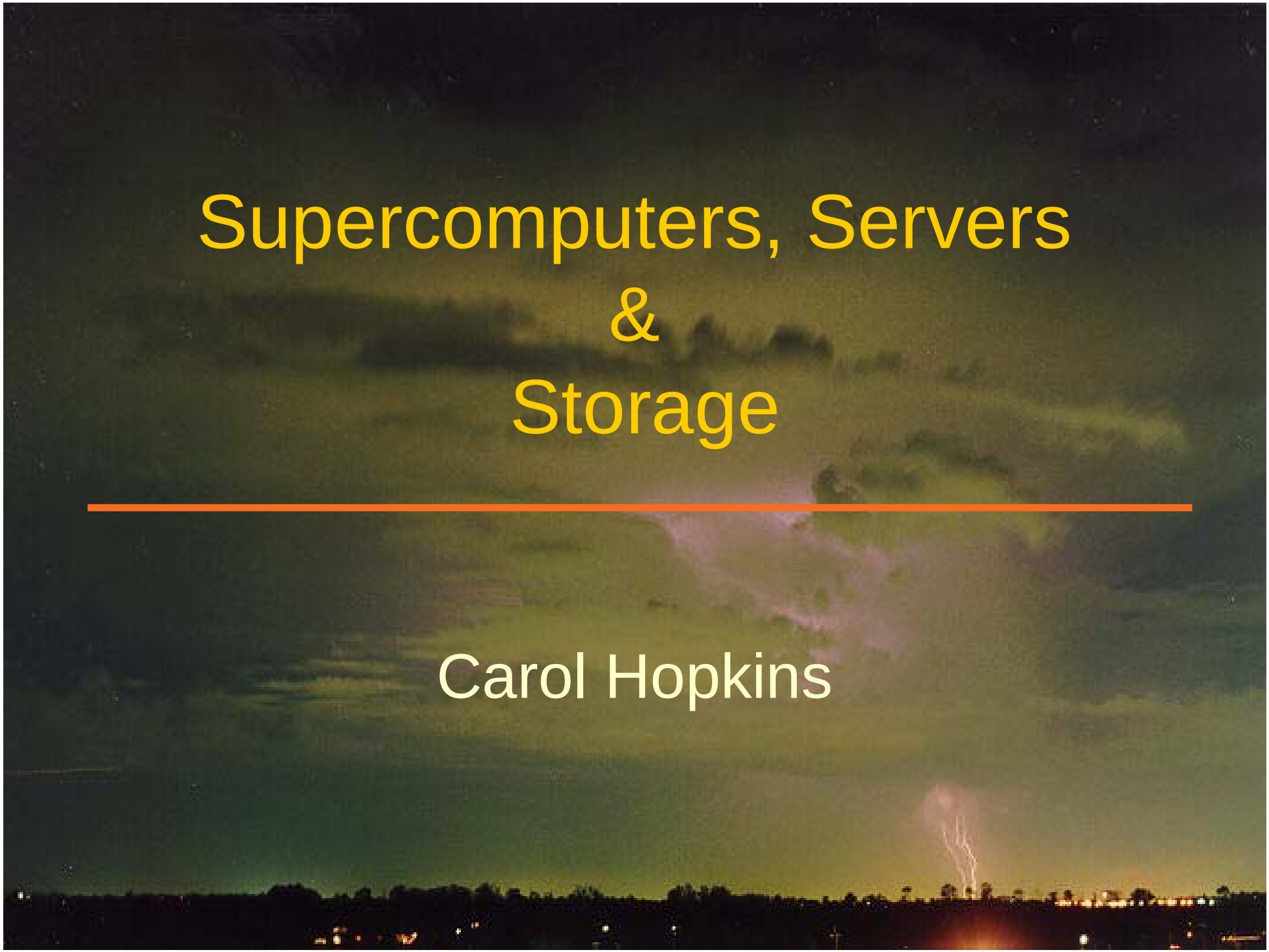
Supercomputers, Servers
&
Storage
Carol Hopkins

Outline

- Front-ends
- Current Supercomputers

Front-Ends: Castor & Pollux

Castor

- 12 +4 R10K 195 MHz
- 3 GB Memory

Pollux

- 16 CPU
- 4 GB Memory

1.5 TB disks

(users own: 1.8TB)

Castor

- 12 R14K, 600MHz
- 12 GB Memory
- ~ 1.4TB disk

Pollux

- 12 CPU
- 12 GB Memory

~2.4 TB disk

Front-Ends: Castor & Pollux

User Differences

- IRIX 6.5.18
- New version of the FORTRAN compilers
  - MIPS-PRO 7.4: mainly bug-fixes
  - Phase out of F77, only 1 user license
- NQS will no longer be available
- No local homes on pollux

Front-Ends: Castor & Pollux

Plans

- Receive O3000: 20 November 2002
- First user access: Mid-December
- Initially data available via NFS
- Pollux data to be transferred to new drives - target date: 11 January 2003

Front-Ends: Netapp

- Goal to have 1 home
- Allocation: 40GB per IRAC group
- Status: Accepted, home/sss, home/mrb moved
- Plans: next week home/cmd ; then unix, & NT

Front-Ends: Linux Cluster

- Configuration: 12 nodes with a 1TB (raw) SAN
- Each node:
  - 2 processors, P3 - 1.23GHz
  - 2 GB memory
  - 1FC
  - 1GE
- Compute nodes (5) ready Mid-December
- Compute nodes batch-only

Batch Sub-system

- NQS no longer supported by SGI
- Needed a batch system for linux cluster
- Requirement for load balancing
- Decision made to go to SUN GridEngine (SGE)

Batch Sub-system

Objective:

- Simple queue structure
- Node failures transparent
- Really load balanced. . .
- Based on time limit and timeslice
- Central job monitoring

Batch Sub-system

SGE status:

- Installed on two nodes of the linux cluster
- CMC OPS been using since June on SX-6
- Queues created on SX-6, linux cluster
- To run jobs on SX6, linux cluster, pollux & castor
- Current plans do not include installing on IBM

MSC NEC SX

Plans:

- Transition from NQS to SGE
- Removal of SX-4 and SX-5
- Installation of new supercomputer: December 2002