



Linux Future Committee #4

2021-12-08

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On behalf of CERN IT

IT-CM-LCS

Agenda

- Situation today
 - C8 deprecation reminder
 - Current C8/CS8 numbers at CERN
 - CS9 release (upstream and CERN)
- HEP and CERN news
 - Recent feedback from HEPiX, WLCG
- Red Hat news
 - RHEL 8.5 release + clones update
 - RHEL9 ETA
 - Update on the Red Hat site-license
- CC7 EOL
- Questions

Anniversary: 1 year on ...

CentOS Project shifts focus to CentOS Stream

Tuesday , 8, December 2020 Rich Bowen Uncategorized 714 Comments

The future of the CentOS Project is CentOS Stream, and over the next year we'll be shifting focus from CentOS Linux, the rebuild of Red Hat Enterprise Linux (RHEL), to CentOS Stream, which tracks just *ahead* of a current RHEL release. CentOS Linux 8, as a rebuild of RHEL 8, will end at the end of 2021.

```
$ date "+%a %b %d %Y" -d "today"
```

```
Wed Dec 08 2021
```

```
$ date "+%a %b %d %Y" -d "1 year ago"
```

```
Tue Dec 08 2020
```

Anniversary: 1 year on ...

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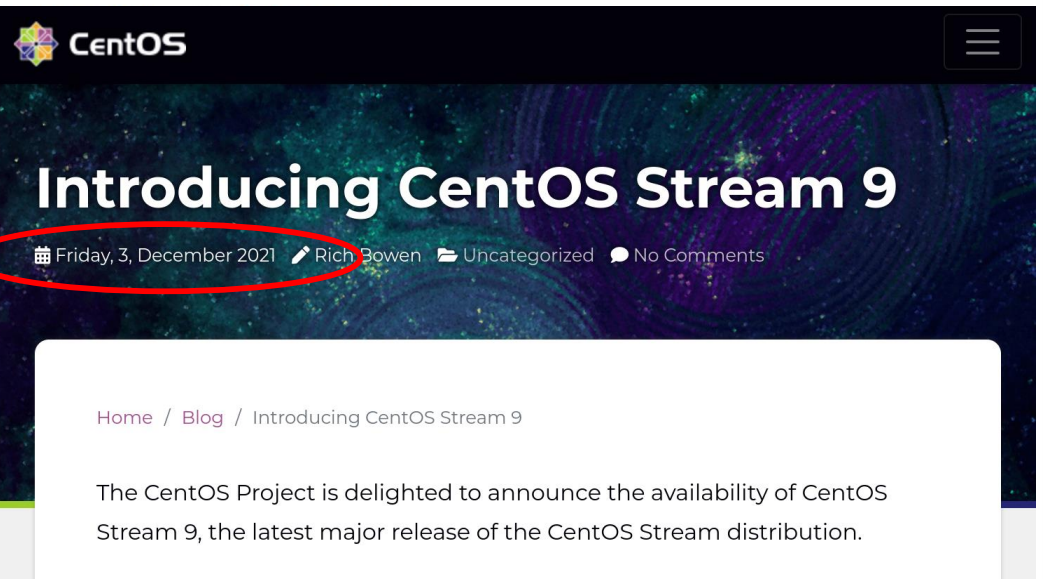
- 17.09 - SNOW ticket regarding kernel panics reported to Linux support
- 20.09 - After analysis, issue reported to Red Hat
- 23.09 - Test kernel provided by Red Hat (which fixed the issue)
- 20.10 - kernel-4.18.0-348 released into Stream
- 09.11 - kernel-4.18.0-348 released into RHEL (8.5)

Anniversary: 1 year on ...

CentOS Project shifts focus to CentOS Stream

Tuesday, 8, December 2020 Rich Bowen

The future of the CentOS Project is CentOS Linux, the rebuild of Red Hat Enterprise Linux RHEL release. CentOS Linux 8, as a rebuild



The screenshot shows the top portion of a blog post on the CentOS website. The header features the CentOS logo and a navigation menu. The main title is 'Introducing CentOS Stream 9'. Below the title, the date 'Friday, 3, December 2021', author 'Rich Bowen', category 'Uncategorized', and 'No Comments' are displayed. The breadcrumb trail reads 'Home / Blog / Introducing CentOS Stream 9'. The main text begins with 'The CentOS Project is delighted to announce the availability of CentOS Stream 9, the latest major release of the CentOS Stream distribution.'

Situation today

- CC7 (CERN CentOS 7) remains a supported operating system
- C8 (CentOS Linux 8) **end of life** in less than 1 month **31.12.2021**
 - There are still ~700 C8 hosts at CERN
 - There will be no system updates available for these hosts from 01.01.2022
- CS8 (CentOS Stream 8) current host count is ~1500
- CS9 (CentOS Stream 9) has been released **03.12.2021** :party:
 - CERN IT are already working to support this distribution
 - OpenStack VM image CS9 TEST - x86_64 [2021-12-01] and docker image cs9-base are available
 - Full support from CERN IT will come likely in Q1-2022

News from HEPiX and the WLCG

- Most sites will be moving ahead with containerization efforts
- Less concerns now about compatibility of different OS flavors
 - Rocky, AlmaLinux and Red Hat will be equivalent
 - CentOS Stream will be slightly ahead of the rest, but still compatible
 - CentOS Stream is to Red Hat as RHEL 8.5 is to RHEL 8.4
 - Some sites concerned with regard to the update frequency of CS8, however nobody else has a gated release process like CERN does
- Some may skip CS8 altogether and go from CC7 to CS9 (or EL7->EL9)

News from HEPiX and the WLCG

- Proposal from DESY

We (WLCG, GDB) agree that the following distributions are treated as equal

a) RHEL N(with whatever license) ... N currently being 8

b) CentOS Stream N

c) Any 100%-clone of RHEL N(Rocky Linux N, AlmaLinux N,...)

Scientific applications and middleware software should work on any of these.

This proposal is currently being discussed/approved through the WLCG GDB
(Grid Deployment Board)

Red Hat news: RHEL8

- RHEL 8.5 released on November 9th
- AlmaLinux 8.5 stable release - 12th November 2021
- RockyLinux 8.5 stable release - 15th November 2021
- CentOS Linux 8.5 stable release - 16th November 2021
 - Released for CERN testing – 17th November 2021
 - Released for CERN production – 24th November 2021
 - Note – this is the last point release
 - End-of-life 31.12.2021

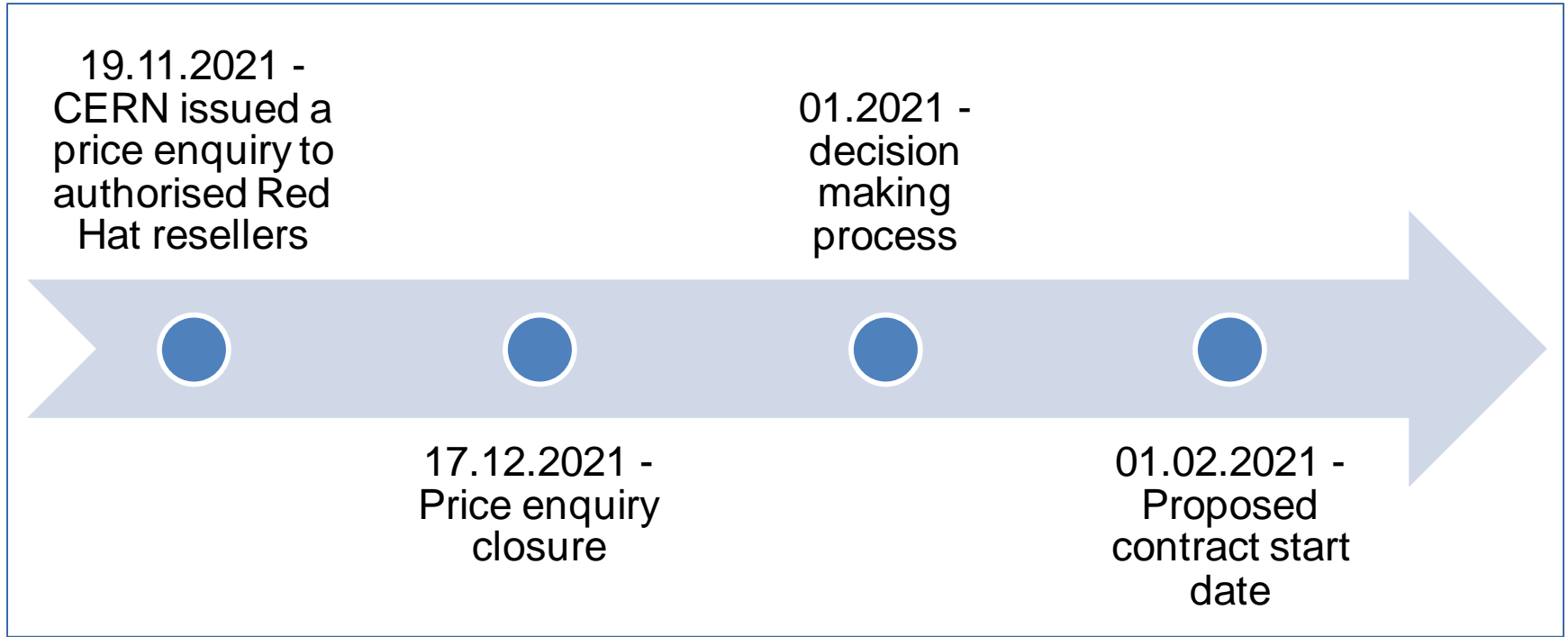
Red Hat news: RHEL9

- RHEL 9 BETA released 3rd November
 - We can expect the full release usually 6 months after the BETA (2022-H1)
 - Currently no clones (Rocky/Alma) have released a BETA of el9, yet.
 - Time will tell how quickly the clones can move with a 'completely new' release

Red Hat news: academic site license

- Unlimited site license for RHEL at CERN (current and future versions)
- No distinction of "research/non-research"
- Additional RedHat products are NOT included (Extended Lifecycle Support, RedHat Virtualization, etc)
- Support is self support only
- Up to 1000 free RHEL hosts at sites that provide compute resources for CERN (WLCG, etc) providing they are used in a 'research' context
- Other sites are able to negotiate directly with RedHat, likely on the same terms as the "CERN academic site license"
- License start date targeted for 01.02.2022

Red Hat news: academic site license



Red Hat academic site-license practicalities

	Today	Tomorrow (once academic site-license contract starts)
Access to RHEL content from within CERN	Hosts need to be added to specific landb sets in order to access content	ACLs will be updated to allow ALL CERN IPs
Ability to spawn RHEL virtual machines on openstack.cern.ch	Only users that request access to RHEL images are granted access to RHEL images	RHEL images will be made public, usable by all
CERN IT agile infrastructure	Base puppet modules already support RHEL AIMS targets already exist ai-bs requires the nova image id for RHEL images	There *may* be some puppet modules that require small fixes to support RHEL7/8 ai-bs will be updated to support --rhel7 and --rhel8 parameters
RHEL support from CERN IT	Available	
RHEL support from Red Hat (the ability to raise cases at access.redhat.com)	Available through CERN IT for licensed hosts	
RHEL self support (access to knowledge base articles on access.redhat.com)	Available for CERN staff, account creation via request to CERN IT	

CC7 EOL

The topic of "CC7 EOL" and "extended support" is acknowledged as a concern

- CERN IT will be working closely with the ATS to:
 - Study the impact of the CC7 EOL and how it affects Run3
 - Determine the scope of support
 - Determine the commitments on both sides (IT & ATS)
- More information will be forthcoming in Q1-2022

Questions ?





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