Delivering Data Protection Services in a Business-Savvy Way

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Welcome and Thanks

• In the next 20 minutes or so...
  – Synopsis of data protection strategy
  – Snapshot of data protection services and the tools for delivering “defense in depth”
  – (Re-)introduction to the Virtual Tape Library (VTL) as a service provisioning engine

• Leaving just enough time for
  – A brief presentation by Tributary Systems
  – Opportunity for aggressive Q&A
Data Protection in a Nutshell

• A set of services intended to
  1. Protect data from loss, corruption or unauthorized access or disclosure
  2. Enable restoral of data to a usable form by applications and decision-makers within an acceptable period of time

• A strategy of redundancy: data assets can’t be replaced, so they must be made redundant
Simple

• Make a copy. Mission accomplished...
• Not really.
Haven’t We Seen This Before?

DISK versus TAPE
Needed: Business-Savvy
“Defense in Depth”

Regional Interruptions caused by natural and man-made disasters

Localized Interruptions involving equipment and facilities

Data corruption or deletion due to viruses or malware, application and user errors
Hardwired or Policy-Driven?

Data protection services applied via policy to select data...

Data protection services embedded on value-add array controllers or specialty appliances...
The Way It Was (Sort of)

Systems Managed Storage (SMS) & Hierarchical Storage Management (HSM)
Needed: A “Director”
How Would a Director Help?

TECHNOLOGY VALUE

BUSINESS VALUE
Think About It

Quickly relate business processes to supporting resources...

Enabling the setting of recovery service objectives...

...and the impact of an interruption event in tangible and intangible terms.

And the establishment of time-to-data standards that help to set recovery priorities...

Setting the stage for the development of business-savvy recovery strategies that meet objectives, and fit sensible budget and testing parameters...and policies for applying data protection services selectively!
So, Where Is This “Storage Director”

- Functionality set, not a device...so, flexible
- Why not use the VTL?
Not a Tape Replacement
"Added Value"

- Off-Site Storage
- Diet Tape Backup
- Now Featuring Deduplication and Asynchronous Replication
- WAN-based Asynchronous Replication
Oversell...
High Availability is Costly

- VTL-to-VTL replication across a WAN, like WAN-based disk replication is expensive and subject to WAN delay (propagation and jitter)
- Use wisely for data that merits such data protection service
- But it is not a “one size fits all” solution

![100 TB Backup Solution](image)

- **CAPEX:** $2M - $2.5M
- **OPEX:** $200 - $307K
- **Backup Server & Administrator (x2)**
  - HW/SW: $2K
  - Salary: $75K - $125K
- **Virtual Tape Library (VTL) w/ WAN replication (x 2)**
  - Price Range: $500K - $750K (+ disks ~$500K + warranty)
- **Permanent BU Facility or Hot Site Facility**
  - Between $50K - $$$ monthly
- **WAN Service**
  - Between $15/Mbps/Mo (Broadband) to $600/Mbps/Mo (MPLS)
Truth be Told

• Data protection services
  – Are best applied on a workload- or data-centric basis
  – May create complexity in need of automation and management
Needed: A “Single Pane of Glass”

Bifurcated products available today...so-called geo-clustering wares...

Works with select array vendor APIs to monitor data replication.

Works with select software-based data replication and backup processes.

 Doesn’t work with all hardware or every software-based replication or backup process.

Provides passive monitoring and alerts.

Provides monitoring and failover.

We need integrated tools for allocation, monitoring, and “ad hoc” testing...
Storage Director: A Bright Future
A Business Value Case Is Appearing

- Cost-containment: Optimize investments in data protection technology and assign services cost-effectively to workload
- Risk reduction: Improve data protection and recovery capability without vendor hardware lock-ins
- Improved productivity: Reduce downtime by leveraging ad hoc testing and failover

Let’s hear more from Ed Ahl at Tributary Systems!