

# Linux @ CERN

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on the behalf of Linux Support Team

presented by Arne Wiebalck

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# AGENDA



- CERN Linux Service
  - Status
- CERN CentOS 7 Community
  - Community build system
  - Special Interest Groups
  - Status
- Questions

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# SERVICE 1/3



## Production OS

- Scientific Linux CERN 5
  - 5.11 latest release
  - No new minor version planned
- Scientific Linux CERN 6
  - Version 6.7 released August 2015
- CERN CentOS 7
  - Version 7.1 released April 2015
- RHEL 5 / RHEL 6 / RHEL 7 / RHEV
  - Licences =~ 670
  - **E**xtended **U**pdate **S**upport licences

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# SERVICE 2/3



- linuxsoft.cern.ch
  - Packages distribution server / aims2 / koji
  - What's new ?
    - mash/mock upgrades
    - moving from mrepo to reposync for mirrors.
    - Investigation for docker/cloud image creation in koji. (based on our CentOS CBS experience)

- zfsonlinux 0.6.5.2 rebuilt (Storage team / Filer service)
  - SLC6 since May 2015
  - CC7 since October 2015
  - Same policy as openafs ; kmod rebuilt for new kernels, new version recompiled for last 3 kernels.

# SERVICE 3/3



- New project : Puppet on the desktop
  - Replacing legacy - Quattor - tools for desktop/workstation configuration with Puppet. ( around 6000 machines )
  - Provide same functionalities as existing tools lcm. (more info “man lcm”)
  - Masterless puppet.
  - Reuse existing modules if possible.
  - Requirement phase ; existing solution ? masterless experience ?
  - HEPiX feedback appreciated :
    - linux-users@cern.ch

# CERN CentOS 7

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What is it ? A reminder

- CentOS 7 upstream rpms (very same packages released by CentOS team, no CERN specific customization),
- CERN Linux team provides additional software through CERN and CERNONLY repositories,
- CERN CentOS 7 updates are staged,
- CERN CentOS 7 includes the 'yum-autoupdate',
- http://linux.web.cern.ch/linux/centos7/
- CERN CentOS 7 "**production**" version is based on RHEL 7.1 and was released in April 2015.

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# CentOS Community - CBS

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Community build service

- Koji installation at http://cbs.centos.org
- Used by all Special Interest Group
  - Build from SRPM
  - Build from git.centos.org
  - Image Factory for cloud/docker/atomic images
- Planned :
  - Integration with FAS (self service certificate / ACL / group mgmt ).
- Management tools available for the community : https://git.centos.org/summary/?r=sig-core/cbs-tools.git

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# CentOS Community - SIGs 1/3



- Cloud SIG
  - Released Openstack kilo in May 2015
    http://cern.ch/go/p6GG
  - CERN backported Openstack juno for el6
    http://cern.ch/go/QQq8
- Software Collections SIG (SCLo)
  - Release planned for week 42
  - Rebuild Red Hat SCL for el6 and el7
  - + Community SCL (e.g: vagrant )
- Virt SIG
  - qemu-kvm-ev rebuild from RHEV
  - Release planned for week 42

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# CentOS Community - SIGs 2/3

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- Atomic SIG
  - Latest version 7.20151001 (5th October 2015)
    - Annoucement http://cern.ch/go/7dgK
    - Project details http://www.projectatomic.io/
  - Atomic Host image follows the upstream Red Hat Enterprise Linux Atomic Host cadence.
  - After sources are released, they are rebuilt and included in new images.
  - Little interest/requests in the Scientific Community so far
    - HEPiX feedback appreciated

# CentOS Community - SIGs 3/3

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- Alternative ARCH SIG
  - CentOS 7 i386
    - Beta available but not released yet
    - CERN has not been involved in testing but relies on it for building biarch package on CC7
  - CentOS 7 AARCH64
    - Alpha candidate available since May
    - Hardware received at CERN (MP30), but extensive tests did not start yet.
- More SIGs information: https://wiki.centos.org/SpecialInterestGroup/

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# CentOS Community



What we still appreciated

- http://bugs.centos.org
  - Early bug detection.
  - Red Hat bugzilla entries when upstream bugs.
- Collaboration with many projects around SIGs: RDO, ceph, scl, epel etc…
- ALT ARCH SIG saved us a lot of time ; we can concentrate on testing hardware only.

# CentOS Community

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Where we would like to see improvements :

- Better integration with EPEL.
- SIGs roadmaps ; better communication for final users, better release management process.
- More external (non Red Hat) contributors.

# Questions

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# QUESTIONS ?

http://cern.ch/linux

Thank you !

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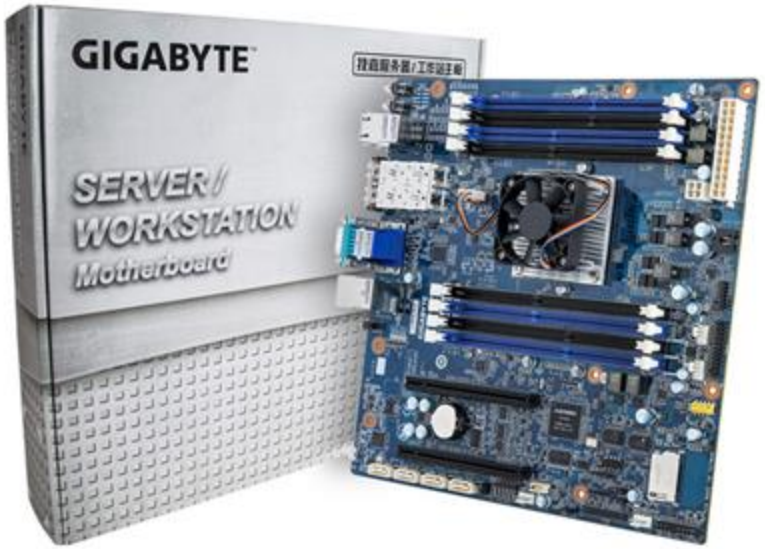
# BACKUP - GIGABYTE MP30






- AppliedMicro® X-Gene1® processor
- 8 x UDIMM ECC DDR3 DIMM slots
- 2 x 10GbE SFP+ LAN ports
- 2 x GbE LAN ports (Marvell® 88E1512)
- 4 x SATA III 6Gb/s
- 1 x USB 2.0 header
- Aspeed® AST2400 remote management controller