

Debian GNU/Linux 6.0 (squeeze) laidos informacija architektūrai Alpha

Debian'o dokumentācijas projekts (<http://www.debian.org/doc/>)

October 28, 2011

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Published February 4th, 2011

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Debian'õ dokumentacijos projektas (<http://www.debian.org/doc/>)

Chapter 1

Įvadas

This document informs users of the Debian GNU/Linux distribution about major changes in version 6.0 (codenamed squeeze).

Laidos informacijoje aprašoma kaip saugiai atnaujinti 5.0 („lenny“) laidą į dabartinę ir naudotojai informuojami apie žinomas potencialias problemas, galinčias kilti šio proceso metu.

Šio dokumento naujausiąją versiją galite rasti adresu <http://www.debian.org/releases/squeeze/releasenotes>. Jei abejojate, pasižiūrėkite datą pirmajame puslapyje ir įsitikinkite, kad skaitote nepasenusią versiją.

ATSARGIAI



Tenka pažymėti, kad čia neįmanoma išvardinti visų galimų problemų ir todėl buvo pasirinktos tik tos, kurios gali kilti dažniausiai ir daryti didžiausią poveikį.

Atkreipkite dėmesį, kad šiame dokumente aprašomas tik atnaujinimas iš ankstesnės Debian laidos (t.y. iš 5.0). Jei jums reikia atnaujinti iš dar ankstesnės laidos, siūlome paskaityti ankstesnių laidų aprašymus ir pirma atlikti atnaujinimą iki 5.0 laidos.

1.1 Kaip pranešti apie klaidas šiame dokumente

Stengėmės atlikti visus galimus atnaujinimo žingsnius, aprašytus šiame dokumente ir kartu bandėme numatyti visas galimas problemas, su kuriomis gali tekti susidurti naudotojams.

Nevertheless, if you think you have found a bug (incorrect information or information that is missing) in this documentation, please file a bug in the [bug tracking system](http://bugs.debian.org/) (<http://bugs.debian.org/>) against the `release-notes` package. You might want to review first the [existing bug reports](http://bugs.debian.org/release-notes) (<http://bugs.debian.org/release-notes>) in case the issue you've found has already been reported. Feel free to add additional information to existing bug reports if you can contribute content for this document.

We appreciate, and encourage, reports providing patches to the document's sources. You will find more information describing how to obtain the sources of this document in [Skyrius 1.3](#).

1.2 Atnaujinimo pranešimų pateikimas

Tikimės bet kokios informacijos iš naudotojų apie atliktą atnaujinimą iš lenny į squeeze. Jei norite pasidalinti šia informacija, praneškite savo atnaujinimo rezultatus [riktų sekimo sistemoje](http://bugs.debian.org/) (<http://bugs.debian.org/>) kaip paketo `upgrade-reports` riktą. Prašom suspausti bet kokius prie pranešimo prisegamus failus (naudojantis `gzip`).

Prašom įtraukti į pateikiamą pranešimą apie atnaujinimą šią informaciją:

- The status of your package database before and after the upgrade: `dpkg`'s status database available at `/var/lib/dpkg/status` and `apt`'s package state information, available at `/var/lib/`

`apt/extended_states`. You should have made a backup before the upgrade as described at Skyrius 4.1.1, but you can also find backups of `/var/lib/dpkg/status` in `/var/backups`.

- Atnaujinimo seanso žurnalas sukurtas naudojantis **script**, kaip aprašyta Skyrius 4.4.1.
- `apt` darbo žurnalą, esantį faile `/var/log/apt/term.log` arba **aptitude** darbo žurnalą, esantį faile `/var/log/aptitude`.

PASTABA



Prieš įdėdami darbo žurnalus į pranešimą apie atnaujinimą, peržiūrėkite juos ir pašalinkite asmeninę ir slaptą informaciją, nes šie žurnalai bus paskelbti viešai prieinamoje duomenų bazėje.

1.3 Šio dokumento išeities tekstai

Šio dokumento išeities tekstai yra DocBook XML formate. HTML versija sukurta naudojant `docbook-xsl` ir `xsltproc`. PDF versija sukurta naudojant `dblatex` arba `xmlroff`. Išeitios tekstai yra prieinami *Debian'o dokumentacijos projekto* SVN repozitorijoje. Galite naudoti [tinklapio sąsają](http://svn.debian.org/viewsvn/ddp/manuals/trunk/release-notes/) (<http://svn.debian.org/viewsvn/ddp/manuals/trunk/release-notes/>), norėdami gauti prieigą prie atskirų failų per tinklą ir peržiūrėti jų pakeitimus. Dėl išsamesnės informacijos apie tai, kaip prieiti prie SVN repozitorijos prašom skaityti [Debian'o dokumentacijos projekto SVN puslapius](http://www.debian.org/doc/cvs) (<http://www.debian.org/doc/cvs>).

Chapter 2

Kas yra naujo laidoje Debian GNU/Linux 6.0

The [Wiki](http://wiki.debian.org/NewInSqueeze) (<http://wiki.debian.org/NewInSqueeze>) has more information about this topic.

This release drops official support for the [HP PA-RISC \('hppa'\)](http://lists.debian.org/debian-devel-announce/2010/09/msg00008.html) (<http://lists.debian.org/debian-devel-announce/2010/09/msg00008.html>), Alpha ('alpha') and ARM ('arm') architectures.

Žemiau pateiktos Debian GNU/Linux squeeze oficialiai palaikomos architektūros:

- 32-bit PC ('i386')
- SPARC ('sparc')
- PowerPC ('powerpc')
- MIPS ('mips' (mažėjantys baitai) ir 'mipsel' (didėjantys baitai))
- Intel Itanium ('ia64')
- S/390 ('s390')
- 64-bit PC ('amd64')
- ARM EABI ('armel')

In addition to the officially supported architectures, Debian GNU/Linux squeeze introduces the GNU/kFreeBSD ports ('kfreebsd-amd64' and 'kfreebsd-i386') as a technology preview. These ports are the first ones included in a Debian release which aren't based on the Linux kernel, but instead use the FreeBSD kernel with a GNU userland. Users of these versions however should be warned that the quality of these ports is still catching up with the outstanding high quality of our Linux ports, and that some advanced desktop features are not supported yet. However, the support of common server software is strong and extends the features of Linux-based Debian versions by the unique features known from the BSD world. This is the first time a Linux distribution has been extended to also allow use of a non-Linux kernel.

Daugiau paskaityti apie perkėlimo į kitas architektūras būseną ir perkėlimo į konkrečias architektūras (port-specific) informacijos rasite [Debian'o perkėlimų tinklapiu puslapyje](http://www.debian.org/ports/) (<http://www.debian.org/ports/>).

2.1 Kas naujo distributyve?

Ši nauja Debian'o laida vėl išleista su daug daugiau programinės įrangos nei jos pirmtakas lenny; distributyvas apima 10352 naujų paketų, iš viso 29050 paketai. Didžioji dalis programinės įrangos distributyve buvo atnaujinta: 15436 programinės įrangos paketai (tai yra 67 % visų paketų lenny). Taip pat, žymus kiekis (virš 4238, 18% paketų iš lenny) dėl įvairių priežasčių buvo pašalintas iš distributyvo. Tokie paketai nebus atnaujinti ir paketų tvarkymo programos pažymės juos kaip „atgyvenusius“ (obsolete) distributyvo atnaujinimo metu.

With this release, Debian GNU/Linux updates from X.Org 7.3 to X.Org 7.5.

Debian GNU/Linux again ships with several desktop applications and environments. Among others it now includes the desktop environments GNOME 2.30¹, KDE 4.4.5, Xfce 4.6.2, and LXDE 0.5.0. Productivity applications have also been upgraded, including the office suites OpenOffice.org 3.2.1 and KOffice 2.2.1 as well as GNUMcash 2.2.9, GNUMeric 1.10.8 and Abiword 2.8.2.

Updates of other desktop applications include the upgrade to Evolution 2.30.3 and Pidgin 2.7.3. The Mozilla suite has also been updated: *iceweasel* (version 3.5.13) is the unbranded Firefox web browser and *icedove* (version 3.0.7) is the unbranded Thunderbird mail client.

Tarp daugelio kitų, ši laida taip pat apima žemiau pateikiamus programinės įrangos atnaujinimus:

Paketas	Versija 5.0 (lenny)	Versija 6.0 (squeeze)
Apache	2.2.9	2.2.16
BIND DNS serveris	9.6.0	9.7.1
Cherokee web serveris	0.7.2	1.0.8
Courier MTA	0.60.0	0.63.0
Dia	0.96.1	0.97.1
Ekiga VoIP klientas	2.0.12	3.2.7
Exim numatytasis e-pašto serveris	4.69	4.72
GNU Compiler Collection, numatytasis kompiliatorius	4.3.2	4.4.5
GIMP	2.4.7	2.6.10
GNU C biblioteka	2.7	2.11.2
lighttpd	1.4.19	1.4.28
maradns	1.3.07.09	1.4.03
MySQL	5.0.51a	5.1.49
OpenLDAP	2.4.11	2.4.23
OpenSSH	5.1p1	5.5p1
PHP	5.2.6	5.3.2
Postfix MTA	2.5.5	2.7.1
PostgreSQL	8.3.5	8.4.5
Python	2.5.2	2.6.6
Samba	3.2.5	3.5.5
Tomcat	5.5.26	6.0.28

Debian still supports Linux Standard Base (LSB) version 3.2.

2.1.1 CDs, DVDs and BDs

The official Debian GNU/Linux distribution now ships on 7 to 8 binary DVDs or 44 to 53 binary CDs (depending on the architecture) and 6 source DVDs or 33 source CDs. Additionally, there is a *multi-arch* DVD, with a subset of the release for the `amd64` and `i386` architectures, along with the source code. Debian GNU/Linux is also released as Blu-ray (BD) images, 2 each for the `amd64` and `i386` architectures, or one for the source code. For size reasons, some very large packages are omitted from the CD builds; these packages fit better in the DVD and BD builds, so are still included there.

A new feature with squeeze is the addition of isohybrid support to the `i386` and `amd64` CDs, DVDs and BDs. To make a USB stick bootable with one of these images used to mean following some extra procedures after downloading the image; instead, now all that is required is to simply write the image directly to the USB stick. For more information please see the 'Preparing Files for USB Memory Stick Booting' section in the [Installation Guide](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>).

2.1.2 Firmware moved to the non-free section

Some drivers included in the Linux kernel used to contain non-free firmware blobs. Starting from squeeze this firmware has been moved to separate packages in the non-free section of the archive, such

¹ With some modules from GNOME 2.32.

as `firmware-linux`. If such packages are installed, the firmware will be loaded automatically when required.

2.1.3 Paketų tvarkymas

The preferred program for interactive package management from a terminal is **aptitude**. For a non-interactive command line interface for package management, it is recommended to use **apt-get**. **apt-get** is also the preferred tool for upgrades between major releases. If you are still using **dselect**, you should switch to `aptitude` as the official front-end for package management.

For squeeze APT automatically installs recommended packages by default². This can be changed by adding the following line in `/etc/apt/apt.conf`:

```
APT::Install-Recommends "false";
```

2.1.4 Dependency booting

An important improvement in the Debian GNU/Linux boot system is the introduction of dependency-based boot sequencing and parallel boot. This feature is enabled by default in new installs and it will be enabled for upgrades from lenny, if possible.

This feature is enabled through the use of `insserv` by `sysv-rc` to order `init.d` scripts based on their declared dependencies³. It has been possible after a sustained effort to adapt all the boot scripts of packages provided in the distribution as well as the boot system itself.

With dependency-based boot sequencing it is also now possible to run the boot system scripts in parallel which can, under most circumstances, improve the speed of the boot process. This feature is enabled by default, in new systems and upgrades, whenever possible. To disable it specify

```
CONCURRENCY=none
```

in `/etc/default/rcS`. For more information on this feature refer to the information available in `/usr/share/doc/insserv/README.Debian`.

2.1.5 Unified keyboard settings

In this new release, the settings for the keyboard have been unified so that both the console and the Xorg server use the same settings. The keyboard settings are now defined in the `/etc/default/keyboard` configuration file which overrides the keyboard defined in Xorg's configuration file.

The `console-setup` package now handles the keyboard for both environments as well as the font configuration for the console. You can reconfigure the keyboard layout and related settings by executing **dpkg-reconfigure keyboard-configuration** or by manually editing the `/etc/default/keyboard` configuration file.

2.1.6 Kernel mode setting

Graphics mode setting code for the most common desktop chipsets (from Intel, ATI/AMD and NVIDIA) has moved from the respective Xorg drivers to the Linux kernel. This provides a number of advantages, such as:

- More reliable suspend and resume
- Ability to use graphics devices without X
- Faster VT switch
- Native mode text console

More details are in Skyrius 5.7 and in [the Debian wiki](http://wiki.debian.org/KernelModesetting) (<http://wiki.debian.org/KernelModesetting>).

² This change implies that disk requirements for tasks selected through the debian installer have increased too. For more information please see the 'Disk Space Needed for Tasks' chapter in the [Installation Guide](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>).

³ These dependences are declared through the use of the header format specified in the Linux Standard Base (LSB)

2.1.7 LDAP support

This Debian release comes with several options for implementing client-side authentication using LDAP. Users of the `libnss-ldap` and `libpam-ldap` packages should consider upgrading to `libnss-ldapd` and `libpam-ldapd`.

These newer packages delegate the LDAP queries to a central unprivileged daemon (`nslcd`) that provides separation between the process using the LDAP information and the daemon performing LDAP queries. This simplifies handling of secured LDAP connections, LDAP authentication credentials, provides a simpler mechanism to perform connection fail-over and debugging and avoids loading LDAP and related libraries into most applications.

Upgrading to `libnss-ldapd` and `libpam-ldapd` should be easy as existing configuration information will be mostly reused. Only for advanced configuration should any manual reconfiguration be necessary.

These packages however currently lack support for nested groups and only support password change using the LDAP password modify EXOP operation.

2.1.8 The stable-updates section

Some packages from `proposed-updates` may also be made available via the `squeeze-updates` mechanism. This path will be used for updates which many users may wish to install on their systems before the next point release is made, such as updates to virus scanners and timezone data. All packages from `squeeze-updates` will be included in point releases.

Note that this replaces the functionality previously provided by the volatile.debian.org archive (<http://volatile.debian.org/>).

In order to use packages from `squeeze-updates`, you can add an entry to your `sources.list`:

```
deb      http://mirrors.kernel.org/debian squeeze-updates main contrib
deb-src  http://mirrors.kernel.org/debian squeeze-updates main contrib
```

The next time you run `apt-get update`, the system will become aware of the packages in the `squeeze-updates` section and will consider them when looking for packages to upgrade.

When a new package is made available via `squeeze-updates`, this will be announced on the [debian-stable-announce](http://lists.debian.org/debian-stable-announce/) (<http://lists.debian.org/debian-stable-announce/>) mailing list.

2.1.9 backports.org/backports.debian.org

The service provided by the `backports.org` repositories has been integrated in Debian infrastructure and [is now an official Debian service](http://www.debian.org/News/2010/20100905) (<http://www.debian.org/News/2010/20100905>), hosted at backports.debian.org (<http://backports.debian.org/>).

2.2 Comprehensive support for neuroimaging research

Debian GNU/Linux 6.0 is the first GNU/Linux distribution release ever to offer comprehensive support for magnetic resonance imaging (MRI) based neuroimaging research. It comes with up-to-date software for structural image analysis (e.g. `ants`), diffusion imaging and tractography (e.g. `mrtrix`), stimulus delivery (e.g. `psychopy`), MRI sequence development (e.g. `odin`), as well as a number of versatile data processing and analysis suites (e.g. `nipype`). Moreover, this release has built-in support for all major neuroimaging data formats. See the [Debian Science](http://blends.alioth.debian.org/science/tasks/neuroscience-cognitive) (<http://blends.alioth.debian.org/science/tasks/neuroscience-cognitive>) and [Debian Med](http://debian-med.alioth.debian.org/tasks/imaging) (<http://debian-med.alioth.debian.org/tasks/imaging>) task pages for a comprehensive list of included software and the [NeuroDebian webpage](http://neuro.debian.net) (<http://neuro.debian.net>) for further information.

Chapter 3

Įdiegimo sistema

Debian'o įdiegiklis (diegimo programa) yra oficiali Debian'o įdiegimo sistema. Ji siūlo įvairių įdiegimo metodų, priklausomai nuo kompiuterio architektūros.

Įdiegiklio atvaizdus squeeze distributyvui, o taip pat ir įdiegimo vadovą galima rasti [Debian'o tinklapyje](http://www.debian.org/releases/stable/debian-installer/) (<http://www.debian.org/releases/stable/debian-installer/>).

Įdiegimo vadovas taip pat patalpintas oficialaus CD/DVD diskų rinkinio pirmajame diske. Jį rasite čia:

```
/doc/install/manual/1t/index.html
```

Taip pat verta pasižiūrėti Debian'o įdiegiklio žinomų problemų sąrašą [errata](http://www.debian.org/releases/stable/debian-installer/index#errata) (<http://www.debian.org/releases/stable/debian-installer/index#errata>).

3.1 Kas naujo įdiegimo sistemoje?

Visą laiką nuo pirmojo oficialaus Debian'o įdiegiklio su Debian GNU/Linux 3.1 ('sarge') išleidimo jis buvo aktyviai tobulinamas, todėl pagerėjo aparatinės įrangos palaikymas ir buvo pridėta naujų funkcijų.

Šiose laidos pastabose aprašysime tik pagrindinius įdiegiklio programos pokyčius. Jei įdomu, kas konkrečiai pasikeitė po lenny išleidimo, pasižiūrėkite squeeze beta ir RC laidų anonsus Debian'o įdiegiklio [naujienu istorijoje](http://www.debian.org/devel/debian-installer/News/) (<http://www.debian.org/devel/debian-installer/News/>).

3.1.1 Pagrindiniai pokyčiai

Dropped platforms Support for the Alpha ('alpha'), ARM ('arm') and HP PA-RISC ('hppa') architectures has been dropped from the installer. The 'arm' architecture is obsoleted by the ARM EABI ('armel') port.

Help during the installation process The dialogs presented during the installation process now provide help information. Although not currently used in all dialogs, this feature would be increasingly used in future releases. This will improve the user experience during the installation process, especially for new users.

Installation of Recommended packages The installation system will install all recommended packages by default throughout the process except for some specific situations in which the general setting gives undesired results.

Automatic installation of hardware-specific packages The system will automatically select for installation hardware-specific packages when they are appropriate. This is achieved through the use of `discover-pkginstall` from the `discover` package.

Support for installation of previous releases The installation system can be also used for the installation of previous release, such as lenny.

Improved mirror selection The installation system provides better support for installing both squeeze as well as lenny and older releases (through the use of `archive.debian.org`). In addition, it will also check that the selected mirror is consistent and holds the selected release.

Changes in partitioning features This release of the installer supports the use of the ext4 file system and it also simplifies the creation of RAID, LVM and crypto protected partitioning systems. Support for the reiserfs file system is no longer included by default, although it can be optionally loaded.

Support for loading firmware debs during installation It is now possible to load firmware package files from the installation media in addition to removable media, allowing the creation of PXE images and CDs/DVDs with included firmware packages.

Starting with Debian 6.0, non-free firmware has been moved out of main. To install Debian on hardware that needs non-free firmware, you can either provide the firmware yourself during installation or use pre-made non-free CDs/DVDs which include the firmware. See the [Getting Debian section](#) (<http://www.debian.org/distrib>) on the Debian website for more information.

Naujos kalbos Thanks to the huge efforts of translators, Debian GNU/Linux can now be installed in 70 languages. This is seven more languages than in lenny. Most languages are available in both the text-based installation user interface and the graphical user interface, while some are only available in the graphical user interface.

Languages added in this release include:

- Asturian, Estonian, Icelandic, Kazakh and Persian have been added to the graphical and text-based installer.
- Kannada, Lao, Sinhala and Telugu have been added to the graphical installer.
- Thai, previously available only in the graphical user interface, is now available also in the text-based installation user interface too.

Due to the lack of translation updates two languages were dropped in this release: Wolof and Welsh.

Improved localisation selection The selection of localisation-related values (language, location and locale settings) is now less interdependent and more flexible. Users will be able to customize the system to their localisation needs more easily while still make it comfortable to use for users that want to select the locale most common for the country they reside in.

Additionally, the consequences of localisation choices (such as timezone, keymap and mirror selection) are now more obvious to the user.

Live system installation The installer now supports live systems in two ways. First, an installer included on live system media can use the contents of the live system in place of the regular installation of the base system. Second, the installer may now be launched while running the live system, allowing the user to do other things with the live system during the install. Both features are built into the Debian Live images offered at <http://cdimage.debian.org/>.

3.1.2 Automatizuotas įdiegimas

Kai kurie pakeitimai minėti aukščiau, taip pat palietė ir automatizuoto įdiegimo palaikymą įdiegiklyje, naudojant išankstinių nustatymų failus. Tai reiškia, kad jeigu jau turite esamus išankstinių nustatymų failus, kurie dirbo su lenny įdiegikliu, negalite tikėtis, kad jie veiks ir su nauju įdiegikliu be pakeitimų.

[Įdiegimo vadove](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>) yra atnaujintas atskiras priedas su išsamiais paaiškinimais apie išankstinių nustatymų failų naudojimą.

Chapter 4

Upgrades from Debian 5.0 (lenny)

4.1 Pasiruošimas atnaujinimui

Prieš atnaujinimą mes rekomenduojame Jums taip pat perskaityti Skyrius 5. Tas skyrius aprašo potencialias problemas, kurios nėra tiesiogiai susietos su atnaujinimo procesu, tačiau vis tik svarbu apie jas žinoti prieš atnaujinimą.

4.1.1 Visų duomenų ir konfigūracijos nustatymų atsarginės kopijos sukūrimas

Prieš atnaujinant sistemą, primygtinai rekomenduojama atlikti pilną atsarginę kopiją, arba bent jau išsaugoti visus duomenis ir konfigūravimo nustatymus, kurių negalite sau leisti prarasti. Atnaujinimo įrankiai ir procesas yra gana patikimi, bet dėl aparatūros sutrikimų atnaujinimo proceso viduryje gali atsirasti rimtų sistemos pažeidimų.

The main things you'll want to back up are the contents of `/etc`, `/var/lib/dpkg`, `/var/lib/apt/extended_states` and the output of `dpkg --get-selections "*" (the quotes are important)`. If you use **aptitude** to manage packages on your system, you will also want to back up `/var/lib/aptitude/pkgstates`.

Atnaujinimo procesas pats savaime nekeičia nieko `/home` kataloge. Tačiau kai kurios programos (pvz., dalis Mozilla rinkinio, ir GNOME bei KDE darbastalio aplinkos) perrašo esamus naudotojo nustatymus naujais numatytais nustatymais (ypač, kai naudotojas pirmą kartą paleidžia vykdyti naujos versijos programą). Todėl dėl atsargumo, verta padaryti paslėptų failų ir katalogų, esančių naudotojų namų kataloguose (taip vadinamų 'dotfiles' failų) atsarginę kopiją. Šios atsarginės kopijos gali padėti atstatyti ar atkurti senuosius nustatymus. Taip pat verta informuoti naudotojus apie tai.

Bet kokio paketo diegimas turi būti vykdomas administratoriaus teisėmis, todėl turite prisijungti kaip `root` arba naudoti `su` ar `sudo` komandas, tam kad įgyti reikiamas teises.

Atnaujinimas turi turėti kelis išankstinius reikalavimus; Jūs turite patikrinti juos prieš pradėdami vykdyti atnaujinimą.

4.1.2 Informuoti naudotojus iš anksto

Pageidautina iš anksto pranešti visiems naudotojams apie visus planuojamus atnaujinimus, nors naudotojai prieinantys prie Jūsų sistemos per `ssh` ryšį neturėtų pajusti ypatingų problemų atnaujinimo metu, ir pilnai gali tęsti darbą.

Jei norite imtis papildomų atsargumo priemonių, padarykite naudotojų disko skirsnio (`/home`) atsarginę kopiją arba atjunkite šį disko skirsnį prieš atnaujinimą.

You will have to do a kernel upgrade when upgrading to squeeze, so a reboot will be necessary.

4.1.3 Prepare for downtime on services

There might be services that are offered by the system which are associated with packages that will be included in the upgrade. If this is the case, please note that, during the upgrade, these services will be stopped while their associated packages are being replaced and configured. During this time, these services will not be available.

The precise downtime for these services will vary depending on the number of packages being upgraded in the system, and it also includes the time the system administrator answers the configuration

questions from different package upgrades (if any). Notice that if the upgrade process is left unattended and the system requests input throughout the upgrade there is a high possibility of services being unavailable¹ for a significant period of time.

If the system being upgraded provides critical services for your users or the network², you can reduce the downtime if you do a minimal system upgrade, as described in Skyrius 4.4.4, followed by a kernel upgrade and reboot (see Skyrius 4.4.5), and then upgrade the packages associated with your critical services. Upgrade these packages prior to doing the full upgrade described in Skyrius 4.4.6. This way you can ensure that these critical services are running and available through the full upgrade process, and their downtime is reduced.

4.1.4 Pasiruošimas atstatymui

Dėl daugelio pokyčių branduolyje tarp lenny ir squeeze laidų (įrenginių nustatymo ir jų įvardijimo bei įrenginių failų tvarkos pasikeitimų, įrenginių valdyklių pokyčių), yra realus pavojus, kad gali kilti problemų naujai įkeliant (rebooting) Jūsų sistemą po atnaujinimo. Daug žinomų galimų problemų yra pateikta šio dokumento tolimesniuose skyriuose.

Dėl šios priežasties tikslinga užtikrinti, kad būtų galima sugražinti sistemą į buvusią būseną, jei jūsų sistemai nepavyks naujai įsikelti arba, nuotoliniu būdu valdytoje sistemoje neveiks tinklas.

Jei jūs atnaujinate nuotoliniu būdu per `ssh` ryšį, labai rekomenduojama imtis atsargumo priemonių ir numatyti, kad būtų galima prieiti prie serverio naudojant nutolusį nuoseklų terminalą. Gali nutikti, kad po branduolio atnaujinimo ir sistemos perkrovimo, kai kurie įrenginiai bus pervadinti (kaip aprašyta Skyrius 4.6.2 skyriuje) ir Jūs galėsite pataisyti sistemos konfigūracijos nustatymus tik per lokalią konsolę. Be to, jei sistema atsitiktinai persileistų viduryje atnaujinimo, Jums tai pat prireiktų lokalsios konsolės sistemos atstatymui.

Akivaizdu, kad tokiu atveju pirmiausiai reikia pabandyti naujai įkelti (reboot) sistemą naudojant senąjį branduolį. Tačiau dėl įvairių priežasčių, aprašytų kitose šio dokumento dalyse, tai ne visuomet pavyksta.

Jei tai nepavyks, Jums prireiks alternatyvaus būdo įkelti savo sistemą, kad būtų galima prie jos prieiti ir ją pataisyti. Viena galimybė yra naudoti specialų sistemos atkūrimo atvaizdą arba naudoti Linux demonstracinį (live) kompaktinį diską. Po paleidimo vienu iš šių būdų, galėsite prijungti savo šakninę failų sistemą ir pasinaudojus `chroot`, surasti ir ištaisyti problemą.

Kita galimybė, kurią norėtume rekomenduoti, tai naudoti Debian'o squeeze įdiegiklio *atstatymo veikseną* (rescue mode). Šio būdo pranašumas yra tame, kad Jūs galite pasirinkti vieną iš daugelio diegimo metodų, kuris geriausiai atitinka Jūsų atvejį. Norėdami gauti daugiau informacijos, apie tai, skaitykite 'Sugadintos sistemos atstatymas' 8-ajame [Įdiegimo vadovas](http://www.debian.org/releases/stable/installmanual) (<http://www.debian.org/releases/stable/installmanual>) skyriuje ir [Debian'o įdiegiklio DUK](http://wiki.debian.org/DebianInstaller/FAQ) (<http://wiki.debian.org/DebianInstaller/FAQ>).

4.1.4.1 Derinimo apvalkalo naudojimas sistemos įkėlimo metu

Paketas `initramfs-tools` turi derinimo apvalkalą (debug shell)³, kuris yra jo sugeneruotame `initrd` faile. Jei pavyzdžiui `initrd` negali prijungti šakninės failų sistemos, bus įeita į šį derinimo apvalkalą, kurie turi pagrindines komandas galinčias padėti išaiškinti problemą ir galbūt ištaisyti.

Pagrindiniai dalykai kuriuos reikia tikrinti: ar yra teisingi failai kataloge `/dev`; kokie moduliai įkelti (`cat /proc/modules`); patikrinti ar nėra klaidų įkeliant valdykles komandos `dmesg` išvestyje. Komandos `dmesg` išvestis taip pat parodys kuriam diskui buvo priskirtas koks įrenginio failas; įsitikinkite, kad `echo $ROOT` išvestis rodo į laukiamą šakninės failų sistemos įrenginį.

Jeigu jums pavyko išspręsti problemą, išėjimui iš derinimo apvalkalo aplinkos įveskite `exit` ir sistemos įkėlimo procesas bus pratęstas toje pačioje vietoje, kurioje buvo susidurta su problema. Žinoma, Jums dar reikės pašalinti priežastį ir sugeneruoti naują `initrd`, kad sekantis sistemos įkėlimas neužkliūtų vėl.

¹ If the `debconf` priority is set to a very high level you might prevent configuration prompts, but services that rely on default answers that are not applicable to your system will fail to start.

² For example: DNS or DHCP services, specially when there is no redundancy or failover. In the DHCP case end-users might be disconnected from the network if the lease time is lower than the time it takes for the upgrade process to complete.

³ Ši funkcija gali būti išjungta pridendant parametrą `panic=0` prie įkėlimo parametrų.

4.1.5 Atnaujinimui saugios aplinkos paruošimas

Distributyvo atnaujinimas turėtų būti atliekamas arba lokaliai iš tekstinės virtualios konsolės (arba tiesiogiai prie nuoseklosios jungties prijungto terminalo) arba nuotoliniu būdu per `ssh` ryšį.

SVARBU



If you are using some VPN services (such as `tinc`) they might not be available throughout the upgrade process. Please see Skyrius [4.1.3](#).

Siekiant įgyti papildomo atsargumo atnaujinant nuotoliniu būdu, mes rekomenduojame atnaujinimą vykdyti programos `screen` tiekiamoje virtualioje konsolėje, kuri leidžia saugiai prisijungti pakartotinai ir užtikrina atnaujinimo proceso tęsimą net jei įvyks ryšio trūkium.

SVARBU



You should *not* upgrade using `telnet`, `rlogin`, `rsh`, or from an X session managed by `xdm`, `gdm` or `kdm` etc on the machine you are upgrading. That is because each of those services may well be terminated during the upgrade, which can result in an *inaccessible* system that is only half-upgraded. Use of the GNOME application `update-manager` is *strongly discouraged* for upgrades to new releases, as this tool relies on the desktop session remaining active.

4.1.6 Remove conflicting packages

Due to bug [#512951](http://bugs.debian.org/512951) (<http://bugs.debian.org/512951>), the `splashy` package needs to be purged prior to the upgrade.

```
# apt-get purge splashy
```

4.2 Sistemos būsenos tikrinimas

Atnaujinimo procesas aprašytas šiame skyriuje yra skirtas atnaujinimui iš 'grynos' lenny sistemas be trečiųjų šalių paketų. Dėl didesnio atnaujinimo proceso patikimumo užtikrinimo, būtų gerai pašalinti trečiųjų šalių paketus iš jūsų sistemos, prieš pradėdant atnaujinimą.

Direct upgrades from Debian releases older than 5.0 (lenny) are not supported. Please follow the instructions in the [Release Notes for Debian GNU/Linux 5.0](http://www.debian.org/releases/lenny/releasenotes) (<http://www.debian.org/releases/lenny/releasenotes>) to upgrade to 5.0 first.

Aprašant šią procedūrą taip pat numanoma, kad jūsų sistema yra atnaujinta iki paskutiniosios lenny laidos. Jei to dar nepadarėte arba nesate tuo įsitikinę, skaitykite instrukcijas skyriuje Skyrius [A.1](#).

4.2.1 Atidėtų veiksmų paketų tvarkymo programoje peržiūra

Kai kuriais atvejais, naudojant paketų įdiegimui `apt-get` vietoj `aptitude` gali atsitikti taip, kad `aptitude` ima kai kuriuos paketus laikyti 'nenaudojamais' ir planuoja juos pašalinti. Apskritai, prieš pradėdant atnaujinimą iki sekančios laidos, reikia įsitikinti, kad dabartinė sistema yra visiškai atnaujinta ir 'švari'.

Todėl patikrinkite, ar paketų tvarkymo programa `aptitude` nėra numaciusi kokių nors atidėtų veiksmų. Jei ši programa planuoja paketą pašalinti arba atnaujinti, tai gali turėti neigiamos įtakos laidos atnaujinimo procedūrai. Atkreipkite dėmesį, kad pataisyti tai įmanoma tik kol Jūsų `sources.list` vis dar nurodyta *lenny*, o ne *stable* ar *squeeze*; žiūr. Skyrius [A.2](#).

Norėdami tai padaryti, paleiskite `aptitude` programą 'interaktyviam režime' ir paspauskite klavišą `g` ('Go'). Jei ji rodo bet kokius numatomus veiksmus, turite juos peržiūrėti ir arba juos pašalinti arba

įgyvendinti. Jei jokių veiksmų nenumatyta Jums bus pateiktas pranešimas: ‘No packages are scheduled to be installed, removed, or upgraded’.

4.2.2 APT pinning atjungimas

Jei esate nustatę APT įdiegti tam tikrus paketus iš kito distributyvo (pvz. iš `testing`, esant pagrindiniam distributyvui `stable`), jums gali tekti pakeisti APT nustatymus (saugomi faile `/etc/apt/preferences`), tam kad leisti atnaujinti paketų versijas įki naujosios stabilios laidos. Daugiau informacijos apie APT pinning galima rasti `apt_preferences(5)`.

4.2.3 Paketų būsenos tikrinimas

Nepriklausomai nuo atnaujinimo metodo, rekomenduojama pirmiausia patikrinti visų paketų statusą, ir įsitikinti, kad visiems paketai yra leista atsinaujinti. Žemiau pateikta komanda parodys paketus, kurie yra dalinai įdiegti (`Half-Installed`), kurių nepavyko sukonfigūruoti po įdiegimo (`Failed-Config`), ir kitus klaidingos būsenos paketus.

```
# dpkg --audit
```

Taip pat galite patikrinti paketų būseną Jūsų sistemoje naudodami programas `dselect`, `aptitude`, arba tokia komanda, kaip antai

```
# dpkg -l | pager
```

arba

```
# dpkg --get-selections "*" > ~/curr-pkgs.txt
```

Pageidautina, kad prieš atnaujinimą būtų pašalinti visi paketų sulaikymai (`hold`). Jei paketas, kurį būtina atnaujinti yra sulaikytas, atnaujinimas baigsis nesėkmingai.

Atkreipkite dėmesį, kad `aptitude` naudoja skirtingą sulaikytų paketų žymėjimo metodą nei `apt-get` ir `dselect`. Nustatyti, kurie paketai `aptitude` programai yra sulaikymo būsenoje galite taip:

```
# aptitude search "~ahold"
```

Jei norite patikrinti, kurie paketai `apt-get` programai yra sulaikymo būsenoje, naudokite

```
# dpkg --get-selections | grep hold
```

Jei Jūs pakeitėte ir perkompiliavote paketą lokaliai, bet nepakeitėte jo vardo ar nepapildėte jo versijos „epocha“, jūs privalote jį sulaikyti, kad jo nebūtų galima atnaujinti.

The ‘hold’ package state for `apt-get` can be changed using:

```
# echo package_name hold | dpkg --set-selections
```

Replace `hold` with `install` to unset the ‘hold’ state.

Jei Jums reikia dar kažką ištaisyti, tai geriausia daryti kol Jūsų `sources.list` faike dar nurodytas lenny, kaip tai paaiškinta Skyrius [A.2](#).

4.2.4 Skyrius „proposed-update“

Jei esate `/etc/apt/sources.list` failą papildę skyriumi `proposed-updates`, turite ją pašalinti iš šio failo prieš bandant atnaujinti savo sistemą. Tai atsargumo priemonė, siekiant sumažinti konfliktų tikimybę.

4.2.5 Neoficialūs ir adaptuotų paketų (backports) APT šaltiniai

Jei savo sistemoje turite įdiegę kokius nors paketus ne iš Debian’o repozitorijų, tai žinokite, kad jie gali būti pašalinti atnaujinimo metu dėl priklausomybių konfliktų. Jeigu dėl šių paketų įdiegimo į `/etc/apt/sources.list` buvo įrašyti ir papildomi archyvai, patikrinkite ar šie archyvai siūlo paketus ir `squeeze` laidai ir pakeiskite šaltinių eilutes atitinkamai, tuo pat metu kai keisite šaltinių eilutes Debian’o paketams.

Kai kurie naudotojai gali būti jau įdiegę savo sistemose neoficialių ‘naujesnių’ versijų, bet pritaikytų lenny laidai, paketų. Tokie paketai greičiausiai taps atnaujinimo problemų priežastimi, kadangi jie gali sukelti ir failų konfliktus⁴. Skyrius 4.5 aprašo, ką daryti kilus failų konfliktams.

4.3 APT šaltinių paruošimas

Prieš pradėdant atnaujinimą reikia nustatyti programos apt konfigūraciją paketų sąrašams, `/etc/apt/sources.list`.

Programa apt, iš visų paketų, kuriuos galima rasi šaltinių failo ‘deb’ eilutėmis nurodytuose šaltiniuose, įdiegs paketus su didžiausiais versijų numeriais. Tačiau, esant vienodom versijom, pirmenybė teikiama pirmesnei eilutei šaltinių faile (taigi jei turite nurodę keletą veidrodžių, paprastai geriausia pirma nurodyti saugyklą vietiniame diske, tada CD-ROM, ir galiausiai HTTP/FTP veidrodžius).

Laida dažnai gali būti nurodoma jos kodiniu vardu (pvz, lenny, squeeze) ir jos statuso vardu (t.y. oldstable, stable, testing, unstable). Nuoroda į laidą jos kodiniu vardu turi tą privalumą, kad Jūs niekada, netikėtai sau pačiam, nepradėsite naudoti naujesnės laidos. Dėl šios priežasties mes čia taip ir darome. Tai žinoma reiškia, kad Jums teks patiems sekti anonsus apie naujų laidų pasirodymą. Jei distributyvo nurodymui naudosite statuso vardą, Jūs tiesiog, pasirodžius naujai laidai, pamatysite didelį kiekį atnaujintų paketų.

4.3.1 Papildymas interneto APT šaltiniais

Numatytieji nustatymai įgalina atlikti atnaujinimą iš pagrindinių Debian’o interneto serverių, tačiau Jūs galite pakeisti šaltinių failą `/etc/apt/sources.list` ir naudotis kitais serveriais - veidrodžiais, pvz. tais, kurie yra arčiausiai Jūsų.

Debian’o HTTP ir FTP veidrodžių adresus galima rasti adresu <http://www.debian.org/distrib/ftplist> (žiū. skyriuje ‘list of Debian mirrors’). HTTP veidrodžiai paprastai greitesni nei FTP veidrodžiai.

Pavyzdžiui, tarkime, Jums artimiausias Debian veidrodis yra <http://mirrors.kernel.org>. Peržiūrint veidrodį interneto naršyklę arba FTP klientine programa, pastebėsite, kad pagrindiniai katalogai yra organizuoti taip:

```
http://mirrors.kernel.org/debian/dists/squeeze/main/binary-alpha/...
http://mirrors.kernel.org/debian/dists/squeeze/contrib/binary-alpha/...
```

Kad apt naudotų ši veidrodį, į failą `sources.list` pridėkit tokią eilutę:

```
deb http://mirrors.kernel.org/debian squeeze main contrib
```

Atkreipkite dėmesį, kad ‘dists’ įrašoma besaligiškai, o argumentai, sekantys po laidos vardo, yra naudojami pratesti kelią iki keleto realių katalogų.

Pridėjus naujų šaltinių, išjunkite anksčiau egzistavusias ‘deb’ eilutes faile `sources.list`, įvesdami maišos ženklą (#) eilutės pradžioje.

4.3.2 APT šaltinių papildymas lokaliais veidrodžiais

Vietoj HTTP ar FTP veidrodžių, galima naudoti ir veidrodžius (saugyklas) vietiniame diske, atitinkamai pakeitus įrašą šaltinių faile `/etc/apt/sources.list` (šis diskas gali būti prijungtas ir per NFS).

Pavyzdžiui, jei Jūsų paketų saugykla yra kataloge `/var/ftp/debian/`, o jo pagrindiniai katalogų vardai tokie:

```
/var/ftp/debian/dists/squeeze/main/binary-alpha/...
/var/ftp/debian/dists/squeeze/contrib/binary-alpha/...
```

Norėdami naudoti šią paketų saugyklą su apt, pridėkite tokią eilutę į failą `sources.list`:

```
deb file:/var/ftp/debian squeeze main contrib
```

⁴ Debian paketų valdymo sistema paprastai neleidžia paketui pašalinti arba pakeisti failų, priklausančių kitam paketui, išskyrus atvejus, kai paketas - failo savininkas yra nustatęs, kad tą daryti galima.

Atkreipkite dėmesį, kad `dists` įrašoma besąlygiškai, o argumentai, sekantys po laidos vardo, yra naudojami pratešti kelią iki keleto realių katalogų.

Pridėjus naujų šaltinių, išjunkite anksčiau egzistavusias `deb` eilutes faile `sources.list`, įvesdami maišos ženklą (#) eilutės pradžioje.

4.3.3 Papildymas APT šaltiniu iš CD-ROM arba DVD

Jei norite naudoti *tik* kompaktinius diskus, užkomentuokite visas `deb` eilutes faile `sources.list`, įvesdami maišos ženklą (#) eilutės pradžioje.

Išitikinkite, kad yra eilutė faile `/etc/fstab`, kuri leidžia prijungti (mount) CD-ROM įrenginį prie taško `/cdrom` (kaip tik prie šio taško reikalauja prijungimo komanda **apt-cdrom**). Pavyzdžiui, jei `/dev/hdc` yra Jūsų CD-ROM įrenginys, faile `/etc/fstab` turi būti tokia eilutė:

```
/dev/hdc /cdrom auto defaults,noauto,ro 0 0
```

Atkreipkite dėmesį, kad ketvirtajame eilutės lauke, tarp žodžių `defaults`, `noauto`, `ro`, *neturi būti tarpų*.

Kad patikrinti ar eilutė įrašyta į failą `/etc/fstab` teisingai, įdėkite kompaktinį diską į įrenginį ir įvykdysite komandas:

```
# mount /cdrom # prijungia CD prie prijungimo štako
# ls -alF /cdrom # parodo CD'o šaknini aškatalog
# umount /cdrom # atjungia CD
```

Tada vykdykite komandą

```
# apt-cdrom add
```

kiekvienam turimam Debian'o dvejetainiam CD-ROM'ui, jei norite kad duomenys apie kiekvieną CD patektų į APT duomenų bazę.

4.4 Paketų atnaujinimas

The recommended way to upgrade from previous Debian GNU/Linux releases is to use the package management tool **apt-get**. In previous releases, **aptitude** was recommended for this purpose, but recent versions of **apt-get** provide equivalent functionality and also have shown to more consistently give the desired upgrade results.

Nepamirškite prijungti visus reikalingus diskų skirsnius (ypač `root` ir `/usr` skirsnius) skaitymui ir rašymui. Tai galima padaryti komanda:

```
# mount -o remount,rw /mountpoint
```

Toliau reikėtų dar kartą patikrinkite, kad APT šaltinių įrašai (faile `/etc/apt/sources.list`) rodo arba į `squeeze` arba į `stable`. Neturėtų būti jokių šaltinių įrašų nurodančių į `lenny`.

PASTABA



Source lines for a CD-ROM might sometimes refer to `unstable`; although this may be confusing, you should *not* change it.

4.4.1 Seanso rašymas

Labai rekomenduojama, kad naudotumėte programą `/usr/bin/script` atnaujinimo seanso įrašymui. Tada, jei iškiltų problemų, Jūs turėsite visų įvykusių veiksmų žurnalą, ir prireikus, galėsite pateikti šią informaciją pranešimą apie riklą. Norėdami pradėti įrašinėti, įvykdysite komandą:

```
# script -t 2>~/upgrade-squeezestep.time -a ~/upgrade-squeezestep.script
```

or similar. If you have to rerun the `typescript` (e.g. if you have to reboot the system) use different `step` values to indicate which step of the upgrade you are logging. Do not put the `typescript` file in a temporary directory such as `/tmp` or `/var/tmp` (files in those directories may be deleted during the upgrade or during any restart).

The `typescript` will also allow you to review information that has scrolled off-screen. If you are at the system's console, just switch to VT2 (using `Alt+F2`) and, after logging in, use `less -R ~root/upgrade-squeeze.script` to view the file.

Pabaigus atnaujinimą, galite sustabdyti programą **script** įvedę `exit` komandinėje eilutėje.

Jei programai **script** perdavėte parametą `-t`, galėsite pasinaudodamas programa **scriptreplay** pakartoti visą seansą:

```
# scriptreplay ~/upgrade-squeeze.time ~/upgrade-squeeze.script
```

4.4.2 Paketų sąrašo atnaujinimas

Pirmiausia reikia atnaujinti paketų, esančių naujojoje laidoje, sąrašą. Tai atliekama komanda:

```
# apt-get update
```

4.4.3 Įsitikinkite, kad turite pakankamai vietos atnaujinimui

You have to make sure before upgrading your system that you have sufficient hard disk space when you start the full system upgrade described in Skyrius 4.4.6. First, any package needed for installation that is fetched from the network is stored in `/var/cache/apt/archives` (and the `partial/` subdirectory, during download), so you must make sure you have enough space on the file system partition that holds `/var/` to temporarily download the packages that will be installed in your system. After the download, you will probably need more space in other file system partitions in order to both install upgraded packages (which might contain bigger binaries or more data) and new packages that will be pulled in for the upgrade. If your system does not have sufficient space you might end up with an incomplete upgrade that might be difficult to recover from.

apt-get can show you detailed information of the disk space needed for the installation. Before executing the upgrade, you can see this estimate by running:

```
# apt-get -o APT::Get::Trivial-Only=true dist-upgrade
[ ... ]
XXX upgraded, XXX newly installed, XXX to remove and XXX not upgraded.
Need to get xx.xMB of archives.
After this operation, AAAMB of additional disk space will be used.
```

PASTABA



Ši komanda atnaujinimo pradžioje, dėl priežasčių, nurodytų žemiau, gali pranešti klaidą. Tokiu atveju jums reikės šios komandos pagalba įvertinti reikiamą vietos diske dydį tik atlikus minimalų sistemą atnaujinimą, kaip aprašyta Skyrius 4.4.4 ir atnaujinus branduolį.

If you do not have enough space for the upgrade, **apt-get** will warn you with a message like this:

```
E: You don't have enough free space in /var/cache/apt/archives/.
```

In this situation, make sure you free up space beforehand. You can:

- Remove packages that have been previously downloaded for installation (at `/var/cache/apt/archives`). Cleaning up the package cache by running **apt-get clean** will remove all previously downloaded package files.

- Pašalinti užmirštus paketus. Jei turite idiege `popularity-contest` paketą, pasinaudodami komanda **popcon-largest-unused** galite gauti sąrašą paketų, kurių nenaudojate ir kurie užima daugiausia vietos. Taip pat galite naudoti **deborean** arba **deboster** komandas, tam kad rasti pasenusius paketus (žiūr. Skyrius 4.9). Arba galite pasikeisti programą **aptitude** 'interaktyviu režimu' ir rasti pasenusius paketus skyriuje 'Nebenaudojami ir lokaliai sukurti paketai'.
- Pašalinti paketus, kurie užima daug vietos ir šiuo metu nėra reikalingi (Jūs visada galėsite juos vėl įdiegti po sistemos atnaujinimo). Paketų, užimančių daug vietos diske, sąrašą galima gauti programos **dpigs** (pateikiamos `debian-goodies` pakete) pagalba arba programos **wajig** (įvykdžius `wajig size`) pagalba.
You can list packages that take up most of the disk space with `aptitude`. Start **aptitude** in 'visual mode', select Views → New Flat Package List, press **I** and enter `~i`, press **S** and enter `~installsize`, then it will give you nice list to work with.
- Pašalinti vertimus ir lokalizacijos failus iš sistemos, jei jie nėra būtini. Jūs galite įdiegti paketą `localepurge` ir sukonfigūruoti jį taip, kad tik keletas atrinktų sisteminių lokalių bus palikta sistemoje. Tai atlaisvins diske dalį katalogo `/usr/share/locale` užimamos vietos.
- Laikina perkelti į kitą sistemą, arba visam laikui pašalinti, sistemos žurnalus, esančius kataloge `/var/log/`.
- Naudoti laikiną katalogą `/var/cache/apt/archives`: Jūs galite laikinai naudoti šiai talpyklai katalogą iš kitos failų sistemos (USB įrenginį, laikiną kietąjį diską, jau naudojamą failų sistemą, ...)

PASTABA



Nenaudokite NFS failų sistemos, nes atnaujinimo metu tinklo ryšys gali būti nutrauktas.

Pavyzdžiui, jei turite USB diską, prijungtą prie taško `/media/usbkey`:

1. pašalinkite paketus, kurie anksčiau buvo atsisiųsti įdiegimui:

```
# apt-get clean
```

2. nukopijuokite katalogą `/var/cache/apt/archives` į USB diską:

```
# cp -ax /var/cache/apt/archives /media/usbkey/
```

3. prijunkite laikiną talpyklą prie dabartinės:

```
# mount --bind /media/usbkey/archives /var/cache/apt/archives
```

4. po atnaujinimo, atkurkite originalų katalogą `/var/cache/apt/archives`:

```
# umount /media/usbkey/archives
```

5. pašalinti likusį ir nebereikalingą katalogą `/media/usbkey/archives`.

Galite sukurti laikiną talpyklos katalogą bet kurioje failų sistemoje, jau esančioje (t.y. prijungtoje) Jūsų sistemoje.

- Do a minimal upgrade of the system (see Skyrius 4.4.4) or partial upgrades of the system followed by a full upgrade. This will make it possible to upgrade the system partially, and allow you to clean the package cache before the full upgrade.

Atkreipkite dėmesį, kad norint saugiai pašalinti paketus, patartina pataisyti failą `sources.list` atgal į lenny šaltinius, kaip aprašyta čia: Skyrius A.2.

4.4.4 Minimalus sistemos atnaujinimas

In some cases, doing the full upgrade (as described below) directly might remove large numbers of packages that you will want to keep. We therefore recommend a two-part upgrade process, first a minimal upgrade to overcome these conflicts, then a full upgrade as described in Skyrius 4.4.6.

To do this first, run:

```
# apt-get upgrade
```

Ši komanda atnaujins visus programų paketus, kurie gali būti atnaujinti nepašalinant bei neįdiegiant jokių kitų papildomų paketų.

The minimal system upgrade can also be useful when the system is tight on space and a full upgrade cannot be run due to space constraints.

4.4.5 Upgrading the kernel and udev

The `udev` version in `squeeze` requires a kernel of version 2.6.26 or newer with the `CONFIG_SYSFS_DEPRECATED` option disabled and the `CONFIG_INOTIFY_USER` and `CONFIG_SIGNALFD` options enabled. Because the standard Debian kernels in `lenny` (version 2.6.26) have `CONFIG_SYSFS_DEPRECATED` enabled, and the `udev` version in `lenny` will not provide all the functionality expected by the latest kernels, special care must be taken when upgrading to avoid putting your system in an unbootable state.

Booting the 2.6.26 kernel from `lenny` with the `udev` from `squeeze` may result in a failure to correctly assign names to network devices, and will also fail to apply certain additional permissions to block devices (such as access by the `disk` group). The software itself will appear to be working, but some rules (for example, network-based rules) will not be loaded properly. It is therefore strongly recommended that you upgrade the kernel on its own at this point, to ensure a compatible kernel is available before upgrading `udev`.

To proceed with this kernel upgrade, run:

```
# apt-get install linux-image-2.6-flavor
```

See Skyrius 4.6.1 for help in determining which flavor of kernel package you should install.

The move of some firmware to separate packages in the non-free archive (see Skyrius 2.1.2) means that it may be necessary to install additional firmware packages after upgrading to the new kernel to support some hardware. Some hardware that was operating correctly before the upgrade might fail to work once the kernel is upgraded. Look out for warning messages from the kernel install or `initramfs` generation scripts, and make sure the necessary firmware packages are installed.

Immediately after upgrading the kernel, you should also install the new `udev` to minimize the risk of other incompatibilities caused by using the old `udev` with a new kernel⁵. You can do this by running:

```
# apt-get install udev
```

You should reboot the system⁶ once you have upgraded both the kernel and `udev`.

4.4.6 Upgrading the system

Once you have taken the previous steps, you are now ready to continue with the main part of the upgrade. Execute:

```
# apt-get dist-upgrade
```

⁵ There are also known incompatibilities between the old kernel and the new `udev`. If you find issues after the reboot with the new kernel you will have to downgrade the `udev` in order to use the old one.

⁶ If you are logging the upgrade as described in Skyrius 4.4, please, use `script` again to log the next steps of the upgrade after the reboot in order to log the result of the actions described in Skyrius 4.4.6.

PASTABA



The upgrade process for other releases recommended the use of **aptitude** for the upgrade. This tool is not recommended for upgrades from lenny to squeeze.

Tai atliks pilną sistemos atnaujinimą, t.y. įdiegs esamas naujausias visų paketų versijas, ir išspręs visus galimus priklausomybių pakitimus tarp skirtingų laidų paketų. Jeigu būtina, tai įdiegs ir kai kuriuos naujus paketus (paprastai naujas bibliotekų versijas, ar pervadintus paketus), ir pašalins visus, konfliktavimą sukėlenčius, senus paketus.

Atnaujinant iš kompaktinių diskų komplekto (ar DVD), sistema keletą kartų paprašys įdėti konkrečius kompaktinius diskus. Gali tekti įdėti tą patį kompaktinį diską keletą kartų. Taip yra todėl, kad tarpusavio priklausomybėmis surišti paketai patalpinti skirtinguose diskuose.

New versions of currently installed packages that cannot be upgraded without changing the install status of another package will be left at their current version (displayed as 'held back'). This can be resolved by either using **aptitude** to choose these packages for installation or by trying `apt-get -f install package`.

4.5 Galimos problemos atnaujinimo metu

The following sections describe known issues that might appear during an upgrade to squeeze.

4.5.1 cryptoloop support not included in the squeeze Linux kernel

Support for cryptoloop has been dropped from the Linux kernel packages included in Debian 6.0. Existing installations using cryptoloop need to be transitioned to dm-crypt before the upgrade.

4.5.2 Expected removals

The upgrade process to squeeze might ask for removal of packages in the system. The precise list of packages will vary depending on the set of packages that you have installed. These release notes give general advice on these removals, but if in doubt, it is recommended that you examine the package removals proposed by each method before proceeding.

Some common packages that are expected to be removed include: `autofs` (replaced by `autofs5`), `dhcp3` (replaced by `isc-dhcp`), `madwifi-source`, `python-setuptools` and `python2.4` (replaced by `python2.6`). For more information about packages obsoleted in squeeze, see Skyrius 4.9.

4.5.3 Errors running aptitude or apt-get

If an operation using **aptitude**, **apt-get**, or **dpkg** fails with the error

```
E: Dynamic MMap ran out of room
```

the default cache space is insufficient. You can solve this by either removing or commenting lines you don't need in `/etc/apt/sources.list` or increasing the cache size. The cache size can be increased by setting `APT::Cache-Limit` in `/etc/apt/apt.conf`. The following command will set it to a value that should be sufficient for the upgrade:

```
# echo 'APT::Cache-Limit "12500000";' >> /etc/apt/apt.conf
```

This assumes that you do not yet have this variable set in that file.

4.5.4 Conflicts or Pre-Depends loops

Sometimes it's necessary to enable the `APT::Force-LoopBreak` option in APT to be able to temporarily remove an essential package due to a Conflicts/Pre-Depends loop. **apt-get** will alert you of this and abort the upgrade. You can work around this by specifying the option `-o APT::Force-LoopBreak=1` on the **apt-get** command line.

It is possible that a system's dependency structure can be so corrupt as to require manual intervention. Usually this means using **apt-get** or

```
# dpkg --remove package_name
```

to eliminate some of the offending packages, or

```
# apt-get -f install
# dpkg --configure --pending
```

In extreme cases you might have to force re-installation with a command like

```
# dpkg --install /path/to/package_name.deb
```

4.5.5 File conflicts

File conflicts should not occur if you upgrade from a 'pure' lenny system, but can occur if you have unofficial backports installed. A file conflict will result in an error like:

```
Unpacking <package-foo> (from <package-foo-file>) ...
dpkg: error processing <package-foo> (--install):
 trying to overwrite '<some-file-name>',
 which is also in package <package-bar>
dpkg-deb: subprocess paste killed by signal (Broken pipe)
Errors were encountered while processing:
<package-foo>
```

You can try to solve a file conflict by forcibly removing the package mentioned on the *last* line of the error message:

```
# dpkg -r --force-depends package_name
```

After fixing things up, you should be able to resume the upgrade by repeating the previously described **apt-get** commands.

4.5.6 Configuration changes

During the upgrade, you will be asked questions regarding the configuration or re-configuration of several packages. When you are asked if any file in the `/etc/init.d` directory, or the `/etc/manpath.config` file should be replaced by the package maintainer's version, it's usually necessary to answer 'yes' to ensure system consistency. You can always revert to the old versions, since they will be saved with a `.dpkg-old` extension.

If you're not sure what to do, write down the name of the package or file and sort things out at a later time. You can search in the typescript file to review the information that was on the screen during the upgrade.

4.5.7 Change of session to console

If you are running the upgrade using the system's local console you might find that at some points during the upgrade the console is shifted over to a different view and you lose visibility of the upgrade process. For example, this will happen in desktop systems when **gdm** is restarted.

To recover the console where the upgrade was running you will have to use `Ctrl+Alt+F1` to switch back to the virtual terminal 1 if in the graphical startup screen or use `Alt+F1` if in the local text-mode console. Replace `F1` with the function key with the same number of the virtual terminal the upgrade was running in. You can also use `Alt+Left Arrow` or `Alt+Right Arrow` to switch between the different text-mode terminals.

4.5.8 Special care for specific packages

In most cases, packages should upgrade smoothly between lenny and squeeze. There are a small number of cases where some intervention may be required, either before or during the upgrade; these are detailed below on a per-package basis.

4.5.8.1 Evolution

Evolution (the GNOME Desktop mail client) has been updated from version 2.22 to 2.30. This changes the storage format used by the package for local data and there is a possibility of data loss if the upgrade is performed whilst `evolution` is running. Exiting the application itself may not be sufficient, as various related components will continue to run in the background. To avoid any potential issues, it is recommended that you completely exit your desktop environment before beginning the upgrade to squeeze.

As part of the upgrade process, `evolution` will check whether any related processes are running and will recommend that they be closed. A secondary check for processes will then be performed; if necessary, a choice will be offered between allowing the remaining processes to be killed or aborting the upgrade in order to resolve the situation by hand.

4.6 Branduolio ir su juo susijusiu paketų atnaujinimas

This section explains how to upgrade your kernel and identifies potential issues related to this upgrade. You can either install one of the `linux-image-*` packages provided by Debian, or compile a customized kernel from source.

Note that a lot of information in this section is based on the assumption that you will be using one of the modular Debian kernels, together with `initramfs-tools` and `udev`. If you choose to use a custom kernel that does not require an `initrd` or if you use a different `initrd` generator, some of the information may not be relevant for you.

4.6.1 Branduolio metapaketo įdegimas

When you dist-upgrade from lenny to squeeze, it is strongly recommended that you install a new `linux-image-2.6-*` metapackage. This package may be installed automatically by the dist-upgrade process. You can verify this by running:

```
# dpkg -l "linux-image*" | grep ^ii
```

If you do not see any output, then you will need to install a new `linux-image` package by hand. To see a list of available `linux-image-2.6` metapackages, run:

```
# apt-cache search linux-image-2.6- | grep -v transition
```

If you are unsure about which package to select, run `uname -r` and look for a package with a similar name. For example, if you see `'2.6.26-2-686'`, it is recommended that you install `linux-image-2.6-686`. You may also use `apt-cache` to see a long description of each package in order to help choose the best one available. For example:

```
# apt-cache show linux-image-2.6-686
```

You should then use `apt-get install` to install it. Once this new kernel is installed you should reboot at the next available opportunity to get the benefits provided by the new kernel version.

For the more adventurous there is an easy way to compile your own custom kernel on Debian GNU/Linux. Install the `kernel-package` tool and read the documentation in `/usr/share/doc/kernel-package`. Alternatively, you can also use the kernel sources, provided in the `linux-source-2.6` package. You can make use of the `deb-pkg` target available in the sources' makefile for building a binary package. There are some differences in these two approaches, please consult the respective package's documentation.

If possible, it is to your advantage to upgrade the kernel package separately from the main dist-upgrade to reduce the chances of a temporarily non-bootable system. Note that this should only be done after the minimal upgrade process described in Skyrius 4.4.4.

4.6.2 Įrenginių numeracijos pertvarkymas

In lenny and later, a new kernel mechanism for hardware discovery may change the order in which devices are discovered on your system on each boot, affecting the device names assigned to them. For example, if you have two network adapters that are associated with two different drivers, the devices `eth0` and `eth1` refer to may be swapped.

For network devices, this reordering is normally avoided by the definitions at `/etc/udev/rules.d/70-persistent-net.rules` for `udev`. Since these rules were already in place in `lenny`, no additional action should be required when upgrading to `squeeze` to get the benefit of stable network device names. Please note, however, that this `udev` mechanism means that a given network device name is tied to a particular piece of hardware; if you, for instance, exchange ethernet adapters in a deployed `squeeze` system, the new adapter will get a new interface name instead of using the existing one. To reuse an existing device name for new hardware, you will need to delete the associated entry from `/etc/udev/rules.d/70-persistent-net.rules`.

For storage devices, you may be able to avoid this reordering by using `initramfs-tools` and configuring it to load storage device driver modules in the same order they are currently loaded. However, in light of other changes to the storage subsystem of the Linux kernel as described at [Skyrius 5.1.1](#), this is usually not worth the effort and it is recommended instead to use device names that are guaranteed to be stable over time, such as the UUID aliases⁷ in the `/dev/disk/by-uuid/` directory or LVM device names in `/dev/mapper/`.

4.6.3 Įkėlimo laiko problemos

If an `initrd` created with `initramfs-tools` is used to boot the system, in some cases the creation of device files by `udev` can happen too late for the boot scripts to act on.

The usual symptoms are that the boot will fail because the root file system cannot be mounted and you are dropped into a debug shell. But if you check afterwards, all devices that are needed are present in `/dev`. This has been observed in cases where the root file system is on a USB disk or on RAID, especially if `LILO` is used.

A workaround for this issue is to use the boot parameter `rootdelay=9`. The value for the timeout (in seconds) may need to be adjusted.

4.7 Pasiruošimas sekančiai laidai

Po atnaujinimo yra keletas dalykų, kuriuos galite padaryti, siekiant pasiruošti kitai laidai.

- Pašalinkite pasenusius ir nepanaudojamus paketus kaip aprašyta [Skyrius 4.9](#). Peržiūrėkite, kokius konfigūracijos failus jie naudojo, ir pagalvokite apie paketų pašalinimą kartu su konfigūracijos failais (purge).

4.8 Deprecated components

With the next release of Debian GNU/Linux 7.0 (codenamed `wheezy`) some features will be deprecated. Users will need to migrate to other alternatives to prevent trouble when updating to 7.0.

This includes the following features:

- `OpenVZ` and `Linux-Vserver`: Debian GNU/Linux 6.0 will be the last release to include Linux kernel virtualization featuresets outside of mainline. This means that the `OpenVZ` and `Linux-Vserver` featuresets should be considered deprecated, and users should migrate to linux-2.6 up-stream merged virtualization solutions like `KVM`, `Linux Containers` or `Xen`.
- The `gdm` package (GNOME Display Manager version 2.20) will be obsoleted by `gdm3`, a rewritten version. See [Skyrius 5.6](#) for more information.

4.9 Pasenę paketai

Introducing several thousand new packages, `squeeze` also retires and omits more than four thousand old packages that were in `lenny`. It provides no upgrade path for these obsolete packages. While nothing prevents you from continuing to use an obsolete package where desired, the Debian project will usually

⁷ Some devices, such as those used by `crypt`, RAID or LVM have stable non-UUID identifiers. In these cases you should use the name of the devices, which are already unambiguous and stable.

discontinue security support for it a year after squeeze's release⁸ ir daugiau nebeteiks jokio palaikymo. Rekomenduojama pakeisti juos alternatyviais paketais, jei tokių yra.

Yra daug priežasčių, kodėl paketai gali būti pašalinti iš distributyvo: jie nebepalaikomi pačių programinės įrangos autorių; nebėra Debian'e žmonių suinteresuotų paketo priežiūra; paketą išstumia kita, funkcionalumo prasme, pažangesnė programinė įranga; arba paketas, dėl jame esančių riktų, nebėra laikomos tinkamu squeeze laidai. Pastaruoju atveju paketas vis dar gali būti palaikomas 'unstable' distributyve.

Nustatyti, kurie paketai atnaujintoje sistemoje yra 'pasenę' yra paprasta, nes paketų valdymo programos pažymi juos tokiais. Jei naudojate **aptitude** programą, matysite tokių paketų sąrašą, pateikiamą kaip 'Obsolete and Locally Created Packages'. Programa **dselect** pateikia panašią informaciją, tačiau sąrašas gali šiek tiek skirtis.

Also, if you have used **aptitude** or **apt-get** to manually install packages in lenny it will have kept track of those packages you manually installed and will be able to mark as obsolete those packages pulled in by dependencies alone which are no longer needed if a package has been removed. **aptitude** and **apt**, unlike **deborphan**, will not mark for removal packages that you manually installed, as opposed to those that were automatically installed through dependencies. To remove automatically installed packages that are no longer used, run:

```
# apt-get autoremove
```

There are additional tools you can use to find obsolete packages such as **deborphan**, **debfooster** or **cruft**. **deborphan** is highly recommended, although it will (in default mode) only report obsolete libraries: packages in the 'libs' or 'oldlibs' sections that are not used by any other packages. Do not blindly remove the packages these tools present, especially if you are using aggressive non-default options that are prone to produce false positives. It is highly recommended that you manually review the packages suggested for removal (i.e. their contents, size and description) before you remove them.

The **Debian Bug Tracking System** (<http://bugs.debian.org/>) often provides additional information on why the package was removed. You should review both the archived bug reports for the package itself and the archived bug reports for the **ftp.debian.org pseudo-package** (<http://bugs.debian.org/cgi-bin/pkgreport.cgi?pkg=ftp.debian.org&archive=yes>).

The list of obsolete packages includes:

- The plone content management suite. This has been done on request by the developers to use the Unified Installer for Linux, which they consider their only supported deployment platform. The recommended tool for installing Plone on a Debian GNU/Linux system is the Unified Installer, available for download from <http://plone.org/>
- **nessus**, the vulnerability scanning server and its associated libraries and other software. It has been deprecated in favor of the software provided by OpenVAS which includes **openvas-server** and **openvas-client**. As there is no automatic upgrade path you will have to install OpenVAS and manually move over your Nessus service configuration (users, certificates, etc.) to OpenVAS.
- **postgresql-8.3**, successor is **postgresql-8.4**.
- **mysql-server-5.0**, successor is **mysql-server-5.1**.
- **python2.4**, successor is **python2.6**.
- Java 5 software including the packages **sun-java5-jre** and **sun-java5-bin**, successor is Java 6: **sun-java6-jre** and associated packages.
- **apt-proxy** is no longer provided, alternatives to this tool include **apt-cacher-ng**, **apt-cacher** and **approx**. Although no automatic upgrade path exists, user of **apt-proxy** can switch to these alternatives by manually installing any of these packages.
- Some of Xorg's video drivers are no longer available in squeeze and are obsolete. This includes **xserver-xorg-video-cyrix**, **xserver-xorg-video-i810**, **xserver-xorg-video-imstt**, **xserver-xorg-video-nsc**, **xserver-xorg-video-sunbw2**, and **xserver-xorg-video-vga**. They might be removed through the upgrade. Users should install **xserver-xorg-video-all** instead.
- The utility used in lenny to display a splash image at boot time, **usplash**, is no longer available. It has been replaced by **plymouth**.

⁸ Arba tol, kol nėra išleista kita laida per tą laikotarpį. Paprastai tik dvi stabilios laidos palaikomos vienu metu.

4.9.1 Tušti (priklausomybių) paketai

Kai kurie paketai iš lenny buvo išskaidyti į keletą paketų squeeze laidoje, dažniausiai siekiant pagerinti sistemos palaikymą. Siekiant palengvinti atnaujinimą, tokiais atvejais, squeeze laidoje dažnai sutinkami 'tušti' ('dummy') paketai, pavadinti tokių pačiu vardu senieji paketai lenny laidoje. Įdiegiant šiuos paketus, dėl priklausomybių įdiegiami nauji paketai. Tuoju po atnaujinimo, šie 'tušti' paketai tampa pasenusiais ir juos galima saugiai pašalinti.

Most (but not all) dummy packages' descriptions indicate their purpose. Package descriptions for dummy packages are not uniform, however, so you might also find **deborphan** with the `--guess-*` options (e.g. `--guess-dummy`) useful to detect them in your system. Note that some dummy packages are not intended to be removed after an upgrade but are, instead, used to keep track of the current available version of a program over time.

Chapter 5

Dalykai, kuriuos reikia žinoti apie squeeze

5.1 Galimos problemos

Sometimes, changes introduced in a new release have side-effects we cannot reasonably avoid, or they expose bugs somewhere else. This section documents issues we are aware of. Please also read the errata, the relevant packages' documentation, bug reports and other information mentioned in Skyrius 6.1.

5.1.1 Migration of disk drivers from IDE to PATA subsystem

The new Linux kernel version provides different drivers for some PATA (IDE) controllers. The names of some hard disk, CD-ROM, and tape devices may change.

It is now recommended to identify disk devices in configuration files by label or UUID (unique identifier) rather than by device name, which will work with both old and new kernel versions. Upon upgrading to the squeeze version of the Debian kernel packages, the `linux-base` package will offer to do this conversion for you in the config files for most of the filesystem-related packages on the system, including the various bootloaders included in Debian. If you choose not to update the system configuration automatically, or if you are not using the Debian kernel packages, you must update device IDs yourself before the next system reboot to ensure the system remains bootable.

5.1.2 mdadm metadata format change requires recent Grub

The following only applies to users who want to let the `grub-pc` bootloader load the kernel directly off a RAID device created with `mdadm 3.x` and default values, or when the metadata version is explicitly set using `-e`. Specifically, this includes all arrays created during or after the installation of Debian squeeze. Arrays created with older `mdadm` versions, and RAIDs created with the command-line option `-e 0.9` are not affected.

Versions of `grub-pc` older than `1.98+20100720-1` will not be able to boot directly off a RAID with the `1.x` metadata formats (the new default is `1.2`). To ensure a bootable system, please make sure to use `grub-pc 1.98+20100720-1` or later, which is provided by Debian squeeze. An unbootable system may be rescued with [Super Grub2 Disk](http://www.supergrubdisk.org/super-grub2-disk/) or [grml](http://grml.org).

5.1.3 pam_userdb.so breakage with newer libdb

Some Berkeley Database version 7 files created with `libdb3` cannot be read by newer `libdb` versions (see [bug #521860](http://bugs.debian.org/521860)). As a workaround, the files can be recreated with `db4.8_load`, from the `db4.8-util` package.

5.1.4 Potential issues with diversions of /bin/sh

If you have previously added a local diversion for `/bin/sh`, or modified the `/bin/sh` symlink to point to somewhere other than `/bin/bash`, then you may encounter problems when upgrading the `dash` or

bash packages. Note that this includes changes made by allowing other packages (for example `mksh`) to become the default system shell by taking over `/bin/sh`.

If you encounter any such issues, please remove the local diversion and ensure that the symlinks for both `/bin/sh` and its manual page point to the files provided by the `bash` package and then **`dpkg-reconfigure --force dash`**.

```
dpkg-divert --remove /bin/sh
dpkg-divert --remove /usr/share/man/man1/sh.1.gz

ln -sf bash /bin/sh
ln -sf bash.1.gz /usr/share/man/man1/sh.1.gz
```

5.1.5 Change in kernel policy regarding resource conflicts

The default setting for the `acpi_enforce_resources` parameter in the Linux kernel has changed to be 'strict' by default. This can lead some legacy sensor drivers to be denied access to the sensors' hardware. One workaround is to append '`acpi_enforce_resources=lax`' to the kernel command line.

5.2 LDAP support

A feature in the cryptography libraries used in the LDAP libraries causes programs that use LDAP and attempt to change their effective privileges to fail when connecting to an LDAP server using TLS or SSL. This can cause problems for `suid` programs on systems using `libnss-ldap` like `sudo`, `su` or `schroot` and for `suid` programs that perform LDAP searches like `sudo-ldap`.

It is recommended to replace the `libnss-ldap` package with `libnss-ldapd`, a newer library which uses separate daemon (`nslcd`) for all LDAP lookups. The replacement for `libpam-ldap` is `libpam-ldapd`.

Note that `libnss-ldapd` recommends the NSS caching daemon (`nscd`) which you should evaluate for suitability in your environment before installing. As an alternative to `nscd` you can consider `unscd`.

Further information is available in bugs [#566351](http://bugs.debian.org/566351) (<http://bugs.debian.org/566351>) and [#545414](http://bugs.debian.org/545414) (<http://bugs.debian.org/545414>).

5.3 sieve service moving to its IANA-allocated port

The IANA port allocated for ManageSieve is `4190/tcp`, and the old port used by `timsieved` and other managesieve software in many distributions (`2000/tcp`) is allocated for Cisco SCCP usage, according to [the IANA registry](http://www.iana.org/assignments/port-numbers) (<http://www.iana.org/assignments/port-numbers>).

Starting with the version 4.38 of the Debian `netbase` package, the `sieve` service will be moved from port 2000 to port 4190 in the `/etc/services` file.

Any installs which used the `sieve` service name instead of a numeric port number will switch to the new port number as soon as the services are restarted or reloaded, and in some cases, immediately after `/etc/services` is updated.

This will affect Cyrus IMAP. This may also affect other sieve-enabled software such as DoveCot.

In order to avoid downtime problems, mail cluster administrators using Debian are urged to verify their Cyrus (and probably also DoveCot) installs, and take measures to avoid services moving from port `2000/tcp` to port `4190/tcp` by surprise in either servers or clients.

It is worth noting that:

- `/etc/services` will only be automatically updated if you never made any modifications to it. Otherwise, you will be presented with a prompt by `dpkg` asking you about the changes.
- You can edit `/etc/services` and change the `sieve` port back to 2000 if you want (this is not recommended, though).
- You can edit `/etc/cyrus.conf` and any other relevant configuration files for your mail/web-mail cluster (e.g. on the sieve web frontends) ahead of time to force them all to a static port number.
- You can configure cyrus master to listen on both ports (2000 and 4190) at the same time, and thus avoid the problem entirely. This also allows for a much more smooth migration from port 2000 to port 4190.

5.4 Security status of web browsers

Debian 6.0 includes several browser engines which are affected by a steady stream of security vulnerabilities. The high rate of vulnerabilities and partial lack of upstream support in the form of long term branches make it very difficult to support these browsers with backported security fixes. Additionally, library interdependencies make it impossible to update to newer upstream releases. As such, browsers built upon the qtwebkit and khtml engines are included in Squeeze, but not covered by full security support. We will make an effort to track down and backport security fixes, but in general these browsers should not be used against untrusted websites.

For general web browser use we recommend browsers building on the Mozilla xulrunner engine (Iceweasel and Iceape), browsers based on the Webkit engine (e.g. Epiphany) or Chromium. Xulrunner has had a history of good backportability for older releases over the previous release cycles.

Chromium —while built upon the Webkit codebase— is a leaf package, i.e. if backporting becomes no longer feasible, there's still the possibility of upgrading to a later upstream release (which is not possible for the webkit library itself).

Webkit is supported by upstream with a long term maintenance branch.

5.5 KDE darbastalis

Squeeze is the first Debian release to ship with the full support for the next generation KDE that is based on Qt 4. Most official KDE applications are at version 4.4.5 with the exception of `kdepim` that is at version 4.4.7. You can read the [announcements from the KDE Project](http://www.kde.org/announcements/) (<http://www.kde.org/announcements/>) to learn more about the changes.

5.5.1 Upgrading from KDE 3

KDE 3 Desktop Environment is no longer supported in Debian 6.0. It will be automatically replaced by the new 4.4 series on upgrade. As this is a major change, users should take some precautions in order to ensure as smooth of an upgrade process as possible.

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It is discouraged to upgrade while there is an active KDE 3 session on the system. Otherwise, the process might render the running session dysfunctional with the possibility of data loss.

Upon the first login on the upgraded system, existing users will be prompted with the Debian-KDE guided migration procedure called `kaboom` which will assist in the process of migrating the user's personal data and optionally backing up old KDE configuration. For more information, visit [the Kaboom homepage](http://pkg-kde.alioth.debian.org/kaboom.html) (<http://pkg-kde.alioth.debian.org/kaboom.html>).

While KDE 3 based desktop environment is no longer supported, users can still install and use some individual KDE 3 applications since the core libraries and binaries of KDE 3 (`kdelibs`) and Qt 3 are still available in Debian 6.0. However, please note that these applications might not be well integrated with the new environment. What's more, neither KDE 3 nor Qt 3 will be supported in any form in the next Debian release so if you are using them, you are strongly advised to port your software to the new platform.

5.5.2 New KDE metapackages

As noted earlier, Debian 6.0 introduces a new set of KDE related metapackages:

- You are strongly advised to install the `kde-standard` package for normal desktop usage. `kde-standard` will pull in the [KDE Plasma Desktop](http://www.kde.org/workspaces/plasmadesktop/) (<http://www.kde.org/workspaces/plasmadesktop/>) by default, and a selected set of commonly used applications.

- If you want a minimal desktop you can install the `kde-plasma-desktop` package and manually pick the applications you need. This is a rough equivalent of the `kde-minimal` package as shipped in Debian 5.0.
- For small form factor devices, there is an alternative environment called **KDE Plasma Netbook** (<http://www.kde.org/workspaces/plasmanetbook/>) that can be installed with the `kde-plasma-netbook` package. Plasma Netbook and Plasma Desktop can live in the same system and the default can be configured in System Settings (replacement of the former KControl).
- If you want a full set of official KDE applications, you have the possibility to install the `kde-full` package. It will install KDE Plasma Desktop by default.

5.6 GNOME darbatalio pokyčiai ir palaikymas

There have been many changes in the GNOME desktop environment from the version shipped in lenny to the version in squeeze, you can find more information in the **GNOME 2.30 Release Notes** (<http://library.gnome.org/misc/release-notes/2.30/>). Specific issues are listed below.

5.6.1 GDM 2.20 and 2.30

The GNOME Display Manager (GDM), is kept at version 2.20 for systems upgraded from lenny. This version will still be maintained for the squeeze cycle but it is the last release to do so. Newly installed systems will get GDM 2.30 instead, provided by the `gdm3` package. Because of incompatibilities between both versions, this upgrade is not automatic, but it is recommended to install `gdm3` after the upgrade to squeeze. This should be done from the console, or with only one open GNOME session. Note that settings from GDM 2.20 will **not** be migrated. For a standard desktop system, however, simply installing `gdm3` should be enough.

5.6.2 Device and other administrative permissions

Specific permissions on devices are granted automatically to the user currently logged on physically to the system: video and audio devices, network roaming, power management, device mounting. The `cdrom`, `floppy`, `audio`, `video`, `plugdev` and `powerdev` groups are no longer useful. See the `consolekit` documentation for more information.

Most graphical programs requiring root permissions now rely on **PolicyKit** (<http://www.freedesktop.org/wiki/Software/PolicyKit>) to do so, instead of `gksu`. The recommended way to give a user administrative rights is to add it to the `sudo` group.

5.6.3 network-manager and ifupdown interaction

Upon upgrading the `network-manager` package, interfaces configured in `/etc/network/interfaces` to use DHCP with no other options will be disabled in that file, and handled by NetworkManager instead. Therefore the `ifup` and `ifdown` commands will not work. These interfaces can be managed using the NetworkManager frontends instead, see **the NetworkManager documentation** (<http://live.gnome.org/NetworkManager/SystemSettings>).

Conversely, any interfaces configured in `/etc/network/interfaces` with more options will be ignored by NetworkManager. This applies in particular to wireless interfaces used during the installation of Debian (see bug **#606268** (<http://bugs.debian.org/606268>)).

5.7 Graphics stack changes

There have been a number of changes to the X stack in Debian 6.0. This section lists the most important and user-visible.

5.7.1 Obsolete Xorg drivers

The `cyrilx`, `imstt`, `sunbw2` and `vga` Xorg video drivers are no longer provided. Users should switch to a generic such as `vesa` or `fbdev` instead.

The old `via` driver was no longer maintained, and has been replaced by the `openchrome` driver, which will be used automatically after the upgrade.

The `nv` and `radeonhd` drivers are still present in this release, but are deprecated. Users should consider the `nouveau` and `radeon` drivers instead, respectively.

The `calcomp`, `citron`, `digitaledge`, `dmc`, `dynapro`, `elo2300`, `fpit`, `hyperpen`, `jamstudio`, `magellan`, `microtouch`, `mutouch`, `palmax`, `spaceorb`, `summa`, `tek4957` and `ur98` X input drivers have been discontinued and are not included in this release. Users of these devices might want to switch to a suitable kernel driver and the `evdev` X driver. For many serial devices, the `inputattach` utility allows attaching them to a Linux input device which can be recognized by the `evdev` X driver.

5.7.2 Kernel mode setting

Kernel drivers for Intel (starting from `i830`), ATI/AMD (from the original Radeon to the Radeon HD 5xxx 'Evergreen' series) and for NVIDIA graphics chipsets now support native mode setting.

5.7.3 Input device hotplug

The Xorg X server included in Debian 6.0 provides improved support for hotplugging of input devices (mice, keyboards, tablets, ...). The old `xserver-xorg-input-kbd` and `xserver-xorg-input-mouse` packages are replaced by `xserver-xorg-input-evdev`, which requires a kernel with the `CONFIG_INPUT_EVDEV` option enabled. Additionally, some of the keycodes produced by this driver differ from those traditionally associated with the same keys. Users of programs like `xmodmap` and `xbindkeys` will need to adjust their configurations for the new keycodes.

5.7.4 X server 'zapping'

Traditionally, the `Ctrl-Alt-Backspace` combination would kill the X server. This combination is no longer active by default, but can be re-enabled by reconfiguring the `keyboard-configuration` package (system-wide), or using your desktop environment's keyboard preferences application.

5.8 Munin web path change

For squeeze, the default location for the generated web content of munin has been changed from `/var/www/munin` to `/var/cache/munin/www` and therefore `/etc/munin/munin.conf` needs to be adapted on upgrades, if it has been changed by the admin. If you are upgrading, please read `/usr/share/doc/munin/NEWS.Debian.gz`.

5.9 Shorewall upgrade instructions

Users of the shorewall firewall should read the instructions at <http://www.shorewall.net/LennyToSqueeze.html>, also available as `/usr/share/doc/shorewall-doc/html/LennyToSqueeze.html` in the `shorewall-doc` package, upon upgrading to Debian 6.0.

Chapter 6

Daugiau informacijos apie Debian GNU/Linux

6.1 Papildomam skaitymui

Beyond these release notes and the installation guide, further documentation on Debian GNU/Linux is available from the Debian Documentation Project (DDP), whose goal is to create high-quality documentation for Debian users and developers. Documentation, including the Debian Reference, Debian New Maintainers Guide, and Debian FAQ are available, and many more. For full details of the existing resources see the [Debian Documentation website](http://www.debian.org/doc/) (<http://www.debian.org/doc/>) and the [Debian Wiki website](http://wiki.debian.org/) (<http://wiki.debian.org/>)

Konkrečių paketų dokumentacija įdiegiama kataloge `/usr/share/doc/paketas`. Čia gali būti autorinių teisių informacija, Debian'o paketui būdingų smulkmenų detalės ir programos autorių dokumentacija.

6.2 Jei reikia pagalbos

Debian'o naudotojai turi daug galimybių gauti pagalbą ar patarimą, tačiau jomis turėtų būti naudojama tik tuo atveju, jei nepavyko rasti atsakymo dokumentacijoje. Šiame skyriuje pateikiamas trumpas aprašymas apie pagalbos šaltinius, kurie gali būti naudingi naujiems Debian'o naudotojams.

6.2.1 Pašto konferencijos

Labiausiai naudotojus dominanti yra debian-user pašto konferencija (anglų kalba) ir *debian-user-kalba* konferencijos (kitomis kalbomis). Lietuvių kalba tokios konferencijos kol kas nėra. Daugiau informacijos apie elektroninio pašto konferencijas ir apie tai, kaip jas užsiprenumeruoti žiūr. <http://lists.debian.org/>. Prieš išsiunčiant klausimą į konferenciją, pažiūrėkite archyvuose, nes galbūt į Jūsų klausimą jau buvo atsakyta anksčiau. Taip pat prašome laikytis bendrai priimto elektroninio pašto konferencijų etiketo.

6.2.2 IRC

Debian'as turi IRC kanalą OFTC tinkle, skirtą paramos ir pagalbos Debian'o naudotojams teikimui. Norėdami įeiti į šį kanalą, savo mėgiamam IRC klientui nurodykite serverį `irc.debian.org` ir prisijunkite prie kanalo `#debian`.

Please follow the channel guidelines, respecting other users fully. The guidelines are available at the [Debian Wiki](http://wiki.debian.org/DebianIRC) (<http://wiki.debian.org/DebianIRC>).

Daugiau informacijos apie OFTC rasite [tinklapyje](http://www.oftc.net/) (<http://www.oftc.net/>).

6.3 Pranešimas apie riktus

Mes stengiamės, kad Debian GNU/Linux būtų aukštos kokybės operacinė sistema, tačiau tai nereiškia, kad paketai yra visiškai be klaidų. Remiantis 'atviro kūrimo' filosofija ir kaip papildomą paslaugą savo

naudotojams, mes suteikiame visą informaciją apie klaidas savo riktų sekimo sistemoje (Bug Tracking System, BTS). BTS galima rasti adresu (<http://bugs.debian.org/>).

Jei pastebėsite klaidą distributyve arba bet kuriame iš jo paketų, kurie yra jo sudedamoji dalis, prašome pranešti apie tai, kad būsimose laidose ji būtų ištaisyta. Pranešime apie riktą reikia nurodyti savo galiojantį elektroninio pašto adresą. Jo reikia tam, kad galėtume stebėti klaidas, o kūrėjai galėtų susisiekti su Jumis, jei reikės papildomos informacijos apie klaidą.

Pranešimą apie riktą galite pateikti naudodamiesi programa **reportbug** arba elektroniniu paštu. Daugiau informacijos apie riktų sekimo sistemą (BTS) ir kaip ją naudotis galite rasti Debian'o žinyne (galima rasti adresu `/usr/share/doc/debian`, jei esate įdiegę `doc-debian`) arba internete adresu **Riktų sekimo sistema** (<http://bugs.debian.org/>).

6.4 Pagalba Debian'ui

You do not need to be an expert to contribute to Debian. By assisting users with problems on the various user support **lists** (<http://lists.debian.org/>) you are contributing to the community. Identifying (and also solving) problems related to the development of the distribution by participating on the development **lists** (<http://lists.debian.org/>) is also extremely helpful. To maintain Debian's high quality distribution, **submit bugs** (<http://bugs.debian.org/>) and help developers track them down and fix them. If you have a way with words then you may want to contribute more actively by helping to write **documentation** (<http://www.debian.org/doc/cvs>) or **translate** (<http://www.debian.org/international/>) existing documentation into your own language.

Jeį galite skirti daugiau laiko Debian'ui, galėtumėte imtis prižiūrėti kokią nors laisvą programinę įrangą Debian'e. Ypač naudinga būtų priežiūra paketų, kurių žmonės pageidauja ir norėtų matyti Debian'e. Detalesnę informaciją apie tokius paketus galite rasti **reikiamų ir planuojamų paketų duomenų bazėje** (<http://www.debian.org/devel/wnpp/>). Jei turite specifinių interesų, tai galbūt norėsite prisidėti prie kokio nors Debian'o dukterinio projekto (subproject), tarp kurių rasite Debian'o pernešimo (port) ant kitų architektūrų projektus, **Debian'as vaikams** (<http://www.debian.org/devel/debian-jr/>) ir **Debian'as medicinoje** (<http://www.debian.org/devel/debian-med/>) projektus.

Bet kuriuo atveju, jei Jūs dalyvaujate Laisvos programinės įrangos bendruomenės veikloje kaip jos naudotojas, programuotojas, vertėjas ar rašytojas (dokumentacijos arba straipsnių), Jūs jau padedate Laisvajai programinei įrangai. Šis dalyvavimas yra naudingas ir įdomus, ir taip pat suteikiant galimybę susipažinti su naujais žmonėmis.

Appendix A

Managing your lenny system before the upgrade

Šiame priede pateikiama informacija apie tai, kaip įsitikinti, kad galite įdiegti ar atnaujinti lenny paketus prieš atnaujinant iki squeeze. Tai būtina tik tam tikrais konkrečiais atvejais.

A.1 Sistemos lenny atnaujinimas

Iš esmės šis atnaujinimas niekuo nesiskiria nuo kitų lenny atnaujinimų, kuriuos jau darėte. Vienintelis skirtumas yra tai, kad pirmiausia turite įsitikinti, kad paketų sąrašas vis dar turi nuorodą į lenny laidą, kaip tai paaiškinta Skyrius [A.2](#).

Jei atnaujinate iš Debian'o serverio-veidrodžio, tai automatiškai bus atliktas atnaujinimas paskutiniosios lenny laidos.

A.2 APT šaltinių sąrašo tikrinimas

If any of the lines in your `/etc/apt/sources.list` refer to 'stable', you are effectively already 'using' squeeze. This might not be what you want if you are not ready yet for the upgrade. If you have already run `apt-get update`, you can still get back without problems following the procedure below.

Jei jau įdiegėte paketus iš squeeze, tai nebėra daug prasmės įdiegti paketus iš lenny. Tokiu atveju turite nuspręsti patys, ar norite tęsti, ar ne. Grįžti prie senų paketų naudojimo įmanoma, bet čia apie tai nekalbėsime.

Atverkite failą `/etc/apt/sources.list` savo mėgiamu redaktoriumi (turėdami administratoriaus root privilegijas) ir raskite visas eilutes prasidedančias kaip `deb http:` arba `deb ftp:`, ir turinčias žodį 'stable'. Radę tokias eikutes, pakeiskite žodį `stable` į žodį `lenny`.

Jei radote eilučių, prasidedančių `deb file:`, turite pats patikrinti, kokie paketai saugomi nurodytame kataloge: ar tai lenny ar squeeze archyvas.

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Nekeiskite eilutės, prasidedančios `deb cdrom:`. Jei taip padarysite gali tecti iš naujo paleisti vykdyti programą **apt-cdrom**. Nesijaudinkite jei 'cdrom' eilutėje yra nuoroda į 'unstable'. Nors tai ir keista, tai yra normalu.

Jei atlikote kokius nors pakeitimus, išsaugokite failą ir vykdykite komandą

```
# apt-get update
```

tam, kad būtų atnaujintas paketų sąrašas.

A.3 Upgrade legacy locales to UTF-8

If your system is localised and is using a locale that is not based on UTF-8 you should strongly consider switching your system over to using UTF-8 locales. In the past, there have been bugs identified that manifest itself only when using a non-UTF-8 locale. On the desktop, such legacy locales are supported through ugly hacks in the libraries internals, and we cannot decently provide support for users who still use them.

To configure your system's locale you can run **dpkg-reconfigure locales**. Ensure you select an UTF-8 locale when you are presented with the question asking which locale to use as a default in the system. In addition, you should review the locale settings of your users and ensure that they do not have legacy locales definitions in their configuration environment.

Appendix B

Prisidėjusieji prie laidos informacijos kūrimo

Daug žmonių padėjo prie laidos informacijos ruošimo, įskaitant, bet neapsiribojant:

Adam Di Carlo, Andreas Barth, Andrei Popescu, Anne Bezemer, Bob Hilliard, Charles Plessy, Christian Perrier, Daniel Baumann, Eddy Petrișor, Emmanuel Kasper, Esko Arajärvi, Frans Pop, Giovanni Ragnani, Gordon Farquharson, Javier Fernández-Sanguino Peña, Jens Seidel, Jonas Meurer, Josip Rodin, Justin B Rye, LaMont Jones, Luk Claes, Martin Michlmayr, Michael Biebl, Moritz Mühlenhoff, Noah Meyerhans, Noritada Kobayashi, Osamu Aoki, Peter Green, Rob Bradford, Samuel Thibault, Simon Bienlein, Simon Paillard, Stefan Fritsch, Steve Langasek, Steve McIntyre, Tobias Scherer, Vincent McIntyre, ir W. Martin Borgert.

Prie lietuviškos šio dokumento versijos dirbo: Kęstutis Biliūnas - vertimas, koordinavimas; Mantas Kriaučiūnas - vertimas; Vytautas Paltanavičius - vertimas, peržiūra ir pastabos; Gintautas Miliauskas - peržiūra ir pastabos.

Chapter 7

Terminų žodynas

ACPI

pažangi maitinimo įtampos valdymo ir konfigūravimo sąsaja

ALSA

pažangi Linux garso architektūra

APM

patobulintas maitinimo įtampos valdymas

BD

Blu-ray Disc

CD

kompaktinis diskas

CD-ROM

tik skaitomas kompaktinis diskas

DHCP

kompiuterio dinaminio konfigūravimo protokolas

DNS

sričių vardų serveris

DVD

skaitmeninis universalusis diskas

GIMP

GNU rastrinės grafikos redaktorius

GNU

GNU ne Unix

GPG

GNU privatumo apsauga

IDE

integruota valdiklio elektronika

LDAP

supaprastintos kreipties į katalogus protokolas

LILO

Linux pradinis įkėliklis

LSB

Linux Standard Base

LVM

loginių tomų tvarkyklė

MTA

pašto transportavimo agentas

NFS

tinklo failų sistema

NIC

tinklo plokštė

NIS

tinklinė informacijos tarnyba

OSS

atvira garso sistema

RAID

perteklinis nepriklausomų diskų masyvas

RPC

nutolęs procedūrų iškviatimas

SATA

pažangios technologijos nuoseklus ryšio jungtis

SSL

Secure Sockets Layer

TLS

Transport Layer Security

USB

universali nuosekioji magistralė

UUID

visuotinai unikalus identifikatorius

VGA

video grafikos komplektas

WPA

belaidė apsaugota prieiga

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