



News from CIN-IT

Agenda:

- Common infos
- Network overview
- Demilitarized Zone
- LDAP
- Cluster and Storage
- Backup and Archiving
- Network Structure
- Wiki





Common Info

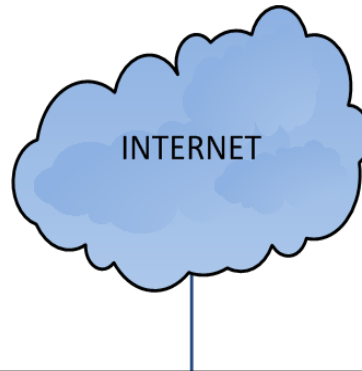
- Phillip Lies is gone
- Yumin will leave at the end of this month

- Adam started 1st of Oct. 100%
- Martin started 1st of Sept. 80%
from 1st of Dec 100%
- Susanne still on 70%





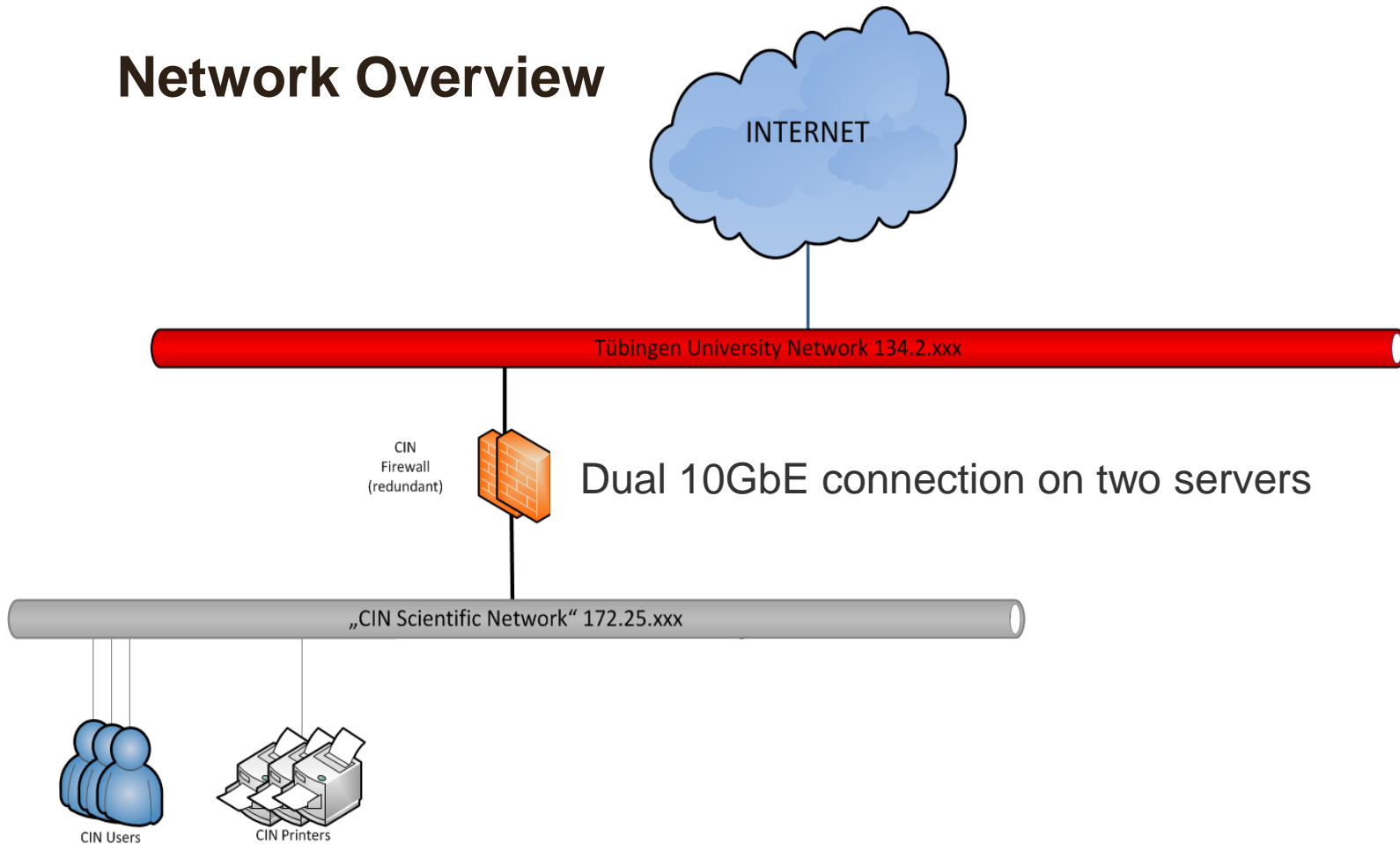
Network Overview



Tübingen University Network 134.2.xxx



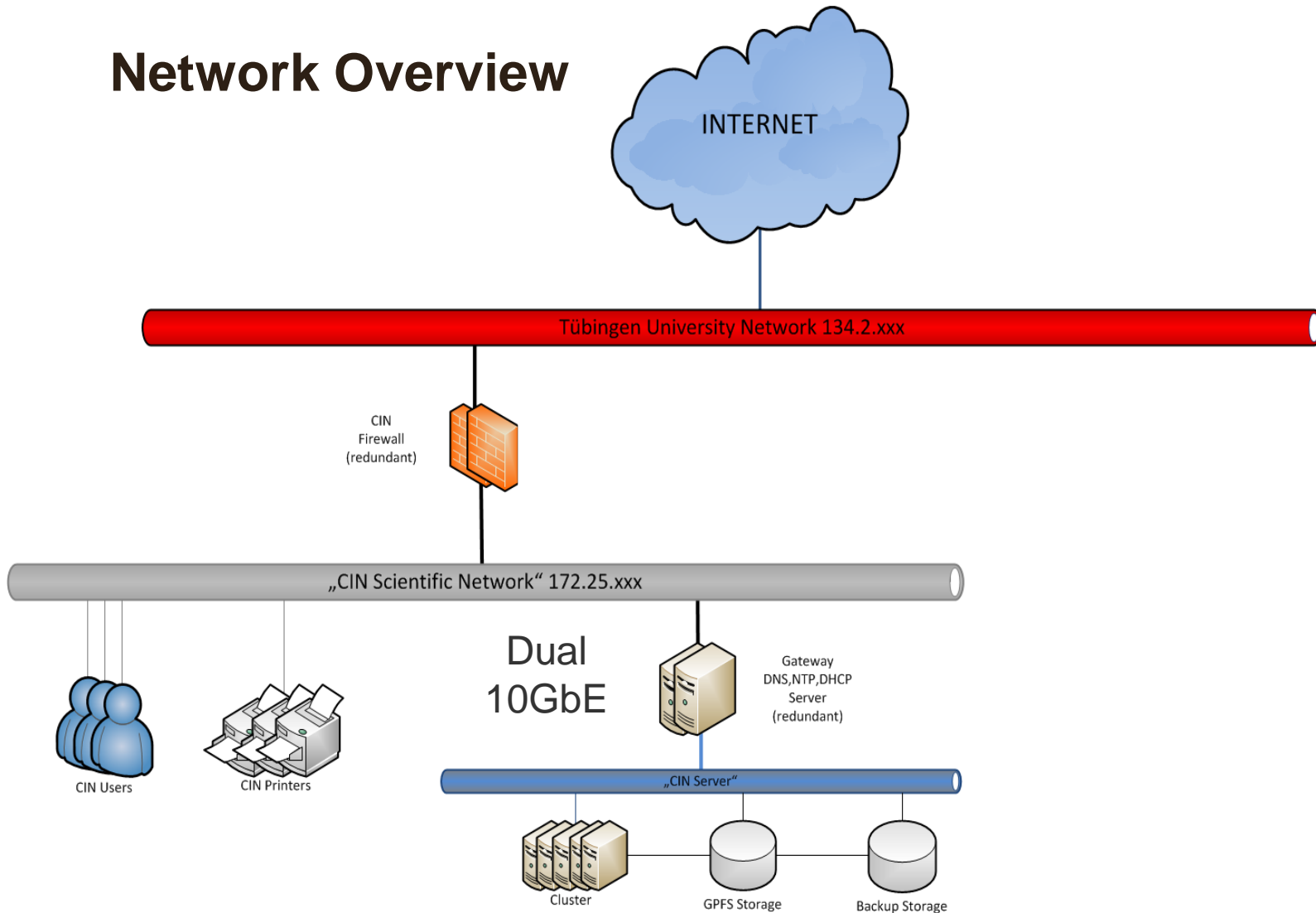
Network Overview



Dual 10GbE connection on two servers

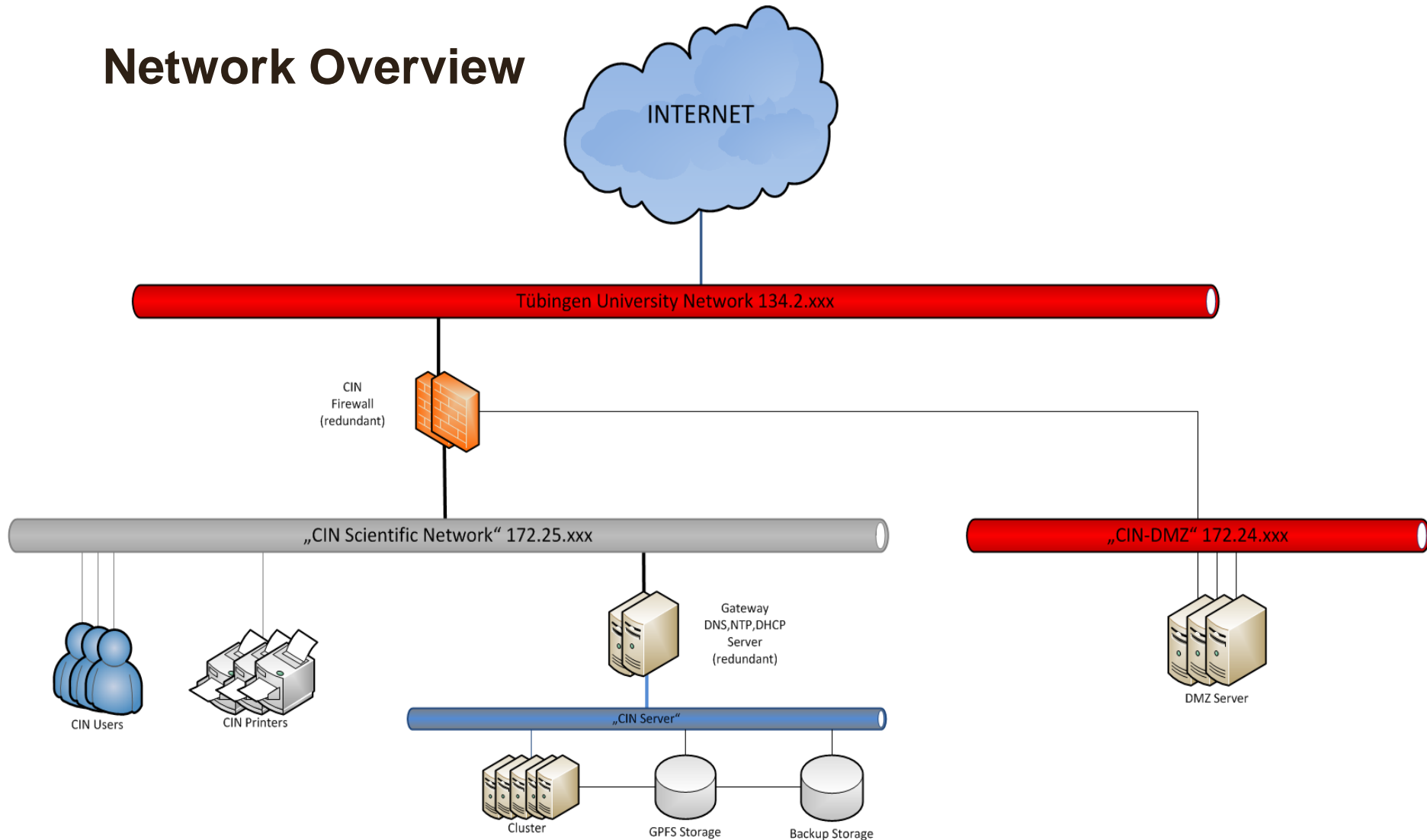


Network Overview





Network Overview





CIN DMZ (Demiliterized Zone)





CIN DMZ (Demilitarized Zone)

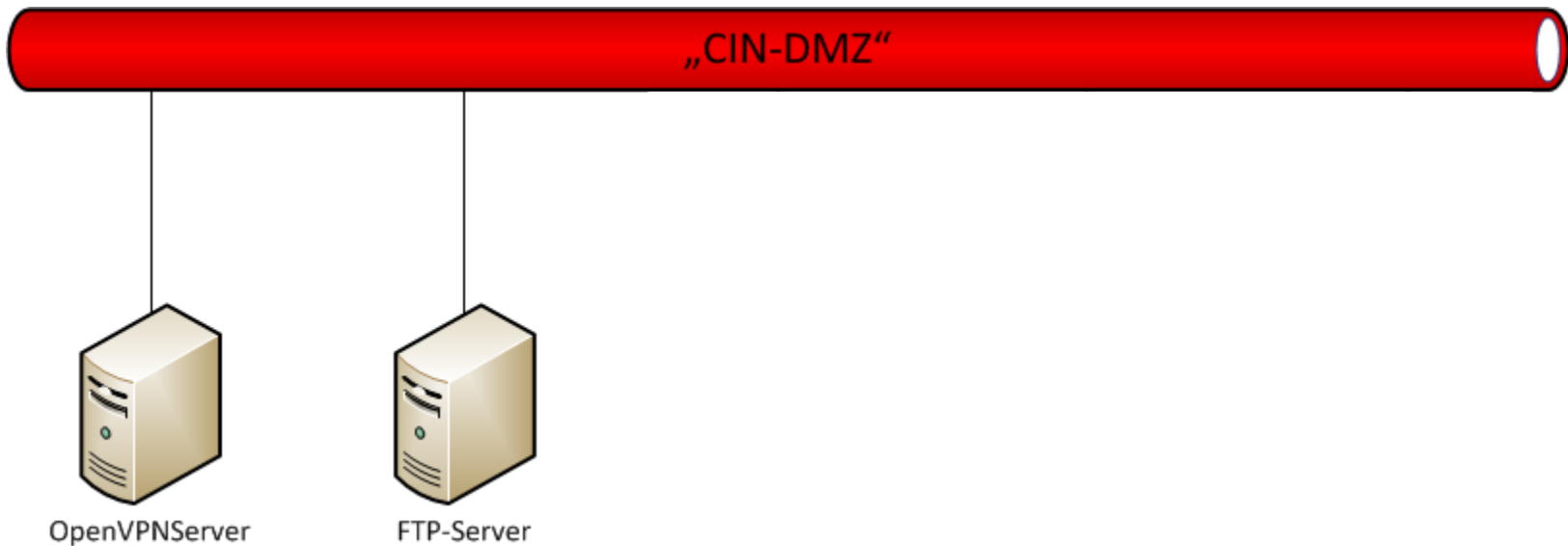


VPN Server for external access to:

- Storage (samba)
- Cluster (ssh)
- Workstations and servers
(SSH and Remote Desktop)



CIN DMZ (Demiliterized Zone)

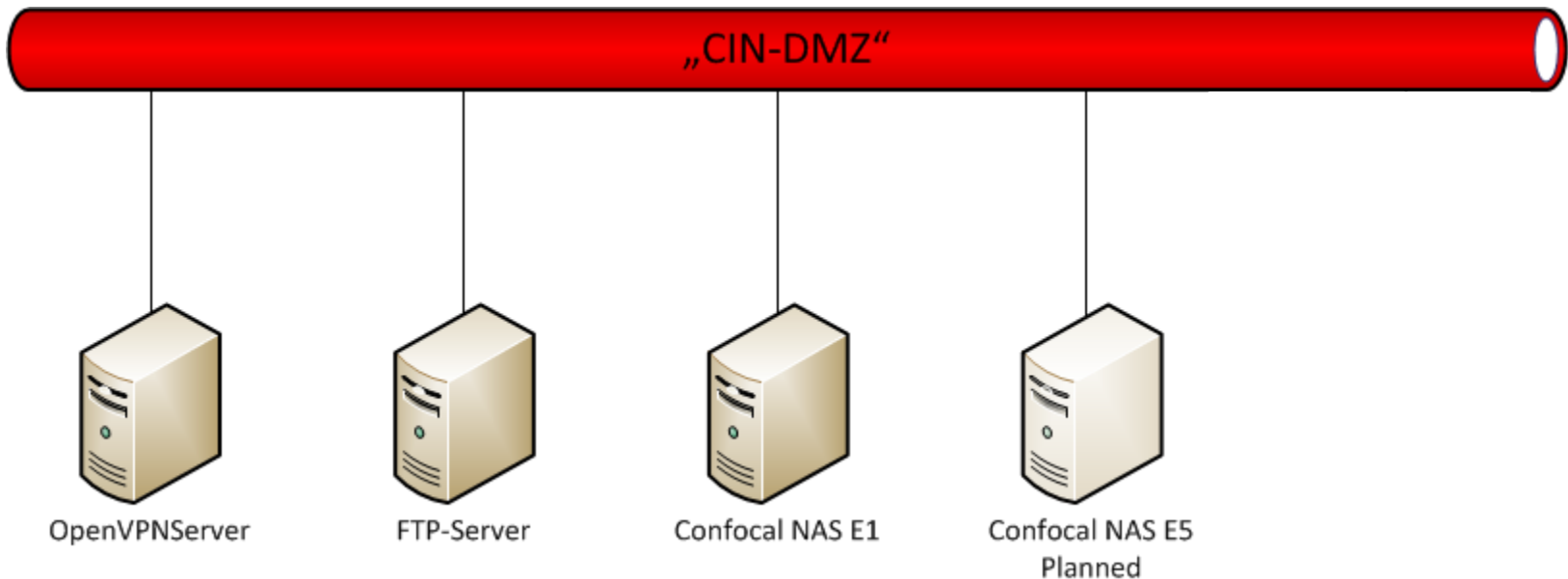


FTP Server:

- Collaboration with external people
- Several TB of space
- Account for each group



CIN DMZ (Demilitarized Zone)

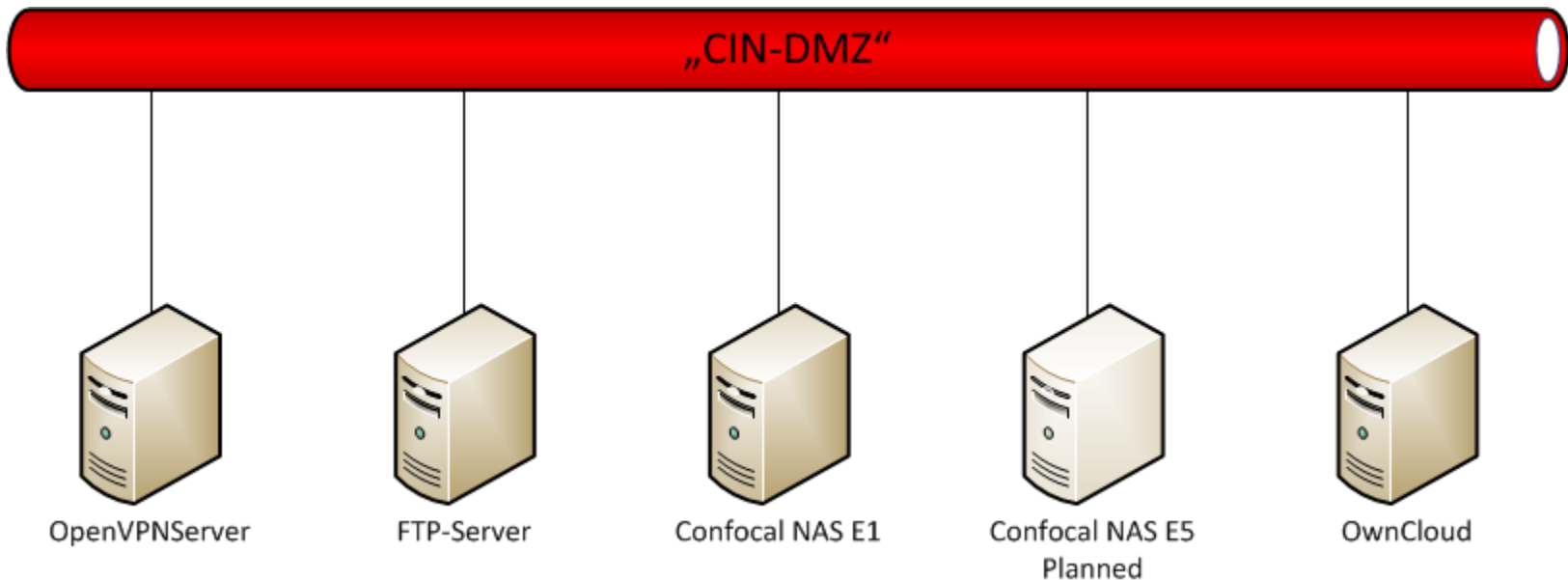


Confocal NAS:

- File sharing of microscope data
- Operational: Floor 1
- Planned: Floor 5



CIN DMZ (Demilitarized Zone)



OwnCloud Server:

- Internal Cloud Server
- Unique user accounts (LDAP)



LDAP

Lightweight Directory Access Protocol



- One useraccount for different servers (cluster, storage, vpn, owncloud)
- Form for a user request in our wiki (<https://cin-wiki/uarequest>)
- Easy password change per online form (cin-wiki)
- Central EMail-adressbook on all central printers



Own Cloud

- Web clouddservice on our server
- <https://cin-118-245.medizin.uni-tuebingen.de:8080/>
- Login with LDAP- user account
- Share files with link
- Password protected possible
- Expiration date possible





NAS Confocal E1

- NAS for **temporary** storage
(nearly 1 TB)
- new mapping „Z:“ on confocal pc
- Accessable from HiH and CIN
network





CIN Server Network

172.25.250.112
(Gateway to servers)



Redundant
DNS, NTP, DHCP

„CIN Server“



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Headnode Cluster



65 Compute Nodes

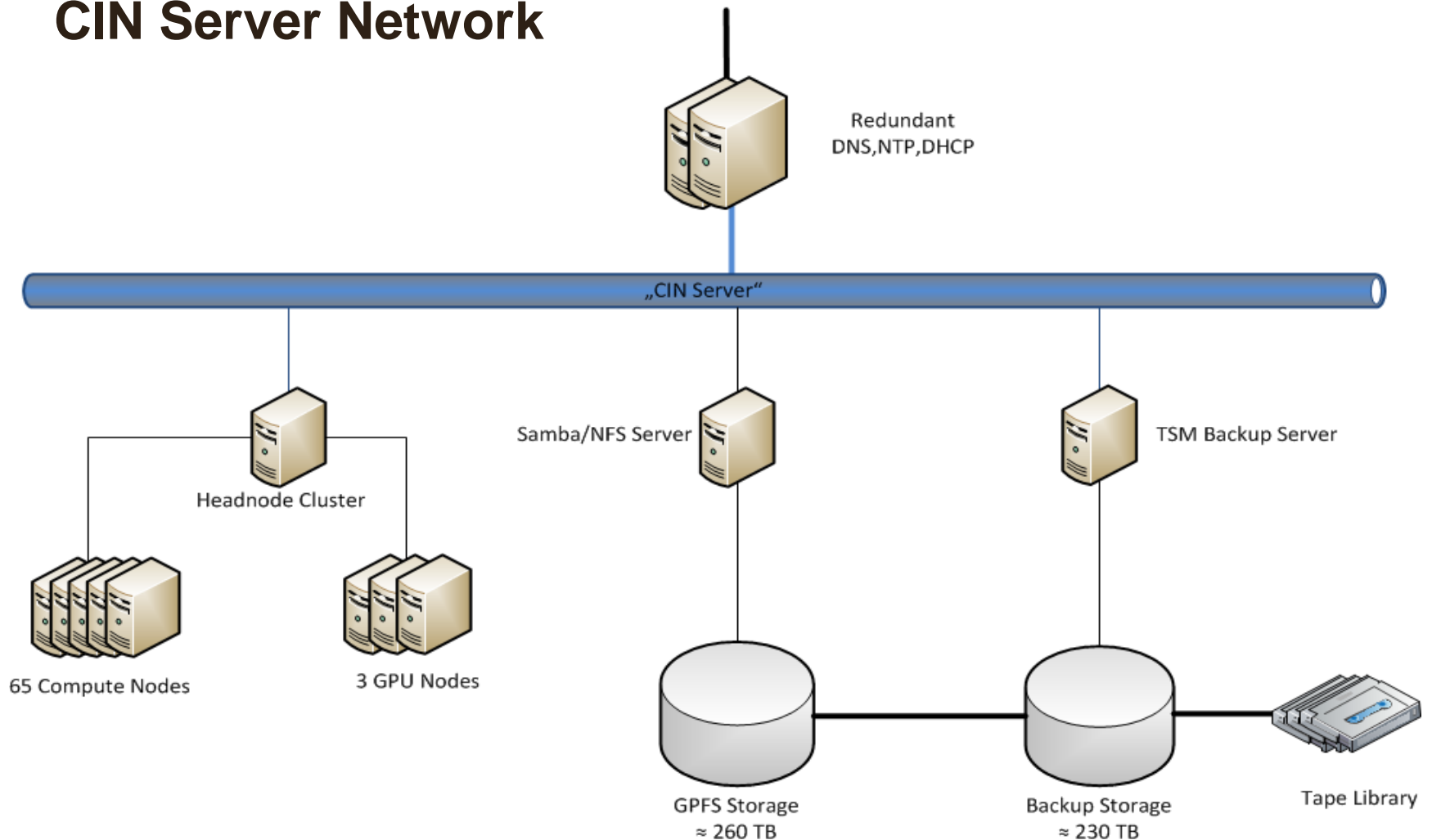


3 GPU Nodes



CIN Server Network

172.25.250.112
(Gateway to servers)





Cluster

- Up to 8 groups are currently working on the cluster
- 65 compute nodes and 3 GPU nodes: each with 96GB RAM, 2 * 6-core CPUs
- Matlab, FSL, Python, other calculations
- Job scheduling is under construction





Central Storage

- An amount of **nearly 300 TB** disk space used by all of our groups
- Fast GPFS Storage over FibreChannel
- 5 TB for every group for free start-up
- If you need more space you can buy additional space





Backup (TSM)

- TSM server is running fine since August 2013
- Complete storage is backed up (disk to disk)
- Total amount of **220 TB** by now
- 1 month daily backup and maximum of 3 versions of every file
Planned: auto archiving after 3 month





Archiving

- Library with 130 slots and robot
- TSM jobs for archiving on LTO-5 tapes are possible in groups (1 TB needs app. 4-5 h)
- Tar/ZIP to tape (LTO-4) is also possible but very slow (1 TB needs up to 24 h)





CIN network structure

- 15 new switches were built in Central network rooms (distributed on every floor)
- Optical fibre is available from the labs (additional network interface required)





Wiki

- Wiki is available
- 3 groups are using it by now
- Have a look at cin-wiki!

