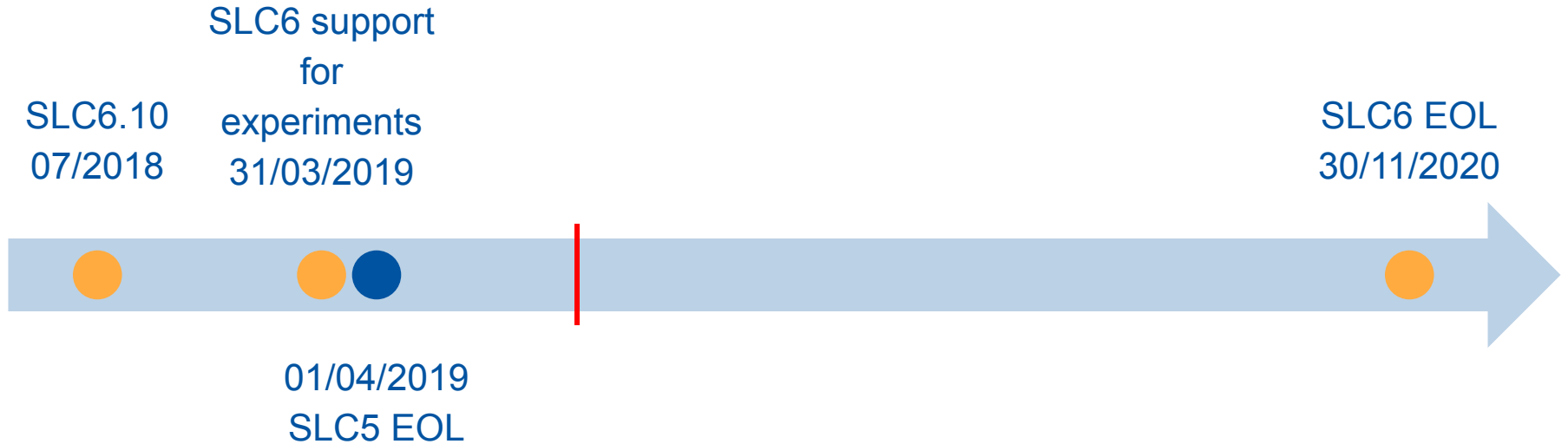


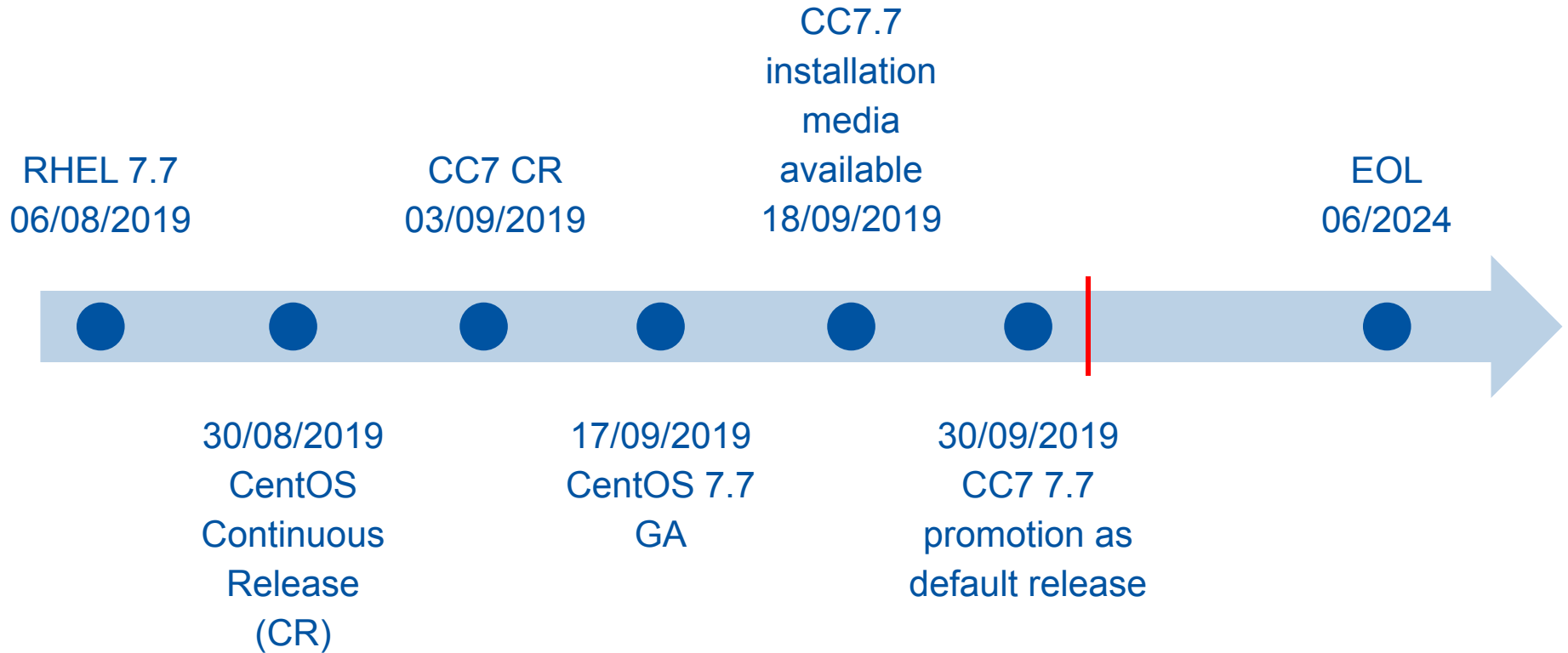
CERN Linux services status update

Daniel Abad on behalf of the Linux Support Team
HEPiX Autumn 2019 Workshop

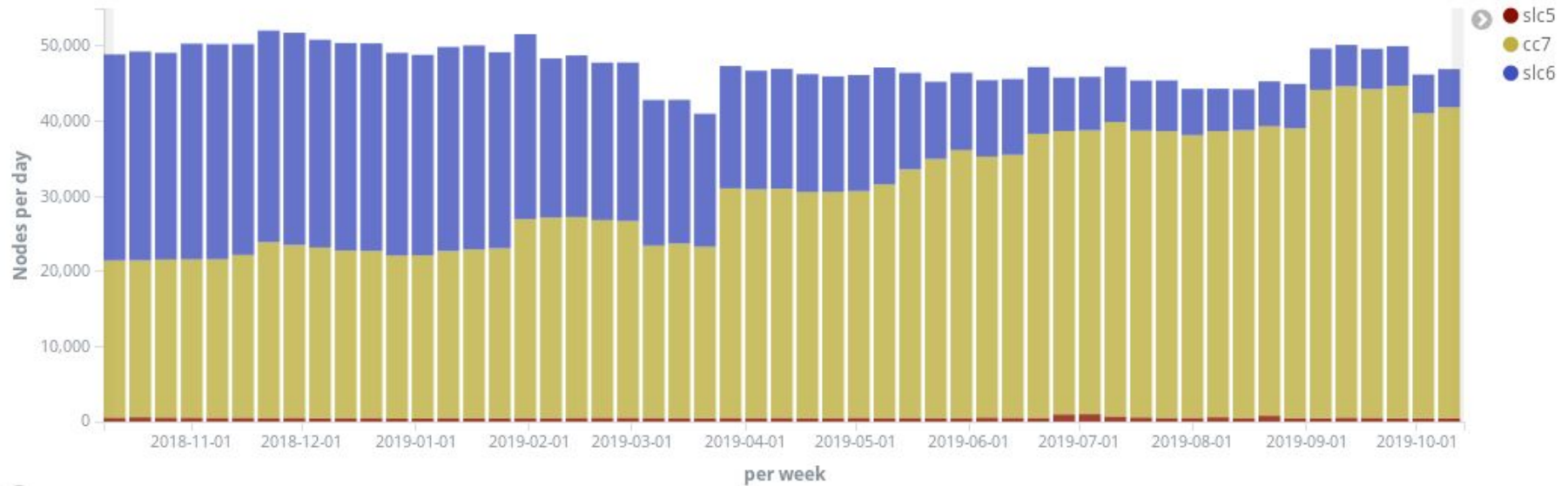
Scientific Linux

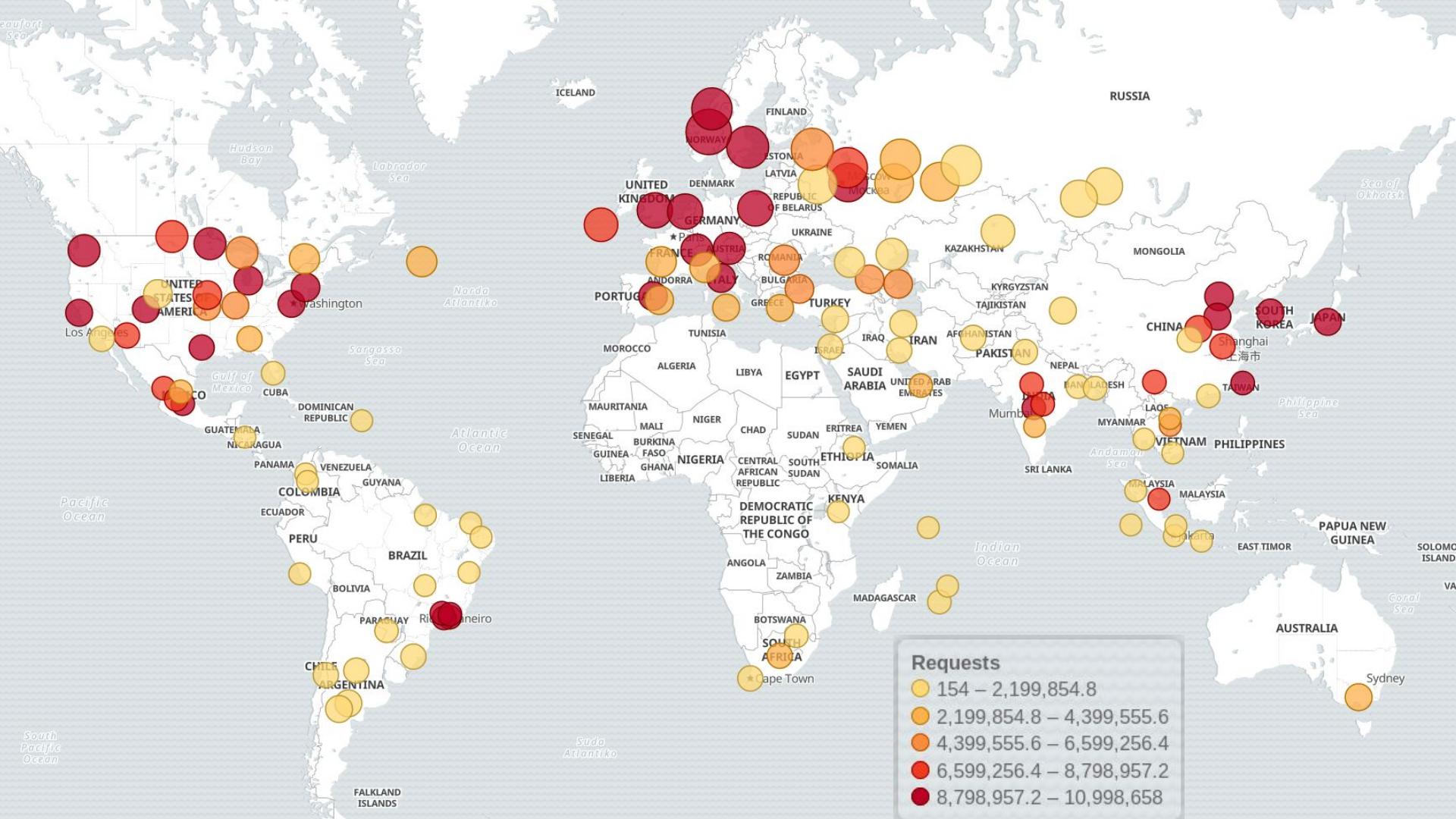


CC7 (CERN Centos 7)



SLC6 -> CC7





CentOS 8

RHEL 8.0
07/05/2019

EOL
31/05/2029



24/09/2019
CentOS 8

The CentOS-devel Archives

You can get [more information about this list](#).

Archive	View by:	Downloadable version
October 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 48 KB]
September 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 103 KB]
August 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 10 KB]
July 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 47 KB]
June 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 39 KB]
May 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 40 KB]
April 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 20 KB]
March 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 26 KB]
February 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 22 KB]
January 2019:	[Thread] [Subject] [Author] [Date]	[Gzip'd Text 23 KB]



<https://lists.centos.org/pipermail/centos-devel/>

e.g.

- Previous message: [\[CentOS-devel\] CentOS 8/7.7](#)
 - Next message: [\[CentOS-devel\] CentOS 8/7.7](#)
 - **Messages sorted by:** [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)
-

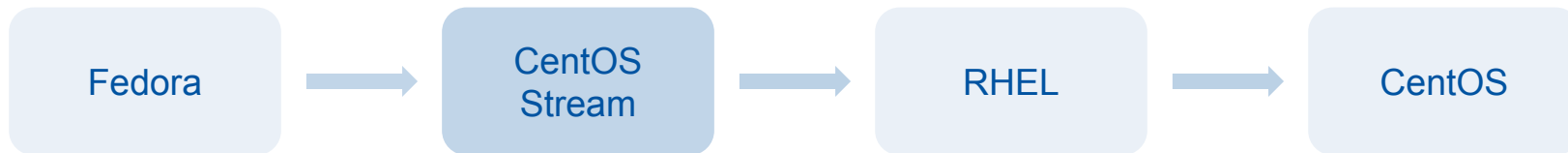
This is a prime example of the sort of **stupid** that people usually encounter when asking about updates. The kind of **idiot** that assumes just because something is offered free all responsibility goes away. Nobody asked for an accelerated schedule just an occasional update and some more transparency. When you have a ton of people depending on you you have a responsibility to them. They put their trust in you the least you can do is be open with them. Have you seen any other prominent project shirk responsibility like this. Btw, this is NOT directed towards any of the project developers just the last **moron**

CentOS 8 & CentOS 8 Stream

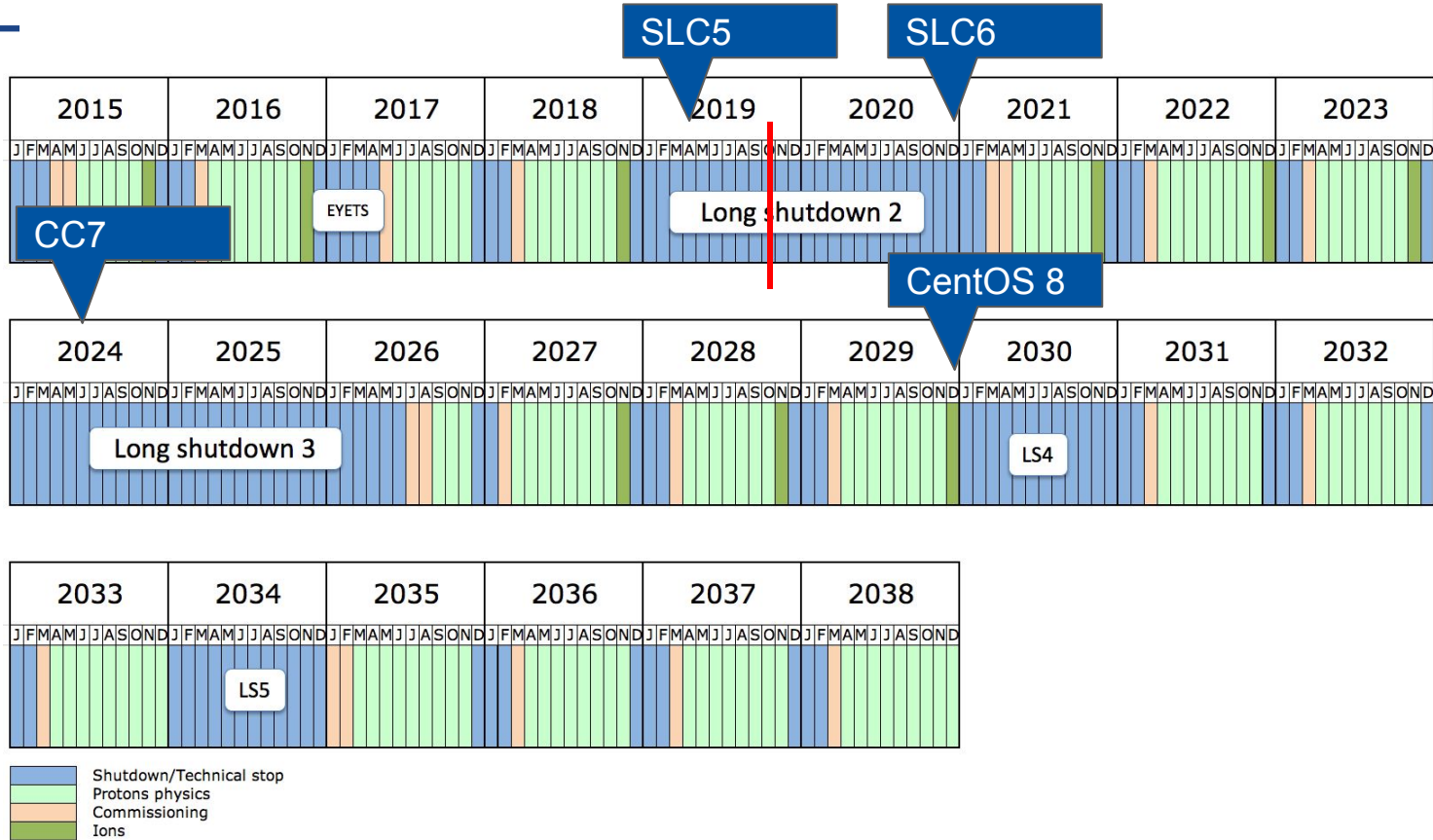
- Before 8:



- With 8:



EOL



CERN CentOS 8 plans

- Official mirror: <https://linuxsoft.cern.ch/centos>
- Clarify/Redefine internal support scope (running a survey)
- Understand upstream plans before defining a strategy
- Ideally no rebuild, mirror CentOS and provide additional repos for CERN specific tools (à la EPEL)
- Review how to configure non centrally-managed hardware

Community involvement

- Monthly meetings with Fermilab
 - Continue SIGs contributions: Cloud (OpenStack), Virtualization (Kubernetes), Storage (Ceph)
 - Create a new Scientific/HEP SIG (unlikely at the moment)
- CI infrastructure (Jenkins) for upstream projects: RDO, OpenShift, Gluster...
- Explore new ways of contributing, potentially to CentOS QA
- Looking for collaboration with other sites

CERN & CentOS Dojos

CentOS Dojo
@ CERN
20/10/2017



19/10/2018
CentOS Dojo
@ CERN

CentOS Dojo
@ FOSDEM
31/01/2020



2020
CentOS Dojo
@ CERN

?

New PXE booting service

- Currently AIMS2 (Linux Automated Installation Management System)
- BIOS & UEFI support
- Cloud and Procurement teams heavily rely on it
- Evaluating options:
 - Cobbler/Koan
 - Matchbox
 - Linuxboot
 - PXE Cloud
 - OpenStack Ironic PXE
 - AIMS3?
 - Did we miss any?

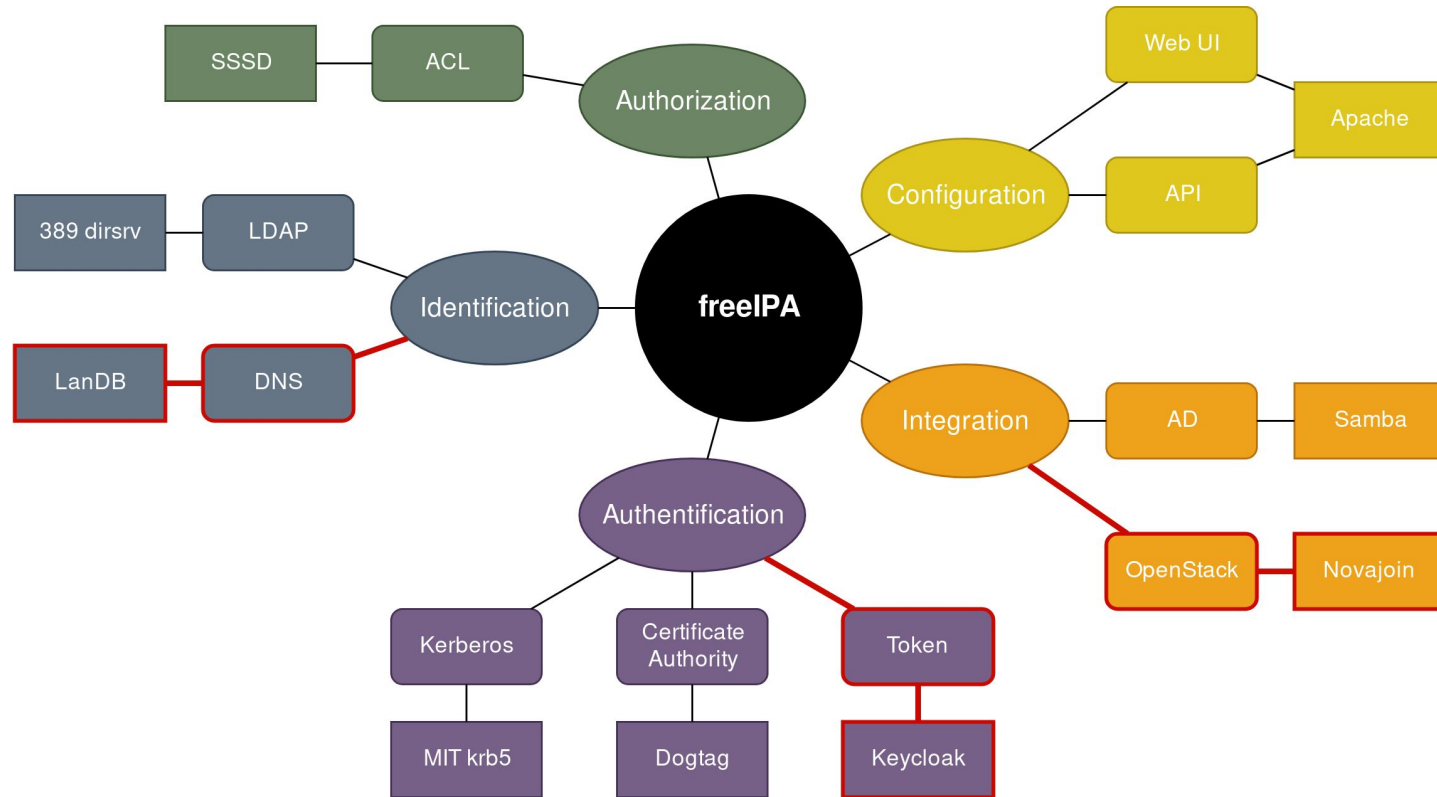
FreeIPA from pilot to production

- Improve host certificate monitoring using certmonger
- Host-based access control features using SSSD + PAM

- Integration in OpenStack for bulk host enrollment
- Ensure continuity of Kerberos authentication during migration
- FreeIPA tests successful

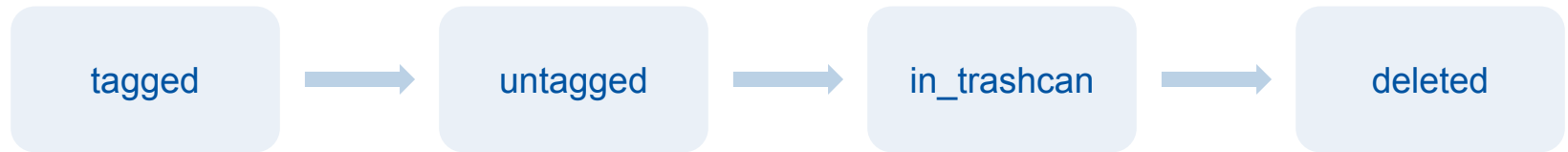
- About to begin testing the migration strategy
- Then, start migrating services out of AD

FreeIPA from pilot to production



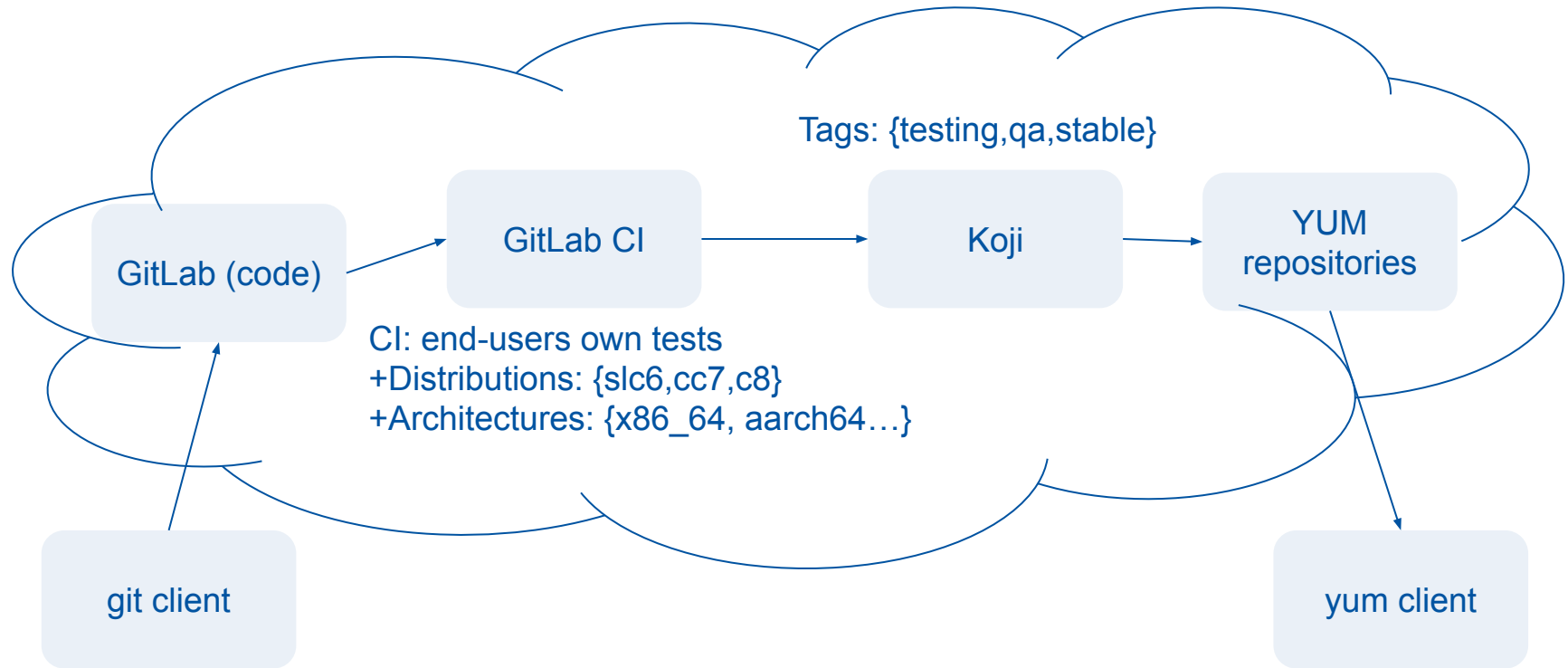
Garbage collection in Koji

- Removing builds from the system
 - When no longer needed
- A build's life-cycle:



- Rules based on tag, package, age/order (within tag), and signatures

Linux Software Building aaS



Alternative architectures: ARM

- System-on-Chip [Workshop](#) at CERN 06/2019
- Supported already ([AltArch SIG](#))
 - ARM64 built as aarch64
 - 32-bit x86 as i386
 - POWER8 Little Endian as ppc64le
 - [...]
- Good moment to reevaluate CERN IT role
 - Experiments planning ~thousands of ARM
- Koji as a service for RPM package building

Evaluate providing lightweight containers

```
$ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
linuxsupport/cc7-base	latest	41306277f6e5	8 days ago	242MB
alpine	latest	961769676411	7 weeks ago	5.58MB

<https://github.com/linuxkit/linuxkit>

Red Hat Universal Base Image (UBI) -> [blogpost](#)

And more generally, evaluate the whole container landscape

Refurbishing of linux.cern.ch

- Update user documentation



The screenshot shows the website <https://linux.web.cern.ch/linux/>. The page features the Linux @ CERN logo and a navigation menu on the left. The main content area is titled "Recent software updates and News:" and lists several updates, many of which are security-related.

Date	Update Details
10.10.2019	[SECURITY]: CC7X - kernel, aims2-client, aims2-server, cern-get-keytab [...] updates.
10.10.2019	[SECURITY]: SLC6X - aims2-client, aims2-server, cern-get-keytab [...] updates.
03.10.2019	[SECURITY]: CC7X - docker, firewalld, kernel, qemu-kvm, systemd [...] updates.
03.10.2019	[SECURITY]: SLC6X - dovecot, java-1.7.0, kernel, thunderbird, qemu-kvm [...] updates.
19.09.2019	[SECURITY]: CC7X - hepix, puppet-eosclient [...] updates.
19.09.2019	[SECURITY]: SLC6X - kernel, firefox, hepix, perf [...] updates.
29.08.2019	[SECURITY]: CC7X - cern-get-keytab, openstack-nova, devtoolset-8-gcc [...] updates.
29.08.2019	[SECURITY]: SLC6X - cern-get-keytab, rt-setup [...] updates.
22.08.2019	[SECURITY]: CC7X - ansible, ansible-doc, cern-get-keytab, kernel-rt [...] updates.
22.08.2019	[SECURITY]: SLC6X - cern-get-keytab [...] updates.

- Adapt hands-on -> online course
 - <http://linuxtraining.web.cern.ch/linuxtraining/>

Get in touch

linux-team@cern.ch



