

The Central Processing facilities

Work in progress..!

Central Storage Cluster

System description

The Central storage cluster is a cluster of computers that is a temporary data storage for intermediate science products. There are actually two different clusters: the old and the new cluster.

Old cluster

The “list” cluster can be considered as on-line storage and is filled by the observe processes only. Lofar users are not allowed on this cluster. The “lifs” cluster is an off-line storage cluster and will hold observation data for a what longer period. The filesystems of these cluster nodes are NFS mounted on listfen, the frontend node for off-line and storage nodes. The NFS mounts use a fast Infiniband interconnect between these nodes. There are 4 list nodes and 12 lifs nodes. Each list node holds 1.6TB of data, while each lifs nodes can hold 1.1TB of data. Nodes list001 and list002 hold production data, while list003 and list004 hold testsystem data. Nodes lifs001 till lifs009 hold unprocessed observation data, while lifs010 till lifs012 is mend for processed data and user data.

New cluster

to be filled in

Contacts and contractors

- Mr. [Chris Broekema](#) (software)
- Mr. [Teun Grit](#) (operating system; user access)
- [rekencentrum](#) (hardware)

Postprocessing Cluster

Summary and Scope: The Postprocessing cluster is a cluster of computers that has processes the raw data from teh correlator or [TBBs](#) into images and other scientifically relevant data. Most of the programs running on the cluster will be controlled by [MAC/SAS](#) though the [ACC](#) middleware.

Applicable documents: unknown.

Validation: For a new node to be accepted into the cluster, the following conditions should be met:

- Installed latest version of OS image.
- User accounts up-to-date.
- Connectivity to the storage nodes tested at at least 70MB/s.

Maintenance: Because of evolution of the programs running on these systems, there will either be the need to frequently update the images that run on these systems. Next to that the operating systems on these computers will need frequent patching for security reasons. Because of the large number of machines, regular hardware repairs and replacements will also be necessary.

Troubleshooting: In case that the network performance of the node is low, the infiniband connection should be checked.

Contacts and contractors:

- Mr. [Adriaan Renting](#) (software)
- Mr. [Teun Grit](#) (operating system)
- [rekencentrum](#) (hardware)

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