

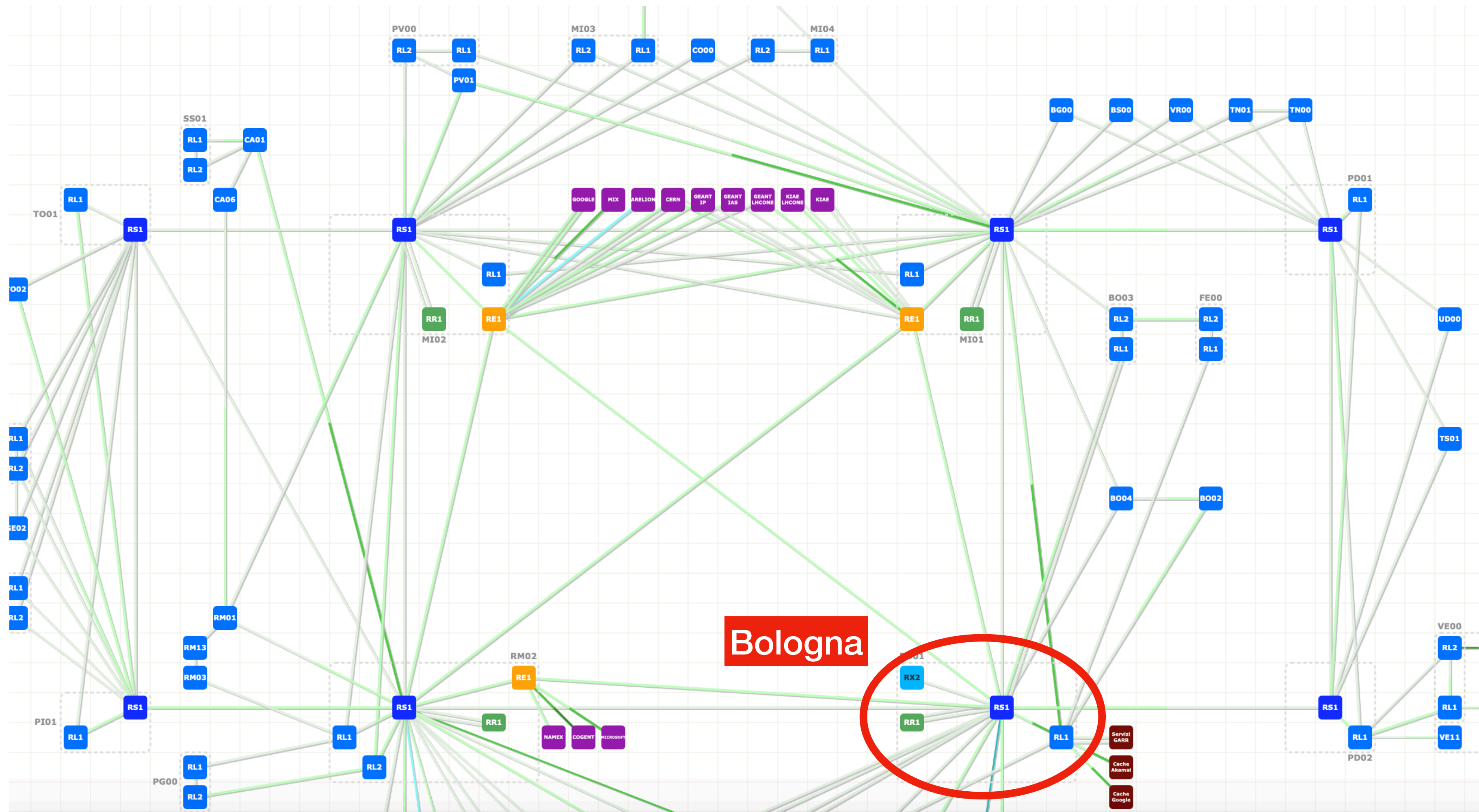
Data Transfer tests from Italy

SKA-NREN Forum Meeting 5

Matteo Stagni - 28 July 2023

GARR T Weathermap

https://gins.garr.it/xWeathermap/mapgenT.php?slice=garrt_ip



2 Tbit
Backbone

SKA SRC

Tecnopolo Bologna

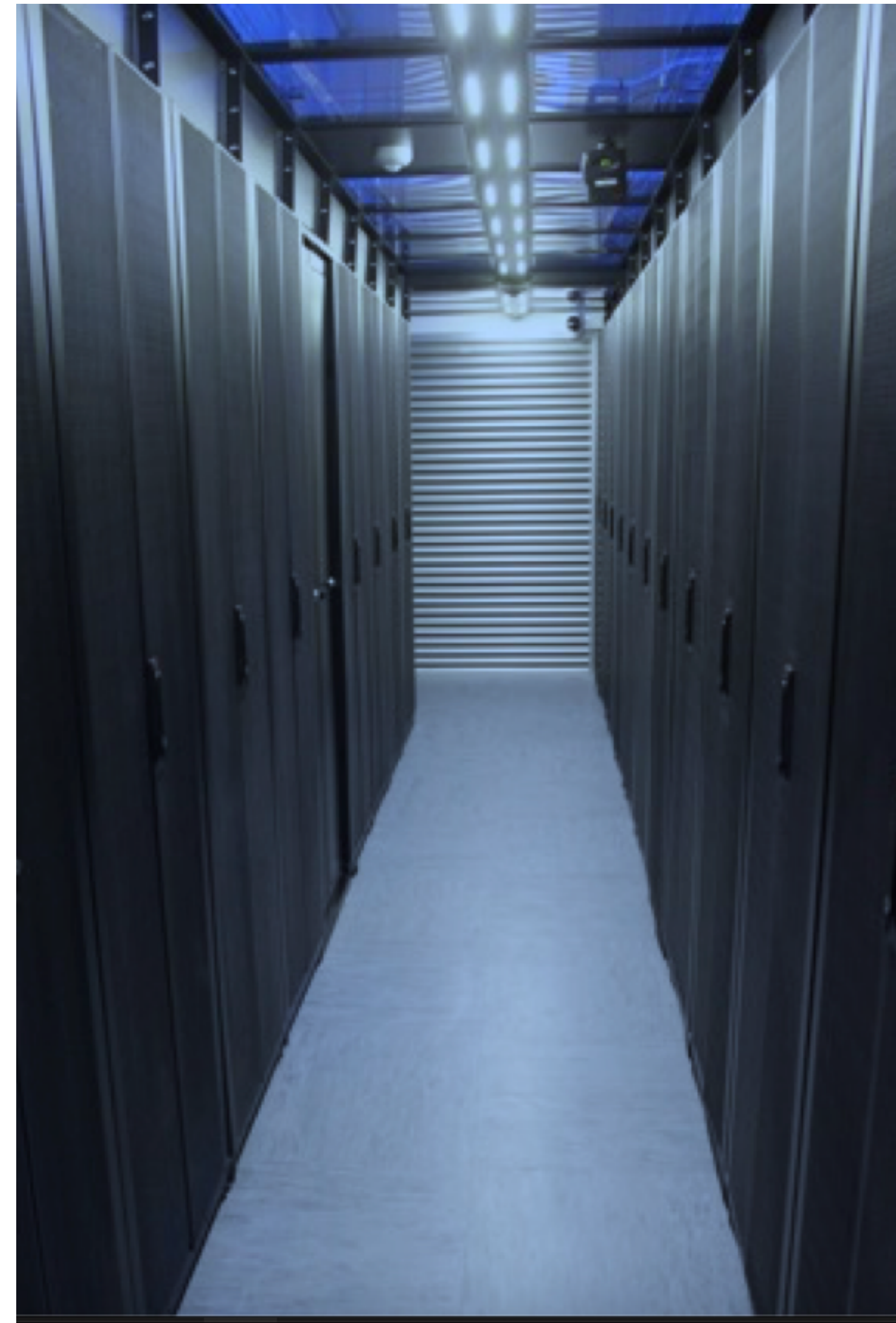
- Italian SRC to see the light between 2023-2024
- Hosted by CINECA on the Tecnopolo site "Botte C2"
- GARR connection to be expected at 100 Gbit/s J
- Present funds available to acquire
- -4 racks of computing nodes with local nvme/ssd
 - -3 PB network filasystem storage
 - -18 PB tape library
-
- The forecast of data usage when SKA fully operational would be 10 PB on disks and 100 PB on tape
-
- Further computing resources are expected to be available through «Centro Nazionale»



South Africa

IDIA - ILIFU

- ceph 1001T /scratch3
- ceph 50T /users
- ceph 150T /ilifu
- ceph 2.7P /idia



South Africa

IDIA - ILIFU



[\[transfer.ilifu.ac.za\]](https://transfer.ilifu.ac.za)

~110 Mbit/s rsync native protocol - ilifu -> IRA Bo



16 hops
mtu 8992
through Amsterdam



DTN
Nvme 14 TB
10 Gbit/s network

Australia

Pawsey

- 60 PB of usable space available for researchers via the S3 protocol.
- 5256 Hard Disk drives
- 438 Nvme drives
- 219 storage nodes
- 12 metadata nodes
- 24 service nodes



Australia

Pawsey



[acacia.pawsey.org.au]

~100 Mbit/s minio pawsey ->bo

~ 9 Gbit/s parallel transfers with 100 Mbit/s cap on files

Pawsey

MINIO

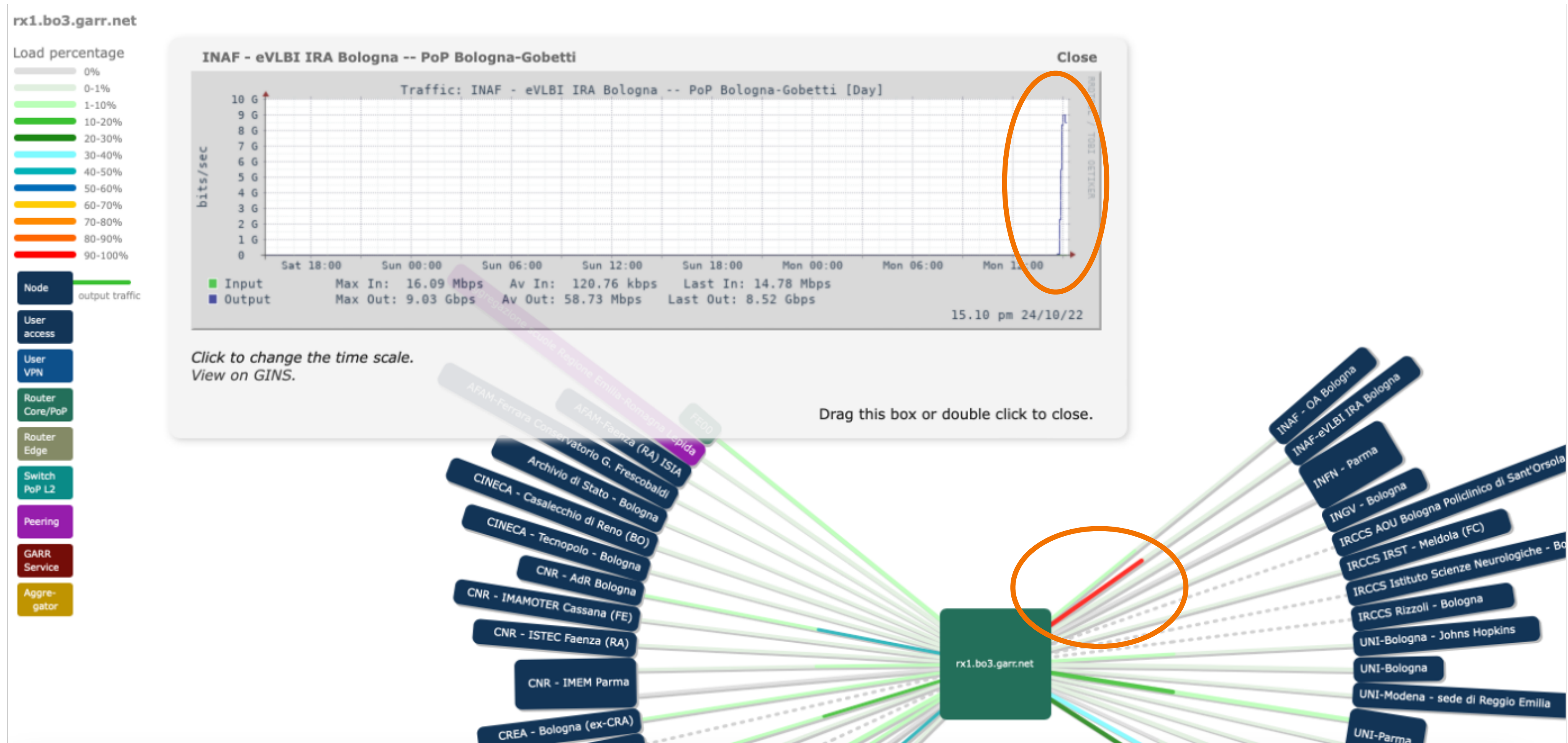
12 hops
mtu 9000
through London



DTN
Nvme 14 TB
10 Gbit/s network

Australia Pawsey

MINIO



Australia

Pawsey



```
mc ls acacia/transfertest --json
{
  "status": "success",
  "type": "file",
  "lastModified": "2022-04-08T11:25:32.025Z",
  "size": 10590617600,
  "key": "pippo.dat",
  "etag": "d1af9b82b41be520cc6cb8ef48754475-632",
  "url": "https://acacia.pawsey.org.au/transfertest/",
  "versionOrdinal": 1,
  "storageClass": "STANDARD"
}
```


Plan B

