-système de noyau qui cadre le voltage et la fréquence CPU, a été mis à jour par un support amélioré des unités de traitement par cellule. Cette mise à jour implémente un CPUFreq governor - SPU (de l'anglais Synergistic Processing Unit / Unité de traitement synergétique) qui améliore la capacité de gestion des unités de traitement par cellule.

- Error Detection and Correction (EDAC) est maintenant pris en charge par l'architecture Cell Broadband Engine de Red Hat Enterprise Linux 5.3. Pour activer EDAC, utiliser la commande: **modprobe cell_edac**

  Pour vérifier que ce module a bien été ajouté à votre noyau en cours d'exécution, vérifiez les sorties de /var/log/dmesg de la sorte :

  ```
  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
  ```

  Si vous rencontrez des erreurs de mémoire auxquelles on peut remédier, le message suivant retournera à la console :

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

- Déboguer à l'aide de points d'observation particuliers du matériels, en utilisant une variable qui est partagée entre les threads multiples qui entraîne le Débogueur GNU (**GDB**) à manquer erratiquement les événements responsables. Le noyau a été mis à jour pour permettre au **GDB** de recevoir régulièrement les éléments responsables sur les points d'observation, pour améliorer la qualité de la session de déboggage.

5.4. x86_64 Architectures

- **kprobe-booster** est maintenant pris en charge par les architectures ia64 et x86_64, qui permettent aux utilisateurs de tester des événements de noyau plus rapidement. Cette fonctionnalité permettra de diminuer la charge causée par les outils de sondage (par ex. SystemTap et Kprobes) sur les serveurs exécutés sur des architectures 64-bit.

- On a ajouté un support pour le noyau de **_PTC** (Processor Throttling Control), **_TSS** (Throttling Supported States) et des objets **_TPC** (Throttling Present Capabilities) . Ce support, qui fait partie d'Advance Configuration and Power Interface specification (ACPI) propose une meilleure

gestion du contrôle du processeur.

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'"`**)

  NOTE

  La structure syntaxique des guillemets à l'intérieur des doubles guillemets est la structure par défaut dans Red Hat Enterprise Linux 5.

5.6. ia64 Architecture

- Le processeur Dual-Core Intel Itanium 2 remplissait le enregistrement d'architecture (MCA) différemment des processeurs Itanium Intel précédents. Les identifiants cibles de vérification de mise en cache et de bus peuvent maintenant différer dans certaines circonstances. Le noyau a été mis à jour pour trouver l'identifiant cible qui convient.

- **kprobe-booster** est maintenant pris en charge par les architectures ia64 et x86_64, qui permettent aux utilisateurs de tester des événements de noyau plus rapidement. Cette fonctionnalité permettra de diminuer la charge causée par les outils de sondage (par ex. SystemTap et Kprobes) sur les serveurs exécutés sur des architectures 64-bit.

- Dans cette mise à jour, le support pour les appels de systèmes **`pselect()`** et **`ppoll()`** ont été ajouté au noyau.

6. VIRTUALIZATION

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

6.1. Feature Updates

- La boîte à outil d'espace utilisateur blktap (blocktap) a été mise à jour, fournissant la fonctionnalité qu'il faut pour contrôler le transfert de statistiques des invités virtuels possédant blktap.

- On a ajouté un support à la fonctionnalité Intel EPT (Extended Page Table), pour améliorer la performance des invités pleinement virtuels sur le matériel qui supporte EPT.

- L'émulation du périphérique réseau**`e1000`** pour les invités, a été ajouté à cette mise à jour, prenant en charge les invités Windows 2003 sur l'architecture ia64. Pour utiliser l'émulation e1000, la commande xm doit être utilisée.

- Les pilotes pour **`virtio`**, la plateforme pour la virtualisation E/S dans KVM, ont été réactualisés dans Red Hat Enterprise Linux 5.3 depuis Linux Kernel 2.6.27. Ces pilotes vont permettre aux invités KVM de réaliser des niveaux de performance E/S plus élevés. De nombreux composants

d'espace utilisateur comme : **anaconda**, **kudzu**, **lvm**, **selinux** et **mkinitrd** ont également été mis à jour pour prendre en charge les périphériques virtio.

- Le noyau natif Linux supporte **vmcoreinfo** automatiquement, mais, pour configurer les domaines kdump sur dom0, on avait besoin du paquetage **kernel-xen-debuginfo** Dans cette mise à jour, le noyau et l'hyperviseur ont été modifiés et supportent maintenant vmcoreinfo lisant et écrivant kdump nativement. Les utilisateurs qui ont besoin d'utiliser kdump pour débboguer ou pour procéder à toute autre recherche sur dom0, peuvent maintenant le faire sans installer les paquetages **debuginfo** ou **debuginfo-common** .

- Les invités pleinement virtuels Red Hat Enterprise Linux 5 rencontraient une performance sous-optimale lorsqu'ils utilisaient les périphériques de réseau et les disques émulés. Dans cette mise à jour, le paquetage kmod-xenpv a été inclus pour simplifier l'utilisation des réseaux et des disques paravirtuels pour les invités pleinement virtuels.

  L'utilisation de ces pilotes pour les invités pleinement virtuels peut énormément améliorer la performance et la fonctionnalité des invités pleinement virtuels. Les résolutions de bogues pour les pilotes block front et netfront sont effectuées et synchronisées immédiatement dans le paquetage du noyau.

- Les invités ont la possibilité d'utiliser les tables de mémoire de pages de sauvegarde de 2 Mo, qui peuvent améliorer la performance du système.

6.2. Resolved Issues

6.2.1. All Architectures

- Fermer un invité paravirtuel aurait pu entraîner dom0 à cesser de répondre pendant un certain temps. Certains invités possédant des grands volumes de mémoire (comme par ex. 12 Go et plus) ont pu connaître des délais de plusieurs secondes. Dans cette mise à jour, le noyau virtuel permet que la fermeture d'un grand nombre d'invités paravirtuels soit agrémentée d'un droit de préemption, ce qui résout ce problème.

- **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.

- Auparavant, les invités paravirtuels ne pouvaient accumuler que 16 disques au maximum. Dans cette mise à jour, cette limite a été augmentée à 256.

- La mémoire allouée au noyau kdump était incorrecte, résultant à des vidages sur incidents inutilisables. Dans cette mise à jour, l'allocation de mémoire a été rectifiée, ce qui permet la génération de vidages sur incidents correcte.

- Attacher un nom précis à un disque (c'est à dire **/dev/xvdaa**, **/dev/xvdab**, **/dev/xvdbc** etc.) d'un invité paravirtuel aboutissait à un périphérique corrompu **/dev** à l'intérieur d'un invité. Cette mise à jour a résolu ce problème de façon à ce qu'attacher ces noms aux disques d'un invité paravirtuel crée le périphérique **/dev** qui convient à l'intérieur de l'invité.

- Auparavant, le nombre de périphériques de bouclage était limité à 4. Cela limitait donc la possibilité de créer des ponts sur des systèmes comprenant plus de 4 interfaces de réseau.

Dans cette mise à jour, le pilote **netloop** peut maintenant créer des périphériques de bouclage supplémentaires suivant les besoins.

- On peut faire face à un état de concurrence lors de la création ou de la destruction de périphériques de réseaux virtuels. Dans certaines circonstances - surtout dans les situations de charges importantes - cela amenait le périphérique virtuel à ne pas répondre. Dans cette mise à jour, l'état du périphérique virtuel est contrôlé pour éviter l'état de concurrence.

- Une fuite de mémoire dans **virt-manager** pouvait survenir si on laissait l'application continuer d'exécuter. De ce fait, l'application consommait toujours de plus en plus de ressources, ce qui entrainait une perte de mémoire. Dans cette mise à jour, cette fuite a été résolue, et le problème réglé.

- 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.

- Tous les événements générés par la souris étaient saisis et traités par le**Paravirtual Frame Buffer (PVFB)**. De ce fait, la molette de défilement ne fonctionnait pas en interaction avec un invité paravirtuel dans la **Virtual Machine Console** (console MV). Dans cette mise à jour, les événements générés par la souris à molette de défilement sont maintenant gérés correctement, ce qui résout ce problème.

- L'utilisation de la virtualisation sur une machine possédant un grand nombre de CPU aurait pu entraîner le plantage de l'hyperviseur pendant l'installation d'un invité. Dans cette mise à jour, le problème a été résolu.

- Sur les processeurs Intel qui retournaient une valeur de famille *CPUID* de 6, un seul compteur d'enregistrement de performance était activé dans **kernel-xen**. De ce fait, seul le compteur 0 fournissait des exemples. Dans cette mise à jour, le problème a été résolu.

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.

- Lorsque vous exécutez un invité x86 paravirtuel, si un processus accède à la mémoire invalide, il exécutait en boucle au lieu d'obtenir un signal SEGV. Cela provenait d'une erreur sur la façon dont les contrôles execshield étaient effectués par l'hyperviseur. Dans cette mise à jour, le problème a été résolu.

6.2.3. ia64 Architecture

- A **xend** bug that previously caused guest installation failures is now fixed.

- Le périphérique de canal d'événements **evtchn** manquait de barrières de mémoire et de verrous. Cela entraînait **xenstore** à ne pas répondre. Dans cette mise à jour, ce problème a été résolu.

- L'information Non-Uniform Memory Access (NUMA) n'a pas été affichée par la commande **`xm info`**. De ce fait, la valeur **`node_to_cpu`** de chaque noeud était retournée de façon erronée sous la forme **`no cpus`**. Dans cette mise à jour, le problème a été résolu.

- Auparavant, créer un invité sur une machine HVM (Hardware Virtual Machine) échouait sur des processeurs qui incluent la technologie VT-i2. Dans cette mise à jour, le problème a été résolu.

6.2.4. x86_64 Architectures

- Quand les IRQ Dynamiques disponibles aux machines virtuelles des invités étaient épuisés, le noyau **`dom0`** se plantait. Dans cette mise à jour, ce problème a été résolu, et le nombre d'IRQ disponibles a été augmenté, ce qui résout ce problème.

- 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

- Le lecteur de disquettes n'est pas accessible lorsque vous utilisez un noyau virtuel. Pour contourner ce problème, utilisez une unité de disque attachée à un USB.

  Notez que lecteur de disquettes fonctionne toujours avec les noyaux non-virtuels.

- 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.

- La migration dynamique directe d'invités paravirtuels entre deux hôtes peut causer à un hôte de paniquer. Si un hôte est réinitialisé après avoir migré un invité en dehors du système, et avant de migrer à nouveau ce même invité dans le système de départ, il y aura panique.

- Formater un disque en exécutant **Windows 2008** ou **Windows Vista** en tant qu'invité peut échouer quand l'invité a été démarré par des CPU virtuels multiples. Pour contourner ce problème, démarrez l'invité avec un CPU virtuel simple pendant le formatage.

- Les invités totalement virtuels créés par **`virt-manager`** pouvaient parfois empêcher la souris de se mouvoir librement à travers l'écran. Pour contourner ce problème, utiliser **`virt-manager`** pour configurer une tablette USB pour un invité.

- Le nombre maximum de CPU doit être limité à moins de 128 sur un système CPU de 128 ou plus. Pour l'instant, la valeur maximum supportée est de 126. Utilisez l'argument de l'hyperviseur **`maxcpus=126`** pour limiter l'hyperviseur à 126.

- Les invités pleinement virtuels ne peuvent pas rattraper le temps perdu pour cause de domaine suspendu ou non. L'un des avantages des noyaux paravirtuels est de pouvoir garder la trace des événements suspendus ou non. Ce problème est réglé en amont grâce à des indicateurs de durée remplaçables, de façon à ce que les invités virtuels puissent avoir des indicateurs de durée paravirtuels. Actuellement, ce code est en cours de développement en amont, et devrait être disponible dans les versions à venir de Red Hat Enterprise Linux.

- La migration répétée des invités pleinement virtuels pourrait aboutir à des messages**bad mpa** sur la console **dom0**. Dans certains cas, l'hyperviseur pourrait également paniquer.

  Pour éviter la panique de noyau d'hyperviseur, redémarrer les invités migrés une fois que les messages bad mpa apparaissent.

- Lorsque vous configurez l'interface sur **dom0**, le script par défaut **network-bridge** pourrait entraîner les interfaces de réseaux attachés à alterner entre **unavailable** (non disponible) et **available** (disponible). Ce phénomène est connu sous le terme *flapping*(battement).

  Pour éviter ce phénomène, remplacez la ligne standard **network-script** de **/etc/xen/xend-config.sxp** par la ligne suivante :

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

  Cela désactivera le périphérique *netloop*, ce qui empêchera le contrôle d'ARP (Address Resolution Protocol) d'échouer au cours du processus de transfert d'adresse.

- 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.

  Afin d'éviter ce problème, amenez l'invité à utiliser un processeur unique en utilisant installation. Vous pouvez procéder à cette opération en utilisant l'option **--vcpus=1**. Lorsque l'installation est terminée, vous pouvez donner accès à SMP (multitraitement symétrique) à l'invité en modifiant la commande assignée **vcpus** dans **virt-manager**.

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.

  Pour contourner ce problème sur les machines xw9400, configurez les paramètres du BIOS pour activer l'indicateur de durée **HPET**. Notez que cette option n'est pas disponible sur les machines xw9300.

- 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.

Pour éviter cette erreur de démarrage, configurer l'invité pour qu'il utilise le noyau SMP.

- 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.

  Pour contourner ce problème, démarrer chaque invité Red Hat Enterprise Linux 4.5 en mode CPU seul et mettre à jour son noyau avec la dernière version (pour Red Hat Enterprise Linux 4.5.z).

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.

  Lorsque cela se produit, vous pouvez contourner ce problème en ajoutant le paramètre de démarrage **console=tty** aux options de démarrage du noyau dans le fichier **/boot/efi/elilo.conf**.

- 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:

  - Vitesse en octets/secondes
  - Nombre d'octets d'information
  - Parité
  - adresse **io_base**

  Ces détails doivent être spécifiés dans la ligne **append=** du pilote **dom0** dans **/boot/efi/elilo.conf**. Par exemple :

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

  Dans cet exemple,**com1** est un port de série, **19200** est la vitesse (en octets/second), **8n1** spécifie le nombre d'octets utiles/paramètres de parité, et **0x3f8** est l'adresse de **io_base**.

- 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.

  Certains numéros d'installation installent le noyau virtuel par défaut. Si vous possédez un tel numéro d'installation et que votre système utilise NUMA et ne fonctionne pas avec kernel-xen, annulez la sélection option Virtualisation pendant la phase d'installation.

- 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.

Mode ALUA sur *EMC Clariion*

Le failover explicite actif-passif (ALUA) utilisant **`dm-multipath`** sur le stockage *EMC Clariion* est maintenant disponible. Ce mode est fourni dans les spécifications T10, mais n'est fourni dans cette mise à jour qu'en temps qu'aperçu technologique.

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

ext4

La dernière génération du système de fichiers ext, **`ext4`**, est disponible dans cette version en tant qu'aperçu technologique. **`Ext4`** représente un progrès incrémentiel important sur le système de fichiers **`ext3`** développé par Red Hat et la communauté Linux. Le nom de la version de ce système de fichier pour l'aperçu technologique est **`ext4dev`**.

Le système de fichiers est fourni par le module de noyau **`ext4dev.ko`**, et un nouveau paquetage **`e4fsprogs`** qui contient des versions mises à jour des outils administratifs bien connus e2fsprogs qu'on utilise pour ext4. Pour l'utiliser, installer **`e4fsprogs`** puis, utiliser les commandes **`mkfs.ext4dev`** du programme e4fsprogs pour créer un système de fichiers ext4-base. Lorsque vous ferez référence au système de fichiers sur une ligne de commande de montage ou pour un fichier fstab, utiliser le nom du système de fichiers **`ext4dev`**.

FreeIPMI

FreeIPMI est maintenant inclus dans cette mise à jour en tant qu'aperçu technologique. FreeIPMI représente une collection de logiciels de base IPMI (de l'anglais: Intelligent platform Management / Système de gestion intelligent de plateformes). Ceci procure un logiciel symétrique et asymétrique, ainsi qu'un librairie de développement conforme aux normes de l'interface de gestion de plateformes intelligente (IPMI v1.5 and v2.0).

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

TrouSerS et tpm-tools

TrouSerS et **`tpm-tools`** sont inclus dans cette mise à jour et permettent l'utilisation du matériel *Trusted Platform Module* (TPM) . Les fonctions TPM comprennent (entre autres):

- La création, le stockage, et l'utilisation des clés RSA en toute sécurité (sans les exposer à la mémoire)
- Vérification de l'état d'un logiciel de plateforme utilisant des empreintes cryptographiques

TrouSerS est une implémentation des spécifications TSS (Trusted Computing Group's Software Stack). Vous pouvez utiliser TrouSers pour rédiger des applications qui utilisent le matériel TPM. **`tpm-tools`** est une suite d'outils utilisés pour gérer et pour utiliser le matériel TPM.

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

eCryptfs

`eCryptfs` est un système de fichiers cryptographiques empilés pour Linux. Il est monté sur les annuaires individuels situés dans les systèmes de fichiers inférieurs existants comme EXT3. Il n'y a aucun besoin de changer les systèmes de fichiers ou partitions pour commencer à utiliser **`eCryptfs`**.

Dans cette version, **eCryptfs** a été basé à nouveau sur la version 56, qui propose de nombreuses résolutions de bogues et améliorations. De plus, cette mise à jour fournit un programme graphique pour faciliter la configuration de **eCryptfs** (**`ecryptfs-mount-helper-gui`**).

Cette mise à jour change également la syntaxe de certaines options de montage **eCryptfs**. Si vous choisissez de mettre à jour cette version de **eCryptfs**, vous devriez mettre à jour tous les scripts de montage affectés et les entrées **`/etc/fstab`**. Pour toute information sur ces changements, veuillez consulter **`man ecryptfs`**.

La mise en garde suivante s'applique à cette version de **eCryptfs**:

- Notes que le système de fichiers **eCryptfs** ne fonctionnera correctement que si le système de fichiers crypté est monté une fois au moins sur le répertoire sous-jacent du même nom. Ainsi :

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

  La portion sécurisée du système de fichiers ne devrait pas être exposé, par ex., il ne devrait pas être monté sur des autres points de montage, bind mounts, et similaires.

- Les points de montage **eCryptfs** des systèmes de fichiers sur réseau (comme . NFS, Samba) ne fonctionneront pas correctement.

- Cette version **eCryptfs** du pilote de noyau requiert que l'espace utilisateur soit mis à jour, par **`ecryptfs-utils-56-4.el5`** ou version plus récente.

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.

Linux sans état

Stateless Linux est une nouvelle façon de penser à la manière dont un système doit être exécuté et géré, conçu pour simplifier le provisionnement et la gestion de grands nombres de systèmes en les rendant facilement remplaçables. Ceci est principalement accompli en établissant des images de systèmes préparées qui sont répliquées et gérées sur un grand nombre de systèmes sans état, exécutant le système d'exploitation en lecture seule (veuillez vous référer à **`/etc/sysconfig/readonly-root`** pour davantage d'informations).

Dans leur état courant de développement, les fonctions sans état sont des sous-ensembles des objectifs souhaités. Cette capacité reçoit donc le statut d'aperçu technologique.

Nous recommandons fortement aux personnes voulant tester le code sans état de lire les HOWTO (COMMENT SAVOIR FAIRE) à l'adresse suivante: http://fedoraproject.org/wiki/StatelessLinuxHOWTO et de rejoindre la liste stateless-list@redhat.com.

Les pièces d'infrastructure nécessaires pour l'activation de Stateless linux étaientà , l'origine, introduites dans Red Hat Enterprise Linux 5.

AIGLX

AIGLX est un aperçu technologique de l'autre serveur X pleinement pris en charge. Il vise à activer les effets GL accélérés sur un bureau standard. Le projet consiste en :

- Un serveur X légèrement modifié.
- Un paquetage Mesa mis à jour qui ajoute un nouveau support de protocole.

En installant ces composants, vous pouvez avoir des effets GL accélérés sur votre bureau avec très peu de changements, ainsi que la possibilité de les activer ou de les désactiver sans remplacer votre serveur X. AIGLX active également les applications GLX distantes pour profiter de l'accélération du matériel GLX.

FireWire

Le module **`firewire-sbp2`** est inclus dans cette mise à jour en tant qu'aperçu technologique. Ce module active la connexité avec les scanners et périphériques de stockage FireWire.

Actuellement, FireWire ne supporte pas ce qui suit:

- IPv4
- Les contrôleurs d'hôte *pcilynx*
- les périphériques de stockage multi-LUN
- les accès non-exclusifs aux périphériques de stockage

De plus, les problèmes suivants existent encore dans la version de FireWire:

- Une perte de mémoire dans le pilote **SBP2** peut faire en sorte que la machine ne réponde plus.
- Un code dans cette version ne fonctionne pas correctement avec les machines big-endian. Cela peut provoquer des comportements inattendus avec PowerPC.

ktune

Cette version comprend **`ktune`** (du paquetage **`ktune`**), un service qui configure plusieurs paramètres de réglage du noyau à des valeurs qui conviennent à des profils de systèmes spécifiques. Actuellement, **`ktune`** ne procure qu'un profil pour des systèmes à large-mémoire, exécutant des applications intensives en espace réseau et en espace disque.

Les paramètres fournis par **`ktune`** ne remplacent pas ceux de **`/etc/sysctl.conf`** ou ceux proposés par la ligne de commande du noyau. **`ktune`** n'est pas forcément adapté à certains systèmes ou charges de travail; donc, vous devriez le tester en détails, avant de le déployer en production.

Vous pouvez désactiver toute configuration définie par **`ktune`** et revenir à vos paramètres habituels en arrêtant simplement le service **`ktune`** en utilisant **`service ktune stop`** (en tant que racine).

Support SGPIO pour dmraid

Serial General Purpose Input Output (SGPIO) est une méthode de communication standard de la

profession, utilisée entre un tableau de bord principal et un ensemble d'enceintes de logements d'unités de disques durs externes ou internes. Cette méthode peut être utilisée pour contrôler les lumières LED dans un système fermé par l'interface du pilote AHCI.

Dans cette version , le support SGPIO de **dmraid** est inclus en tant qu'aperçu technologique. Cela va permettre à **dmraid** de fonctionner correctement dans les enceintes de disques.

GCC 4.3

Le *Gnu Compiler Collection version 4.3 (GCC4.3)* est maintenant inclus dans cette version en tant qu'aperçu technologique. Cette collection de compilateurs inclut C, C++, et Fortran 95 avec les bibliothèques de support qui les accompagnent.

Noter que dans les paquetages **gcc43**, la valeur par défaut de l'option**gnu89-inline** a été remplacée par **-fgnu89-inline**, alors que dans les mises à jour en amont et à venir de Red Hat Enterprise Linux 5 la valeur par défaut sera **-fno-gnu89-inline**. Cela est nécessaire car de nombreux en-têtes fournis dans Red Hat Enterprise Linux 5 sont conçus pour que GNU soit en lignes sémantiques et non pas en sémantique ISO C99. Ces titres n'ont pas été ajustées pour réclamer des sémantiques en ligne-GNU à travers les attributs.

Kernel Tracepoint Facility

Dans cette mise à jour, la nouvelle fonction marker/tracepoint est proposée en tant qu'aperçu technologique. Cette interface ajoute des points de sondage statiques dans le noyau, à utiliser avec des outils comme **SystemTap**.

Device Failure Monitoring (Contrôle des échecs de périphériques) des ensembles RAID

Device Failure Monitoring, est inclus dans Red Hat Enterprise Linux 5.3 en tant qu'aperçu technologique en utilisant les outils dmraid et dmevent_tool. Cela permet d'observer et de reporter les échecs des périphériques de composants d'ensembles RAID.

8. RESOLVED ISSUES

8.1. All Architectures

- Les données des rapports d'activité des périphériques TTY n'étaient pas générés correctement, de ce fait, la commande **sar -y** échouait, retournant l'erreur suivante :

  ```
  Activités réclamées non disponibles sur fichier
  ```

  Dans ce paquetage mis à jour, sar a été corrigé de façon à ce que l'option -y fasse sortir l'activité des périphériques TTY.

- Auparavant, configurer **max_fds** à **unlimited** dans **/etc/multipath.conf** empêchait le démon **multipathd** de démarrer. Si un nombre de descripteurs de fichiers a besoin d'être configuré à un maximum pour le système, **max_fds** devrait être configuré à **max**.

- **mod_perl** est maintenant basé à nouveau sur la version 2.0.4, la dernière version en amont. Cette mise à jour applique plusieurs mises à jour, y compris une résolution de bogue qui permet que **mod_perl** puisse fonctionner correctement avec **Bugzilla 3.0**.

- **cups** a été mis à jour à nouveau sur la version 1.3.7. Cette version comprend maintenant les améliorations suivantes (entre autres):

- L'authentification Kerberos est maintenant supportée.
- L'imprimante définie par l'utilisateur et les politiques de job sont maintenant chargées correctement.
- Les files d'attente cache éloignées ne sont plus chargées quand le balayage est désactivé.
- Le fichier de configuration **`classes.conf`** a maintenant les permissions de fichiers correctes.

- **`lm_sensors`** a été basé à nouveau sur la version 2.10.7. Cette mise à jour applique plusieurs améliorations de performance en amont et des résolutions de bogues, y compris une solution qui permet d'éviter que les libsensors ne se plantent avec un message **`General parse error`** quand **`k8temp`** est également chargé.
- La mise à jour **elfutils** de cette version résout les bogues suivants :
  - L'utilitaire **eu-readelf** pouvait se planter quand il lisait certains fichiers.
  - L'utilitaire **eu-strip** est utilisé dans les procédures **`rpmbuild`** qui créent des nouveaux paquetages binaires. Il sépare des informations de déboggage d'exécution fr codes exécutables pour constituer des paquetages **`-debuginfo`**. Dans cet utilitaire, un bogue résultait en une information de déboggage inutilisable pour les fichiers ET_REL de la plateforme s390. Cela affectait les fichiers de module de noyau Linux (**`.ko.debug`**), et avait pour conséquence que les paquetages **`kernel-debuginfo`** ne fonctionnaient plus avec Systemtap sur s390.
- **vnc-server** est maintenant basé à nouveau sur la version 4.1.2-14.el5. Cette mise à jour applique les solutions suivantes :
  - Un bogue, qui empêchait **vncserver** d'imprimer les messages d'erreur quand **Xvnc** échouait au démarrage, est maintenant résolu.
  - **Xvnc** n'utilise plus la mauvaise profondeur de fenêtre racine, il utilise maintenant la profondeur de fenêtre qui convient et spécifiée par l'option **`-depth`** .
  - Un bogue qui entraîne le plantage du serveur X par le module **`libvnc.so`**, est maintenant résolu.
  - **Xvnc** supporte maitenant les extentions GLX et RENDER sur toutes les architectures.
- **smartmontools** a été basé à nouveau sur la version 5.38. Cette mise à jour améliore l'autodétection des périphériques de matériel, ainsi que le support pour les réseaux CCISS RAID, et se caractérise par une base de données importante de périphériques pris en charge.

  Cette mise à jour résout un bogue qui empêchait SELinux de contrôler **smartmontools** les périphériques RAID *3ware*. **smartmontools** peut maintenant contrôler ces périphériques correctement.
- **python-urlgrabber** a été mise à jour à la version 3.1.0-5. Cette version comprend maintenant les améliorations suivantes (entre autres):
  - **`yum`** ne peut pas re-décharger correctement à partir du dépôt**`yum`** qui ne prend pas en charge les déchargements partiels.
  - **`yum`** ne peut pas terminer un déchargement interrompu même si le dépôt**`yum`** est basé-FTP avec un port particulier.

- La taille des barres de progression sont dynamiques par rapport à la taille du terminal. De plus, les barres de progression sont maintenant plus propres, et affichent un pourcentage du total des données déchargées.

- Le signal **keepalive** de l'application**python-urlgrabber** est maintenant réparé. Avant, un bogue dans ce signal augmentait incorrectement l'utilisation de la mémoire pendant les déchargements. De plus, ce bogue empêchait également **reposync** et **yumdownloader** d'opérer correctement au moment du déchargement d'un grand nombre de paquetages.

- **yum-utils** a été mis à jour à la version en amont 1.1.16. Cette version comprend maintenant les améliorations suivantes (entre autres):

  - **yum update --security** peut maintenant localiser correctement d'anciennes mises à jour de sécurité utiles.

  - **yum-versionlock** fonctionne maintenant correctement à l'encontre des paquetages obsolètes.

  Cette mise à jour inclut également le plugin **yum-fastestmirror** qui permet à **yum** de choisir le dépôt le plus rapide dans une mirrolist.

- **Samba** a été basé à nouveau sur la version en amont 3.2.0. Cela résout plusieurs bogues, y compris un bogue qui empêchait les utilisateurs de rejoindre des domaines qui utilisaient *Windows 2003* comme nom de serveur. Cette mise à jour règle également un bogue qui causait l'appartenance au domaine **samba** à disparaître après un changement de mot de passe de système en utilisant **net rpc changetrustpw**.

  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** a été mis à jour à la version 2.3.43. Cette version comprend maintenant les améliorations suivantes (entre autres):

  - Le script **init** donne maintenant un avertissement si le démon**slapd** ne peut pas lire un fichier de certificat TLS.

  - Toutes les bibliothèques du paquetage **openldap-debuginfo** sont maintenant remontées.

  - Désinstaller le paquetage **openldap-devel** n'endommage plus les librairies **OpenLDAP**.

  Red Hat distribue maintenant des segments de recouvrement pour les serveurs OpenLDAP. A part pour **syncprov**, tous les segments de recouvrement peuvent être trouvés dans des paquetages **openldap-servers-overlays** séparés, compilés sous forme de modules chargeables. Le segment de recouvrement **syncprov** est statistiquement lié au serveur **OpenLDAP** pour conserver la compatibité avec les versions antérieures de **OpenLDAP**

- Comme le binaire **xterm** avait set groupe ID bit (**setgid**) configuré, certaines variables d'environnement (comme **LD_LIBRARY_PATH** et **TMPDIR**) n'étaient pas fixées. Dans cette version, le binaire **xterm** a maintenant les permissions mode **0755** configurées, ce qui résout ce problème.

- 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** a été mis à jour à la version 2.3.1. Cette version comprend maintenant les améliorations suivantes (entre autres):
  - Un bogue, qui comme **OpenMotif** gérait les événements **`Grab`** et **`Ungrab`** est maintenant résolu. Dans les versions précédentes, ce bogue pouvait entraîner le verrouillage de l'affichage.
  - Un bogue de **nedit** pouvait causer un échec quand on utilisait l'interface d'utilisation graphique. Cela était dû à une fonction du code, qui causait une faute de segmentation dans certains cas de sélection d'éléments. Elle est maintenant résolue.
- **dbus** a été basée à nouveau sur la version 1.1.2. Cette mise à jour résout un bogue pour lequel des programmes multi-thread pouvaient entraîner un interblocage dans **dbus**. Dans les versions précédentes, quand un thread écoutait **dbus** et traitait les messages, un deuxième thread envoyait les messages à **dbus**.
- **strace** a été basée à nouveau sur la version 4.5.18. Elle résout plusieurs bogues, y compris :
  - Un bogue qui causait l'échec de **strace** quand l'option **`-f`** était utilisée sur certains programmes multi-thread (particulièrement sur des systèmes 64-bit), est maintenant résolu.
  - Un bogue qui empêchait la version 64-bit de **strace** d'exécuter un appel de fonction **`vfork()`** sur un processus 32-bit, est maintenant résolu.
- **cpuspeed** a maintenant été mis à jour à la version 1.2.1-5. Grâce à cette mise à jour, le script **cpuspeed `init`** charge maintenant le module **`speedstep-centrino`** dans le cas où tous les autres modules échouent au chargement. De plus, un bogue espace-utilisateur qui empêche le module **`Powernow-k8`** de se charger, est maintenant résolu.
- La suite d'outils **frysk** a été complètement supprimée de cette distribution. **frysk** était introduit, à l'origine, en tant qu'aperçu technologique dans Red Hat Enterprise Linux 5.0.
- Auparavant, les statistiques de partition E/S de la commande **`iostat -x`** étaient incomplets. Dans cette nouvelle version, les statistiques de partition sont maitenant calculés de la même manière que les statistiques disques, procurant ainsi des statistiques E/S cohérents et complets au niveau partition.
- On a identifié un problème de divulgation dans le fichier de configuration du serveur de messagerie **Dovecot**. Si le serveur avait l'option**`ssl_key_password`** définie, n'importe quel utilisateur local pouvait visualiser le mot de passe de la clé SSL. (CVE-2008-4870)

  NOTE

  Ce problème ne permettait cependant pas à l'agresseur de s'approprier les contenus de la clé SSL. Le mot de passe n'a aucune valeur sans le fichier-clé pour lequel les utilisateurs arbitraires n'auraient pas pu avoir l'accès lecture.

  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**a été basé à nouveau sur la version 2008-02-02. Cette mise à jour permet la gestion de caractères multi-byte, règle de nombreux problèmes de contrôles de jobs et applique plusieurs résolutions de bogues à partir de l'amont. Notez que cette mise à jour vers **ksh** maintient la compatibilité avec les scripts existants.

8.3. s390x Architectures

- Un bogue **vmconvert** l'empêchait de travailler correctement sur le noeud de périphérique **vmur** (**/dev/0.0.000c**). Cela entraînait l'échec de **vmconvert** lorsqu'il tentait d'accéder les fichiers de vidage sur le périphérique **vmur** avec l'erreur **vmconvert: Open dump file failed! (Permission denied)**. La mise à jour de **s390utils** dans cette version, résout ce problème.

- Le script **init** et le fichier **config** pour le démon **mon_procd** et le démon **mon_fsstatd** manquaient au paquetage **s390utils** . De ce fait, ces démons ne pouvaient pas être construits ou utilisés. Les fichiers manquants ont été ajouté à cette mise à jour et résolvent ce problème.

8.4. PowerPC Architectures

- Un bogue qui empêche le module **ehci_hcd** de recharger sur cette architecture, est maintenant résolu. Ce permet à l'adaptateur *Belkin 4-port PCI-Express USB Lily*, et autre périphériques du même genre, de pouvoir maintenant fonctionner correctement avec Red Hat Enterprise Linux 5 quand ils utilisent le module **ehci_hcd**.

- La biblitothèque **libhugetlbfs** est maintenant basée à nouveau sur la version 1.3. Cette mise à jour applique plusieurs améliorations en amont de la bibliothèque, augmentant ainsi la performance des applications qui utilisent les pages Huge.

  Pour une liste complète des mises à jour de **libhugetlbfs**, consultez les pages suivantes :

  http://sourceforge.net/mailarchive/message.php?msg_name=20080515170754.GA1830%40us.ibm.com

9. KNOWN ISSUES

9.1. All Architectures

- Lorsque vous utilisez la nouvelle fonctionnalité de cryptage du disque pour encoder le système de fichiers racine, vous verrez le message erreur suivant apparaître sur la console lors de la fermeture du système :

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

  Ce message peut être ignoré en toute sécurité, le processus de fermeture se terminera avec succès.

- 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.

- Toute installation utilisant un dispositif multiple (MD) RAID sur Multivoies, aboutira à un problème d'initialisation de la machine. Les Multivoies vers les SAN (réseaux de stockage) qui fournissent RAID en interne, ne seront pas affectées.

- 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/lsmod | /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.

- Lorsque vous procédez à la mise à niveau à partir d'une version plus récente de Red Hat Enterprise Linux vers 5.3, vous pourriez rencontrer l'erreur suivante :

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

La cause du problème de verrouillage est que le verrouillage futex partagé de glibc a été amélioré par les futexes par-process entre 5.2 et 5.3. De ce fait, les programmes exécutés dans 5.2 glibc ne peuvent pas effectuer de verrouillage futex partagé dans les programmes exécutés par le glibc 5.3.

Ce message erreur particulier est un effet secondaire d'un paquetage appelant rpm en tant que faisant partie de ses scripts d'installation. L'instance rpm qui effectue la mise à niveau utilise le glibc pendant la mise à niveau, mais l'instance rpm qui est lancée à partir du script utilise le nouveau glibc.

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.

- **mvapich** et **mvapich2** de Red Hat Enterprise Linux 5 sont compilés pour ne prendre en charge que les interconnexions *InfiniBand/iWARP*. De ce fait, ils ne pourront pas être exécutés sur l'éthernet ou sur d'autres interconnexions de réseaux.

- Sur les systèmes qui comptent plus de deux périphériques bloc cryptés, anaconda a pour option de fournir un mot de passe générale. Les scripts init, cependant, de prennent pas en charge cette fonctionnalité. Lorsque vous démarrez le système, vous devrez saisir chaque mot de passe individuel pour chaque périphérique crypté.

- 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.

- Configurer l'affinité IRQ SMP n'a aucun effet sur certains périphériques qui utilisent MSI (de l'anglais Message Signalled Interrupts / interruptions signalées par des messages) sans posséder de capacité de masquage par-vecteur MSI. Les périphériques Ethernet *Broadcom NetXtreme* qui utilisent le pilote **bnx2** constituent des exemples de tels périphériques.

  Si vous avez besoin de configurer l'affinité IRQ d'un tel périphérique, désactivez MSI en créant un fichier **/etc/modprobe.d/** qui comprend les lignes suivantes :

  ```
      options bnx2 disable_msi=1
  ```

  Sinon, vous pouvez désactiver MSI complètement en utilisant le paramètre de module de noyau **pci=nomsi**.

- Un bogue présent dans le fichier **/etc/udev/rules.d/50-udev.rules** mis à jour empêche la création de noms persistants d'unités de bande comprenant des nombres supérieurs à 9 dans leur intitulé. Par exemple, un nom persistant ne sera pas créé pour une unité de bande comprenant un nom de **nst12**.

  Pour contourner ce problème, ajoutez un astérisque (*) après chaque occurence de la chaîne de caractères **nst[0-9]** in **/etc/udev/rules.d/50-udev.rules**.

- L'outil **smartctl** ne peut pas lire correctement les paramètres SMART des périphériques SATA.

- Un bogue présent dans les versions précédentes de **openmpi** et de **lam** peut vous empêcher de mettre ces paquetages à niveau. Ce bogue se manifeste dans l'erreur suivante (lorsque vous tentez de mettre à niveau **openmpi** ou **lam**) :

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

  Ainsi, vous avez besoin de retirer manuellement les anciennes versions de **openmpi** et de **lam** afin d'installer leurs dernières versions. Dans ce but, utiliser la commande **rpm**:

  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"**.

- L'activation de versions multiples installées du même module de noyau n'est pas supportée. De plus, un bogue dans la façon dont les versions de module de noyau sont analysées, peut parfois résulter dans l'activation d'une ancienne version du même module de noyau.

  Red Hat recommande que lorsque vous installez une version récente du module de noyau installé, vous devez effacer l'ancienne version d'abord.

- Exécuter **kdump** sur un *IBM Bladecenter QS21* ou *QS22* configuré avec une racine NFS sera mis en échec. Pour éviter ceci, spécifier une cible de clichage NFS dans **/etc/kdump.conf**.

- Les portables *IBM T60* vont s'éteindre complètement lorsqu'ils seront attachés à une station de base ou lorsqu'ils seront suspendus. Pour éviter ce problème, initialiser le système par l'argument **acpi_sleep=s3_bios**.

- *QLogic iSCSI Expansion Card* pour *IBM Bladecenter* procure à la fois des fonctions ethernet et iSCSI. Certaines parties de la carte sont partagées par les deux fonctions. Malgré tout, les pilotes actuels **qla3xxx** et **qla4xxx** supportent les fonctions ethernet et ISCSI individuellement. Les deux pilotes ne supportent pas l'utilisation des fonctions.ethernet et ISCSI simultanément.

  A cause de cette limitation, les initialisations successives (par les commandes consécutives **ifdown**/**ifup**) peuvent interrompre le fonctionement du matériel. Agin d'éviter cela, autoriser un intervalle de 10 secondes après un **ifup** et avant d'émettre un **ifdown**. Aussi, autoriser le même intervalle de 10 secondes après un **ifdown** avant d'émettre un **ifup**. Cet intervalle vous donne suffisamment de temps pour stabiliser et réinitier toutes les fonctions lorsqu'un **ifup** est émis.

- Les ordinateurs portables qui sont équipés de cartes sans fil *Cisco Aironet MPI-350* peuvent s'interrompre lorsqu'ils essaient d'obtenir une adresse DHCP durant une installation réseau utilisant le port éthernet (wired ethernet).

  Pour contourner ce problème, utilisez un média local pour votre installation. Autrement, vous pouvez désactiver la carte sans fil dans le BIOS de l'ordinateur portable avant l'installation (vous pouvez réactiver la carte sans fil après avoir terminé l'installation).

- La journalisation lors du démarrage vers **/var/log/boot.log** n'est pas disponible dans cette version de Red Hat Enterprise Linux 5.3.

- Si X est démarré et qu'il n'utilise pas le pilote *vesa*, le système peut ne pas redémarrer correctement dans un noyau **kexec**/**kdump**. Ce problème existe uniquement avec les puces graphiques *ATI Rage XL*.

  Si X est démarré sur un système équipé d'une puce *ATI Rage XL*, assurez-vous qu'il utilise le pilote *vesa* afin qu'il puisse redémarrer correctement dans un noyau **kexec**/**kdump**.

- Lors de l'utilisation de Red Hat Enterprise Linux 5.2 sur une machine avec un chipset *nVidia CK804* installé, vous pourriez recevoir des messages du noyau semblables à ceux-ci :

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

Ces messages indiquent que certains ports PCI-E ne demandent pas d'interruptions (IRQ). En plus, ces messages n'affectent en aucun cas l'opération de la machine.

- Les périphériques de stockage amovibles (tels que les CD-ROM et DVD) ne sont pas montés automatiquement lorsque vous êtes connecté en tant que racine. Ainsi, vous devrez monter le périphérique manuellement par le gestionnaire de fichiers graphique.

  Autrement, vous pouvez exécuter la commande suivante pour monter un périphérique vers **/media**:

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

- Lorsqu'un LUN est détecté sur un système de stockage configuré, le changement n'est pas reflété sur l'hôte. Dans de telles situations, les commandes **lvm** seront interrompues indéfiniment lorsque **dm-multipath** est utilisé, étant donné que le LUN est maintenant devenu *stale*.

  Pour contourner ce problème, supprimer toutes les entrées relatives aux périphériques et liens **mpath** dans le fichier **/etc/lvm/.cache** spécifique au LUN stale.

  Pour découvrir quelles sont ces entrées, exécuter la commande suivante:

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

  Par exemple, si ***[stale LUN]*** is 3600d0230003414f30000203a7bc41a00, les résultats suivants peuvent apparaître:

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

  Cela signifie que 3600d0230003414f30000203a7bc41a00 est mappé à deux liens **mpath**;: **dm-4** et **dm-5**.

  Ainsi, les lignes suivantes devraient être supprimées à partir de **/etc/lvm/.cache**;:

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

- Exécuter la commande **multipath** en conjonction à l'option **-ll** peut entraîner l'interruption de cette commande si l'un des chemins est sur le dispositif de blocage. Noter que le pilote n'aborte pas les demandes au bout d'un moment si le périphérique ne répond pas.

  C'est dû au code de nettoyage, qui attend jusqu'à ce que la demande du vérificateur de chemin soit positive ou bien échoue. Pour faire apparaître l'état actuel **multipath** sans interrompre la commande, utiliser **multipath** à la place.

- La mise à niveau de **pm-utils** à partir de Red Hat Enterprise Linux à la version 5.2 Beta de **pm-utils** échouera, résultant dans l'erreur suivante:

```
erreur: éclatement de. l'archivage échoué sur fichier
/etc/pm/sleep.d: cpio: rename
```

Afin d'éviter ce problème, effacer l'annuaire **/etc/pm/sleep.d/** avant la mise à niveau. Si **/etc/pm/sleep.d** contient des fichier, déplacer ces fichiers dans **/etc/pm/hooks/**.

- Les essais de matériel de traitement des données du *Mellanox MT25204* a révélé qu'un erreur interne peut avoir lieu sous certaines conditions de hauts chargements. Lorsque le pilote **ib_mthca** rend compte d'une erreur catastrophique sur ce matériel, c'est normalement lié à une longueur de file d'attente trop courte par rapport au nombre de demandes de tâches restantes réclamées, générées par l'application utilisateur.

  Malgré que le pilote va redémarrer le matériel et recouvrir d'un tel événement, toutes les connexions existantes au moment de l'erreur seront perdues. Ceci résulte généralement dans une faute de segmentation dans l'application utilisateur. De plus, si **opensm** est en active au moment où l'erreur se produit, alors, il vous faudra redémarrer manuellement pour reprendre le bon cours des opérations.

- Lorsque vous installez Red Hat Enterprise Linux 5 sur un invité, l'invité est configuré pour utiliser explicitement un noyau d'installation temporaire fourni par **dom0**. Un fois que l'installation est terminée, il peut alors utiliser sont propre chargeur de démarrage. Mais, cela ne peut uniquement être réalisé en forçant le premier redémarrage de l'invité à être un arrêt.

  De ce fait, quand le bouton **Reboot** apparaît en fin d'installation de l'invité, si vous appuyez dessus, vous faîtes sortir l'invité, mais vous ne le faîtes pas redémarrer. C'est un comportement inattendu.

  Notez que lorsque vous démarrez un invité par la suite, il utilisera alors son propre chargeur d'amorçage.

- Exécuter **rpmbuild** sur la source RPM **compiz** échouera si un KDE ou des paquetages de développement **qt** (comme par exemple, **qt-devel**) sont installés. Cela est dû à un bogue **compiz** du script de configuration .

  Pour contourner ce problème, retirez tous les KDE ou paquetages de développement **qt** avant de tenter de construire le paquetage **compiz** à partir de son RPM source.

- Si votre système est équipé de cartes graphiques *ATI Radeon R500* ou *R600*, la commande **firstboot** ne sera pas exécutée après l'installation. Le système ira directement dans l'écran d'authentification graphique et passera outre **firstboot**. Si vous tentez d'exécuter **firstboot** manuellement (c'est à dire à partir d'un terminal à sécurité intégrée), la session X échouera.

  Ce problème est causé par le pilote qui est utilisé par le matériel *ATI Radeon R500/R600*. Le pilote par défaut utilisé par ces cartes graphiques n'est toujours qu'un aperçu technologique. Pour contourner ce problème, faîtes une copie de sauvegarde de votre fichier **/etc/X11/xorg.conf**, puis, configurez X pour utiliser le pilote **vesa** pris en charge au lieu d'utiliser la commande suivante :

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

  Vous pouvez maintenant exécuter **firstboot**. Pour retourner à vos paramètres d'origine, restaurez votre **/etc/X11/xorg.conf** d'origine.

- Si votre système utilise le chronomètre TSC, l'appel système **gettimeofday** pourrait reculer. Cela est dû à un problème de surcharge qui entraîne le chronomètre TSC à faire des grands

bonds en avant dans certains cas. Dans de tels cas, le chronomètre TSC s'auto-corrigera, mais finira par enregistrer un mouvement en arrière au bout d'un moment.

Ce problème est particulièrement critique pour les systèmes sensibles à la durée, comme ceux qui sont utilisés pour les systèmes de transactions et les bases de données. Ainsi, si votre système exige une certaine précision, Red Hat recommande hautement que vous configuriez le noyau pour qu'il puisse utiliser un autre chronomètre (comme HPET, par exemple).

- Tenter d'exécuter **sniff** peut résulter en une erreur. C'est parce que certains paquetages requis ne sont pas installés avec **dogtail**.

  Pour l'éviter, installer les paquetages suivants manuellement :

  - 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 Enginuity* code release notes for further details.

- Dans **/etc/multipath.conf**, configurer **max_fds** à **unlimited** empêchera le démon **multipathd** de démarrer correctement. Donc, vous devriez utiliser une valeur suffisamment élevée à la place pour ce paramètre.

- SystemTap utilise GCC pour sonder les événements espace-utilisateur. GCC est, cependant, incapable de procurer aux déboggueurs l'information sur la liste des locations précises des paramètres. Dans certains cas, GCC ne fournit pas de visibilité sur certains paramètres. De ce fait, les scripts SystemTaps qui sondent l'espace-utilisateur pourraient retourner des lectures erronnées.

- Le modèle de portable *IBM T41* n'entre pas dans **Suspend Mode** correctement; et donc, **Suspend Mode** consommera la durée de l'accumulateur comme d'habitude. C'est parce que Red Hat Enterprise Linux 5 n'inclut pas encore le module **radeonfb** .

  Pour contourner ce problème, ajoutez un script intitulé **hal-system-power-suspend** à **/usr/share/hal/scripts/** et comprenant les lignes suivantes :

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

  Ce script assurera que le portable *IBM T41* entre dans le **Suspend Mode** correctement. Pour veiller à ce que le système fonctionne correctement, ajouter le script **restore-after-standby** au même répertoire également, comprenant les lignes suivantes :

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

- Si le module **edac** est chargé, la journalisation de la mémoire BIOS ne fonctionnera pas. C'est parce que le module **edac** nettoie le journal utilisé par BIOS dans ce but.

  Le modèle de mise à jour du pilote actuel Red Hat Enterprise Linux instruit le noyau de charger tous les modules disponibles (y compris le module **edac**) par défaut. Si vous souhaitez être sûr que la mémoire BIOS soit journalisée dans votre système, vous devrez indiquer manuellement les modules **edac** sur la liste noire. Pour cela, ajoutez les lignes suivantes dans **/etc/modprobe.conf** :

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

- Red Hat Enterprise Linux 5.3 peut détecter l'élargissement ou la diminution d'un périphérique bloc sous-jacent en ligne. Cependant, il n'existe pas de méthode pour détecter automatiquement le changement de taille d'un périphérique, donc on a besoin d'étapes manuelles pour identifier ce changement et recalibrer la taille des systèmes de fichiers qui résident dans n'importe quel(s) périphérique(s) donné(s). Quand un périphérique bloc recalibré est détecté, un message ressemblant au message qui suit apparaîtra dans les journalisations système :

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

  Si le périphérique en blocs s'est élargi, alors ce message peut être ignoré en toute sécurité. Mais, si le périphérique en blocs a été réduit sans réduire les données initialement placées sur le périphérique en bloc, les données résidant sur le périphérique pourraient être corrompues.

  Il est possible de faire un recalibrage d'un système de fichiers qui a été créé sur un LUN complet (ou un périphérique en blocs) en ligne. S'il y a une table de partition sur un périphérique en blocs, alors le système de fichiers devra être démonté pour mettre la table de partitions à jour.

- Si un système de fichiers GFS2 est monté sur votre système, un noeud pourrait est interrompu si un inode cache peut être accédé par un noeud et puisse être déconnecté par un autre. Dans un tel cas, le noeud interrompu ne sera pas disponible à moins que vous le clôturiez et que vous le recouvriez par le mécanisme de recouvrement de clusters habituel. La fonction appelle **gfs2_dinode_dealloc** et **shrink_dcache_memory** apparaîtra également dans les traces de la pile de tout processus coincé dans le noeud interrrompu.

  Ce problème n'affecte pas les systèmes de fichiers GFS2 à noeud-simple.

- 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.

- L'implémentation actuelle de **User Payload Access** dans **ipmitool** vous permet de configurer les périphériques, mais ne vous permet pas d'extraire les paramètres courants de ces périphériques.

- En utilisant le paramètre **swap --grow** dans un fichier de démarrage sans configurer le paramètre **--maxsize** en même temps, amène Anaconda à imposer une restriction sur la taille maximum de la partition swap. Cela ne lui permet pas de grandir pour remplir le périphérique.

  Pour des systèmes de moins de 2Go de mémoire physique, la limite imposée est deux fois le montant de la mémoire physique. Pour les systèmes de plus de 2Go, la limite imposée est la taille de la mémoire physique, plus 2Go.

- 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 highers than 800x600.

  Pour contourner ce problème, ajoutez la ligne suivante à la section **ServerLayout** du fichier **/etc/X11/xorg.conf**:

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

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

  1. Ouvrir **alsamixer**.
  2. Appuyer sur **Tab** pour afficher **[Capture]** dans le champ **View** (situé dans la partie supérieure gauche du menu).
  3. Appuyez sur la barre-espace **Space**.
  4. Pour vérifier que l'enregistrement est activé, le texte situé au dessus du champ **ADCMux** doit afficher **L R CAPTUR**.

- 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.

  Pour contourner ce problème, désactivez la fonctionnalité de pavage (tiling). Pour cela, ajoutez la ligne suivante à la section **Device** de **/etc/X11/xorg.conf** :

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

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

  1. Ouvrir **alsamixer**.

  2. Appuyer sur **Tab** pour afficher **[Capture]** dans le champ **View** (situé dans la partie supérieure gauche du menu).

  3. Appuyez sur la barre-espace **Space**.

  4. Pour vérifier que l'enregistrement est activé, le texte situé au dessus du champ **ADCMux** doit afficher **L R CAPTUR**.

- Si votre système utilise une carte graphique *Intel 945GM*, n'utilisez pas le pilote **i810**. Vous devriez utiliser le pilote **intel** par défaut à la place.

- Sur les portables en duo-GPU, si l'une des puces graphiques, est basée-Intel, le mode de graphiques Intel ne peut pas gérer de connexion digitale externe (y compris HDMI, DVI, et DisplayPort). Il s'agit d'une limitation du GPU Intel. Si vous avez besoin de connexions digitales externes, configurez le système pour pouvoir utiliser la puce de graphiques discrète (dans le BIOS).

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
  ```

  Ensuite, le système vous avertit qu'il va s'interrompre. Ce message devrait être ignoré car en réalité le système ne sera pas interrompu.

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

  1. Ouvrir **alsamixer**.

  2. Appuyer sur **Tab** pour afficher **[Capture]** dans le champ **View** (situé dans la partie supérieure gauche du menu).

  3. Appuyez sur la barre-espace **Space**.

4. Pour vérifier que l'enregistrement est activé, le texte situé au dessus du champ **ADCMux** doit afficher **L R CAPTUR**.

- 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@8000000f8000000/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. Exécutez la commande suivante :

```
setenv real-base 2000000
```

3. Démarrez le SMS (de l'anglais System Management Services / service de gestion des systèmes) par la commande :

```
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.

  Pour initialiser correctement l'installation de Red Hat Enterprise Linux 5.2 sur *IBM System z*, exécuter les commandes suivantes après l'installation:

  - **/usr/bin/setup** — fourni par le paquetage **setuptool**.
  - **/usr/bin/rhn_register** — fourni par le paquetage **rhn-setup**.

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.

Tandis que la sortie de console **purgatory** peut s'avérer utile pour le diagnostique de problèmes , elle n'est pas utile pour que **kdump** fonctionne correctement. Ainsi, si votre système *Itanium* est réinitialisé pendant une opération **kdump**, désactiver la sortie de console dans**purgatory** en ajoutant **--noio** à la variable **KEXEC_ARGS** dans **/etc/sysconfig/kdump**.

- 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
```

Cette erreur résulte d'une demande mal formulée de créer **efirtc** dans un chemin erroné. Cependant, le chemin de périphérique en question est également créé statistiquement dans le **initramfs** quand le service **kdump** démarre. Ainsi, une création du noeud de périphérique en cours d'exécution, est redondante, et ne devrait pas affecter la performance **kdump**.

- 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. Ouvrir **alsamixer**.
  2. Appuyer sur **Tab** pour afficher **[Capture]** dans le champ **View** (situé dans la partie supérieure gauche du menu).
  3. Appuyez sur la barre-espace **Space**.
  4. Pour vérifier que l'enregistrement est activé, le texte situé au dessus du champ **ADCMux** doit afficher **L R CAPTUR**.

- Sur les systèmes Intel basés-Itanium et exécutant SELinux en mode forcé, les Booleans **allow_unconfined_execmem_dyntrans** ou **allow_execmem** Booleans doivent être activés de façon à ce que les Couches d'exécution IA-32 (the **ia32el** service) puissent opérer correctement. Si le Boolean **allow_unconfined_execmem_dyntrans** est désactivé, mais que le Boolean**allow_execmem** est activé, ce qui correspond à la configuration par défaut dans Red Hat Enterprise Linux 5, alors le service ia32el supporte l'émulation 32-bit, mais si les deux Booleans sont désactivés, alors l'émulation échouera.

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.el5

- 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.el5

- 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**

- 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.

libcmpiutil-0.4-2.el5

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

> Libcmpiutil 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.el5

- 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.el5

- 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.el5

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

```
libibcm provides a userspace InfiniBand Communication Managment
library.
```

libibcommon-1.1.1-1.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

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

```
librdmacm provides a userspace RDMA Communication Managment API.
```

libsdp-1.1.99-10.el5_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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

- 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.el5

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

```
Documentation from OFED 1.3
```

opensm-3.2.2-3.el5

- 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.el5_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.el5

- 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.el5

- 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.el5

- 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.el5

- 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 sysklogd
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
```

```
that are used by network filesystems such a 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 dis play 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
  - dhcdbd
  - 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.el5 - ORBit2-2.14.3-5.el5

- 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.el5.4 - OpenIPMI-2.0.6-11.el5

- 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
```

- 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.el5

- 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.el5

- 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.el5

- 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.el5 - bind-9.3.4-10.P1.el5

- 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.el5 - binutils-2.17.50.0.6-9.el5

- 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.

The BLUETOOTH trademarks are owned by Bluetooth SIG, Inc., U.S.A.
```

- 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

The BLUETOOTH trademarks are owned by Bluetooth SIG, Inc., U.S.A.
```

- 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.el5 - clustermon-0.12.1-2.el5

- 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.el5 - cman-2.0.98-1.el5

- 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.el5 - dbus-1.1.2-12.el5

- 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.el5

- 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.el5 - desktop-printing-0.19-20.2.el5

- Group: **Applications/File**
- Summary: **Desktop print icon**
- Description:

```
Desktop-printing contains eggcups, a program for user print job
notification and control.
```

- No added dependencies
- No removed dependencies

devhelp-0.12-11.el5 - devhelp-0.12-20.el5

- 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 >= 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.el5 - dovecot-1.0.7-7.el5

- 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.el5

- 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.el5 - e2fsprogs-1.39-20.el5

- 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.el5 - emacs-21.4-20.el5

- 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.el5

- 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.el5 - enscript-1.6.4-4.1.1.el5_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.el5 - 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.el5 - firstboot-1.4.27.7-1.el5

- 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.el5_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.el5 - freetype-2.2.1-20.el5_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.el5

- 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.el5 - gdm-2.16.0-46.el5

- 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.el5 - gedit-2.16.0-9.el5

- 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.el5 - ghostscript-8.15.2-9.4.el5

- 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.el5

- 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**
- 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.el5 - gnome-volume-manager-2.15.0-5.el5

- 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 Voume 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.el5

- 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.el5_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

gstreamer-0.10.9-3.el5 - gstreamer-0.10.20-3.el5

- 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.el5 - gstreamer-plugins-base-0.10.20-3.el5

- 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
  - liboil-devel >= 0.3.2

gstreamer-plugins-good-0.10.4-4.el5 - gstreamer-plugins-good-0.10.9-1.el5

- 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.el5 - gthumb-2.7.8-8.el5

- 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.el5 - gtk2-2.10.4-20.el5

- 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.el5

- 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.el5 - hplip-1.6.7-4.1.el5_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.el5 - htdig-3.2.0b6-9.0.1.el5_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.el5 - htmlview-4.0.0-2.el5

- 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.el5 - httpd-2.2.3-22.el5

- 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:
  - 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 newsfeeds. 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**

- 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.el5

- 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.el5 - iputils-20020927-45.el5

- 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.el5 - irqbalance-0.55-10.el5

- 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.el5 - iscsi-initiator-utils-6.2.0.868-0.18.el5

- 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

isdn4k-utils-3.2-50.1 - isdn4k-utils-3.2-51.el5

- 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: kdecore (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`**
- 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**

- 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.el5 - libX11-1.0.3-9.el5

- 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.el5 - libXfont-1.2.2-1.0.3.el5_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.el5 - libchewing-0.3.0-8.el5

- 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.el5 - libdhcp-1.20-6.el5

- 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.el5 - liberation-fonts-1.0-1.el5

- 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.el5 - libexif-0.6.13-4.0.2.el5_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.el5

- 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.el5 - libgnomeprint22-2.12.1-10.el5

- 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.el5 - libhugetlbfs-1.3-3.el5

- 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.el5 - libica-1.3.7-8.el5

- 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 interract 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 Voribs.
```

- 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 and 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.el5

- 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.el5

- 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 mdadd(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.el5

- 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.el5

- 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 an 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.el5 - module-init-tools-3.3-0.pre3.1.42.el5

- 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.el5 - mozldap-6.0.5-1.el5

- 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.el5

- 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
(mysqld)
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.el5 - nautilus-2.16.2-7.el5

- 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.el5

- 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.el5 - net-snmp-5.3.2.2-5.el5

- 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.el5

- 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.el5

- 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.el5 - nfs-utils-1.0.9-40.el5

- 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.el5 - notification-daemon-0.3.5-9.el5

- 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.el5 - nspr-4.7.3-2.el5

- 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.el5 - nss-3.12.2.0-2.el5

- Group: **System Environment/Libraries**

- 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.el5 - nss_ldap-253-17.el5

- 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.el5 - ntp-4.2.2p1-9.el5

- 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

oddjob-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.el5 - openib-1.3.2-0.20080728.0355.3.el5

- 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.el5

- 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.el5 - openmotif-2.3.1-2.el5

- 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.el5 - openmpi-1.2.7-6.el5

- 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.el5_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.el5 - oprofile-0.9.3-18.el5

- 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 PostgresSQL 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 administation 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.el5 - pirut-1.3.28-13.el5

- 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.el5

- 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.el5 - pkinit-nss-0.7.6-1.el5

- 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.el5.17 - pm-utils-0.99.3-10.el5

- 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.el5_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.el5 - postgresql-8.1.11-1.el5_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.el5

- 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.el5 - ppp-2.4.4-2.el5

- 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.el5

- 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.el5

- 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.el5 - procps-3.2.7-11.1.el5

- 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.el5 - pygtk2-2.10.1-12.el5

- 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.el5 - pykickstart-0.43.3-1.el5

- 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.el5 - python-2.4.3-24.el5

- 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.el5 - python-pyblock-0.26-3.el5

- 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.el5

- 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 rhpxl (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.el5 - ruby-1.8.5-5.el5_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.el5.14 - s390utils-1.5.3-21.el5

- 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.
- osasnmpd, a subagent for net-snmp to access the OSA hardware.
- qetharp to query and purge address data in the OSA and
HiperSockets hardware
- qethconf 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.el5 - sabayon-2.12.4-6.el5

- 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.el5 - salinfo-1.1-4.el5

- 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.el5.4 - samba-3.0.33-3.7.el5

- 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.el5_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.el5 - scim-1.4.4-41.el5

- 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.el5 - scim-anthy-1.2.0-6.el5

- 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.el5 - scim-bridge-0.4.5-8.el5

- 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.el5 - scim-chewing-0.3.1-11.el5

- 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.el5 - smartmontools-5.38-2.el5

- 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.el5 - sos-1.7-9.16.el5

- 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.el5 - spamassassin-3.2.5-1.el5

- 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.el5_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.el5 - squid-2.6.STABLE21-3.el5

- 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**
- 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.el5 - subversion-1.4.2-4.el5

- 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.el5
- Removed Dependencies:
  - neon-devel >= 0:0.24.7-1

sudo-1.6.8p12-10 - sudo-1.6.9p17-3.el5

- 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

sysklogd-1.4.1-40.el5 - sysklogd-1.4.1-44.el5

- Group: **System Environment/Daemons**
- Summary: **System logging and kernel message trapping daemons.**
- Description:

```
The sysklogd 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.el5 - sysstat-7.0.2-3.el5

- 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.el5 - system-config-bind-4.0.3-4.el5

- 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 configuuration in a graphical setting.
```

- No added dependencies
- No removed dependencies

system-config-date-1.8.12-1.el5 - system-config-date-1.8.12-3.el5

- 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.el5 - system-config-httpd-1.3.3.3-1.el5

- 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.el5 - system-config-lvm-1.1.5-1.0.el5

- 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.el5 - system-config-network-1.3.99.12-1.el5

- Group: **Applications/System**

- Summary: **The GUI of the NEtwork Adminstration 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.el5 - system-config-printer-0.7.32.10-1.el5

- 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.el5 - system-config-samba-1.2.41-3.el5

- 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 administrating
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.
```

- 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.el5 - tcsh-6.14-14.el5

- 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.el5 - telnet-0.17-39.el5

- 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.el5 - tetex-3.0-33.2.el5_1.2

- Group: **Applications/Publishing**
- Summary: **The TeX text formatting system.**
- Description:

```
TeTeX 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.el5 - udev-095-14.19.el5

- 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.el5

- 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.el5 - virt-manager-0.5.3-10.el5

- 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.el5 - vixie-cron-4.1-76.el5

- 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.el5 - vnc-4.1.2-14.el5

- 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:
  - net-snmp-devel >= 5.3
  - 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:
  - 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.el5 - xorg-x11-drv-ati-6.6.3-3.22.el5

- 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.el5

- No removed dependencies

xorg-x11-drv-i810-1.6.5-9.6.el5 - xorg-x11-drv-i810-1.6.5-9.21.el5

- 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.el5
- 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:

```
X.Org X11 keyboard input driver.
```

- No added dependencies
- No removed dependencies

xorg-x11-drv-mga-1.4.2-6.el5 - xorg-x11-drv-mga-1.4.2-10.el5

- 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.el5 - xorg-x11-drv-nv-2.1.12-3.el5

- 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.el5
- No removed dependencies

xorg-x11-drv-sis-0.9.1-7 - xorg-x11-drv-sis-0.9.1-7.1.el5

- 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.el5 - xorg-x11-server-1.1.1-48.52.el5

- 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.el5 - xorg-x11-xinit-1.0.2-15.el5

- 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.el5 - xsane-0.991-5.el5

- 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.el5 - xterm-215-8.el5

- 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.el5 - yaboot-1.3.13-7.el5

- 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.el5 - yelp-2.16.0-22.el5

- 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:
  - gecko-devel >= 1.8.0.12

ypbind-1.19-8.el5 - ypbind-1.19-11.el5

- 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.el5

- 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, repo-
rss, 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 $RETVAL
 }
 probe() {
  # named knows how to reload intelligently; we don't want linuxconf
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/ifup-
ippp
---
+++
@@ -30,20 +30,20 @@
 # check that ipppd is available for syncppp
 if [ "$ENCAP" = "syncppp" ]; then
     if [ ! -x /usr/sbin/ipppd -a ! -x /sbin/ipppd ] ; then
-        logger -p daemon.info -t ifup-ippp "ipppd does not exist or is
not executable"
+        /usr/bin/logger -p daemon.info -t ifup-ippp "ipppd 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-ippp "isdnctrl does not exist or is not
executable"
+    /usr/bin/logger -p daemon.info -t ifup-ippp "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-ippp "cannot list ISDN devices"
+    /usr/bin/logger -p daemon.info -t ifup-ippp "cannot list ISDN
```

```
devices"
     exit 1
 fi

@@ -52,12 +52,12 @@

 function log_echo()
 {
-    logger -p daemon.info -t ifup-ippp $"$*"
+    /usr/bin/logger -p daemon.info -t ifup-ippp $"$*"
 }

 function log_isdnctrl()
 {
-    logger -p daemon.info -t ifup-ippp isdnctrl $*
+    /usr/bin/logger -p daemon.info -t ifup-ippp 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-ippp "ifconfig $DEVICE $IPADDR
pointopoint $GATEWAY $netmask up"
+    /usr/bin/logger -p daemon.info -t ifup-ippp "ifconfig $DEVICE $IPADDR
pointopoint $GATEWAY $netmask up"
     ifconfig $DEVICE $IPADDR pointopoint $GATEWAY $netmask up >/dev/null
2>&1

     if [ "$ENCAP" = "syncppp" ]; then
         # start ipppd daemon
-        logger -p daemon.info -t ifup-ippp "ipppd $options $netmask"
+        /usr/bin/logger -p daemon.info -t ifup-ippp "ipppd $options
$netmask"
         ipppd $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}" != "noload" ] && {
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/mtab)
+ 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 kerel 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/mtab)

  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 = $(YPDIR)/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 "$1" in
   start)
+ # Let udev handle any backlog before trying to mount file systems
+ /sbin/udevsettle --timeout=30
         [ -n "$NFSFSTAB" ] &&
    {
      [ ! -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.
- tlsconfigs=`LANG=C egrep
'^(TLSCACertificateFile|TLSCertificateFile|TLSCertificateKeyFile)
[[:space:]]' /etc/openldap/slapd.conf | awk '{print $2}'`
+ tlsconfigs=`LANG=C egrep
'^(TLS_CACERT|TLSCACertificateFile|TLSCertificateFile|TLSCertificateKeyFil
e)[[:space:]]' /etc/openldap/slapd.conf /etc/openldap/ldap.conf | awk
'{print $2}'`
  for file in $tlsconfigs ; do
   if ! testasuser $user -r $file ; then
    echo -n $"$file is not readable by \"$user\"" ; warning ; echo
@@ -167,6 +167,9 @@
      if grep -q "^replogfile" /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
 fi

-# Clear mtab
-(> /etc/mtab) &> /dev/null
-
-# Remove stale backups
-rm -f /etc/mtab~ /etc/mtab~~
-
-# Enter mounted filesystems into /etc/mtab
-mount -f /
-mount -f /proc >/dev/null 2>&1
-mount -f /sys >/dev/null 2>&1
-mount -f /dev/pts >/dev/null 2>&1
-mount -f /proc/bus/usb >/dev/null 2>&1
+if [ "$READONLY" != "yes" ] ; then
+ # Clear mtab
+ (> /etc/mtab) &> /dev/null
+
+ # Remove stale backups
+ rm -f /etc/mtab~ /etc/mtab~~
+
+ # Enter mounted filesystems into /etc/mtab
+ mount -f /
+ mount -f /proc >/dev/null 2>&1
+ mount -f /sys >/dev/null 2>&1
+ mount -f /dev/pts >/dev/null 2>&1
```

```
+ mount -f /proc/bus/usb >/dev/null 2>&1
+fi

 # Mount all other filesystems (except for NFS and /proc, which is already
 # mounted). Contrary to standard usage,
 # filesystems are NOT unmounted in single user mode.
-action $"Mounting local filesystems: " mount -a -t
nonfs,nfs4,smbfs,ncpfs,cifs,gfs -O no_netdev
+if [ "$READONLY" != "yes" ] ; then
+ action $"Mounting local filesystems: " mount -a -t
nonfs,nfs4,smbfs,ncpfs,cifs,gfs -O no_netdev
+else
+ action $"Mounting local filesystems: " mount -a -n -t
nfs4,smbfs,ncpfs,cifs,gfs -O no_netdev
+fi

 if [ -x /sbin/quotaon ]; then
     action $"Enabling local filesystem quotas: " /sbin/quotaon -aug
@@ -898,7 +911,7 @@
 action $"Enabling /etc/fstab swaps: " swapon -a -e
 if [ "$AUTOSWAP" = "yes" ]; then
  curswap=$(awk '/^\/dev/ { print $1 }' /proc/swaps | while read x; do
get_numeric_dev dec $x ; echo -n " "; done)
- swappartitions=`blkid -t TYPE=swap -o device`
+ swappartitions=$(blkid -t TYPE=swap -o device)
  if [ x"$swappartitions" != x ]; then
   for partition in $swappartitions ; do
    [ ! -e $partition ] && continue
initscripts-8.45.19.EL-1.i386.rpm: /etc/sysconfig/network-scripts/ifdown-
sl
---
+++
@@ -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. HISTORIQUE DE RÉVISION

Version 3-4.33.400 **2013-10-31** **Rüdiger Landmann**

Rebuild with publican 4.0.0

Version 3-4.33 **2012-07-18** **Anthony Towns**

Rebuild for Publican 3.0

Version 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.