

# ***VNUG***

## ***HP StorageWorks Virtual Library for NonStop***

***Presented by: Sylvain Tétreault***

***May 26, 2010***



# About ETI-NET

- **Montreal-Based**
- **Worldwide Customers : 1400+ Licenses**
- **Enterprise Solutions since 1988**
  - ▶ **Cross-platform file transfer**  
**NonStop to-from Mainframe**
  - ▶ **Network and Disk-based backup solution**
- **Development Partner with HP, HP Enterprise Reseller,**
- **IBM/Tivoli, EMC/Data Domain**





## ETI-NET Backup Product Family

- **BackHome<sup>®</sup> - Cross-platform Backup**
- **BackHome/TSM<sup>®</sup> - Network Backup**
- **BackBox<sup>®</sup> - Virtual Tape Solution**
- **BackPak<sup>®</sup> - Virtual Library Solution**

Software and hardware to integrate  
NonStop with prevailing data center  
infrastructure objectives



# ETI-NET Backup Solutions

- **Virtual Libraries for NonStop**

- ▶ The Complete HP StorageWorks VLS and D2D virtual library product suite
- ▶ Data De-duplication and Replication

- **Virtual Tape for NonStop**

- ▶ HP StorageWorks D2D – NAS configuration option
- ▶ Data De-duplication and Replication

- **Corporate Backup Integration for NonStop**

- ▶ Integration with Corporate Physical Tape Library
- ▶ Integration with Corporate Tape Encryption
- ▶ Integration with Corporate Backup Tools



# ETI-NET solutions for HP NonStop Data Protection

## *BackBox® Architecture*

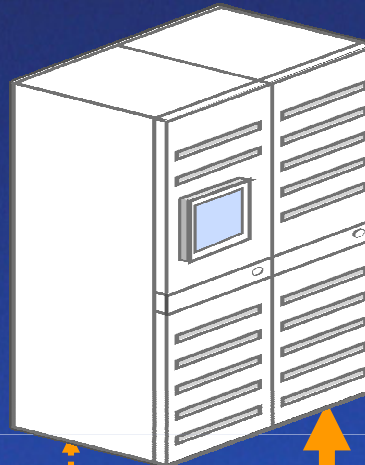


# BackBox® - *Transparent to NonStop*

## BackBox Software

- Extractor
- Domain Manager
- Meta data

## NonStop



## Regular NonStop Tools

- Mediacom, DSM/TC
- DSM/TC Catalog
- Backup/Restore
- TMF
- TMFCOM
- TMF Catalog
- BRCOM

TCP/IP

FC or SCSI

**BackBox VTC**

ETI-NET  
Target Mode  
Adapter

## Bridge - Controller

- Context-Free
- Web-Base Interface
- Data Store and API

Option 1



Option 2



Corporate SAN

Option 3



Data De-Duplication  
HP Storage Works D2D  
Data Domain

Business Partner



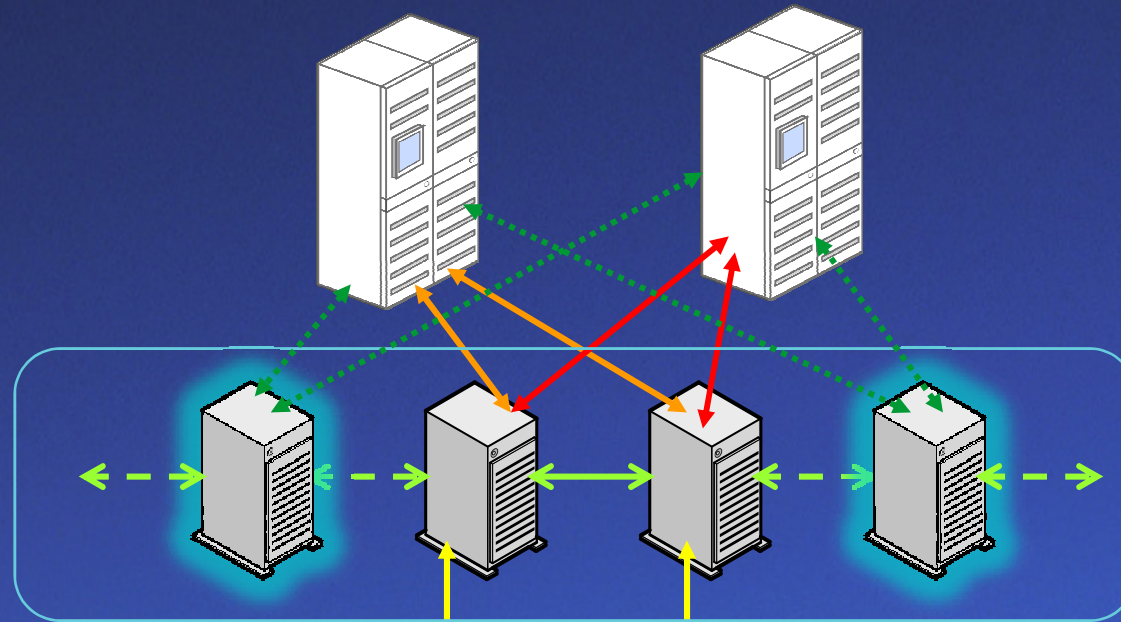
Corporate Backup  
Server



# BackBox® - NonStop and Expandable

NonStop

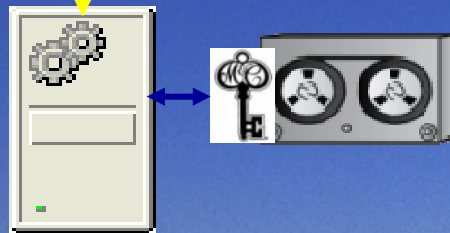
One  
Virtual  
BackBox



Virtual Bridge

- Context-Free
- NonStop
- Linear Expandability

Option 1



Corporate Backup  
Server

Option 2



Corporate SAN

Option 3



Data De-Duplication  
HP Storage Works D2D  
Data Domain

Business Partner



# BackPak<sup>®</sup> Software Suite

Open Options for NonStop Tape

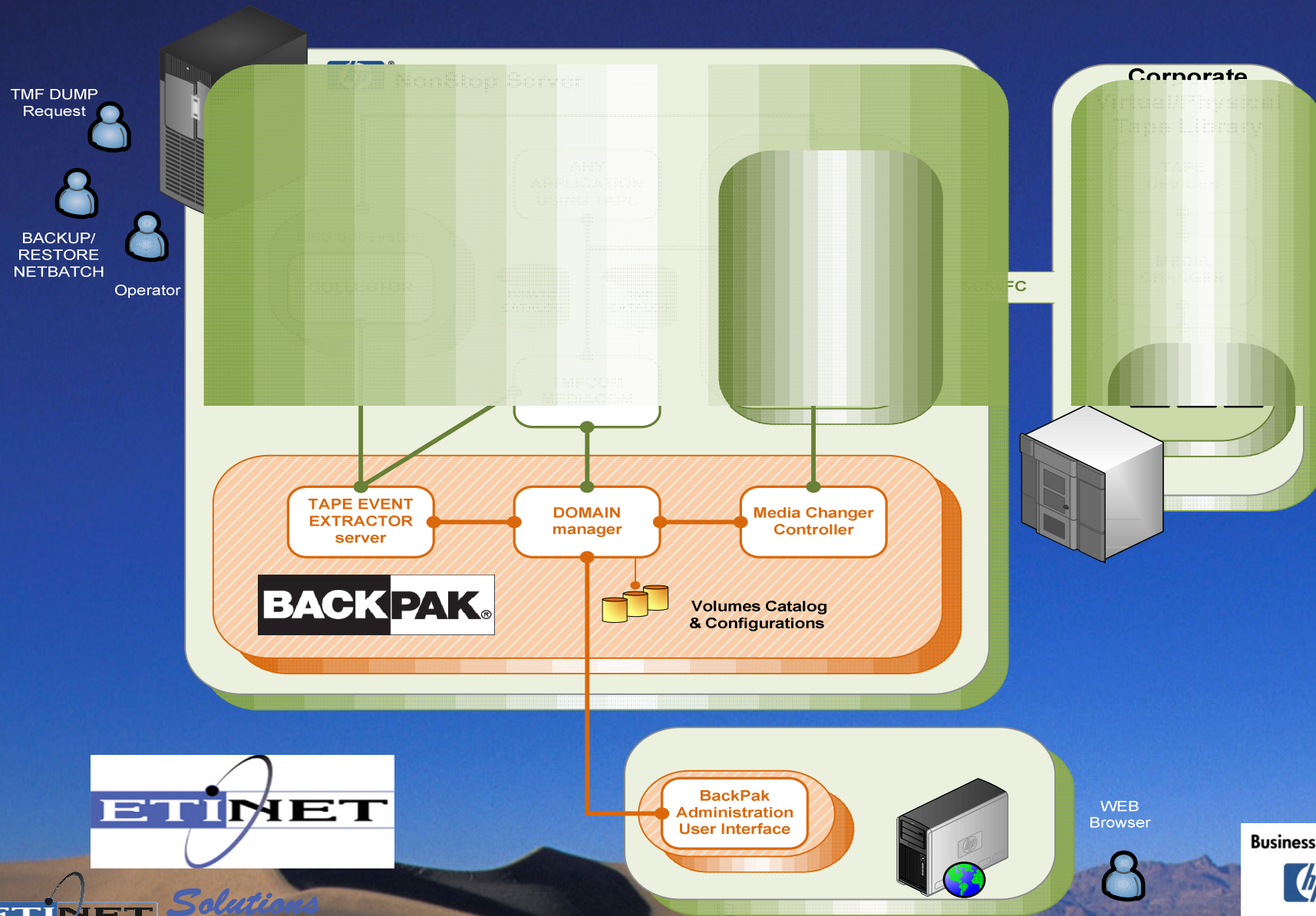




# BackPak<sup>®</sup> HP StorageWorks VLS & D2D

- Totally Transparent for the NonStop
- NonStop-based Management Software
- Integrated with DSM/TC, Mediacom, \$Z, etc.
- Fibre or SCSI channel I/O
- **Industry leading VTL libraries**
  - ▶ **HP StorageWorks VLS and D2D**
- Released @ HPTF June 2009

# BackPak® - Tape Library Software Suite





# HP StorageWorks VLS/D2D- Virtual Tape Library Solution

## NonStop

### BackPak Software

- Extractor
- Domain Manager
- Meta data
- Library – Media Changer**

### Regular NonStop Tools

- Mediacom, DSM/TC
- DSM/TC Catalog
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- TMF Catalog
- BRCOM



FC or SCSI or iSCSI

- HP StorageWorks VLS and D2D**



VLS 11



Business Partner



# HP StorageWorks VLS/D2D- Virtual Tape Library Solution

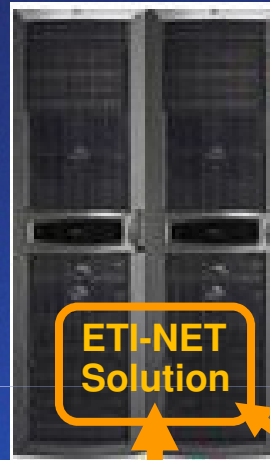
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FC or SCSI or iSCSI

- HP StorageWorks VLS and D2D**



VLS 12





# HP StorageWorks VLS/D2D- Virtual Tape Library Solution

NonStop

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## Regular NonStop Tools

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FC or SCSI or iSCSI

- HP StorageWorks VLS and D2D**



**VLS** 13

Automigration



**Corporate  
Physical Tape Library**

Business Partner



# HP StorageWorks D2D - Data De-duplication

## NonStop

### BackPak Software

- Extractor
- Domain Manager
- Meta data
- Library – Media Changer



### Regular NonStop Tools

- Mediacom, DSM/TC
- DSM/TC Catalog
- Backup/Restore
- TMF
- TMFCOM
- TMF Catalog
- BRCOM

- Data De-duplication = compression 20:1



# HP StorageWorks VLS/D2D Replication

## Production Site

NonStop



FC



StorageWorks D2D

## DR Site

NoNStop



FC



StorageWorks D2D

Replication

Business Partner



# HP StorageWorks D2D- Virtual Tape Solution

## NonStop

### BackPak Software

- Extractor
- Domain Manager
- Meta data

### Regular NonStop Tools

- Mediacom, DSM/TC
- DSM/TC Catalog
- Backup/Restore
- TMF
- TMFCOM
- TMF Catalog
- BRCOM



**HP StorageWorks D2D**

**NAS Support**



**Backbox Controller**



# HP StorageWorks D2D- Virtual Tape Solution

## NonStop

### BackPak Software

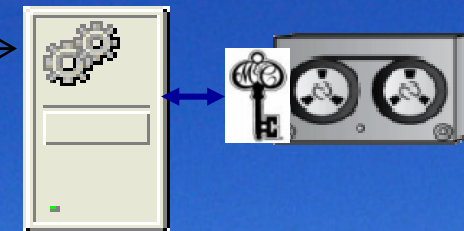
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- Domain Manager
- Meta data

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Backbox Controller

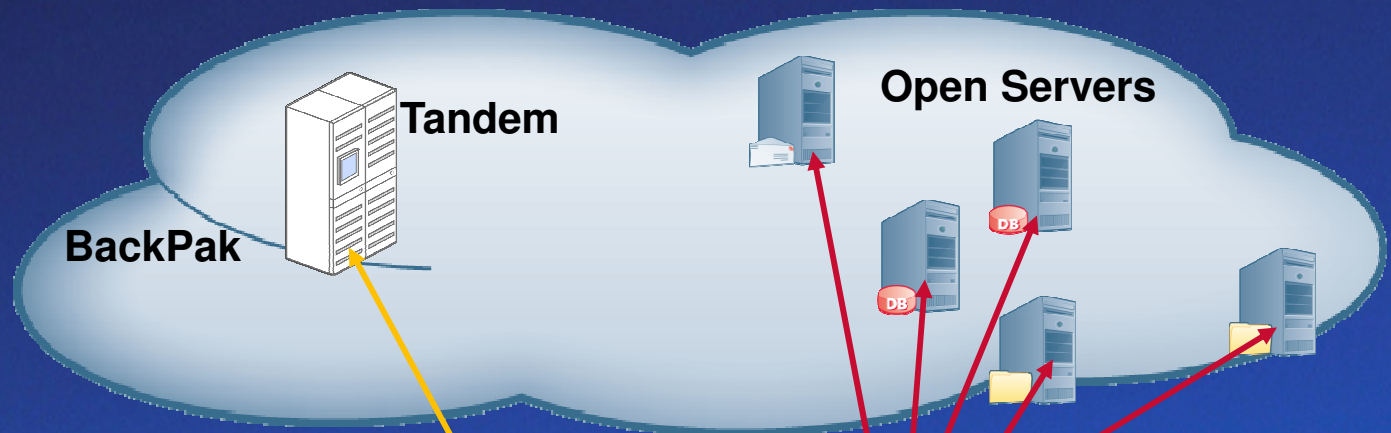
• HP StorageWorks D2D-NAS



Corporate  
Backup Server



# Enterprise Solution Options



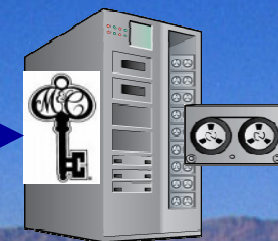
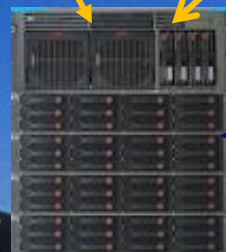
Or



**Corporate Backup Server**

**Corporate Open Technology**

**HP StorageWorks VLS**

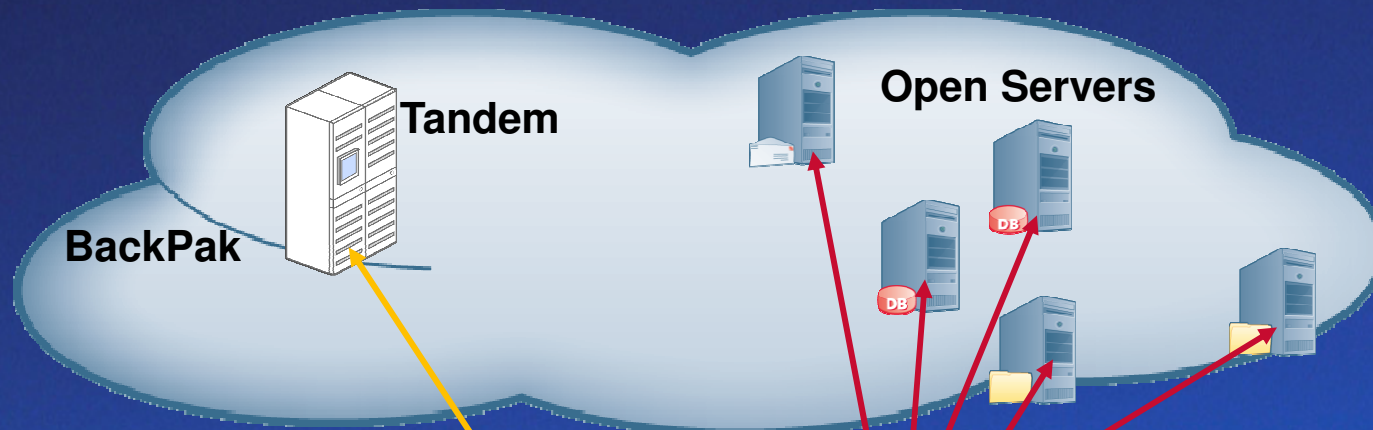


**Business Partner**





# Enterprise Solution Options



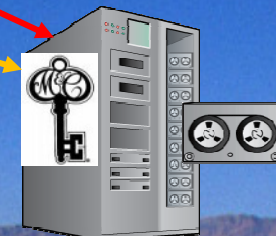
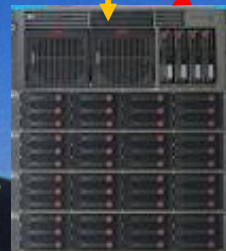
Or



**Corporate  
Backup Server**

**Corporate  
Open  
Technology**

**HP StorageWorks VLS**



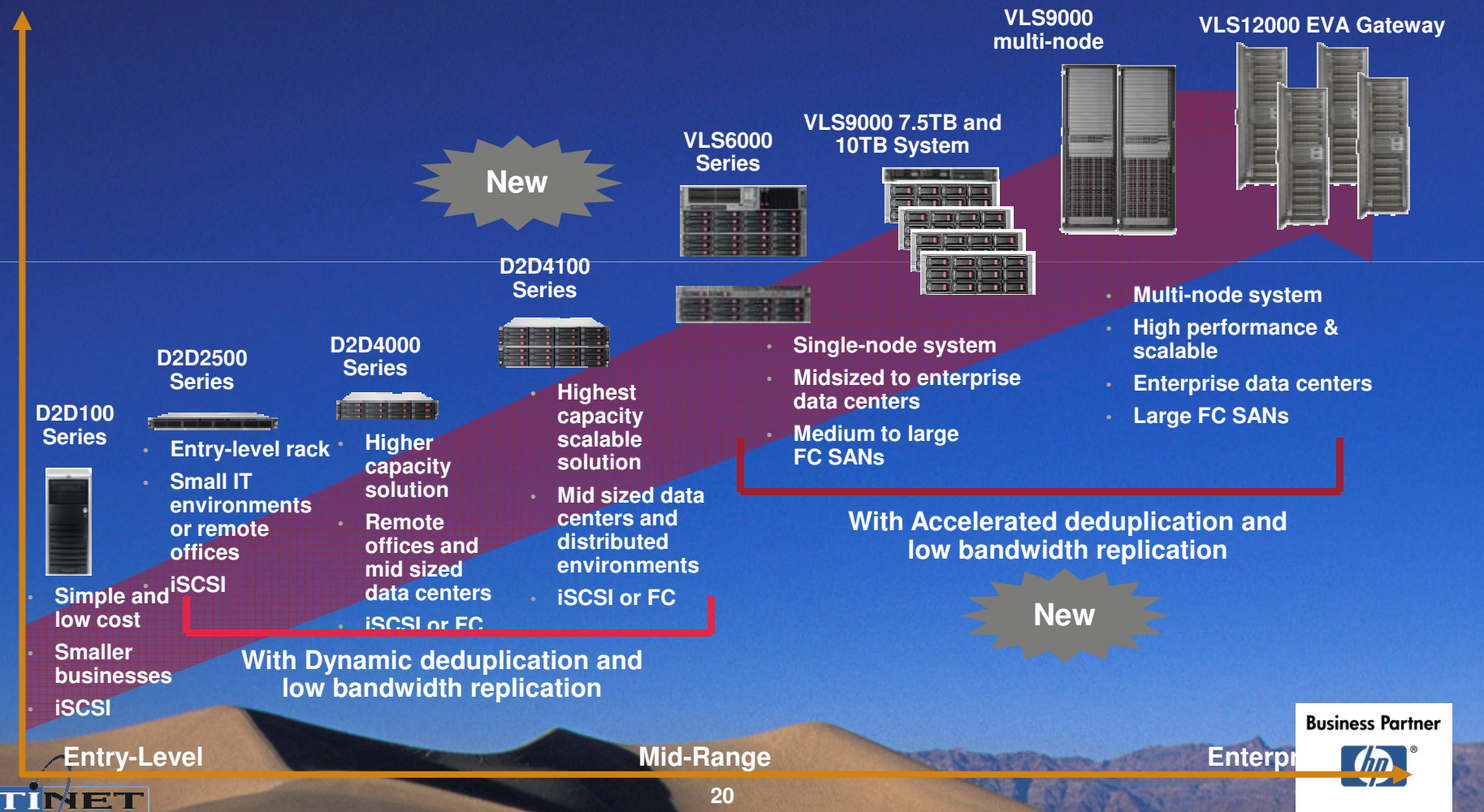
**Corporate  
Physical Tape Library**

**Business Partner**



# HP StorageWorks disk-based backup

## Where does the new product fit in the family?





# HP StorageWorks D2D Backup Systems

## Family comparison



### D2D2500 Backup Systems

### D2D4000 Backup Systems

### D2D4112 Backup Systems

1U rack-mount

2U rack-mount

2U rack-mount plus 2U upg kit

Up to 3 TB raw capacity  
**(2.25 TB usable)**

4.5 TB and 9 TB raw capacity  
**(3 TB and 7.5 TB usable)**

From 12 to 24 TB raw capacity  
**(from 9 to 18 TB usable)**

Speeds of up to 75 MB/sec

Speeds of > 90 MB/sec

Speeds of > 150 MB/sec

2 x iSCSI interfaces

2x iSCSI or 2x FC interfaces

2x iSCSI and 2x FC interfaces

Protects up to 6 servers

Protects up to 16 servers

Protects up to 24 servers

Hardware RAID 5

Hardware RAID 6

Hardware RAID 6

Dynamic deduplication

Dynamic deduplication

Dynamic deduplication

Low bandwidth replication

Low bandwidth replication

Low bandwidth replication

# VLS9000 7.5 TB and 10 TB system product overview

## VLS Node Unit

- Host connections: 2x 4 Gb FC ports
- Mirrored system disks (using hardware RAID)

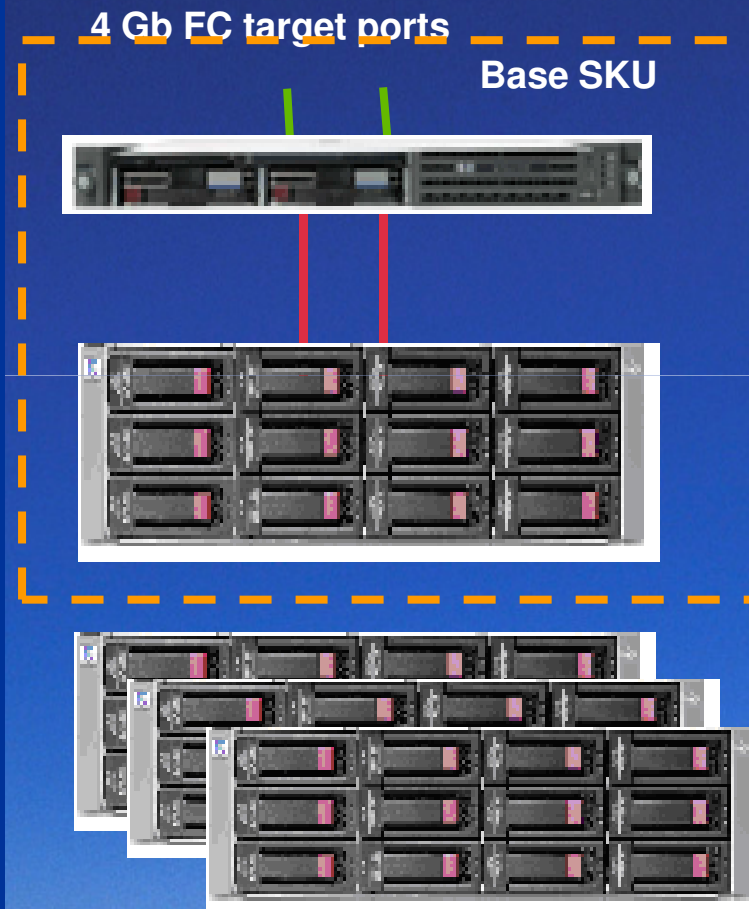
## Default Data Storage

- 12 x 750/1000 GB SATA hot-swap disk drives

## Capacity Module Upgrade

- 3x Array expansion enclosure JBODS

## Automigration support



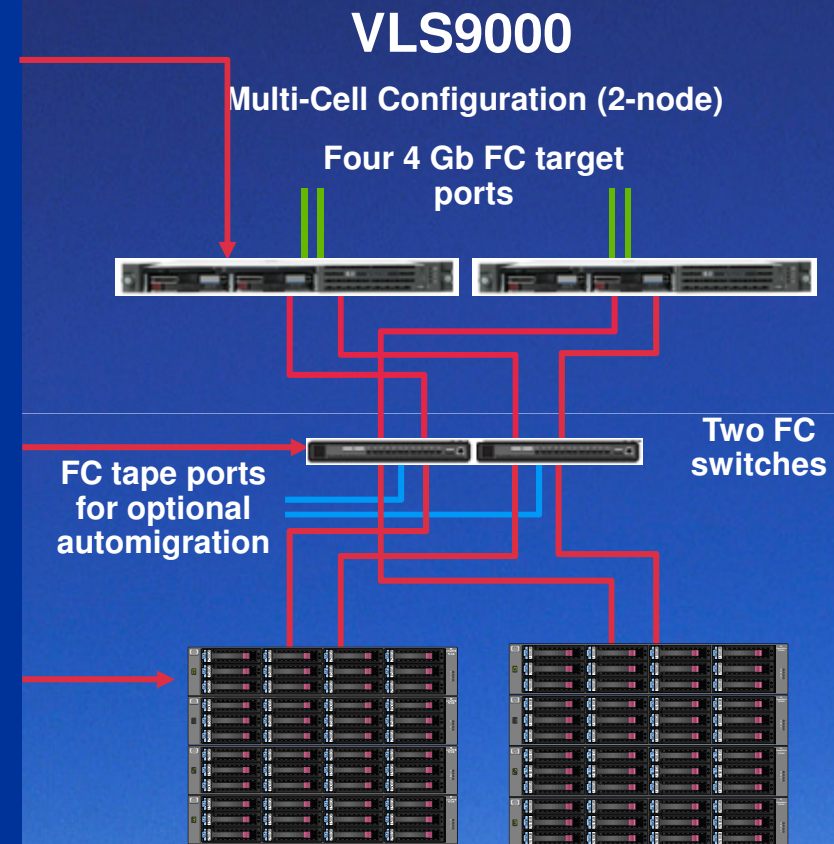
Business Partner





# VLS9000 scalable architecture

- **Expansion**
  - 8 Nodes and 16 Arrays
- **VLS9000 node uses DL360G5**
  - Hardware compression
- **Connectivity kits**
  - connect one or more nodes together into one scalable device
  - Maximum 32-port connectivity kits
- **VLS9000 Array**
  - 16 array support— 1280 TB
  - Forty eight 750 GB or 1 TB SATA drives (dual-port)
  - RAID 6



Business Partner



# Conclusion: HP NonStop – A Fully Open System

## NonStop

### Open Software

- OSS
- Java
- SOA
- Tomcat
- Etc

### Open Technology

- Blade
- Blade Cabinet



Compliant with  
**HP CONVERGED Infrastructure**  
Strategy

### Open Storage

- HP StorageWorks XP20000
- HP StorageWorks XP24000



NOW AVAILABLE WITH ETI-NET



### Open Virtual Library

- HP StorageWorks VLS
- HP StorageWorks D2D

Business Partner





**Question ?**

## **Contact Information**

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**813-205-8060**

