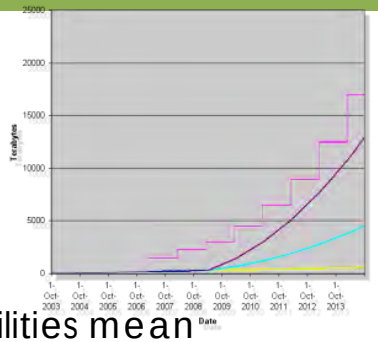
Archive Storage Capability

Capability/Need



- EMSL experiments and computation generate *terabytes* of data per month
- New Recovery Act capabilities mean exponential data growth!
- EMSL needs a large, energy-efficient, easily scalable scientific data archive

Science/Users

- 4.5 petabytes (or 4,500,000 gigabytes) of data storage space
  - Storage capacity can easily grow with EMSL's needs
  - Foundation of the forthcoming "MyEMSL" data management system.
- Can be expanded to 20 petabytes or more by 2015.
- Features Hierarchical Storage Management
  - Mixture of disk and tape technologies
  - Conserves power and space, scales easily, allows for economical expansion.

EMSL Strategy Alignment; Specifics

- Science themes: Biological Interactions/Dynamics; Geochemistry/Biogeochemistry and Subsurface Science; Science of Interfacial Phenomena
- Cross-cutting challenges: All
- EMSL capability area: Molecular Science Computing
- Anticipated availability: March 2010
- Technical POC: David Cowley

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