


Tiered Storage School

Lesson Four

**Justifying Your
Tiered Storage Strategy
to Management**

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Tiered Storage in 4 Lessons

Lesson 1 – Introduction & Business Requirements
Lesson 2 – Data Classification for Tiered Storage
Lesson 3 – Creating a Tiered Storage Strategy
Lesson 4 – Justifying the Strategy to Management

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Tiered Storage: Talking to the Top

- Impact: CEO / CFO / CIO generally interested in business impacts, not cool technology
- Pain points: Show how the proposed plan will:
 - Increase Service Levels to the business
 - Reduce risk
 - Cut cost
- Timing: preparation meets opportunity in crisis

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Business Drivers By Data Type

- **Performance:** service level, response time, agility ...
- **Risk:** regulatory requirements, litigation, loss ...
- **Cost:** infrastructure, administration, productivity ...

DATA TYPES	BUSINESS NEEDS		
	Performance	Risk	Cost
Structured: Databases	+++	++	++
Semi-structured: E-mail	++	+++	++
Unstructured: Files	+	++	+++

Improving Business Service Levels

- A tiered storage strategy focuses storage resources on business requirements
- A comprehensive discovery usually uncovers applications that are under serviced, a good strategy addresses these needs first
- Tiered storage is more scalable than constantly adding servers and storage as data grows, and allows for greater business flexibility
- Gap Analysis in the strategy phase uncovers high priority projects for business success

Reducing Risk

- Tiered storage enables the enterprise to preserve more complete business records for longer retention periods by reducing cost
 - Reduces risk of non-compliance with laws and regulations that mandate records retention
 - Provides complete context for documents produced by other parties during litigation
- Benefits depend on alignment between storage service levels and record retention policies
- Legal, Compliance and Records Management should be included in project socialization, policy and requirements definition

Cutting Costs, Part 1: Storage Purchases

- Tiered storage can cut the configured cost of storage by 10x or more, for some data classes
- **Example:**
 - Archive data moved from an enterprise disk array (mirrored and replicated at \$90/GB) to a midrange array (RAID-5, non-replicated ATA disk at \$9/GB).
 - If 50% of the data can be moved, this reduces the average cost per usable GB by 45%.
 - The enterprise may avoid or defer purchase of additional high-end storage for 2 to 3 years
- Disk drive costs (e.g., FC vs. ATA disk) are just part of the picture. Other elements include controllers, cache, software licensing, and vendor profit margins.

Cutting Costs, Part 2: Other Costs

- Tiered storage enables cost-effective data retention for better compliance, litigation readiness and productivity
- May require an initial capital investment for ongoing cost avoidance
- Proposal to management should estimate the full cost impact

Hard IT Costs

Hardware
Software
Maintenance
Services
Operations/IT Staff
Allocated Costs

Soft Costs

User Productivity Impacts
Operational Costs

Potential Costs

Litigation Discovery
Increased Liability
Regulatory Penalties

TCO Example -- E-mail Archiving

Average Costs per Email User per Year

Retention Policy Choice	Hard IT Costs	Soft Cost	Potential Costs	Total Costs
Save Nothing (delete after 30 days)	\$3	\$19	\$80	\$102
Save Nearly Everything (primary disk)	\$204	\$0	\$6	\$210
Save Nearly Everything (tiered storage)	\$40	\$4	\$9	\$53

Preparation and Timing

- Management may see the wisdom today ...
- Or you may anticipate a motivating event
- Examples:
 - Sudden need for more capacity
 - Critical performance issues with overloaded application servers
 - Audit of DR plan identifies need for 500TB replication target at recovery data center (or business critical server fails without replication)
- Have the tiered storage proposal ready when needed to enable effective response
- Crisis = risk + opportunity

Tactical Advice

- Engage stakeholders early in process
 - Send them to Tiered Storage School !
- Focus on current and recent pain points
- Start with small tactical wins & document success
- Include storage tiering in other initiatives
- Highlight the storage services menu in charge-back models and/or management reports detailing costs by business unit for IT services

Conclusions

- Document your strategy
 - Cost models
 - Gap Analysis
 - Project Recommendations
- Show management how tiered storage will:
 - Raise performance
 - Reduce risk
 - Cut cost
- Prepare for the next crisis that will enable tiered storage strategy adoption

Additional Resources

www.SearchStorage.com

www.Contoural.com

About Contoural

Contoural is a leading independent provider of business and technology consulting services focused on compliance, intelligent data management and storage strategy. Contoural helps clients address the emerging business requirements around data, and then to align their business needs with IT strategy and storage spending. This bridges the gap between applications and storage. Contoural helps enterprises ensure compliance and reduce risks, while also optimizing service levels and reducing costs.
