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NICS



Petascale Hardware at NICS

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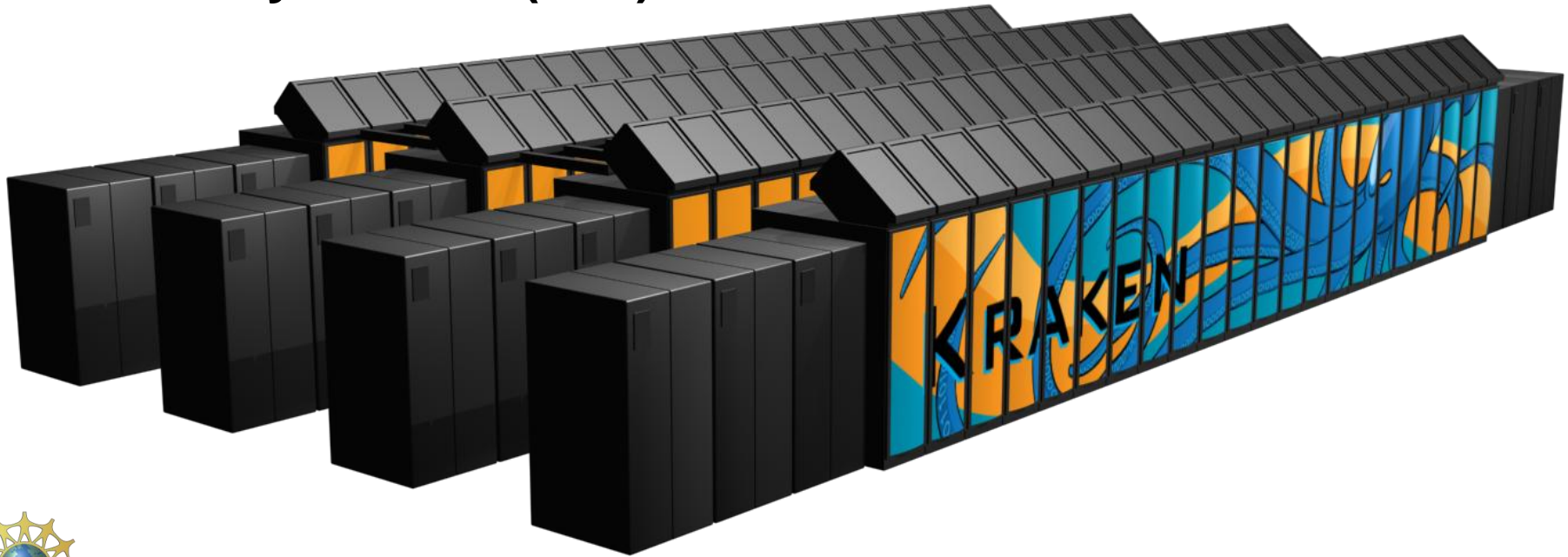


- NICS is a collaboration between the University of Tennessee and ORNL
- Awarded the NSF Track 2B (\$65M)
- Phased deployment of Cray XT systems (culminated in 1 PF in October 2009)
- First academic PF computer



Cray XT5 system – January 2011

- 18,816 six-core 2.6 GHz AMD Istanbul processors
- 147 terabytes distributed memory
- 1,174 teraflops
- 3.3 Petabytes disk (raw)



Nautilus SGI UltraViolet specs

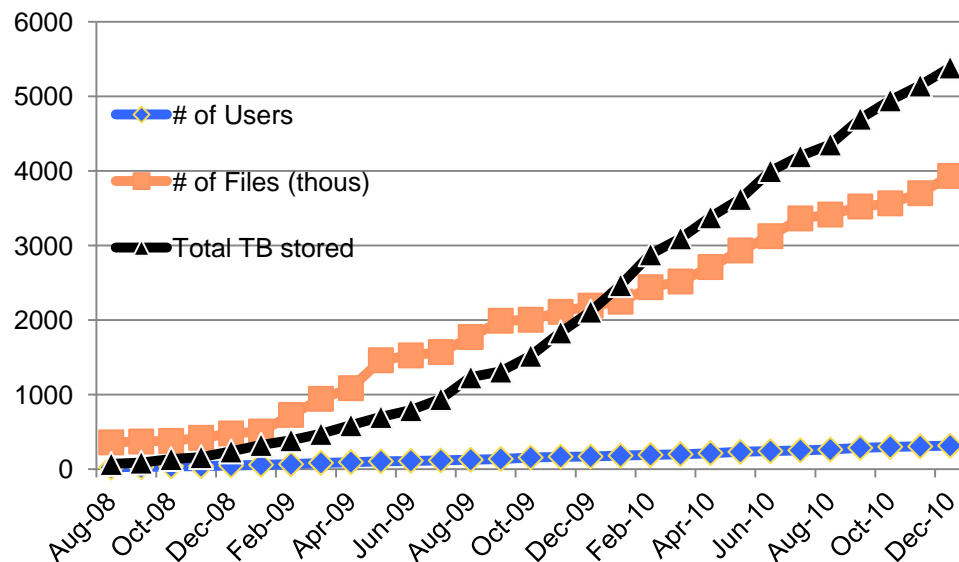
- 128 Intel 8-core Nehalem
- 4 terabytes shared memory
- 1 petabyte disk



Storage infrastructure



- Sun's Lustre-based file system provides a shared, parallel file system linked to Kraken, the Teragrid, and HPSS archives
 - Over 3 petabytes of raw capacity
- HPSS provides archival storage for all systems
 - 15 petabytes of capacity
 - More than 10 million files stored today
 - Doubling stored data every year



HPSS

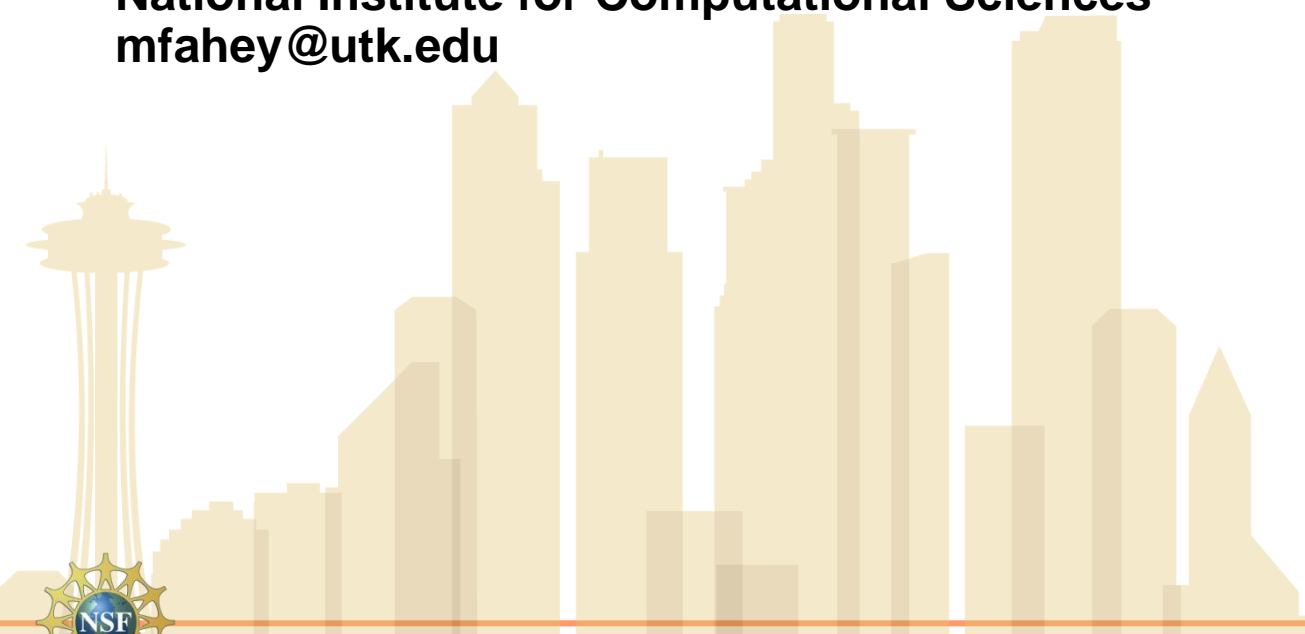




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