Central Storage Strategy

RACC Update – September 2010

Tom Board
<table>
<thead>
<tr>
<th>Category</th>
<th>Performance Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>Moderate performance; lower growth rate; data moderately dynamic; usually application-bound; high protection requirement</td>
</tr>
<tr>
<td>Research</td>
<td>Moderate-to-high performance; sudden growth spurts and higher overall rate; data fairly static; usually workgroup-bound; variable protection requirement</td>
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<tr>
<td>Repository</td>
<td>Low-to-high performance; moderate growth rate; data static; usually application-bound; low protection requirement</td>
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</tbody>
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Category Examples

“Recent” e-mail = administrative
“Archived” e-mail = repository
Learning management system = administrative
Streaming video for use in teaching = higher performance repository
Shared document and data set storage for a research group = research
Archived dissertations = lower performance repository
Recent History

2009: Install two high-performance storage arrays equipped with 100TB each for research data storage applications

2010: Install two storage arrays equipped with 20TB each to augment administrative storage – and become the basis to replace the current storage systems now holding 240TB
Policy Questions Remain

• What will be the access and retention policies for
  – research data, research results, publications, outreach Web sites, etc.?
  – course materials, student work, theses, dissertations, etc.?
  – archival online storage of digital assets and business records?
Information Protection is Expensive

- Backup takes time and too much data backup may require more time than is available.
- The time to restore data dominates the time to recover an application.
- Disk-to-disk backup minimizes these times, but when are two copies of a data file – one on each campus - not sufficient protection?
- There must be more discernment in what is backed up and how often.
Next Steps

- A steering group representative of the many diverse interests within the University should define and justify service goals.
- These are pressing issues and lack of attention could encourage ad hoc solutions.
- Information is the most important asset within the network.
- NUIIT can assist with technology options and cost models.