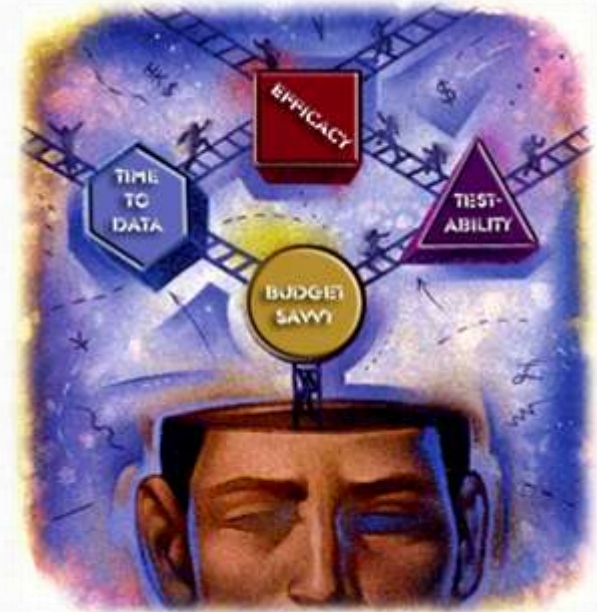


Delivering Data Protection Services in a Business-Savvy Way

Presented by Jon Toigo
CEO, Toigo Partners International
Chairman, Data Management Institute

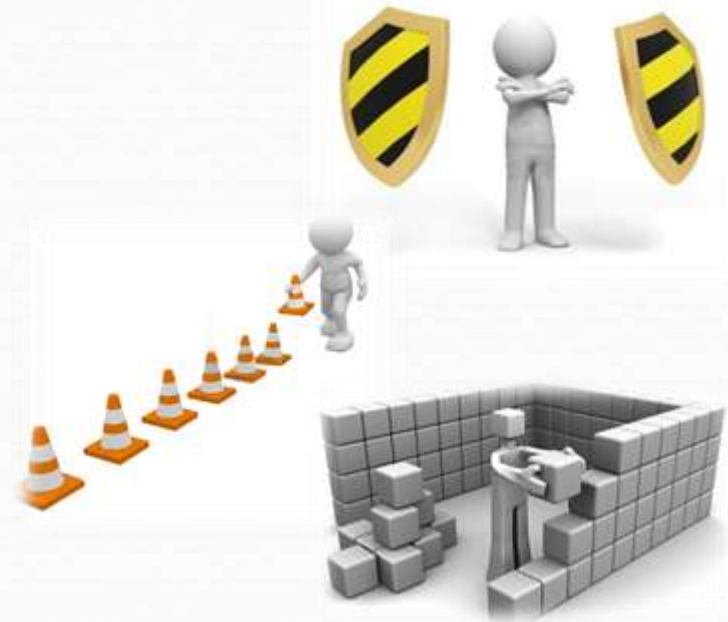
Welcome and Thanks

- 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...



DATA
DWLV



Simple

- Make a copy. Mission accomplished...
- Not really.

Which data
needs protection?



What is the
"best"
approach
to use?



Where is it
physically
located?



Haven't We Seen This Before?



Needed: Business-Savvy



BUSINESS PROCESS

APPLICATIONS



APP 1 SERVER HOST

NETWORK

STORAGE

CLIENTS

DATA
DATA
DATA

APP 2 SERVER HOST

NETWORK

STORAGE

CLIENTS

APP 3 SERVER HOST

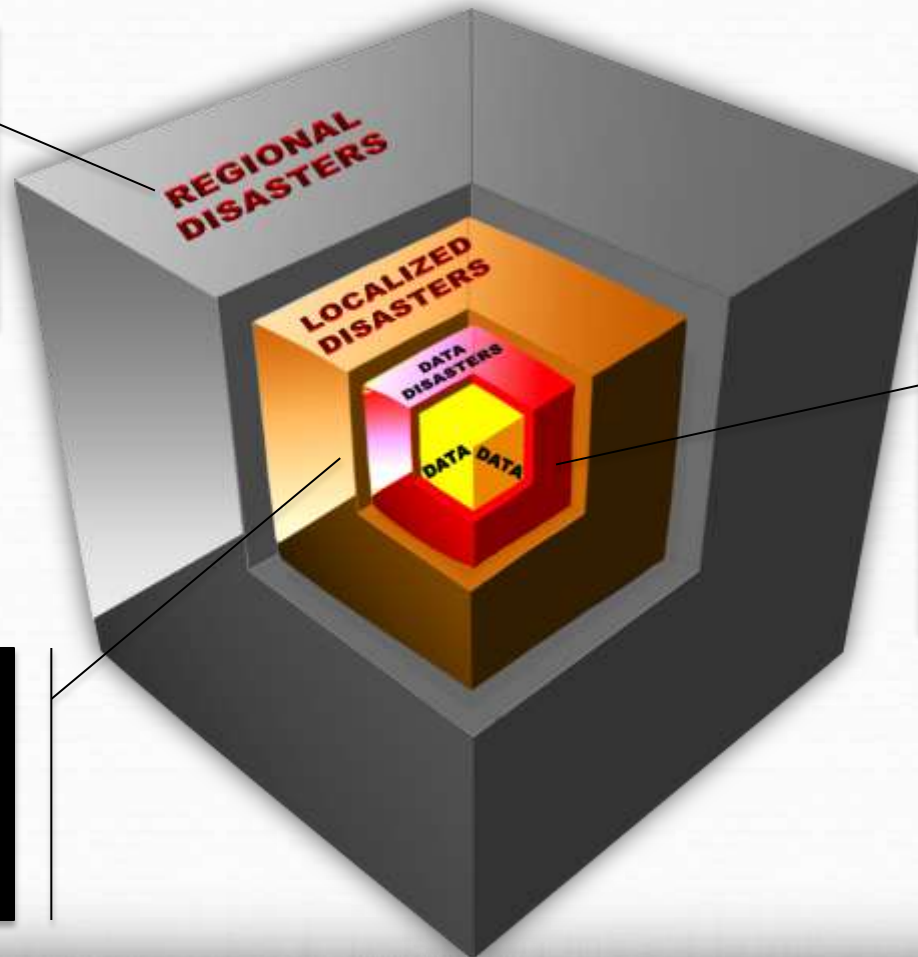
NETWORK

STORAGE



“Defense in Depth”

Regional
Interruptions
caused by natural
and man-made
disasters



Data corruption or
deletion due to
viruses or malware,
application and user
errors

Localized
Interruptions
involving equipment
and facilities



Hardwired or Policy-Driven?

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

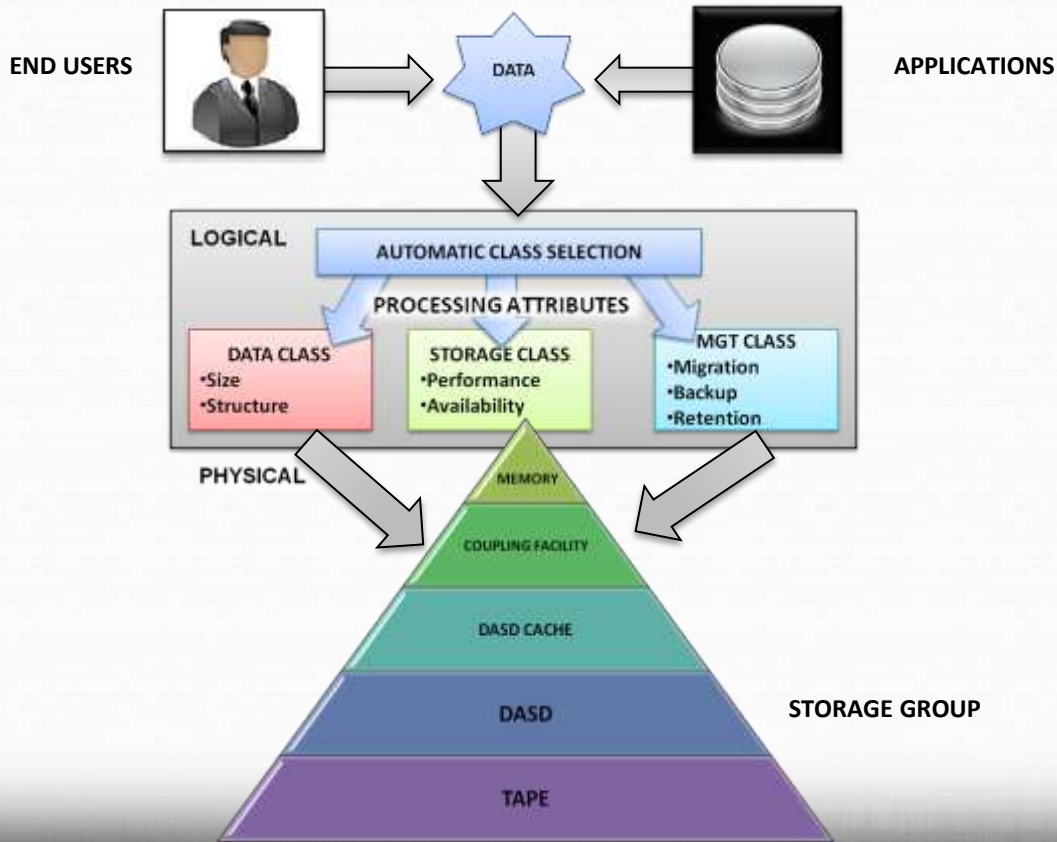


Data protection services embedded on value-add array controllers or specialty appliances...

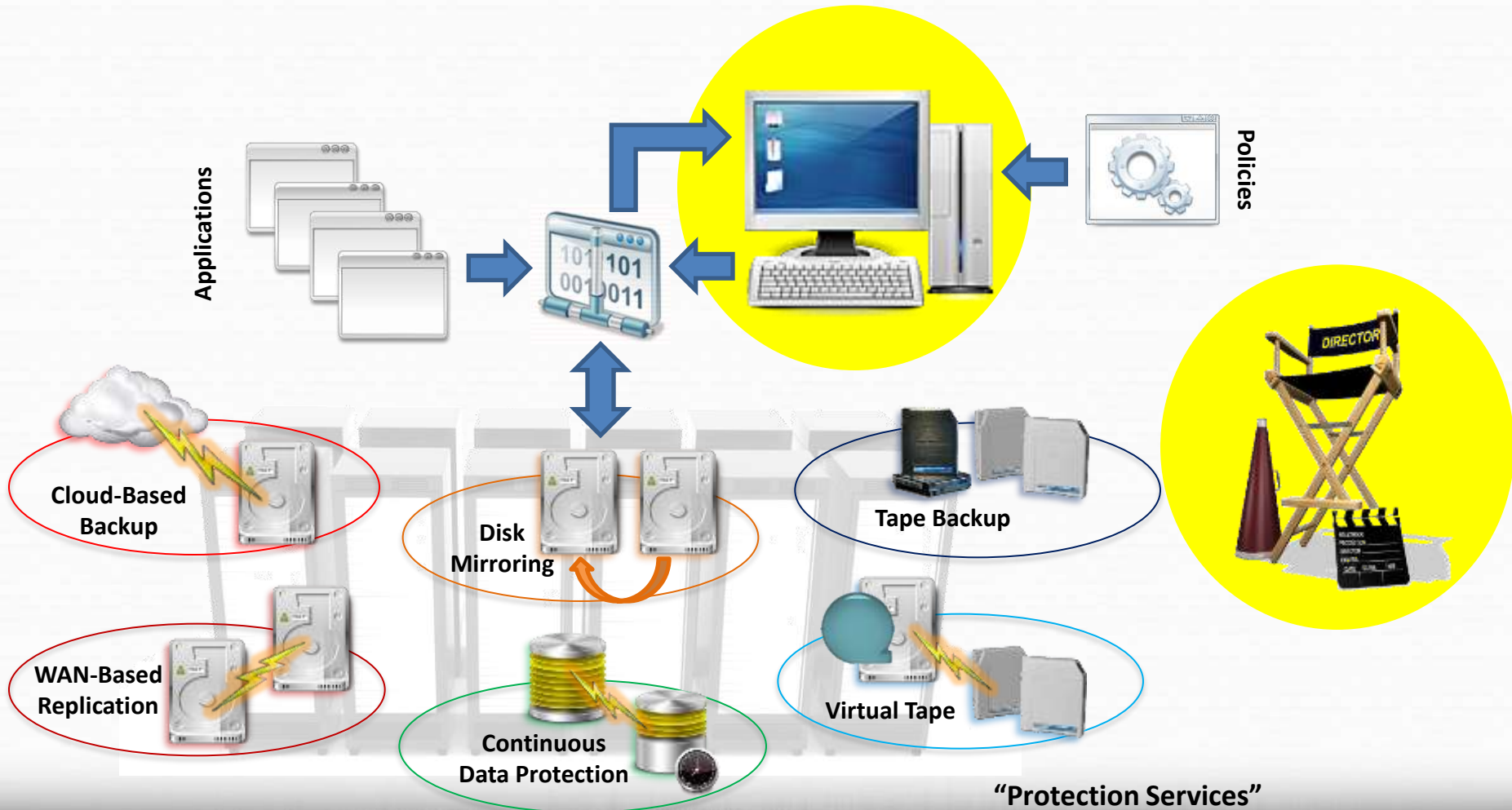


The Way It Was (Sort of)

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...



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



Enabling the setting of recovery service objectives...



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

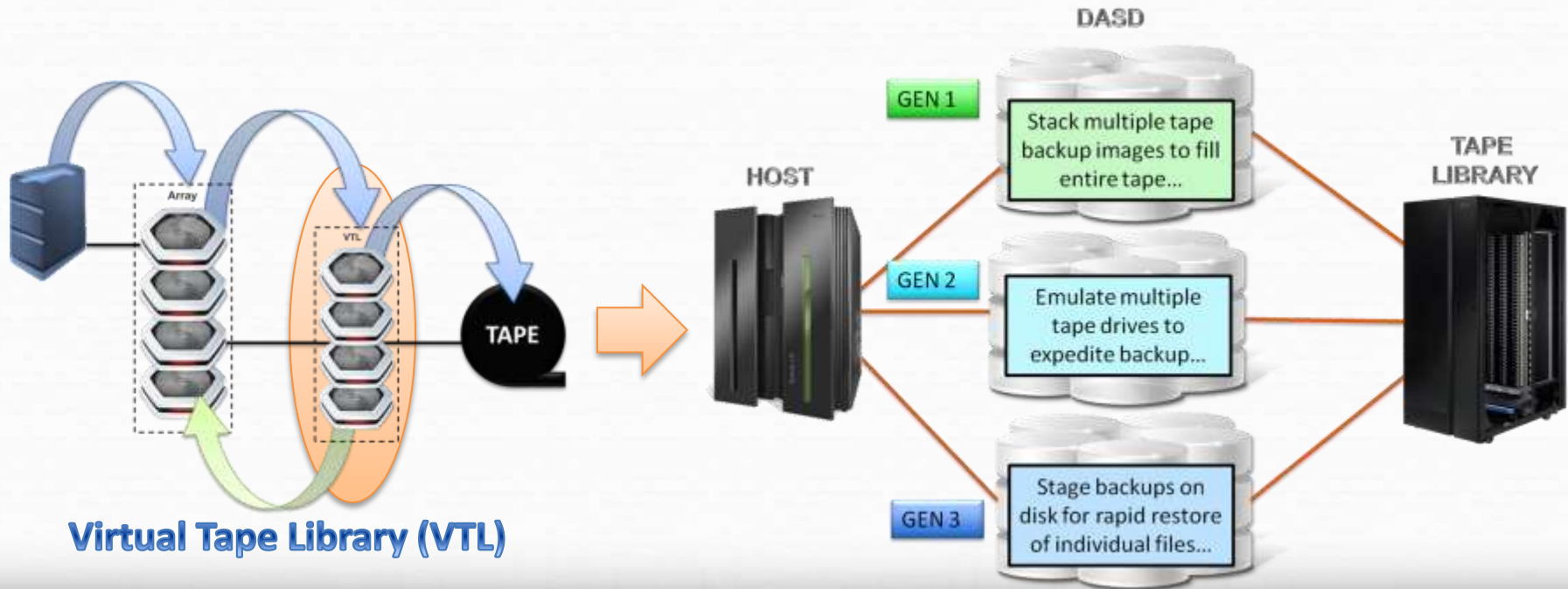


Setting the stage for the development of business-savvy recovery strategies that meet objectives, and fit sensible budget and testing *parameters...and policies for applying data protection services selectively!*

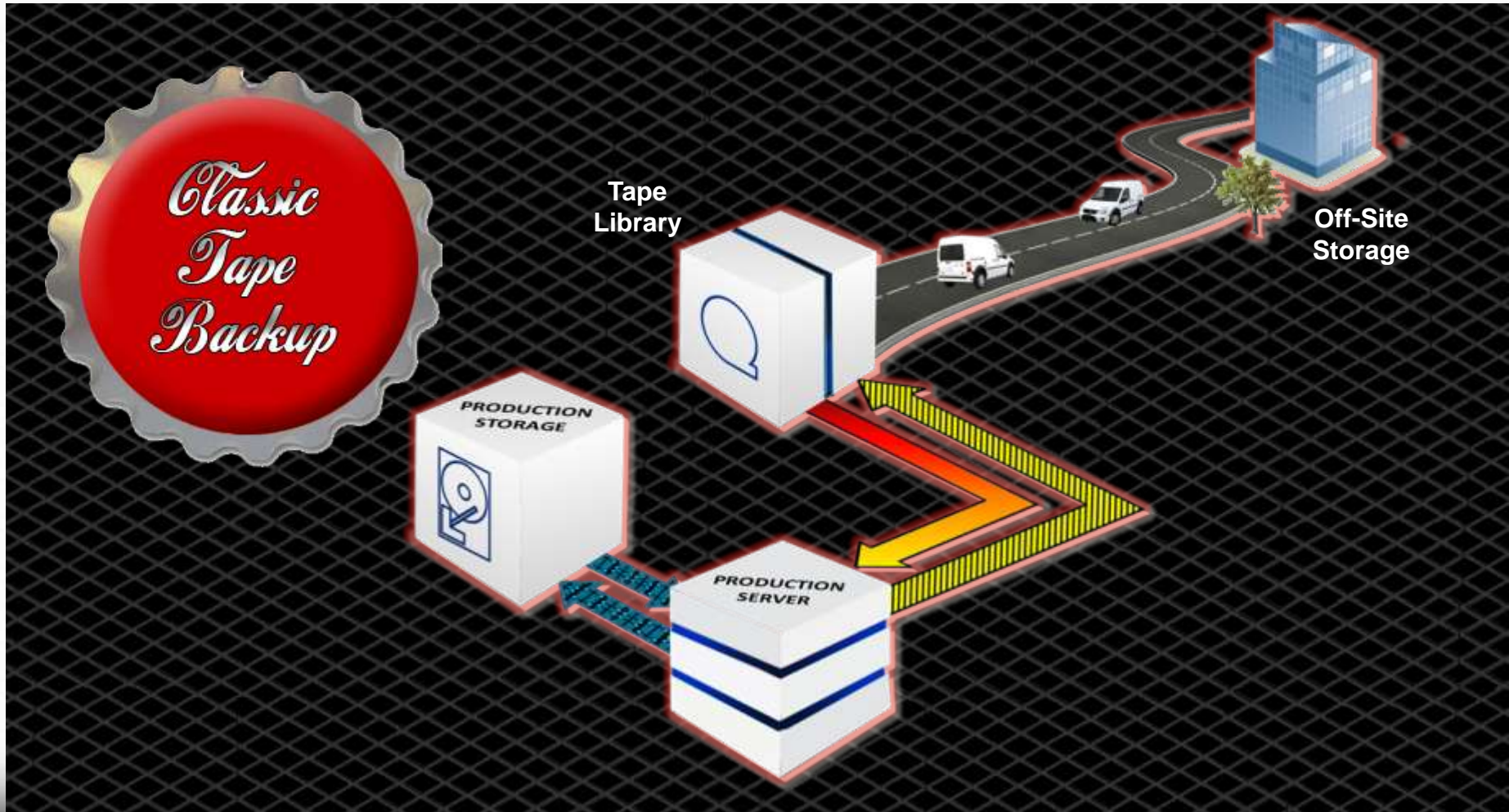


So, Where Is This “Storage Director”

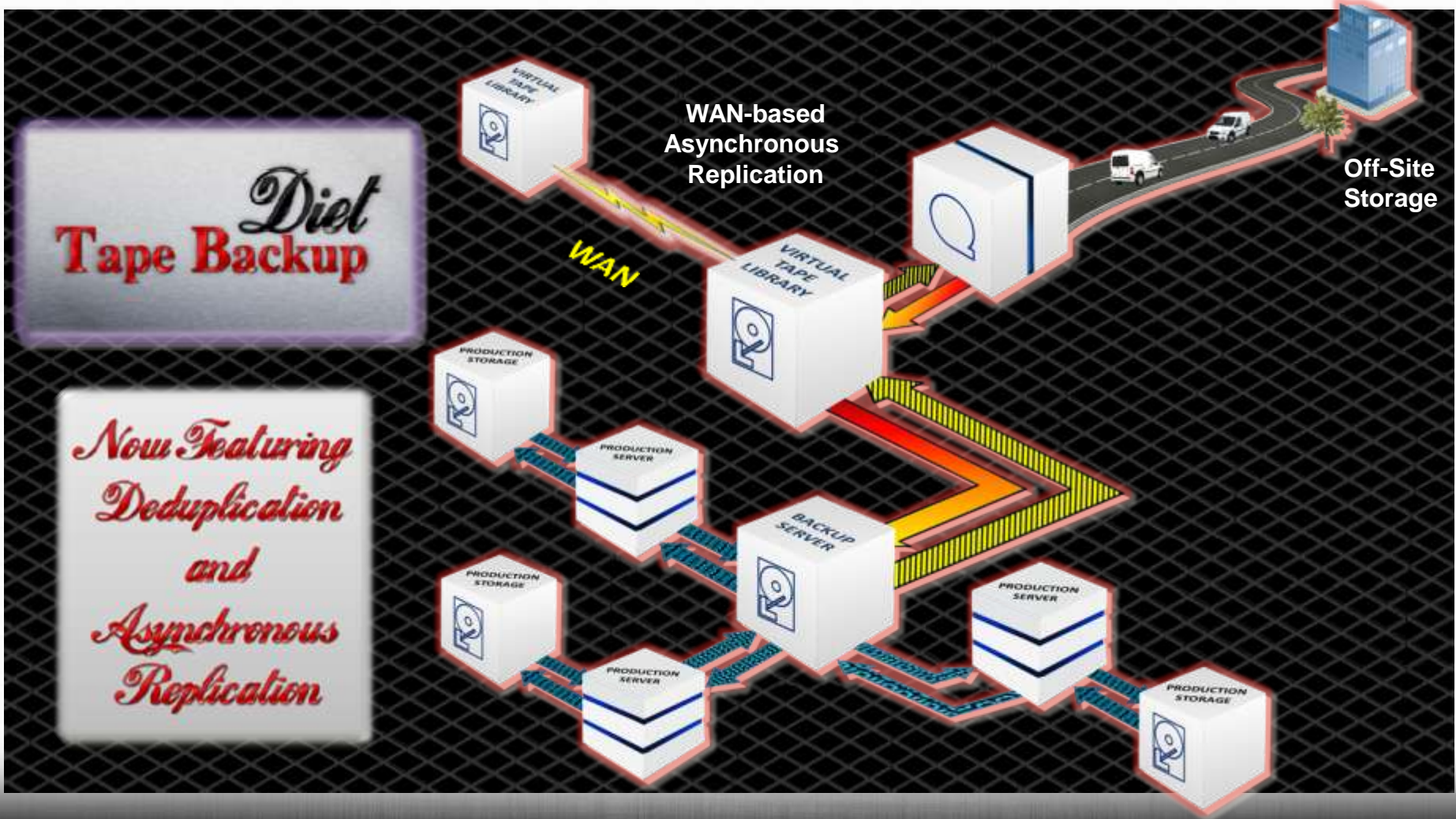
- Functionality set, not a device...so, flexible
- Why not use the VTL?



Not a Tape Replacement



“Added Value”

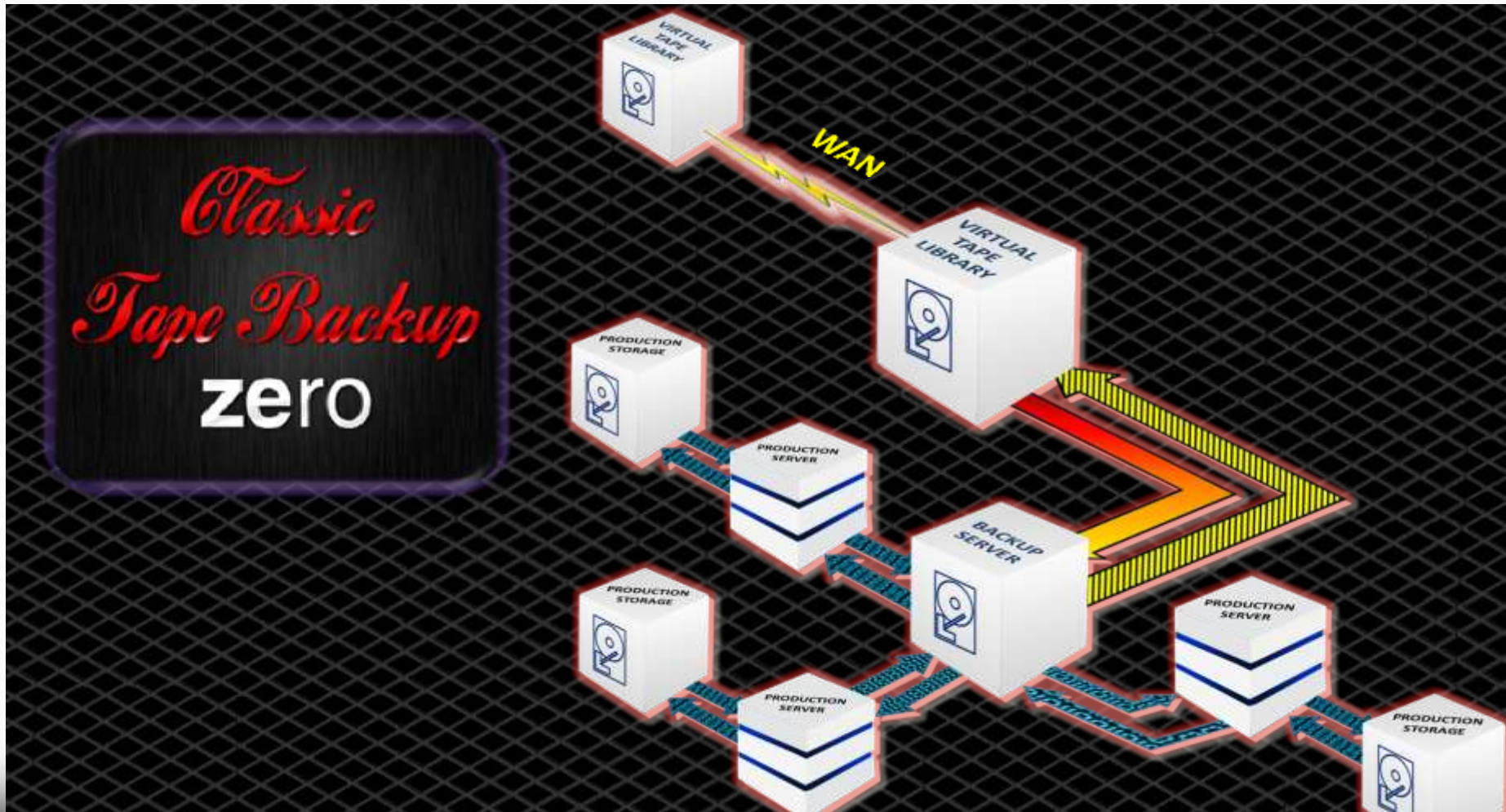


Diet
Tape Backup

*Now Featuring
Deduplication
and
Asynchronous
Replication*

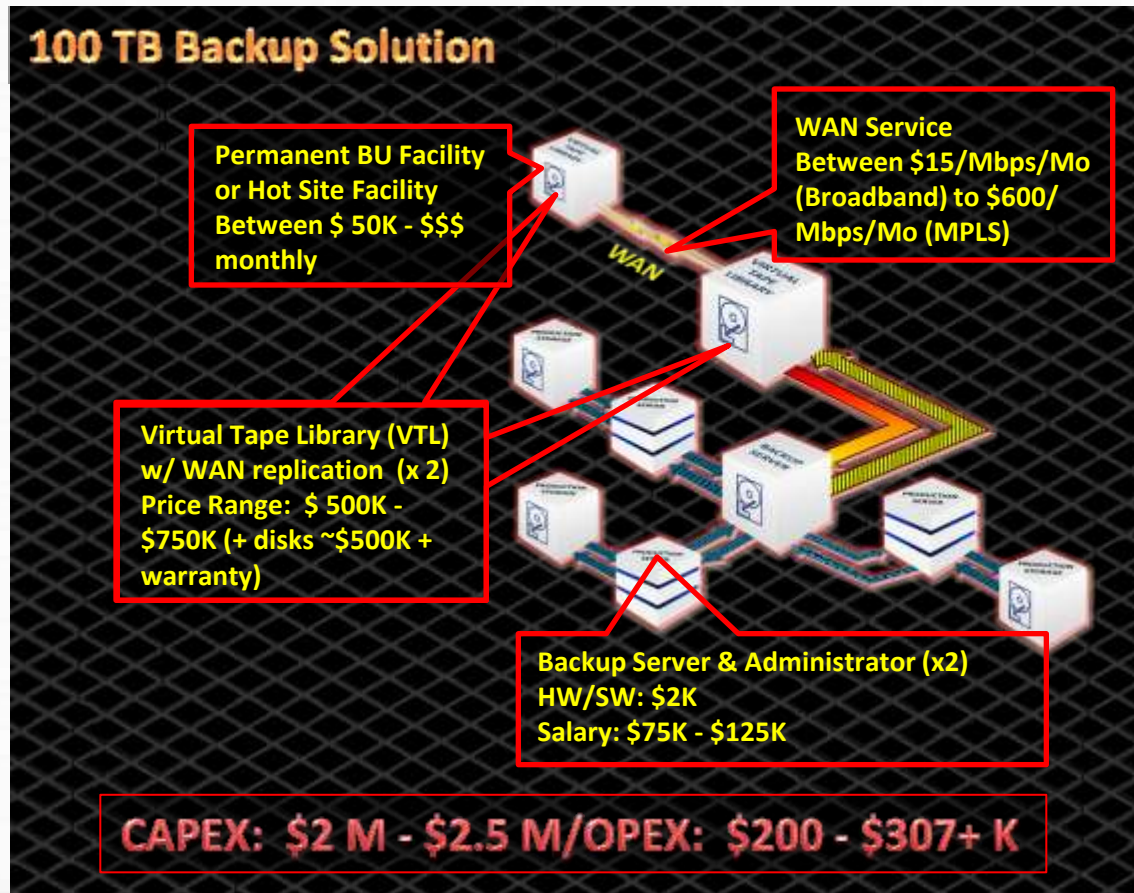


Oversell...



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



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...



Software Process Focused

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

Doesn't monitor hardware or every software-based replication or backup process.

Provides monitoring and failover.



Hardware Process Focused

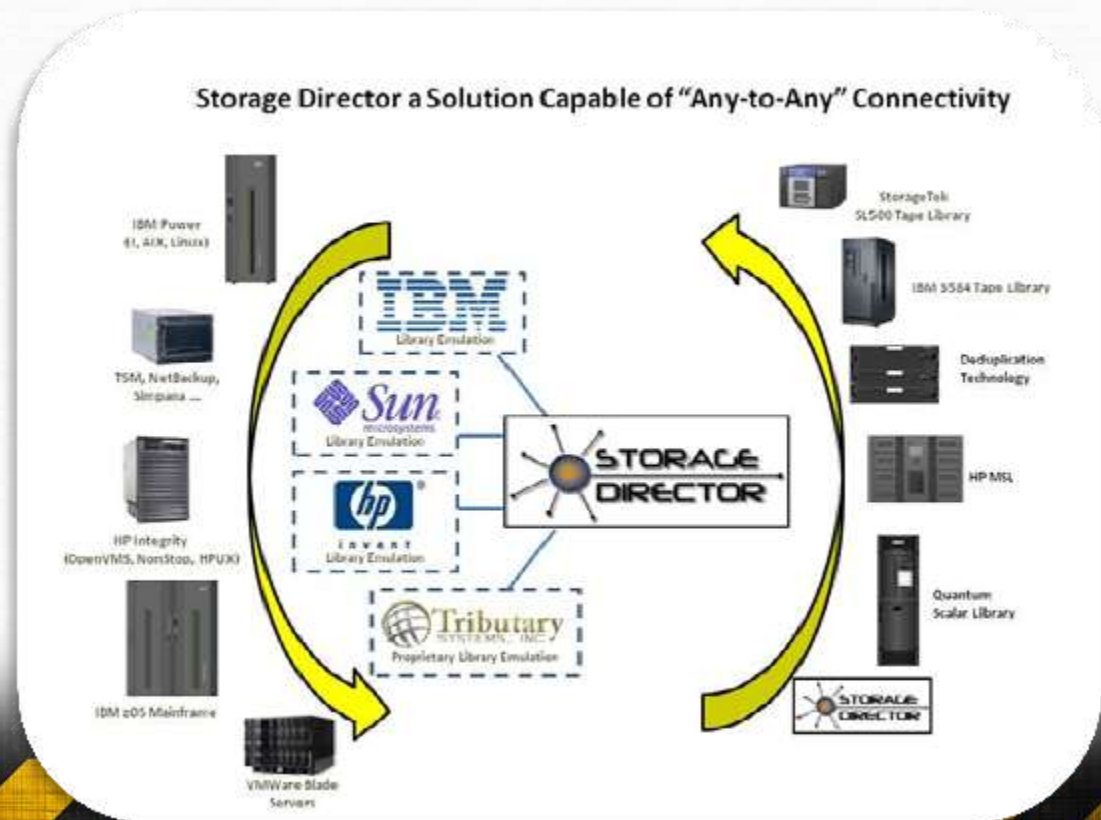
Works with select array vendor APIs to monitor data replication.

Doesn't work with all hardware or with software-based replication or backup.

Provides passive monitoring and alerts.

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!*

