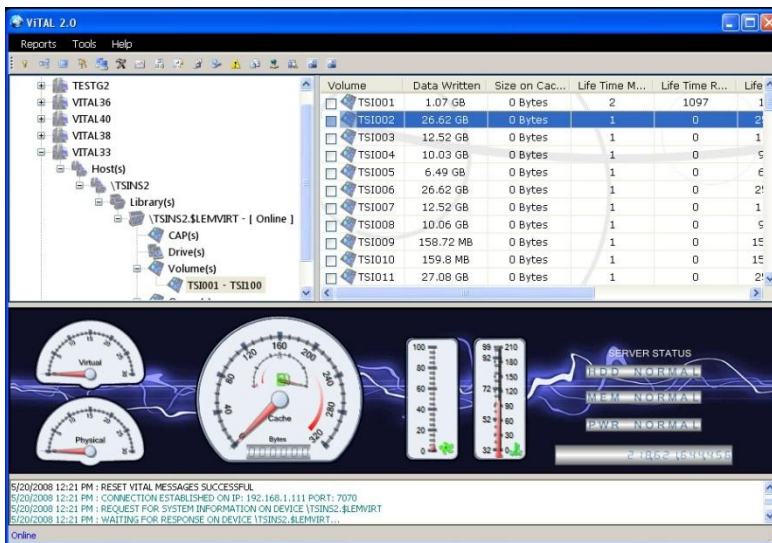# ViTAL 2.0
Virtual Integrated Tape and Library®

A high availability storage consolidation solution for heterogeneous IT environments

ViTAL® 2.0 is a state-of-the-art backup storage virtualization solution architected and designed to satisfy the most demanding operational tape requirements for lights-out and multi-platform enterprise computing environments.

- ✓ Provides fully automated backup and restore operations
- ✓ Integrated business intelligence capabilities for industry leading reports, analysis, and capacity planning
- ✓ Data-at-rest compression/encryption on both disk cache and physical tape media
- ✓ Transparent remote backup and restore features to satisfy off-site archival requirements
- ✓ Enables alternate site disaster recovery schemes
- ✓ User defined policies allow flexible tape and data migration strategies
- ✓ Specifically designed for heterogeneous multi-platform environments
- ✓ Customized configurations for higher availability and specific customer needs
- ✓ Supports tape library distribution and consolidation

Tributary SYSTEMS, INC
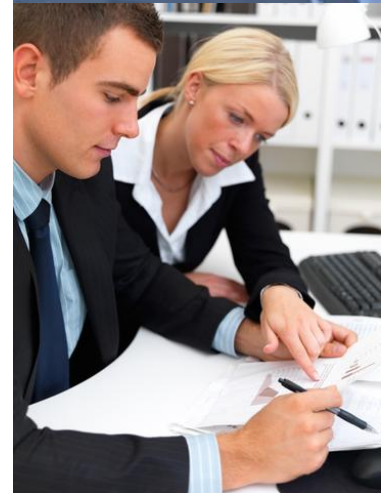
Virtual Integrated Tape and Library (ViTaL) from Tributary Systems, Inc. is now in its second generation. It offers a state-of-the-art backup storage consolidation platform which can handle requirements from even the most complex environments. ViTaL implements a wide variety of data protection schemes and tape library consolidation, thus eliminating the need to dedicate devices for specific backup purposes.

Fully Automated Backup and Restore Operations

The technology within ViTaL brings a scalable, flexible, and high-throughput solution to backup and restore operations. No longer do operations staff need to monitor data movement. ViTaL provides dynamic drive sharing, customer defined virtual tape policies, backup to local and remote sites, and a performance improvement over current backup methods.

Multi-Platform Heterogeneous Environments

ViTaL emulates several standard front-end interfaces in which existing backup servers and applications can connect and control. Because ViTaL adheres to using standard interfaces, backup servers can reside on nearly any platform and operating system in the market today. This includes IBM® iSeries (AS400), IBM Power Systems, HP NonStop™, Sun® SPARC, blade systems, and of course, x86 Intel® or AMD based systems all running backup applications on Microsoft® Windows®, Linux, Unix and more.
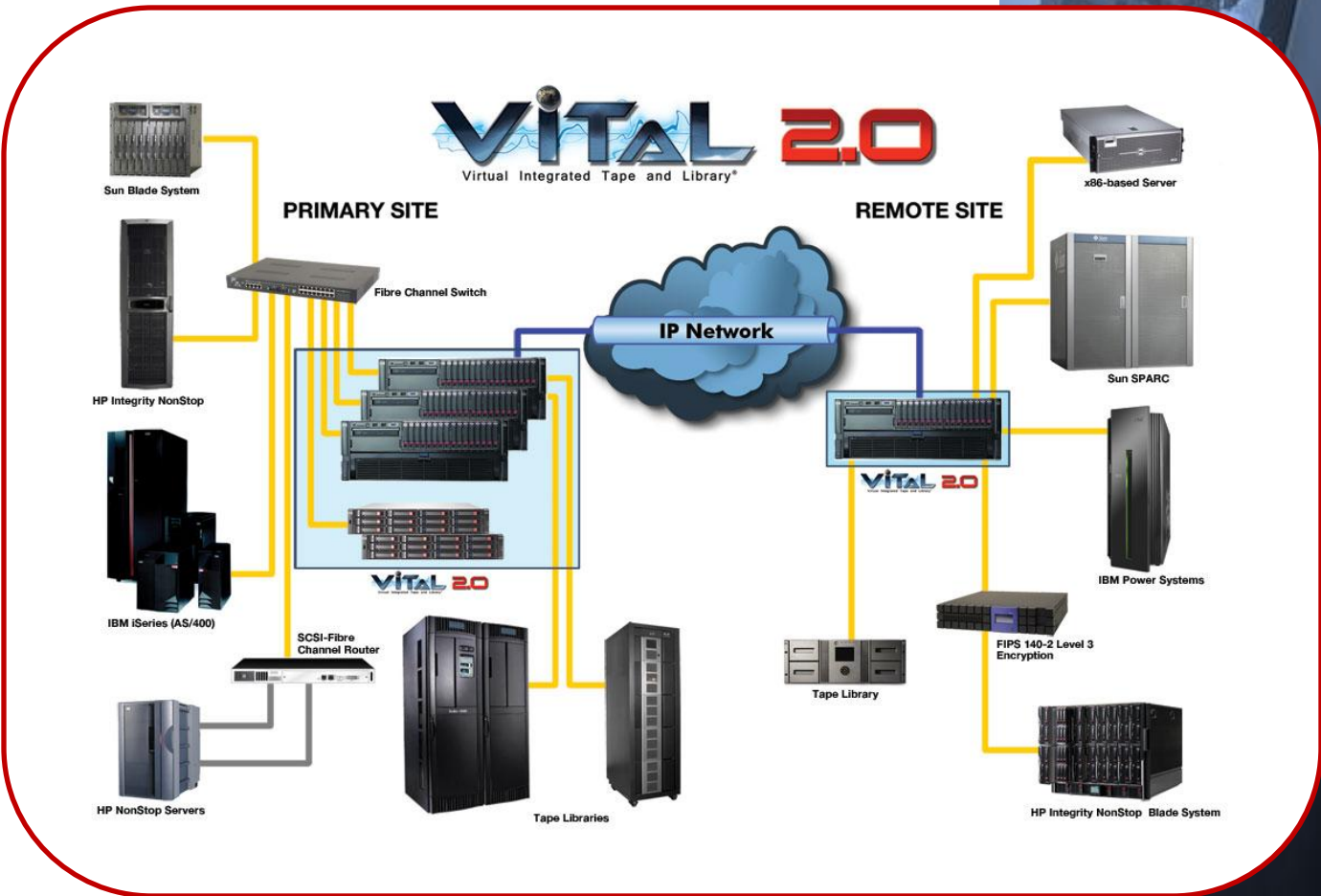
Remote Site Backup and Disaster Recovery

Offsite data storage is often a prerequisite in satisfying complete data backup and security. This can be accomplished by writing data to physical tape and then storing the tapes in an offsite vault. A better and more cost effective approach is to configure ViTᴀʟ to electronically transfer encrypted data to and from a remote site. Since the data is readily available at the remote site, restoring using ViTᴀʟ at the remote site is an integral part in any disaster recovery plan.

Tape Library Distribution and Consolidation

Existing backup servers can utilize the multiple front-end virtual libraries presented by ViTᴀʟ. These backup servers view each connected front-end virtual library as dedicated to its needs. ViTᴀʟ, in turn, can consolidate these virtual libraries into one or more physical back-end devices – typically a tape library with drives. The result is a reduction in the number of tape libraries and drives needed as well as reduced maintenance costs.
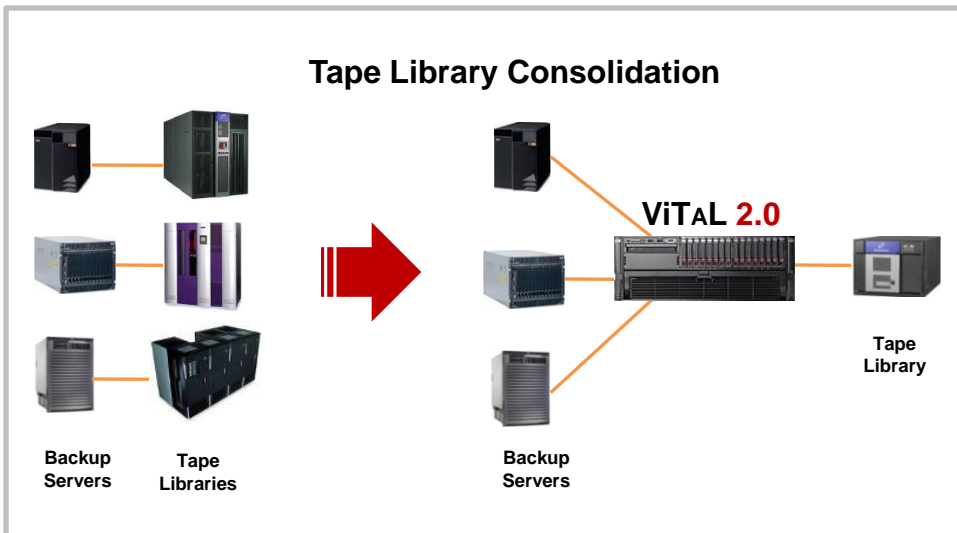

Customized Configurations

ViTᴀʟ will meet the needs of large data center customers as well as small entry level customers. It is available in three models: Enterprise, Mid-Range, and Entry Level. ViTᴀʟ Enterprise offers a multi-node, large disk cache, and highly available solution for the most demanding enterprise computing environments. Designed for smaller storage environments and at a lower cost, ViTᴀʟ Entry Level is based on the same robust core and can migrate to larger configurations while preserving your existing infrastructure. Backup sizes, throughput requirements, tape retention policies, availability requirements, as well as future growth rates will determine which model best fits a customer's needs.

Scalable and Expandable

As backup requirements change, so too can ViTᴀʟ. Additional virtual libraries, drives, and tapes are easily added through a client GUI. Additional disk cache enclosures can be introduced into the system and throughput performance and higher availability can be achieved through the multi-node architecture. ViTᴀʟ will meet the needs of today and protect your investment by meeting a different set of needs tomorrow.
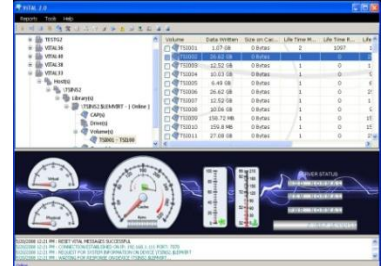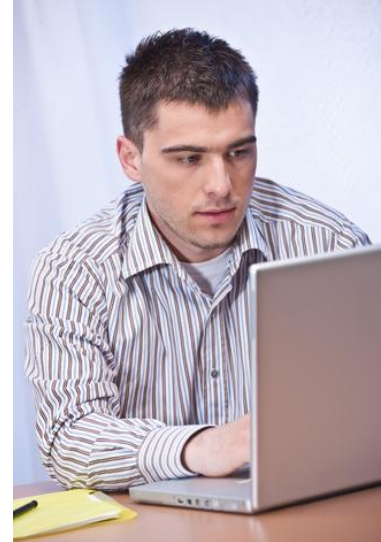
Storage, Virtualization & Encryption

Tributary Systems Inc. (TSI) is the global leader in the development of backup storage, virtualization and data encryption solutions for the HP NonStop™ and other enterprise computing platforms. TSI's fully integrated solutions are designed for the most demanding high availability backup storage environments running mission critical applications.

Founded in 1990, TSI serves as an outsourced engineering, development, integration, delivery and support arm of HP's NonStop Enterprise Division for providing backup storage and connectivity solutions to NonStop customers. As a HP Business Partner and OEM supplier of 12 years, TSI provides NonStop customers with the highest quality products and services.

A wide range of professional services including needs assessment, custom solution development, installation, performance optimization and technical support are also part of TSI's portfolio of products and services. TSI prides itself in providing its customers worldwide with 24 x 365 support that is second to none for all its software and hardware products.

State-of-the-art HP NonStop systems for product development, testing, and on-going support are housed at TSI's development center in Dallas, Texas. TSI serves a broad customer base of Fortune 1000 companies, as well as middle market companies in the financial services, banking, telecom, retail and healthcare industries.
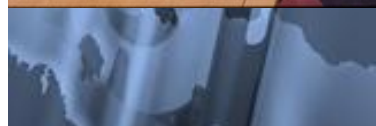
ViTAL at a Glance:

Virtual Slot Capacity per Library	Up to 30,000
Virtual Drive Capacity per Library	Up to 50
Virtual Cartridge Capacity	Up to 30 GB uncompressed per cartridge
Data Backup Rate	Up to 4 TB / hour / node

ViTAL Server Node
- Processor
  - (8) Intel Xeon processors
- Memory
  - 8 GB DDR2 SDRAM
- Network Controller
  - (2) Embedded multifunction Gigabit Ethernet Adapters
- Storage Controller
  - Smart Raid Array
  - 4 Gb/s Fibre Channel
  - RAID 5 with hot spare
- Internal Storage Capacity (raw)
  - Up to 4.8 TB total
  - (16) 300 GB SAS HDD
- Redundancy
  - (2) Hot plug power supplies
  - Hot plug redundant fans
- Form Factor
  - Rack Mount 4U
- Weight
  - Maximum 100 lbs (45.4 kg)

SAS Disk Array
- Interface
  - SAS 3 Gb/s
- Capacity (raw)
  - Up to 86.4 TB total
  - 5.4 TB per enclosure
  - Up to 16 total enclosures
- Redundancy
  - (2) Hot plug power supplies
- Form Factor
  - Rack Mount 2U per enclosure
- Weight
  - Maximum 54 lbs (24.6 kg)

Fibre Channel Disk Array
- Interface
  - 4 Gb/s Fibre Channel
- Capacity (raw)
  - Up to 260 TB total
  - 5.4 TB per enclosure
  - Up to 48 total enclosures
- Redundancy
  - (2) Hot plug power supplies
- Form Factor
  - Rack Mount 2U per enclosure
- Weight
  - Maximum 54 lbs (24.6 kg)

Contact:
salesusa@tributary.com
Tributary Systems, Inc.
3717 Commerce Place
Suite C
Bedford, TX 76021
817.354.8009
817.786.3090 fax
www.tributary.com