

G950 ENTERPRISE LIBRARY

ScalableDR™





THE BIG PICTURE

- Up to 24 drives and 100 to 1,300 slots per frame
- Speed: up to 67TB/hour
- Capacity On Demand: start with 100 slots, add 10-slot increments
- D2D Ready: certified with GST's StorageDR™ D2D Backup Appliance
- Encryption: supports AES media encryption
- Mirrored Backup: strengthens disaster recovery
- Backup Consolidation: can back up multiple servers
- Off-line copy with no penalty
- Field expandable from one to five frames
- Tape Technology; LTO3, LTO2, SAIT1

GST's G950 Enterprise Library with Capacity On Demand enabled provides an extended range of tape library services for the enterprise, as a member of our ScalableDR™ family. The library expands to handle all backup needs across the enterprise, with the Capacity On Demand (COD) feature enabling scaling up to additional slot capacities and drives as requirements increase. Unattended backup capacity of up to 8 Petabytes and speeds up to 69TB/hour handles all potential backup requirements.

A single-frame Enterprise G950 LTO Library holds up to 950 cartridges; with all five frames installed a maximum of 120 drives and 6,150 cartridges are online through the library. Capacity On Demand permits enabling as few as 100 slots in a frame, and then enabling additional sets of 10 slots, up to 1,300 slots a frame. Magazines facilitate organizing tapes for off-site storage. Magazines can be used in a 7- or 10-day tape rotation procedure, allowing a full week or more of unattended backup. The library is field-upgradeable and can be configured with Mirrored Backup capability for improved disaster recovery or with Virtual Library Partitioning for backup consolidation

ScalableDR™ G950 OVERVIEW

GST's G950 Enterprise Library is available in two basic models, one with 12 drives and one with 24 drives. Up to four expansion frames can be added in one of three different models. Three drive options permit use of LTO3, LTO2 and SAIT1 drives and they can be mixed to have one, two or all three technologies.

Entire G950 family has been certified to integrate with GST's StorageDR™ D2D Backup Appliance. D2D backup supports up to 138TB capacity and enables AES encryption.

StorageDR™ D2D OVERVIEW

The GST D2D Backup Appliance is part of GST's StorageDR™ family. The Backup Appliance handles all save & restore functions for a wide variety of enterprises needing rapid central backup of critical data. All components are modular and easily connected. Open architecture is powered by IBM's Linux-based xSeries and OpenPower™ models that provide a robust scalable base. IBM TotalStorage™ disk technology provides the industries best hard drives for greater reliability. A rich variety of configurations permits starting with one Disk Drawer of 6 drives and growing to 16 Disk Drawers of 14 drives each. High performance 10K and 15K RPM hard drives are available in 73GB, 146GB, and 300GB capacities. Total capacity ranges up to 69TB native (138TB compressed).



KEY FEATURES

CAPACITY ON DEMAND – Library frames start with 100 slots activated. Slots can be activated in increments of 10 as more capacity is needed, up to 950 slots in the base unit and up to 1,300 slots in an expansion frame.

D2D ATTACHMENT – The library is engineered to attach directly to GST's StorageDR™ family of disk-to-disk backup appliances.

IMPROVED DR – GST's Mirrored Backup function produces sets of identical backup cartridges simultaneously with no performance degradation and no software overhead. This provides off-site storage of one set to facilitate disaster recovery and a second set kept on-site for rapid restore.

BACKUP CONSOLIDATION – Backups can be consolidated with GST's Virtual Library Partitioning that partitions a multiple-drive library to back multiple hosts or LPARs within a single tape library.

ADDED TAPE FUNCTIONS – Off-line Copy/Verify is available with no processor penalty.

HIGH TRANSFER RATES – Transfer rates up to 7TB/hour, reducing time required for backups.

HARDWARE INVESTMENT PROTECTION – Highly scalable libraries feature one to five frames that permit easy upgrades from a single frame with 950 cartridges to five frames with 6,150 cartridges with Capacity On Demand enabled.

KEY BENEFITS

TAPE TECHNOLOGY FLEXIBILITY – Three different tape technologies (LTO3, LTO2, SAIT1) with Fibre Channel can be mixed and matched in the library for flexibility in working with different media technologies.

VIRTUAL LIBRARY PARTITIONING – Cartridge slots can be assigned to a particular drive so the library is divided into up to 24 partitions per frame. Each partition can be assigned to a host server or LPAR; permits backup consolidation of multiple servers/partitions using one GST G950 Enterprise Library.

VARIABLE I/O PORT – The VIOP is a separate tape I/O slot for importing and exporting individual tape cartridges and magazines under application control.

BARCODE SELECTIVE RESTORE – Barcode reader permits cartridge scanning and supports random access for selective restore from specified cartridges.

SECURE CARTRIDGE REMOVAL – Host-controlled lockable I/O door prevents unauthorized inserting and removing of cartridges or magazines.

FIELD-REPLACEABLE UNIT (FRU) DESIGN – Many G950 Enterprise Library components are packaged in easily-installed FRUs requiring no wiring; Quick Swap drives, power supplies, controllers and robotics are easily removed/installed simplifying field servicing.

SERVICE AND SUPPORT – A variety of support programs provide installation and onsite service; includes GST's Accelerated Ship Program (GASP) to get replacement units on the scene rapidly.

WARRANTY – Purchase price includes a built-in manufacturer's warranty of three years.

SPECIFICATIONS	LTO3	LTO2	SAIT1
Capacity			
Native	up to 2,460 TB	up to 1,230 TB	up to 3,075 TB
Compressed	up to 4,920 TB	up to 2,460 TB	up to 7,995 TB
Sustained Transfer Rate			
Native	up to 33 TB/hr	up to 17 TB/hr	up to 13 TB/hr
Compressed	up to 67 TB/hr	up to 33 TB/hr	up to 34 TB/hr
Drives and Media			
Drive Type	LTO-3	LTO-2	SAIT-1
Media	Ultrium 3	Ultrium 2	SAIT1-500
Configuration			
Number of Frames	1 - 5	1 - 5	1 - 5
Number of Drives	1 - 120	1 - 120	1 - 120
Number of Cartridges	up to 6,150	up to 6,150	up to 6,150
LUN Support			
Direct Host Attachment	up to 120	up to 120	up to 120
Direct Host Attachment - Mirrored	up to 60	up to 60	up to 60
Reliability			
Mean Cycles Between Failures (MCBF)	over 2 Million	over 2 Million	over 2 Million
Meant Time Between Failures (MTBF)	250,000 hours	250,000 hours	250,000 hours
Meant Time to Repair (MTTR)	3 minutes	3 minutes	3 minutes
Specifications - (per frame)			
Dimensions - (H x W x D)	79" x 31" x 110"	79" x 31" x 110"	79" x 31" x 110"
Weight	up to 1,100 lbs	up to 1,100 lbs	up to 1,100 lbs
Power Consumption	8.2 Amps @ 240 VAC	8.2 Amps @ 240 VAC	8.2 Amps @ 240 VAC

* LTO Compressed Capacity & Transfer Rate Assumes 2:1 Ratio and SAIT Assumes 2.6:1 Ratio.



3419 Via Lido, Suite 164
 Newport Beach, CA 92663
 949.673.1248 ~ 949.673.3163 - Fax
www.gstinc.com ~ sales@gstinc.com

GST, Inc. engineers, manufactures, markets and sells a full line of tape, disk, networking, and memory hardware and high availability and security software plus storage-related services for the midrange server community. Product development closely tracks market needs, providing latest engineering, product design and customer support facilities. For information about the company, its products and support see: <http://www.gstinc.com>.