Today's Topics

1. System Wide Changes
2. Self Contained Changes
3. Unofficial Changes
4. Feedback from people
System Wide Changes
GNOME 3.14

- The release contains 28859 changes by approximately 871 contributors. New features and improvements being introduced in GNOME 3.14 include:
  - Captive Portal Handling
  - Multitouch
  - Network-Based Sharing
  - And many other
- Please note that we skipped 3.12 release
GNOME 3.14
GNOME 3.14
GNOME 3.14
Wayland

- All GNOME Applications ported
- XWayland for others
- Just choose Wayland session in GDM
Application Installer

- GNOME Software will support installing system add-ons such as fonts and codecs
- It will show additional metadata for applications:
  - Screenshots
  - Ratings
  - Other details
Application Installer

Xonotic

Description

Xonotic is a free and fast-paced first person shooter which combines addictive, arena-style gameplay with rapid movement and a wide array of weapons.

Xonotic is easy to learn, but hard to master! Besides thrilling action for the casual player, the game also provides e-sport opportunities for those interested in its competitive aspects. From mapping contests and monthly quick cups...
OpenJDK 8 is a significant update to Java. It brings in significant new features to the Java language, including:

- Lambdas
- New javascript engine
- Lots of new library features
Headless Java

- OpenJDK has been split into headless subpackage which is not pull X system or sound subsystem
Modular Kernel

- Possibility to install Fedora with a smaller footprint
- Official Fedora cloud images will become smaller
- Possibility to avoid respinning images for security updates if issue is in a driver not included in kernel core
u-boot syslinux

- No need to know addresses
- No need to wrap images with mkimage
- Users will get a menu that allows them to choose which kernel to boot
Cockpit

- Cockpit is a server manager that makes it easy to administer your GNU/Linux servers via a web browser
Server role framework

- Exposing available server roles, making it possible to deploy
- Configure and manage them
- D-Bus service
- Command-line utility
- Integration with cockpit
Domain Controller role

- Easy way to deploy a Domain Controller (FreeIPA)
System crypto policy

- One system config to set:
  - Acceptable TLS/SSL (and DTLS) versions
  - Acceptable ciphersuites and the preferred order
  - Acceptable parameters in certificates and key exchange, i.e.:
    - Minimum acceptable size of parameters (DH, ECDH, RSA, DSA, ECDSA)
    - Acceptable elliptic curves (ECDH, ECDSA)
    - Acceptable signature hash functions
  - Other TLS options such as:
    - Safe renegotiation
GCC 4.9

- OpenMP 4.0 support
- Colored diagnostics output
- Google Go 1.2.1 language support
- Significant improvements to its link-time optimization
- Significant ARM improvements
Format Security

- Enable "-Werror=format-security" compilation flag for all packages
- Once this flag is enabled, GCC will refuse to compile code that could be vulnerable to a string format security flaw
Make 4.0

- Several new features
- New command line options
- New variables
- Bug fixes
Boost 1.55

- New library Boost.Predef
- Many bugfixes
RPM 4.12

- Weak dependencies
- Packaging files > 4GB
- New API
- Tool for converting rpm packages to tar files ("rpm2archive")
- Many bug fixes
Python 3.4

- Standardized “enum” module
- New “statistics” module
- New “tracemalloc” module for tracing Python memory allocations
- New “asyncio” module, a new framework for asynchronous I/O
- Some more features
PHP 5.6

- TLS Peer Verification
- Argument Unpacking
- Power Operator
- PHP Debugger ("php-dbg" subpackage)
Ruby 2.1

- Major increases in speed
- Memory efficiency and reliability
Ruby on Rails 4.1

- Spring application preloader
- config/secrets.yml
- Action Pack variants
- Action Mailer previews
TCL/TK 8.6

- Object Oriented Programming are now part of Tcl itself
- Stackless Evaluation
- Enhanced Exceptions
- Thread-enabled Operations
- SQL Database Powered
- IPv6 Networking
- Built-in PNG Image Support
Self Contained Changes
KDE Frameworks 5

- This is just many benefits of KDE technologies to Qt5
SDDM instead of KDM

- Clean codebase
- Wayland support
MATE Desktop 1.8

- Support for systemd-logind
- Support for upower-1.0
- Complete switch to pulseaudio
- New mate-user-guide
- Show date/time in screensaver
CUPS Journal Logging

- Central point for logging
- Having structure to the logs also makes it easier to retrieve log messages that concerned a particular job ("journalctl CUPS_JOB_ID=13")
Allwinner sunxi

- Official images for some ARM devices (e.g. cubietruck)
- Just download image and run script
Jenkins provides continuous integration services for software development.

Just install "jenkins" and start it via systemd with "systemctl start jenkins" and open in your web browser "http://localhost:8888/jenkins" and use it!
OpenCL

- Framework for writing programs that execute across heterogeneous platforms consisting of CPUs, GPUs, DSPs, FPGAs and other processors

- Implementations available:
  - Mesa (AMD) – just install “mesa-libOpenCL”
  - Beignet (Intel) – just install “beignet”
  - POCL (CPU) – just install “pocl”

- Check if it works: install “clinfo” and run it!
Web App Authentication

- One and easy to integrate SSSD in web applications
- Apache SSSD module
Powerful tool for managing patch reviews

Review Board 2.0 adds:

- Ability to post committed changes from a branch directly from the web UI
- Review of text file attachments
- Greatly extends the capabilities of the public API and extension framework
- Significant performance improvements, usability enhancements, and visual cleanups
NFS Ganesha File Srv

- User mode file server, which supports:
  - NFSv3
  - NFSv4
  - NFSv4.1

- Uses loadable filesystem driver modules to support its backend filesystems
MariaDB 10.0

- Better error messages
- "SHOW EXPLAIN" feature
- New InnoDB
- Other features from MySQL 5.6
Better Erlang Support

- Update Erlang/OTP to R17
- Improve Erlang integration with the rest of Fedora.
Apache Products

- Accumulo – scalable sorted, distributed key/value store
- Ambari – cluster management framework and UI for Hadoop
- HBase – distributed database built on top of Hadoop
- Hive – data warehouse built on top of Hadoop
- Mesos – cluster manager for sharing distributed application frameworks
Apache Products

- Oozie – workflow scheduler system to manage Hadoop jobs
- Pig – data analysis tool built on top of Hadoop
- Spark – fast and general engine for large-scale data processing
Unofficial Changes
Mesa

- Always latest stable release
- All new features enabled
- 10.4.0 already in updates-testing with:
  - Direct3D9 state tracker
  - VA-API state tracker
LLVM

- Always latest stable release
- All new features enabled
- 3.5 already in updates-testing
Feedback from people
Feedback

“I've upgraded one machine with fedup and two with yum. All is well so far. If you don't like the changes to Totem, I recommend Parole. But I'm enjoying the newest GNOME and have had no problems. Great work, everyone!”

– Jon Ciesla, Linux Administrator
“In one release we've gone from 22% to 46% coverage for software center metadata, with 400 application screenshots being added. This makes the software center a capable and beautiful application installer.”

– Richard Hughes, GNOME Software developer
“I haven't used Fedora since 7 years, until 21 came out; it is a real pleasure to have a bleeding edge, yet stable and beautiful, developer-centric distribution that works out of the box.”

– Bartłomiej Piotrowski, Fedora user
Questions?

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