

# **Fedora Extended Life-cycle Support**

*The why, the what, the how and the who*

**Jeroen van Meeuwen**

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# *The Why*

You Run Your Favorite Server Platform.

*(e.g. Linux)*

There is but one sustainable

**enterprise-ready**

Linux distribution out there...

Either you run Red Hat Enterprise Linux on your servers,  
*or you secretly want to.*

**When you do** run Red Hat Enterprise Linux,

*what would you want to run on your desktops?*

# **Fedora.**

*(plus, perhaps, a little bit of RPM Fusion)*

And, of course,

there's recent releases of Red Hat Enterprise Linux...

*(about once every three to three and a half years)*



Hardware support,  
Application availability,  
Compatibility,  
Community Support,

The not running in circles as much,

The ability\* and endorsement\*,  
to sink your teeth into a problem  
as you perceive it to exist,

*\*a good "discussion" on an Advisory Board or Development list notwithstanding*

**Without the hassle\*** of numerous upstreams  
running in different directions  
at different speeds,  
but **consumable chunks.**

*\*a good "discussion" on an Advisory Board or Development list notwithstanding*

By the best **experts** in the field.

Overall **Fedora**-*awesomeness*.

Essential to the Enterprise,

as **Fedora** is the Enterprise Linux upstream.

*The What*



With a release life-cycle of 13 months,  
one upgrade is required every year.

Hence, a desktop/laptop CI life-cycle includes

**one installation,**

**and two upgrades.**

*(at a minimum)*

**May 2010 - Fedora 13 Release, install CI**

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**May 2011 - Fedora 15 Release, upgrade CI**

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**Jun 2011 - Fedora 13 EOL**

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**May 2012 - Fedora 17 Release, upgrade CI**

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**Jun 2012 - Fedora 15 EOL**

|

**May 2013 - End of CI life-cycle**

The timeline allows for  
**one month**  
of **testing** the **new** release,  
and **upgrading** the **old**.

*(short of continuous **Rawhide** testing)*

**May 2010 - Fedora 13 Release**

|

*6 months*

|

**Nov 2010 - Fedora 14 Release**

|

*6 months*

|

**May 2011 - Fedora 15 Release**

|

*1 month*

|

**Jun 2011 - Fedora 13 EOL**

## Between May 2010 - Jun 2011

13 months of **Fedora** 13-based joy & happiness,

6 months of **Fedora** 14 **Rawhide**-based pre-release testing,

optional upgrade to **Fedora** 14,

6-7 months of **Fedora** 14 post-release testing, or

6-7 months of **Fedora** 15 **Rawhide**-based pre-release testing,

compulsory upgrade to **Fedora** 14 or 15.

# The one-month upgrade TODO list

Test upgrade path on real systems,

Test application upgrades,

Log bugs, follow up on them and await fixes to become available,

Deploy and test fixes,

Rebuild any third-party applications,

Plan the upgrade,

Execute.

# A one month time-window to upgrade

Fedora 14 Rawhide-based pre-release testing: 6 months

Scenario: Upgrade from Fedora 13 to 14;

To be executed within 6-7 months,

Forces exercise to be repeated in 6-7 months,

Then forces a choice between Fedora 15 or 16,

Includes 6 months of Fedora 15 post-release testing, or

Continuous Fedora "16" Rawhide-based pre-release testing.



## A one month time-window to upgrade

Fedora "15" Rawhide-based pre-release testing: 0-12 months,

Scenario: Upgrade from Fedora 13 to Fedora 15 (skip Fedora 14);

To be executed within one month,

Avoids forced repetition of exercise for 12 months,

Allows optional upgrade to Fedora 16 in 6 months,

Includes 6 months of Fedora 16 post-release testing,

Forces quality assurance focus on Rawhide.

**Rawhide** eats babies.

For breakfast.

Enterprises do not\*

*\*normally [[eat babies] for breakfast]  
(dinner, perhaps)*

## *"Technically Too Complicated"*

We'd log a bug if It Doesn't Just Work™, but

the timeline in which such bug is resolved,

the availability of the fixed version of the software, or

the deployment of the fixed version where it is needed,

does not correspond with the one-month deployment timeline.

*Hint: Think installer (upgrade) bugs requiring the recomposing of installer images and / or trees, the mandatory inclusion of proprietary hardware drivers, third-party applications required to run on the new platform, application upgrades.*

Extend the [Fedora](#) release life-cycle with 6 months,  
providing **security fixes only**,  
spanning one development cycle,  
during which enterprises can develop feedback,  
while not in all that much of a hurry.

Enterprises would still be recommended\* to upgrade

**once a year**

but would have 6-7 months to Make It Happen,

instead of **1**.

*\*rec·om·mend (rĕkə-mĕnd), not the same as required*

## *The How*

# The Feasibility Factor

- It **MUST** happen on [Fedora](#) Project Infrastructure
- It **MUST** be available as part of the standard distribution
  - e.g. A "*fedora-release-els*" RPM if necessary
- It **MUST** include all packages in the [Fedora](#) collection
- It **CAN NOT** get in the way of upgrade paths
- It **MUST** have the working support of at least 35 people
- It **MUST** allow for package upgrades
  - Instead of back-porting fixes, release the fixed, new version of the program, if the program has a seamless upgrade path, little to no regression, etc.

# Fedora Project Goals and Target Audience

**Fedora** use in Enterprises may (will) increase  
its level of interest and participation.



# The RPM NEVRA

The RPM NEVRA must fit in between  
the release+updates, and the next release (no updates);

$f13/master \leq f13/els \leq f14/master \leq f15/master \leq master$

or 'updates' must be working by default,

or point releases (Re-Spins) must be made available.

# Simple Case

Fedora 13: foo-1.0-1.fc13

Fedora 14: foo-1.0-1.fc13

Fedora 15: foo-1.0-1.fc13

Rawhide: foo-1.0-1.fc13

Fedora 13 ELS: foo-1.0-2.fc13

*(the rest will need rebuilding as well in this case)*

## Little More Complex Case

Fedora 13: foo-1.0-1.fc13

Fedora 14: foo-1.0-1.fc14

Fedora 15: foo-1.0-2.fc15

Rawhide: foo-1.1-4.fc15

Fedora 13 ELS: foo-1.0-1.fc13.{1,els1}

# Fedora Infrastructure Tidbits

- Master mirror, space & location of ELS updates,
  - separate opt-in rsync module?
  - push out in current updates/\$releasever/\$arch/?
- (Low) additional load on koji build infrastructure
- Package Database culprits
  - provenpackager access?
- Bugzilla integration and batch-job processes
- ...

# Fedora Release Engineering Tidbits

- koji build targets and tags, build system macros,
- dist-git branches, naming, ownership and access,
- "fedora-release" including "fedora-release-els"?
- "fedora-packager" semantics?
- extended life-cycle policy?
- master mirror retirement of releases
- delegation to SIG members?
- quality assurance
- ...

# Package Owner / Maintainer Tidbits

- opt-in mechanism (a la EPEL?)
- access for ELS packagers
- automagic EOS (re-)assignment of packages?
- policy definition on what is supposed to happen
- assignment of responsibility (SLA style?)
- policy definition to limit acceptable changes to packages
- policy definition to make lives easier
  - e.g. release newer kernel to Fedora ELS release instead of back-porting if too complicated
- ...

# Bugzilla Tidbits

- Auto-pruning open bugs from "supported" to EOS to EOL,
- Change of policy towards new bugs against EOS releases,
- Default Owner / CC: in EOS releases,
- ...

# User Tidbits

- Installation tree customization through Pungi / Revisor
- Provisioning through Cobbler
- Configuration Management through Puppet / Chef / CFEngine
- Configuration / Settings Management through Augeas
- HOWTO documentation in various areas;
  - HOWTO make a kickstart (template) that works with more than one (series of) release(s),
  - HOWTO use a distro template with repos attached as the parent of actual profiles,
  - ...



*The Who*

# Extended Life-cycle Support SIG

- To be created based on:
  - [https://fedoraproject.org/wiki/Features/Extended\\_Life-cycle\\_Support](https://fedoraproject.org/wiki/Features/Extended_Life-cycle_Support)
- Mailing list (to be created)
- Issue tracker (to be created)
- ...

Questions?

# Why Security Fixes Only?

To effectively continue to motivate people and enterprises to move on to more recent releases, virtually forcing them to pay attention or to let the [Fedora](#) systems become a proverbial Free-For-All (security-wise).

# Why All Packages?

Failure to provide security fixes for **all** packages  
negates the point of Extended Life-cycle Support.

# Why 6 months?

It spans the time from  
End-Of-Support for **Fedora N**  
to the next (**Fedora N+3**) release,  
limiting the required effort to  
approximately 1 FTE.

# How Does It Benefit Fedora?

- Potential greater quantitative participation of enterprises,
- More interest in making sure the next release works,
- Greatest pool of resources through enterprises,
- Increase early feedback cycle from enterprises, for what is going to hit them as the next Red Hat Enterprise Linux release,
- Fedora contributors can make this into a career opportunity,
- Supported upgrades for the enterprise benefit Red Hat Enterprise Linux upgrade support