
CernVM Users Workshop

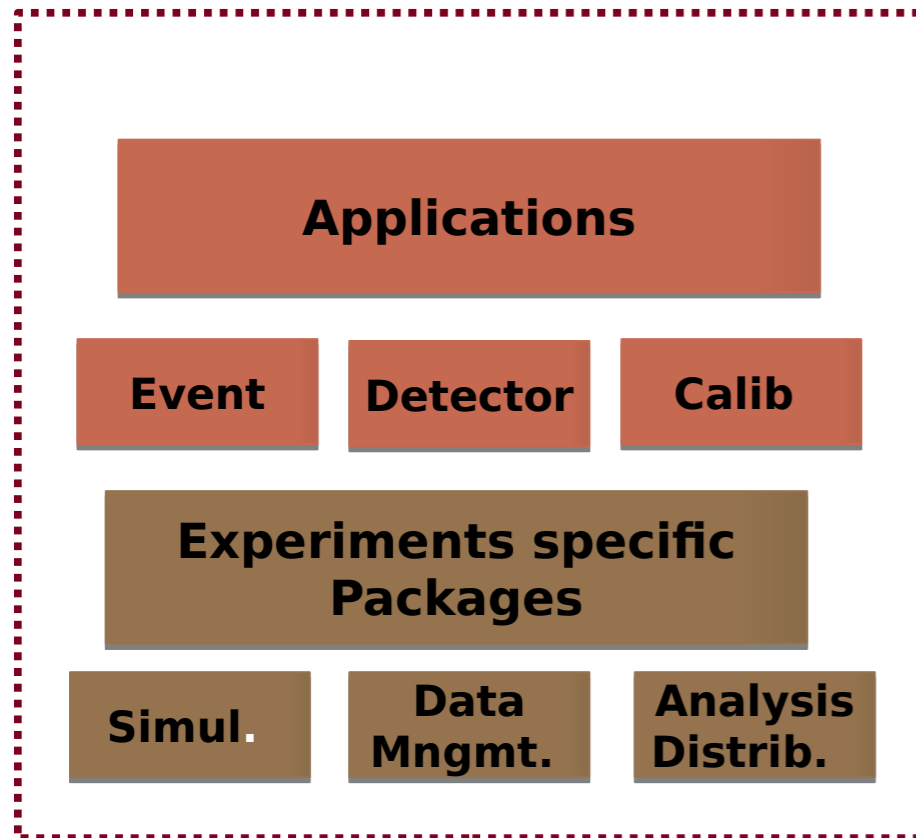
SFT Feedback

Patricia Mendez for the EP-SFT SPI project
CERN, 30/01/2018

10 min to say...

1. How do we **use** CVMFS
2. What's our **experience**
3. What are our **requests**

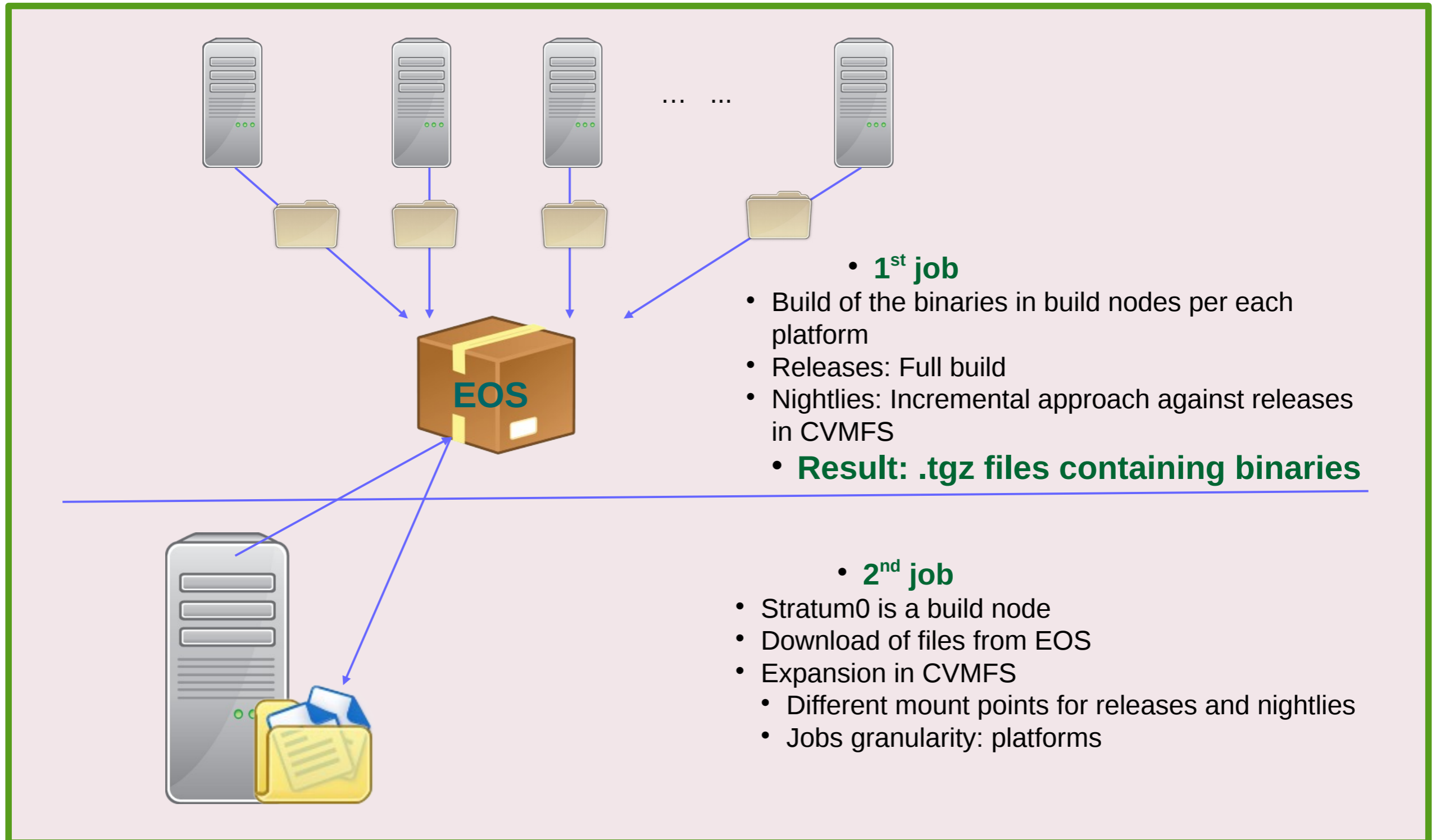
1. CVMFS use in SPI



We provide:

- **Consistent releases of external and LCG application PKGs for both experimental and BE communities**
 - 10x2 platforms including Python2 and Python3 for:
 - gcc7, gcc62, slc6/Centos7, ubuntu16.04
 - All binaries distributed through CVMFS:
 - **Stratum0: cvmfs-sft**
 - [/cvmfs/sft.cern.ch/lcg](http://cvmfs/sft.cern.ch/lcg)
- **Daily tests (nightly builds) for incoming releases**
 - Two independent nightly slots including 10x2 platforms each
 - All binaries distributed through CVMFS:
 - **Stratum0: cvmfs-sft-nightlies**
 - [/cvmfs/sft-nightlies.cern.ch/lcg](http://cvmfs/sft-nightlies.cern.ch/lcg)
- **Additional common PKGs**
 - CMake
 - gcc binaries (slc6/Centos7)

Our workflow for CVMFS distribution



Our machines and volumes

- **CVMFS infrastructure:**

- All build machines have CVMFS mounted via puppet
- Stratum0 cvmfs-sft: LCG releases
 - 1 CPU, VM-slc6 machine
 - Automatic garbage collector suppressed
- Stratum0 cvmfs-sft-nightlies: Nightly builds
 - 8 CPUs, VM-slc6 machine

Release volumes per platform:

26096 dirs	317822 files
3296 symlinks	17 GB space

- **Publication time per platform quite variable**
 - [20-60+] minutes per platform

What's our experience

- **Main limitation: Publication time for nightly builds**
 - Publication of a full release can take a full working day
 - We need to speed this process as much as possible
 - Crucial for nightly builds
 - Garbage collector disable for nightlies only
 - Not enough: high level of optimization remains in our hands
 - Optimization of the cvmfs catalogues
 - Implementation of regular releases to decrease the publication time
- **Issues tracking not easy for users**
 - Very good experts support

Points to look at

- **Hardware**
 - It might be insufficient for releases Stratum0 (to be followed)
- **CMVFS applications:**
 - Issues diagnosis infrastructure available for users would be quite useful
 - Find a strategy to decrease publication time
 - i.e., multi-transaction approach becomes critical for us