

## CEP3: Status update & Planning

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## 24 Dell PowerEdge R720 servers

- 128GB memory
- 20 Cores (2 ten-core Intel Xeon e5 2660v2 processors)
- Dell PERC H710P RAID controller
- 8 x 4TB disks in RAID6 setup, 22TB netto diskspace, XFS filesystem
- 2 x 10Gbps Ethernet interface
- Slot for a GPU board (not installed yet)

## Division:

- 2 "lhd" head nodes (called lhd001/lhd002)
- 20 compute nodes (called lof001 – lof020)
- 2 development nodes (lof021 and lof022)

# CEP3 intended usage



CEP3 will (eventually) be a Managed cluster

- Slurm for job and user access management
- Early availability for users:
  - Time requested/awarded through proposal and program committee
  - Science Support will allocate timeslot (based on observations, availability, etc.)
  - During timeslot user can access nodes through Slurm shell.
  - Processing must take place in allocated timeslot; users will be warned in advance that their account will expire; data will be removed regularly after data offloading has succeeded
  - Standard Imaging and Pulsar processing software available

- To keep progress: CEP3 setup Tiger team formed:
  - Arno Schoenmakers, Marco Iacobelli, Teun Grit, Carmen Toribio, Hanno Holties
- Hardware installed and running since early 2014.
- OS (Ubuntu 12.04 LTS), etc. installed through XCAT system
- CEP2-like software setup (with 'use' scripts, etc) installed
- SLURM installed, being configured
- Data transfer tools (on and off CEP3 nodes) being worked on
- Commissioning users have been approached to help commission software and test usability in September

- Setup system and tools: Ongoing
- Commissioning: 1<sup>st</sup> two weeks of September
- Network reconfiguration: 15 – 26 September; this will block access.
- Open for users: early October
  - User access through Slurm on dedicated nodes: 2014
  - Advanced Job specification and scheduling system: 2015
- Data offload planning:
  - Directly through portal: 2014
  - Using LTA User ingest: early 2015

- See the LOFAR wiki:



The screenshot shows the LOFAR Operations Wiki page for the CEP3 Cluster. The page has a navigation bar at the top with links for 'article', 'edit this page', 'old revisions', 'manage subscriptions', and 'export: pdf'. The user 'arnoschoenmakers' is logged in, with links for 'admin', 'update profile', and 'logout'. The main content area is titled 'LOFAR Operations Wiki' and 'CEP3 Cluster'. It contains an introductory paragraph, a 'Table of Contents' sidebar, and three main sections: 'CEP3 setup and configuration', 'CEP3 User documentation', and 'Meeting notes'. Each section has a list of sub-topics and an 'edit' link. The left sidebar contains navigation links for 'Wiki Startpage', 'Visitor Sections', 'Projects', 'Local Sections', and 'Help'.

arnoschoenmakers admin update profile logout

article edit this page old revisions manage subscriptions export: pdf

## LOFAR Operations Wiki

### CEP3 Cluster

This is the entry point for all CEP3 related information. CEP3 is the new processing cluster that will be configured as a managed cluster. Users will be allotted time through a time allocation committee and will have restricted access for a limited amount of time.

Table of Contents
• CEP3 Cluster
• CEP3 setup and configuration
• CEP3 User documentation
• Meeting notes

### CEP3 setup and configuration

- CEP3 system setup (hardware, OS, packages, etc.)
- CEP3 cluster/job management software (Slurm) information
- [CEP3 user software setup](#)

### CEP3 User documentation

- [How to access CEP3](#)
- [How to setup user environment](#)
- [How to get user data on and off CEP3](#)
- [How to specify and run jobs on CEP3](#)

### Meeting notes

- Notes of the daily CEP3 setup meetings (Aug/Sep 2014)

Trace: • meetings • system • cep3

Navigation: Wiki Startpage

Visitor Sections:

- User and LTA access
- Meetings, Workshops, Reports, docs
- LOFAR Science
- International partners
- User Software

Projects:

- Cobalt
- Imaging Tiger Team
- CEP3 cluster

Local Sections:

- Operations
- Engineering
- Maintenance
- LTA (for developers)
- Publication Committee
- Commissioning & MSSS
- Single Station use
- NAA

Help: