



Comtrade EOS Productization

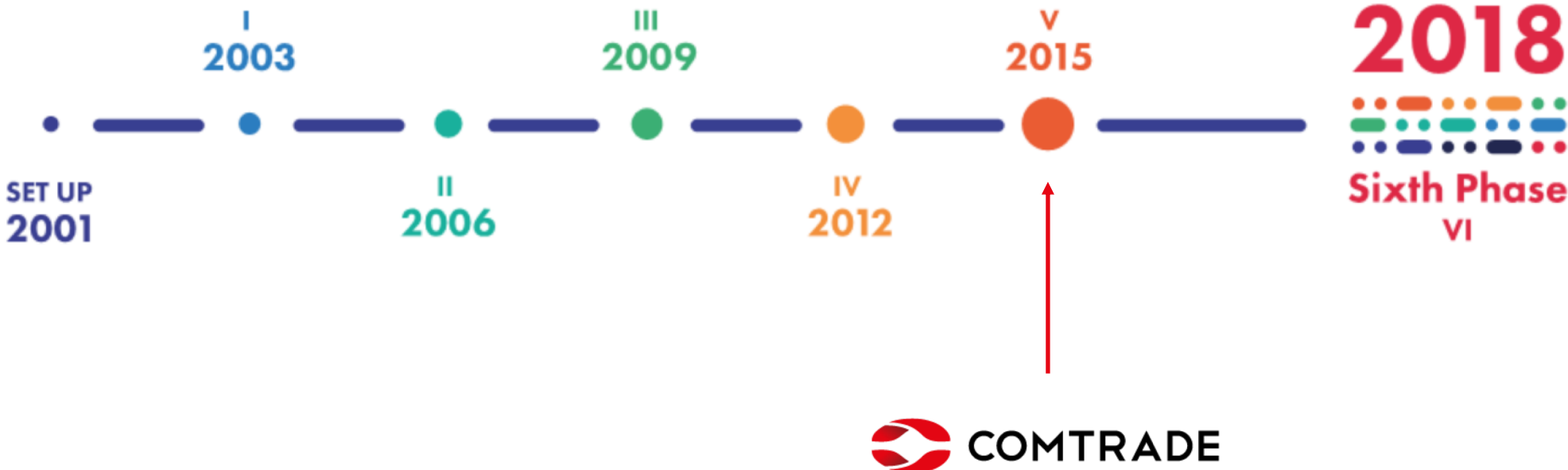
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Comtrade: CERN openlab associate member



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Phase 1: From 2015-2016

- › First steps of CERN EOS knowledge gathering
- › EOS installation script

Phase 2: From 2016-2017

- › Integration of COMTRADE engineers into the development and operations team at CERN
- › EOS installation script: Robust installation kit to allow rapid deployment of EOS
- › The continuous evolution of the testing, installation and documentation

Phase 3: From 2017-2019

- › Knowledge transfer and merge of experiences between CERN and Comtrade
- › EOS documentation as a result of knowledge transfer
- › Full stack proof of concept (POC)
- › Support for EOS clients

About Comtrade

Since 1990

- › Storage and Data Management (SDM) software development

Delivered thousands of engineer years of SW products/services

- › One of the largest SDM development labs

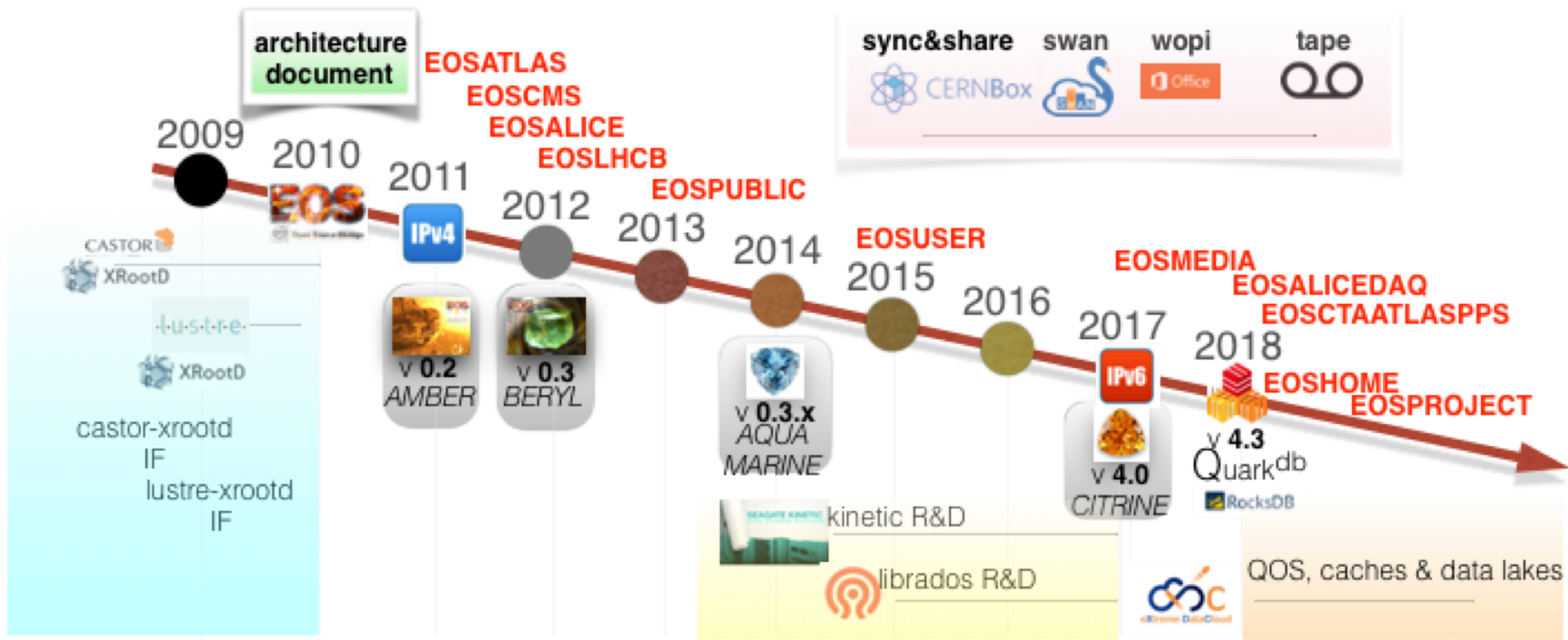
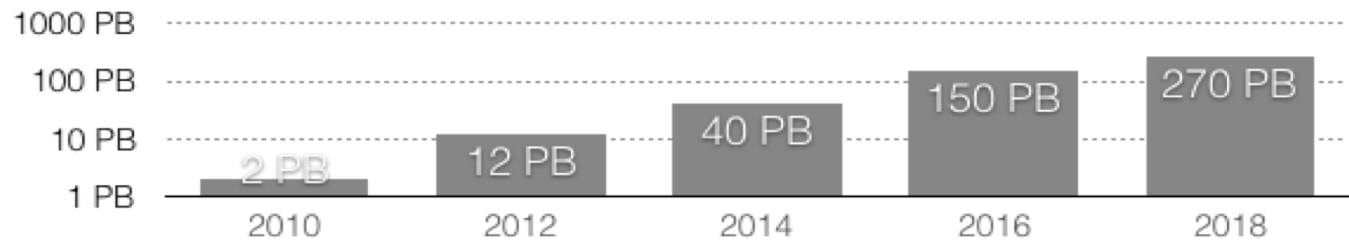
Experiences from processes for enterprise customers

- › Research and development
- › Standards for software development (processes)
- › **Documentation**
- › Upgrades to new releases
- › Compatibility with previous releases
- › Support

What is EOS?

- › Open Source Storage
- › Elastic, Adaptable and Scalable
- › Software solution for data recording, user analysis and data processing
- › Supports thousands of clients
- › Multiprotocol support (HTTP, WebDAV, CIFS)
- › Offers a variety of authentication methods (KRB5, X509, SharedSecret, unix)

EOS Project history



Comtrade: Why CERN EOS

- › Productization of CERN EOS
 - › The goal based on the knowledge and experiences in SDM
- › Open-source support for EOS customers
 - › The final goal
- › Ability to serve as open-source support partner
 - › Investments in software products
 - › Investments in software services

CERN EOS – Comtrade Experiences

- › Presented on EOS workshops
 - › 2017, 2018, and in few weeks
- › On-site knowledge transfer (2 weeks)
 - › Branko Blagojević, Ivan Arizanović, Igor Doko
 - › Administration and Deployment in Large-Scale Environments
 - › Architecture and XRootD
 - › Upgrades and Migration



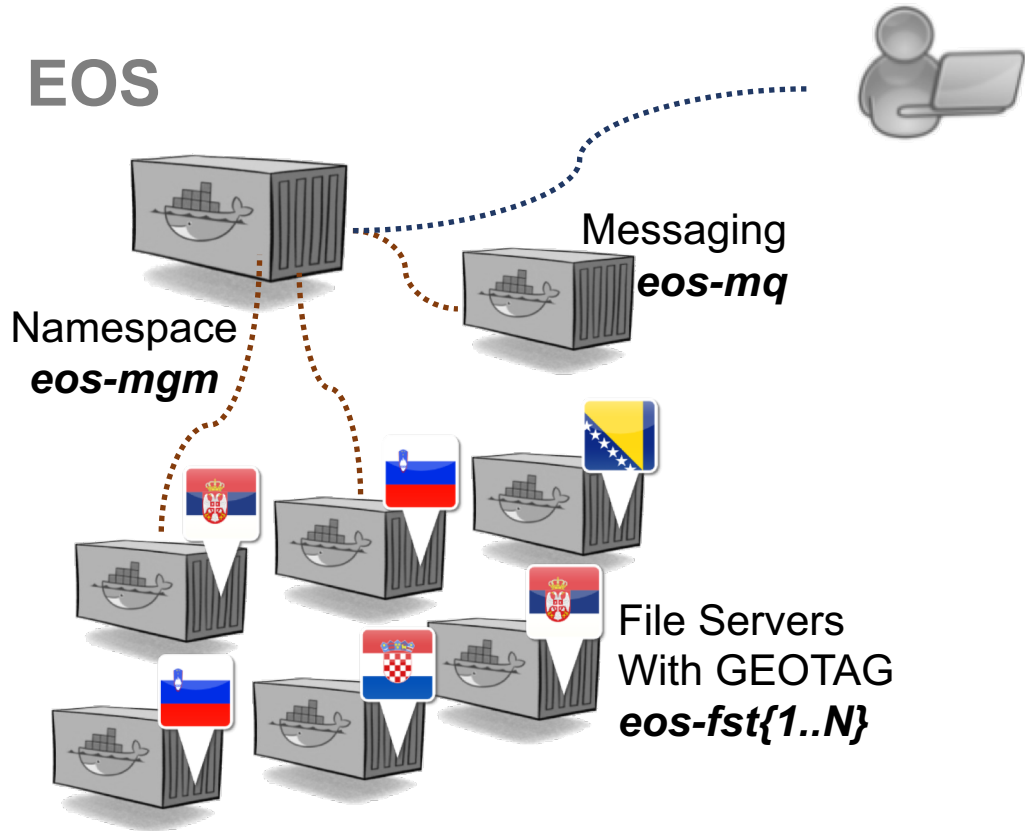
EOS Productization Project 2018-2019

Documentation

- › Finalization of WPs
- › Knowledge gathering completed
- › New document template



EOS Productization Project 2018-2019



GeoScheduling POC on containers

Geo-scheduling and Balancing

- › Knowledge gathering & transfer

Goal

Boost up data loss prevention storing in different locations based on geolocation tags

- › New level of reliability
- › No data loss after failure of disks (nodes) on specific Geo location
- › No data loss after failure of other Geo locations

Comtrade: Future Plans for EOS

- › Use of the Comtrade software development model
 - › Specification
 - › Architecture
 - › Development
 - › Quality assurance
 - › Marketing
 - › Support
- › Providing open-source support for EOS customers

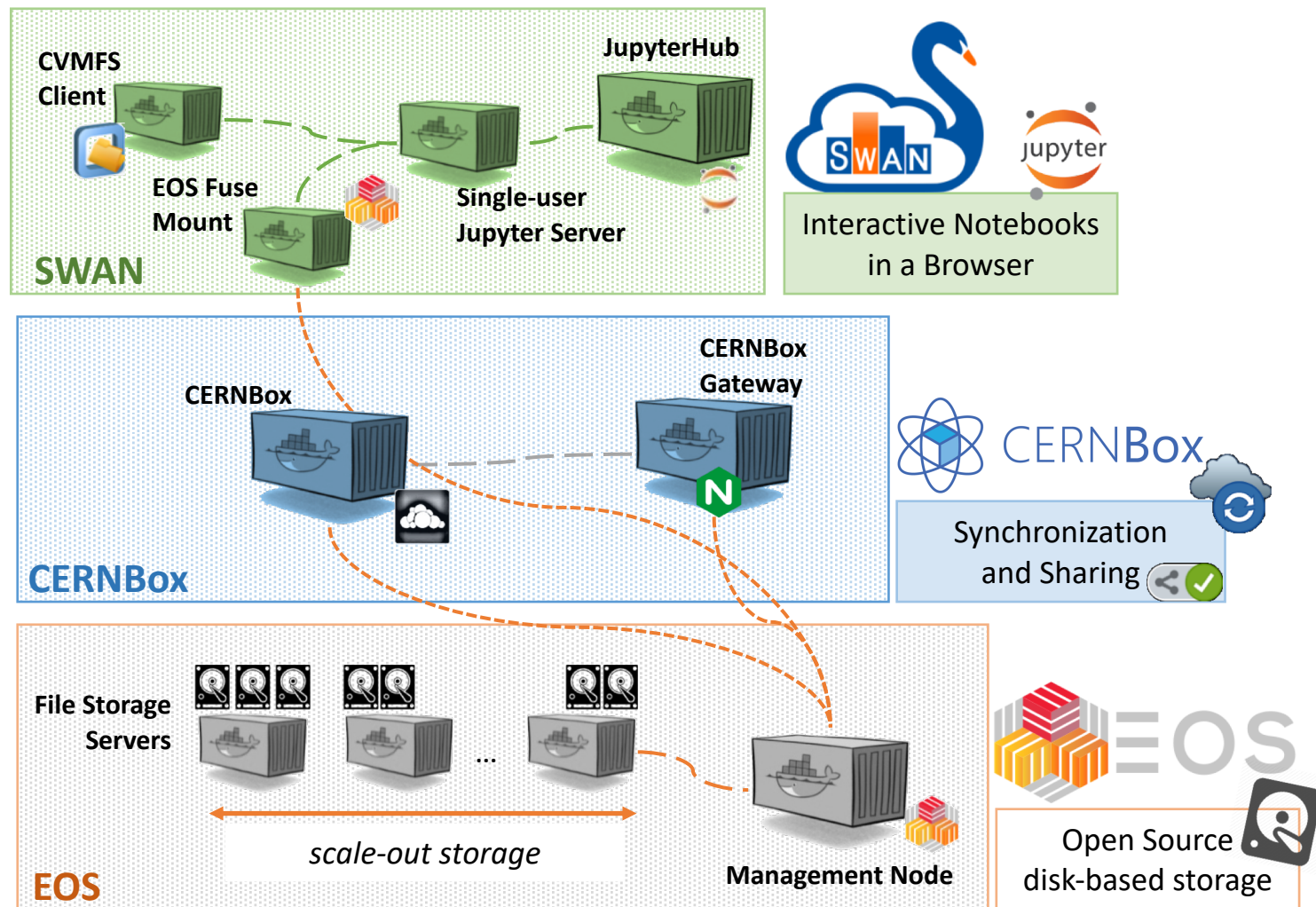
Comtrade: Future Plans for EOS

- › “Full-stack” POC
- › Extend team knowledge
- › Simplify testing framework

Goal

Ability to offer dedicated add-on services

- › Synchronisation
- › Sharing
- › Interactive data analysis



**Thanks
for the attention!**

