Year of the Enterprise Linux Desktop

… coming soon?

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About me

About me

- Linux Userspace @ Meta
- Fedora contributor since 2004
- Fedora EPEL Steering Committee member
- CentOS Hyperscale SIG contributor
- CentOS Proposed Updates SIG co-chair

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Stability is great...
for (most) servers

RHEL and CentOS Stream

Commercial support, or living (a few months) in the future

- Strong application compatibility guarantees
  - How to use RHEL application compatibility guidelines
- RHEL paid customers get support
- Stream users benefit from the same ACG (modulo accidental breakages)
- ... but get to participate in the development process and get fixes quicker
- These might suffice for many use cases

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Stable base is great...

Stable base is great... for large deployments

Hyperscale SIG

- Strong application compatibility guarantees
  - How to use RHEL application compatibility guidelines
- We can selectively replace targeted components without building an entire distribution
  - Core components: kernel, systemd, ethtool, libvirt, perf etc.
  - Developer productivity packages: emacs, fish, mkosi etc.
- This is not the Hyperscale talk though, come to our (switching to work hat)... Running CentOS Stream in production at Meta on Tuesday at 3:30 PM in the Community Central Theater!

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Proposed Updates SIG

Bridging the gap between development and production

- Spun out of Hyperscale SIG
- Software rebases and normal bugfixes normally land in CentOS Stream first and are stabilized for the next RHEL minor release
- But critical fixes would land in RHEL first
- Proposed Updates let Stream users deploy curated key updates without having to hunt for MRs and building it themselves
- This is also not the Proposed Updates talk, come to the Proposed Updates talk on Tuesday at 4:50 PM in the Community Central Theater!

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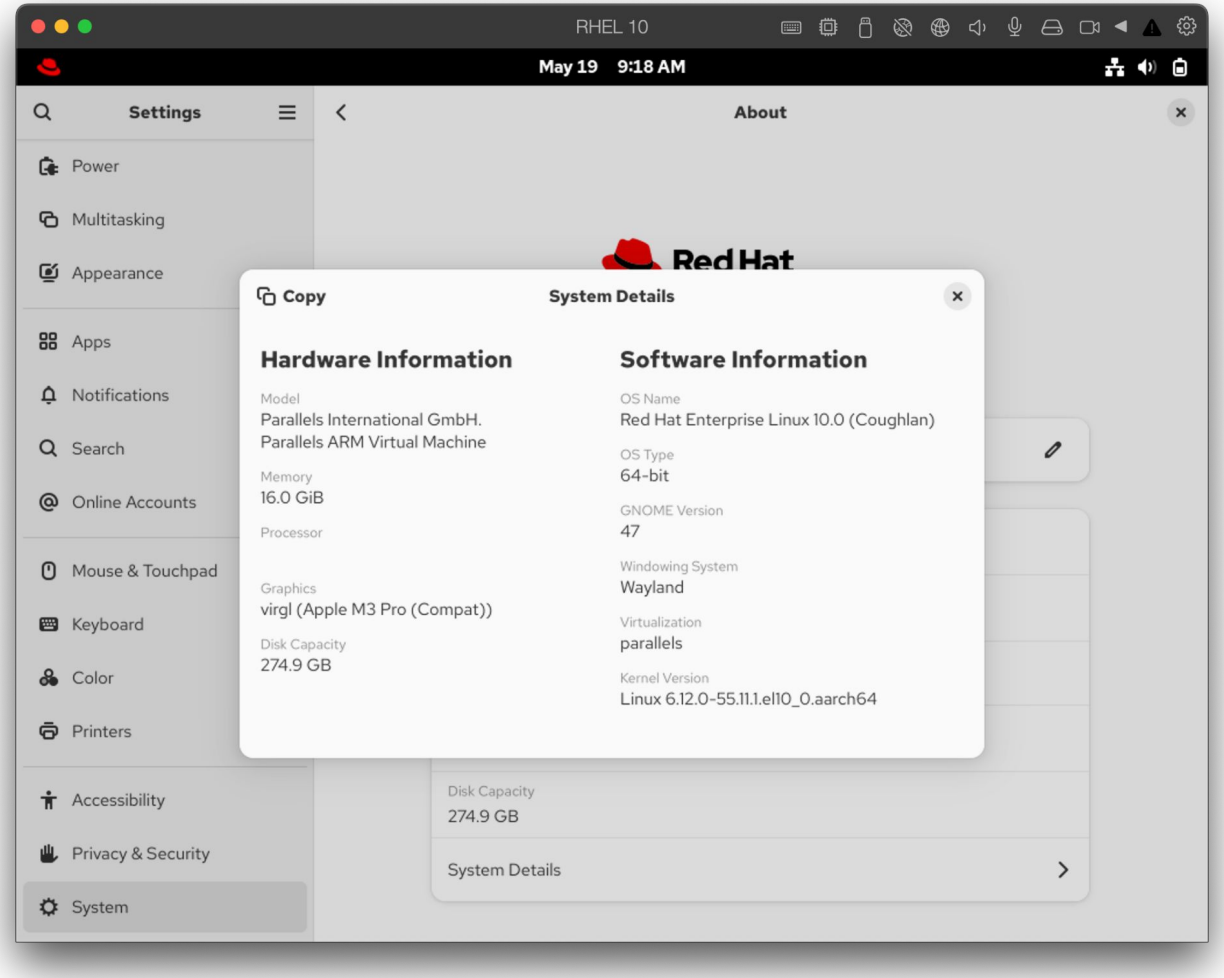
Stable base is great... for desktops?


RHEL 10
May 19 9:18 AM
Settings
About
Power
Multitasking
Appearance
Apps
Notifications
Search
Online Accounts
Mouse & Touchpad
Keyboard
Color
Printers
Accessibility
Privacy & Security
System
Red Hat
Copy
System Details
Hardware Information
Model
Parallels International GmbH.
Parallels ARM Virtual Machine
Memory
16.0 GiB
Processor
Graphics
virgl (Apple M3 Pro (Compat))
Disk Capacity
274.9 GB
Software Information
OS Name
Red Hat Enterprise Linux 10.0 (Coughlan)
OS Type
64-bit
GNOME Version
47
Windowing System
Wayland
Virtualization
parallels
Kernel Version
Linux 6.12.0-55.11.1.el10_0.aarch64
Disk Capacity
274.9 GB
System Details

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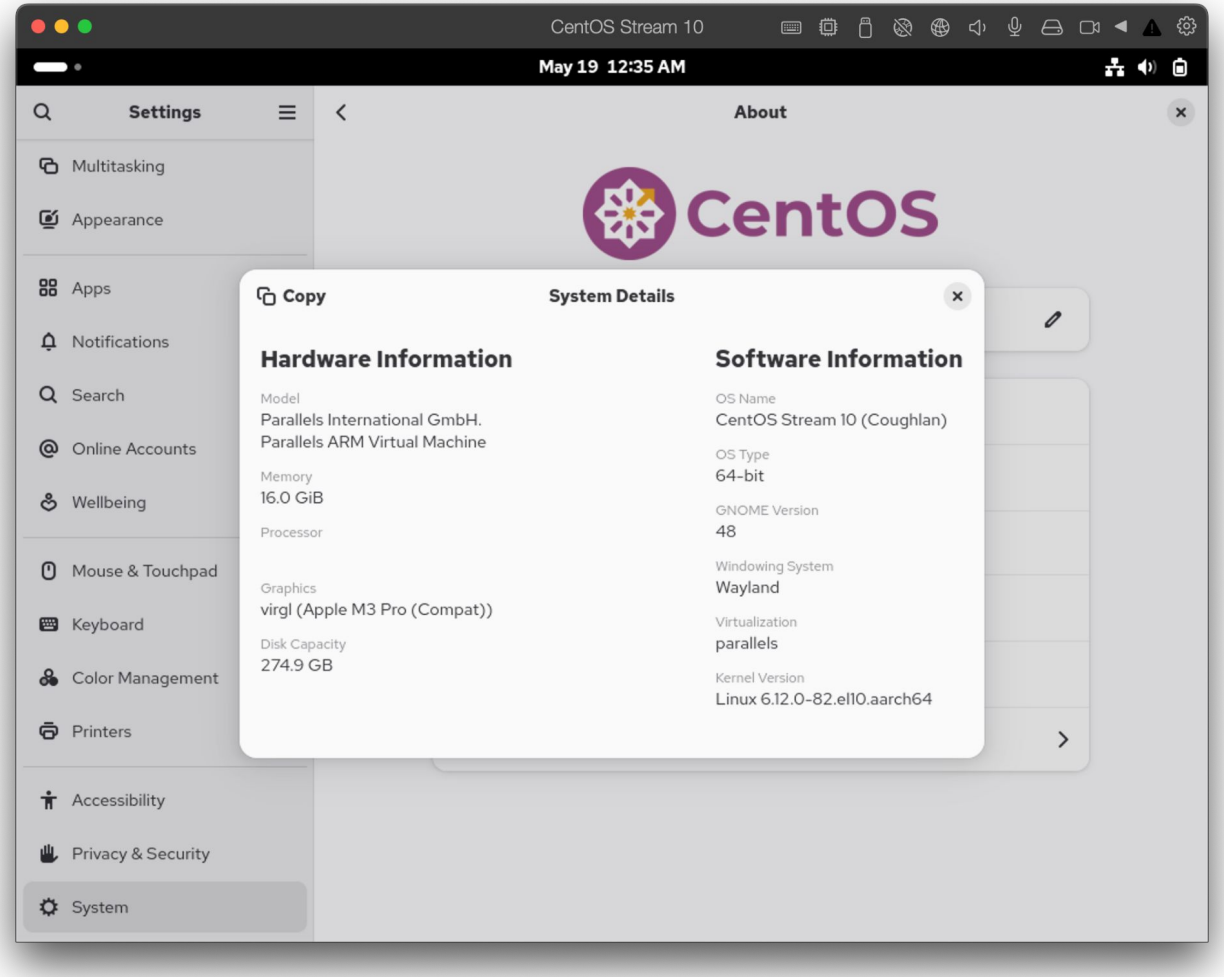
CentOS Stream 10
May 19 12:35 AM
Settings
Multitasking
Appearance
Apps
Notifications
Search
Online Accounts
Wellbeing
Mouse & Touchpad
Keyboard
Color Management
Printers
Accessibility
Privacy & Security
System
About
CentOS
Copy
System Details
Hardware Information
Model
Parallels International GmbH.
Parallels ARM Virtual Machine
Memory
16.0 GiB
Processor
Graphics
virgl (Apple M3 Pro (Compat))
Disk Capacity
274.9 GB
Software Information
OS Name
CentOS Stream 10 (Coughlan)
OS Type
64-bit
GNOME Version
48
Windowing System
Wayland
Virtualization
parallels
Kernel Version
Linux 6.12.0-82.el10.aarch64

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Hyperscale GNOME Workstation

- On stock systems, you can already install newer desktop runtimes and apps via Flatpak
- Desktop packages are reasonably self-contained
- With some care, you can rebase a newer desktop on top of an existing EL release
- ... but why?

Hyperscale GNOME Workstation

- For users: application availability
  - Fedora EPEL can't replace RHEL / Stream components
  - We can ship updated versions here
- For application developers: dogfooding!
  - Daily drive the same distro that you're deploying on
  - Easier to catch issues with, say, CLI tools that you depend on
- For administrators
  - One less distro to support vs. Fedora on desktops and CentOS on servers / containers
  - Less changes to qualify - the underlying distribution is supported for 5 years

Stable base is great... for desktops?

Hyperscale SIG	Hyperscale GNOME Workstation
CentOS Proposed Updates SIG	Fedora EPEL
CentOS Stream	

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Demo time

You can try it today!

```
$ sudo dnf copr enable @centoshyperscale/c10s-gnome-48

$ sudo dnf –refresh upgrade
```


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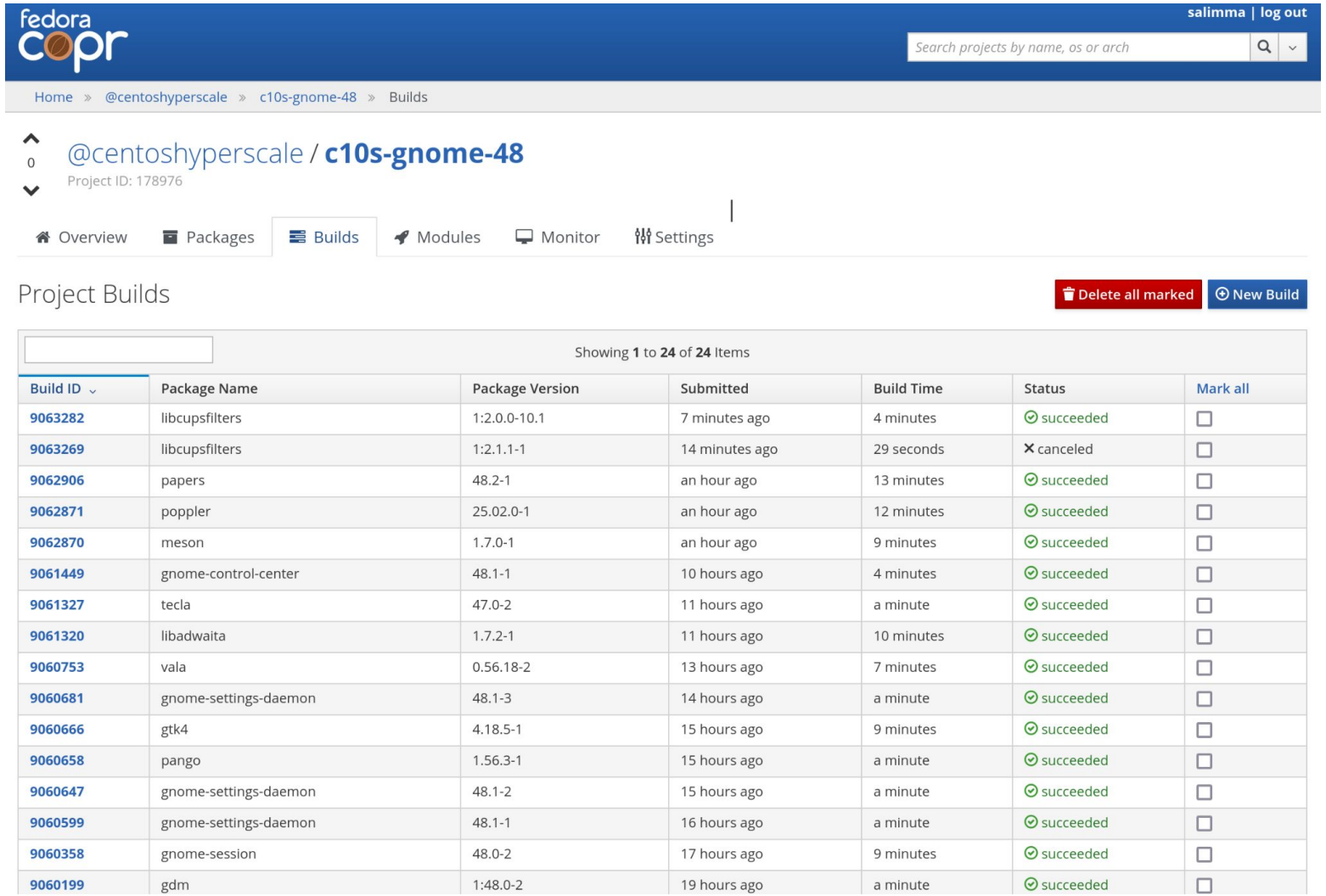
Development process



Build ID	Package Name	Package Version	Submitted	Build Time	Status	Mark all
9063282	libcupsfilters	1:2.0.0-10.1	7 minutes ago	4 minutes	succeeded	
9063269	libcupsfilters	1:2.1.1-1	14 minutes ago	29 seconds	canceled	
9062906	papers	48.2-1	an hour ago	13 minutes	succeeded	
9062871	poppler	25.02.0-1	an hour ago	12 minutes	succeeded	
9062870	meson	1.7.0-1	an hour ago	9 minutes	succeeded	
9061449	gnome-control-center	48.1-1	10 hours ago	4 minutes	succeeded	
9061327	tecla	47.0-2	11 hours ago	a minute	succeeded	
9061320	libadwaita	1.7.2-1	11 hours ago	10 minutes	succeeded	
9060753	vala	0.56.18-2	13 hours ago	7 minutes	succeeded	
9060681	gnome-settings-daemon	48.1-3	14 hours ago	a minute	succeeded	
9060666	gtk4	4.18.5-1	15 hours ago	9 minutes	succeeded	
9060658	pango	1.56.3-1	15 hours ago	a minute	succeeded	
9060647	gnome-settings-daemon	48.1-2	15 hours ago	a minute	succeeded	
9060599	gnome-settings-daemon	48.1-1	16 hours ago	a minute	succeeded	
9060358	gnome-session	48.0-2	17 hours ago	9 minutes	succeeded	
9060199	gdm	1:48.0-2	19 hours ago	a minute	succeeded	

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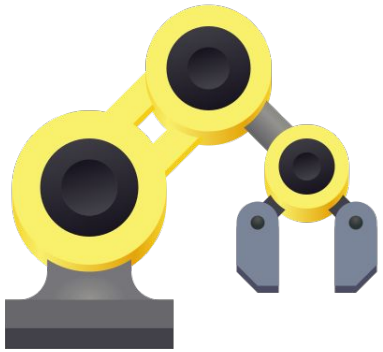
Development process



- Wait for Fedora to release with a new GNOME
- Start a new COPR repo targeting a particular CentOS release and that GNOME
  - eg. c10s-gnome-48
- Dogfood
- Once it's stabilized, migrate components one by one to Community Build Service builds
- When the next RHEL minor release is released, build the current set against RHEL
- Rinse and repeat until we get to the point that we have to replace too many components to bring in the latest GNOME

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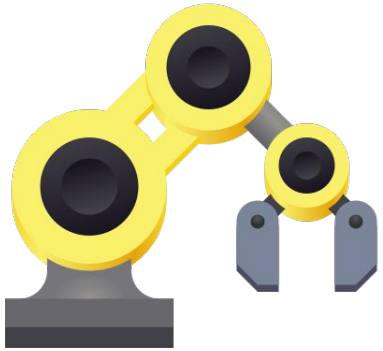
Development process



This work is currently part of the Hyperscale SIG, feel free to reach out if you want to help

Hyperscale GNOME specific documentation will be written soon... ish. We will have a separate issue tracker for requesting packages and reporting bugs

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Why GNOME?

Why GNOME?

- We have to start somewhere
- KDE is in a better place, since it's not in RHEL / CentOS Stream at all we can ship it in EPEL
- GNOME is the default CentOS desktop, but packages are increasingly taken out
- We would love to ship a complete GNOME experience just like on Fedora
- But... wait for it...

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Future plans

Future plans

… not just GNOME!

- KDE in EPEL has some limitations I mentioned earlier
  - pinentry-qt6 in EL not built with KDE integration
- The set of people interested in working on desktop stack does not perfectly overlap with the set of people working on packages for server-side deployments
- At some point we want to spin this off, e.g. CentOS Workstation SIG
- We can broaden the remit to also shipping a thin overlay of packages needed to improve the KDE-on-Stream experience at that time

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Questions and Feedback

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Thank you!

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