

The logo for ETI-NET features the text "ETI-NET" in a bold, serif font. The "ETI" portion is white and set against a blue rectangular background, while the "-NET" portion is black. A stylized, dark blue orbital ring with a small black dot at its center encircles the text.

ETI-NET

BackBox News

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ETI-NET

About ETI-NET

- Montreal-Based: 35 employees
- Customers on every continent (except Antarctica)
- Enterprise Solutions since 1988
 - Cross-platform file transfer NonStop to/from Mainframe
 - IP and Virtual tape-based backup solutions
 - Focus: “NonStop-to-Other” integration
 - High-end customized transfer solutions
- Development Partner with HP, IBM/Tivoli, EMC/Legato, Data Domain

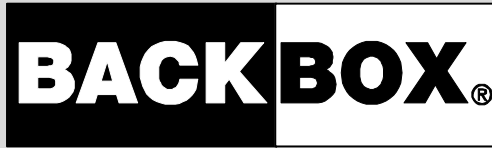


Some Customers



Virtual Tape – What & Why?

- Technique to get backup/archive data off NSK systems
- Transparent to NonStop applications: **B/R, BR2, TMF**
 - Appears as tape drives
- Connects to:
 - **S-series** via PMF, IOMF, SNDA ports (SCSI)
 - **NS Integrity** via IOAME/FCSA or VIA (FC)
 - **NS Blade** via Storage CLIM (FC)
- No “magic” to virtual tape (target-mode + tape emulation)
 - But **what it does with the backup data is key**
 - And **how it keeps track of it is critical !**



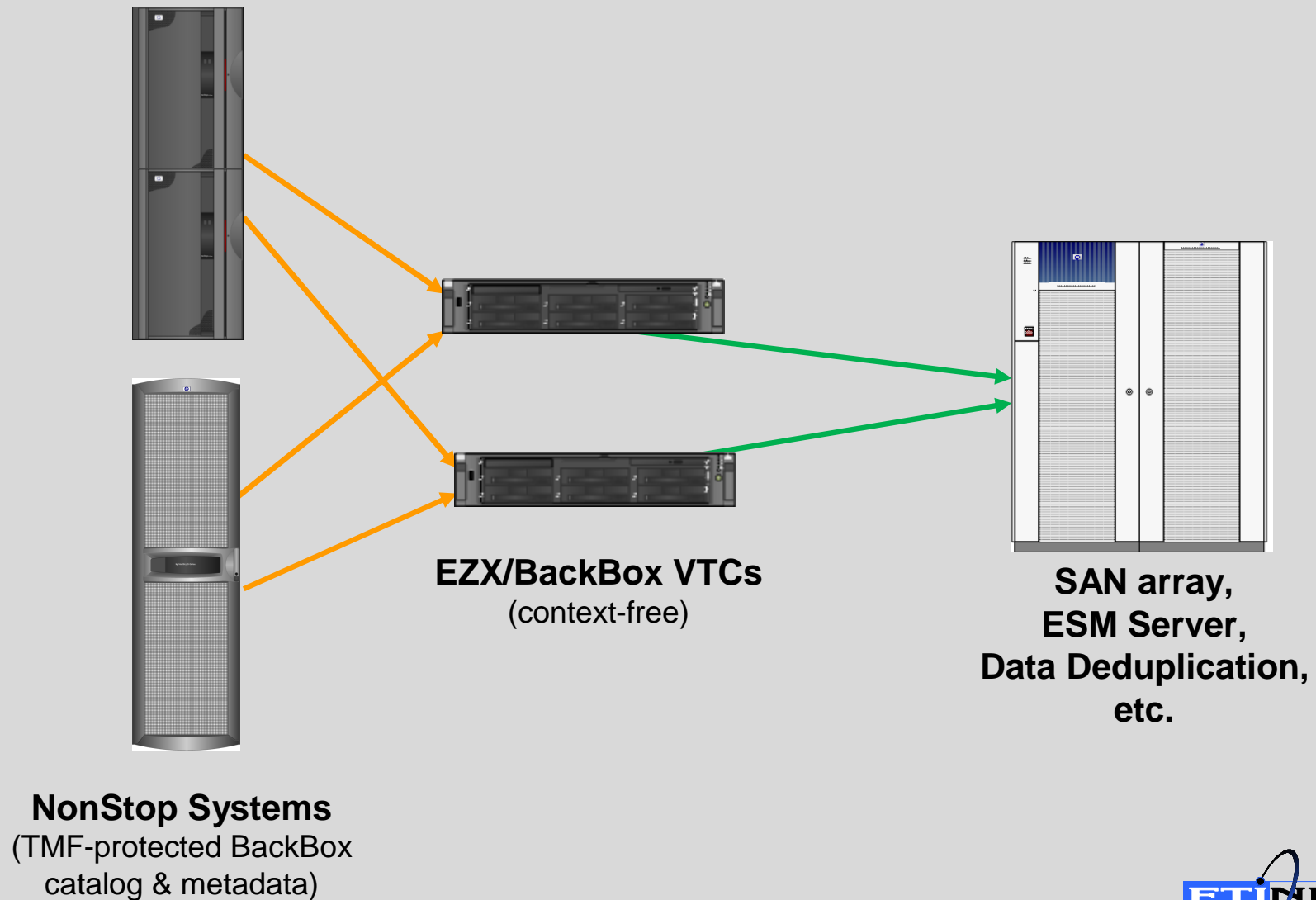
Virtual Tape Data Center Integration

- Connects to your SAN, NAS, file server
- ETI-NET's focus has been & is: **INTEGRATION**
- Integrates with your enterprise storage manager
 - Via API or scripted client





Simple Fault Tolerant VTC Configurations



State-of-the Art

NonStop Backup/Transfer Challenges

When HP needed high performance virtual tape solutions, they turned to ETI-NET:

Cross-platform transfer: NonStop to/from Mainframe for Telco

- Transfer 2.6 TB of data within 2 hour window (379 MB/sec)

Massive SQL/MX DB Restore for Government user:

- Manage ~390 TB of backups, TMF dumps & TMF audit
- Manage HP ESL tape (LTO-3) library containing the tapes
- Restore 29 TB database within 24 hour window

ETI-NET met the requirements!





High-end Virtual Tape Solution

NonStop Integrity to/from LTO-3 tape via XP disk staging area

MASSIVE SQL/MX DB Backup:

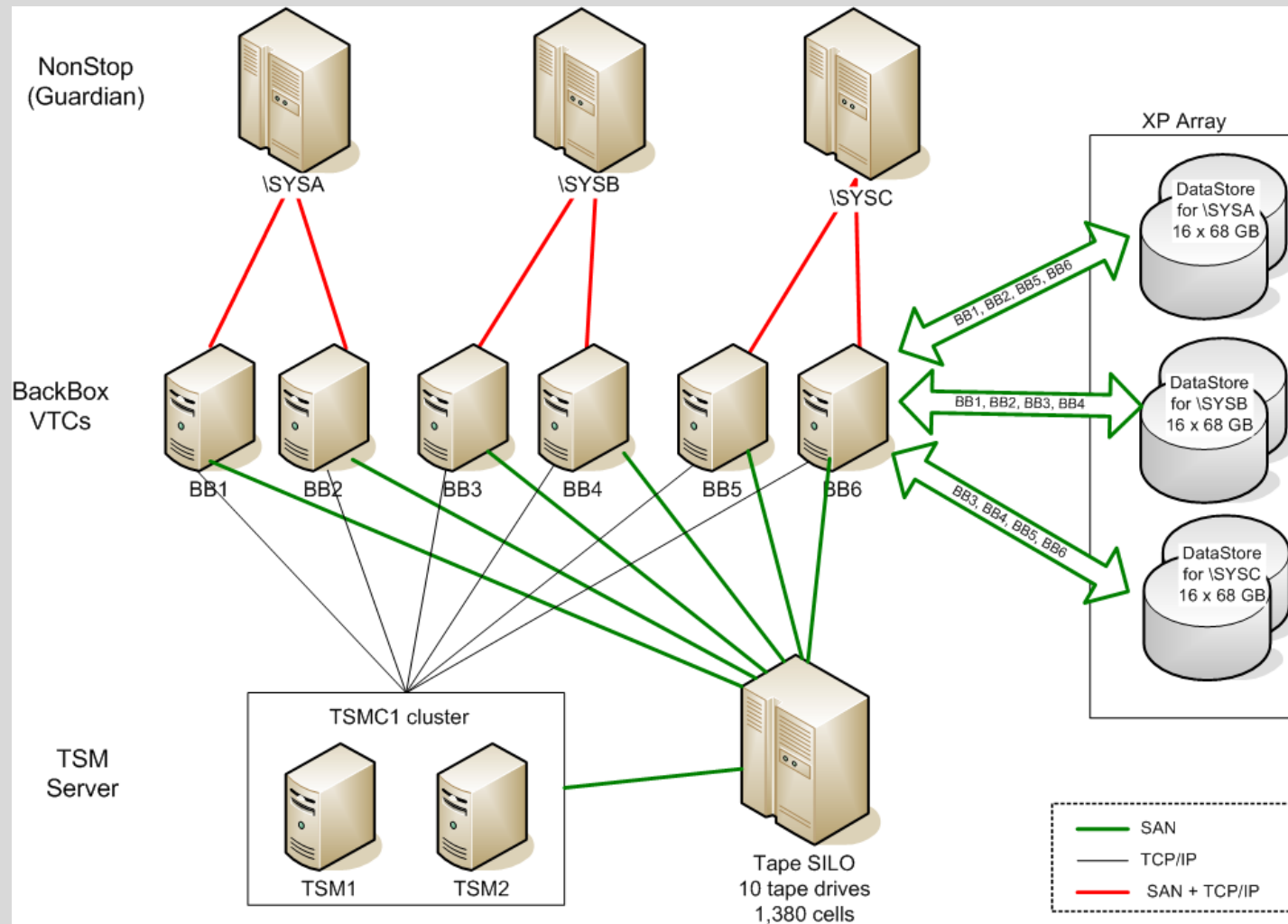
- Backed up 29 TB database in 15hr 24 min
- Effective overall rate: 548 MB/sec (6 VTCs @ 91.4 MB/sec)

MASSIVE SQL/MX DB Restore:

- Restored full database in 23 hr 58 min
- Effective overall rate: 336 MB/sec (6 VTCs @ 56 MB/sec)
- Limited by bottlenecks in physical tape media handling
- Restore measured at 97 MB/sec when no tape bottleneck



Massive SQL/MX Backup Using

BACKBOX®



NonStop Integration

- BackBox management software on NSK
 - Tape catalogs, metadata & configuration info – **TMF protected**
 - Which do you trust: NonStop + TMF or Linux Clustering?
 - Guardian logon to the VTC
 - Guardian security on each virtual tape
- Integrated with DSM/TC & TMFCOM
 - Created virtual tapes are automatically cataloged & labeled
 - **Interlocks** prevent accidental media deletion if not SCRATCH
 - Captures catalog updates for DR
- Integrated with NonStop EMS
 - All events logged there
 - Tape mount requests intercepted (and checks for missed requests)
- **Intelligent pre-fetch**
 - Can anticipate next tape that will be called for by a job
- Designed for fault-tolerance



NS Tape Drives Going EOL in Dec 2008

Tape Technology	NonStop Product ID
DLT 4000	5150ACL, 5152ACL, 5259
SDLT 220	5259
DAT / DDS1,2	5141, 5141ACL
DAT / DDS1,2,3	5145, 5145-2SE, 5145ACL
3490E (36 track)	5194, 5194ACL, 5196, 5106ACL, 5193
3480 (18 track)	5180ACL, 5181ACL, 5190, 5190ACL, 5191, 5191ACL
9-track (1600 / 6250bpi)	5130, 5131, 5170, 5171, 5172, 5175, 5177
9-track (1600 bpi only)	5160, 5160-1, 5161, 5162
Other	5126, 5165-1



Your Drive will soon be EOL!

What to Do?

- Buy another tape drive?
 - NS models are expensive
 - Can it read your archived tapes?
 - If so, is its write capacity limited?
 - Connectable to S-series & Integrity?
 - If use to write: standalone, auto-loader or library?
 - Do you really want to continue using tape media?
- There is a better way...



Tape Replacement Appliance



- Not much more \$ than NonStop tape drive
- Complete virtual tape solution
- Internal backward-compatible tape drive
- 5 TB virtual tape storage internal
- Based on proven BackBox™ technology
- Connects to: S-series, NS Integrity
- HP ProLiant hardware for easy field service
- Shipped pre-configured - simple to install



BackBox Express™ Solves:

- End-of-Life NonStop tape drives
- Ongoing need to retrieve from your tape archives
- Need for a tape drive in new NonStop systems
- Read SIT and SUT tapes
- Create dump tapes to send to HP
- Operations costs for handling tape media
- Prohibitive cost of other NonStop virtual tape products for entry-level systems



Where Does it Fit?

- Small NonStop systems (S- or NS-series)
- Simple single configuration:
 - Single (SCSI or FC) interface to NS host system
 - 4 virtual tape drives
 - No external storage for virtual tapes supported
 - No integration to enterprise storage managers
 - No data de-duplication
 - No redundant configurations
 - Choose internal tape drive: LTO, DLT, DAT now, others pending
- **BUT: A GREAT PRICE!!!**



NEW:



Software v2.04

- Faster performance
 - New approach to tape emulator buffer handling
 - New PCI-Express (PCIe) Fibre Channel HBAs
- Data compression
 - Doing it the right way: in-line with negligible slow-down
 - Persistent across disk & tape media
 - Generally 2-3x, more in some cases
- New operations visibility
 - Capacity management information
 - Improved visibility of current status & operations
 - Especially for very large configurations
- Intelligence in anticipating what NonStop system will want
 - Remembers backup sequences, queries DSM/TC
 - Recognizes TMF Audit tapes from Dump tapes
 - Can allocate specified drives & resources for Audit
- Cluster support
 - Generally don't need with BackBox architecture, but...
- Available end of September



NEXT: **BACKBOX**® Software v2.05

- November 2008
- Support for EOL tape drives
- Disaster recovery capabilities
- And more....

Cross-platform Data Movement

- NonStop systems exchange data with mainframes
 - e.g. end-of-day account data & receiving start-of-day data
 - Common among BASE24 installations
- Usually via physical tape & “sneakernet”
- But this approach has a number of problems:
 - Relatively slow
 - Frequently involves operations personnel actions
 - Tape media is prone to errors
 - Many NonStop tape drives approaching end-of-life
- There is a better way...



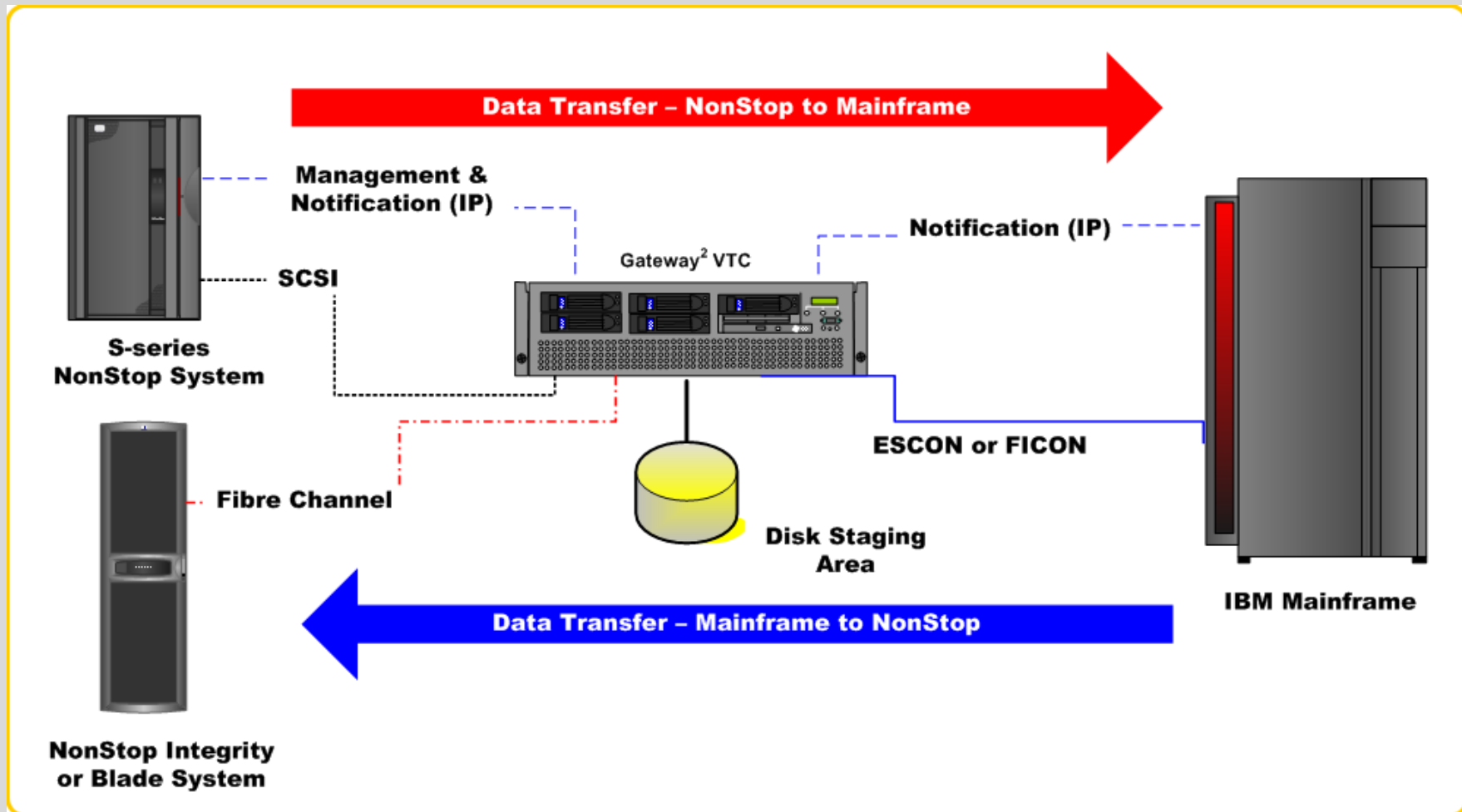
Cross-platform Data Mover

- Channel speed file movement - dramatically faster
- NonStop to Mainframe or Mainframe to NonStop
- Eliminates tape use, minimizes "sneakernet"
- Reliable - no more tape media errors
- Acts as native tape drives on NonStop & mainframes
- No applications changes required
- Particularly suited to BASE24 users



gateway **2**

Cross-platform Data Mover



Summary:



- Transfers growing amounts of data in shrinking time windows
- Channel speed transfers on each platform
- Multiple VTCs can handle massive transfers
- Configurable for fault tolerance - no more transfer failures caused by equipment malfunction
- Takes advantage of your choice of staging storage subsystems
- Frees up operations admin time for more valuable tasks
- Simple to implement - no application changes needed
- Can combine with BackBox - the most reliable & cost-effective virtual tape solution for NonStop





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QUESTIONS?

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