Is EOS ready for enterprise companies?

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The Journey of EOS from research organisations to industry

Journey description How: The CERN-Comtrade 360 EOS journey Pitstops on the journey Discussion: What did we miss on the EOS trip?



Journey description

Journey through the land of CS3

• How EOS fits in the CS3

- How EOS fits in Cloud from CS3
- How EOS fits in Storage services from CS3
- How EOS fits in Synchronization and Sharing from CS3



How EOS fits in Cloud from CS3

Cloud Storage Services for Synchronization and Sharing (CS3)

- EOS is "Cloud" as it is
 - Used for many cloud storage services
- EOS is a local cloud
 - The main purpose of EOS, the storage for CERN LHC
 - Number of clients: 30.000
- Completely independent server and client



How EOS fits in Storage Services from CS3

Cloud Storage Services for Synchronization and Sharing (CS3)

- EOS fulfils the extreme LHC storage requirements
- EOS fulfils high-reliability (RAID-DP, RAID 6, RAIN 6)
- EOS fulfils the extreme Alice storage requirements (in progress)
- EOS storage capabilities (current installation at CERN)
 - Storage volume: 500 PB
 - Number of hard disks: 40.000
 - Number of files: 7.000.000.000



How EOS fits in Synchronization and Sharing from CS3

Cloud Storage Services for Synchronization and Sharing (CS3)

- EOS synchronization and sharing features (clustered file system)
 - Location transparency
 - Migration transparency
 - Concurrency Transparency



How: The CERN-Comtrade 360 EOS journey

- About Comtrade 360
- Beginning of the journey: Research organisations
- End of the journey: Industry



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How: The CERN-Comtrade 360 EOS journey

The beginning of the journey: Research organisation

- Initial challenges of EOS
 - Collect data generated by sensors
 - Allow insight into physics experiments at CERN
 - Allow huge data inflow
 - Allow secure data storage
 - Provide extremely low latency
 - Allow "unlimited" storage size extensions



The end of the journey: Industry

- Industry requirements for EOS
 - Provide software storage maintenance
 - Appropriate documentation for newcomers
 - Installation to meet industry requirements for installation
 - Allow using EOS for Windows clients
 - Support to meet industry requirements for support



Pitstops on the journey

Comtrade 360 pitstops on the journeyHow EOS is approaching the end of the journey



Comtrade 360 pitstops on the Journey

- Some milestones
 - 2015: Signed CERN openIab Project Agreement for EOS Productization
 - 2016: Full installation kit for CERN EOS
 - 2018: CERN EOS User Manual
 - 2022: Production of the EOS Windows native client



How EOS is approaching the end of the journey

- Is EOS ready for enterprise companies?
 - We are close
 - Open item: Documentation update
 - Open item: Windows native client final testing
- What do we need at the end of the journey?
 - Confirmation that we have completed the road
 - Marketing message that we have completed the journey



Discussion: What did we miss on the EOS trip?



Thank you

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