

ScotGrid

ScotGrid Glasgow

Site Update

HEPSYSMAN June 2011

People

- **Technical Co-ordinator: Mark Mitchell**
- **Data Management: Sam Skipsey**
- **Man of many hats: Stuart Purdie**
- **System/Data Management: David Crooks**

CPU

- 2112 cores
- Mix of 3 generations:
 - Newest: X5650 DELL PowerEdge C6100, 12 core (624 in total)
 - Older: E5420 Viglen, 8 core (1352)
 - Oldest: AMD 280, 4 core (136)

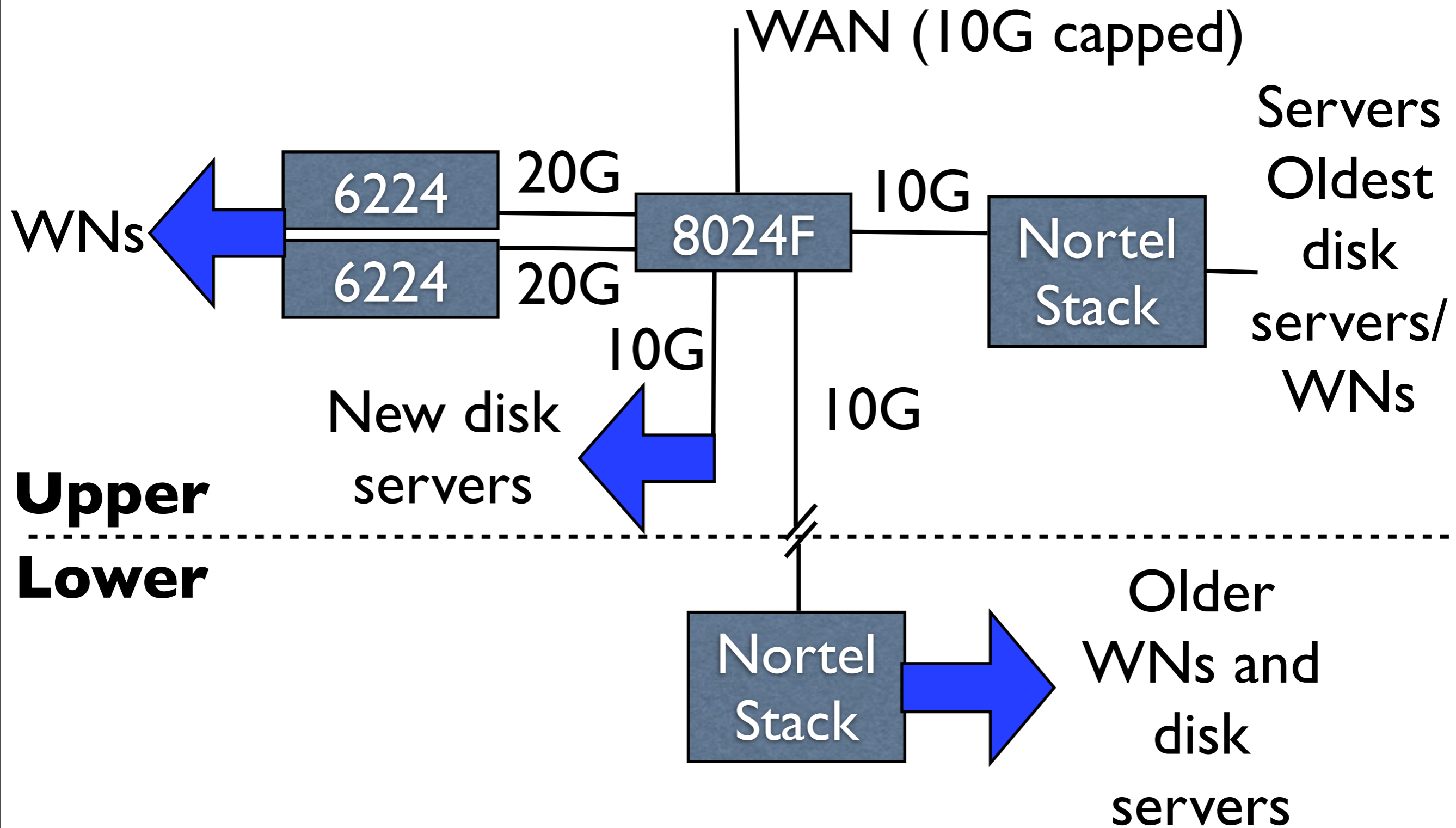
Disk

- Currently 1.39PB online storage
- Same 3 generations:
 - Newest: 60T 36 bay ~ 900T
 - Older: 20T 24 bay ~ 400T
 - Oldest: 10T 24 bay ~ 90T

Networking

- Upgraded to 24x10Gb/s core switch : DELL 8024F
- Cluster network now passed through main physics switch directly to ClydeNET - no interaction with University firewalls
- Share of 6 Gb/s; effective upper limit at 3 Gb/s
- 130.209.239.0/25 range
- Monitoring: Nagios/Cacti/Ganglia
 - In process of installing NagVis

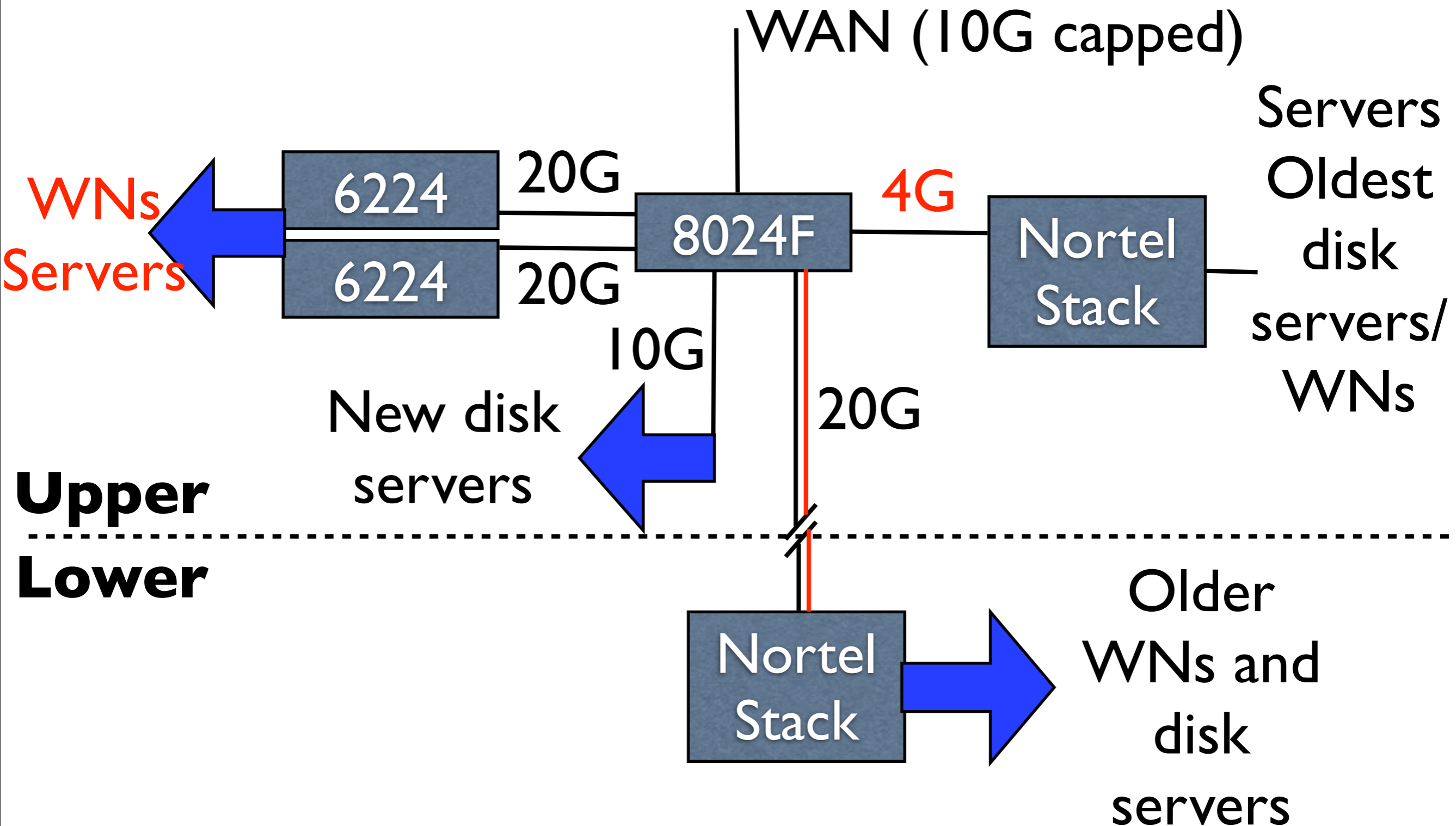
Old network topology



Networking 2: Maui woes

- Started noticing Maui crashing
- Suspected ageing hardware
- Implemented monitoring/restart scripts
- Then saw correlation with spikes in analysis jobs/ DPM storage traffic
- Increasing connection speed between machine rooms

New network topology



Power Cuts

- 6 power cuts over last 6 months
- Often pairs as interventions take place
- Fortunately minimal loss of hardware
(redundant power supplies)
- More comprehensive fix
- Beginning of August, 2-3 days downtime