



# PanDA Infrastructure at CERN

## Status

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# Main Activities

We have about 50 nodes at CERN for PanDA:

PanDA Server, Cache, Bamboo, Monitor, Pilot Factories, DaTRI, development.

- Migrations to:
  - SLC6
  - AI infrastructure
- PanDA Version control:
  - We are ready to organize a special cluster for running and testing several versions of PanDA monitor. We need synchronized TAGs for PanDA monitor and part of PanDA Server:
    - We can start a new service on HyperV nodes voatlas210, 233, 234 or later on AI.
  - Do we need version control for other PanDA parts?



# Migration to SLC6

- PanDA migrated to SLC6 (Quattor) perfectly:
  - PanDA Server (8 nodes, 2 dev) {updated: Dashboard, AGIS Client...}
  - Pilot Factories (5 nodes, 2 dev)
    - Doesn't migrated CHIRT powerful node. It's not clear what we can use soon virtual or real node.
  - DaTRI
  - Oracle Web Tools:
    - <https://atlas-info-mon.cern.ch> & <https://atlas-info-oracern.ch>
- Open question for PanDA Cache is migration to SLC6/AI. We don't know what we can use again: virtual or real powerful nodes:
  - Panda Cache service needs several TB disk storage.
  - We'll use AI nodes when disk storage will available for Open Stack nodes.
  - The migration could be possible end of the year.
- Migration does not needed:
  - Bamboo as deprecated service



# Migration to SLC6

- PanDA Monitor are very close to migration to SLC6.
- We have one development node where `panda.cern.ch` and `pandamon.cern.ch` (using wsgi) configuration working together. We'll use this configuration for migration to SLC6.
- We'll start migration from development nodes, then PanDA cron machine and so on.



# AI Infrastructure

- We started migration to AI Infrastructure (OpenStack, Puppet):
- We have useful flavor specially for ADC PanDA project, thanks to Tim Bell
  - 4 cores, 300 GB system disk
- The migration is complete for the first special ADC node which needs for rpm making and security scans.
- We have plans to make for each service (PanDA Server, Pilots, PanDA Monitor) at least one AI node and start long test (at least month) as a production machine.
- At the end of this year we'll see how good AI in practical operation is. If we'll satisfied we start removing Quattor infrastructure from PanDA.



# Conclusion

- PanDA in a good shape for migration to SLC6. Only few services postpone SLC6 migration.
  - We didn't see any technical problems for migration, at least today. Few service responsible peoples are just busy right now.
  - We plan finalize SCL6 migration at end of this year.
- We expect that PanDA version control will be in operation in two month.
- The AI nodes will work on all production services end of this year.
- We have a chance end of February to have all PanDA nodes in new AI CERN IT infrastructure.