








# ProStor InfiniVault® Model 70

PROSTOR SOLUTIONS

The InfiniVault Model 70 features an innovative multi-tier architecture to create an integrated appliance that transforms the economics of long-term storage of fixed digital content. By combining intelligent storage management software, sophisticated file management and cost-effective robust hardware, the Model 70 significantly lowers operational and capital expenditures associated with fixed digital assets.

The Model 70 employs managed multi-tiered pools of storage as standard network file shares, ensuring dependable data access with seamless integration into any existing infrastructure. As a tiered archive system, applications and users have the ability to define and manage data across four levels of storage:

					
<b>Placement</b>	Online	Nearline	Offline	Offline	Offsite
<b>Performance</b>	High	Medium	Low	Low	Medium-Low
<b>Scale</b>	Add ODU	Add RDU's	Add RDX	Add RDX	Add System
<b>Use Case</b>	Retrieval	Retention	Single Site DR	Single Site DR	Multi-Site DR

- Online disk— acts as a “retrieval cache” to allow for fast retrieval of archived files
- Nearline disk— stores up to 100TB of data for long-term retention of files
- Offline disk— offers infinite capacity of removable disk for integration into current offsite storage or disaster recovery workflows
- Offsite disk— ability to copy files to a remote location for simple, multi-site disaster recovery

The online disk within the Model 70 has the capacity to scale to over 120TB, allowing the creation of online storage pools, which are ideal as primary storage for fixed digital content. The online storage pools facilitate the offloading of data from more expensive SAN and NAS systems and take advantage of the InfiniVault's retention, deletion, space efficiency, compliance and offline policies where appropriate.

Leading analysts estimate that as much as 80 percent of enterprise data is fixed digital content. The need to preserve information for regulatory compliance and self-imposed corporate policies dictates that organizations retain data for longer periods of time. The relocation of this data from Tier 1 disk storage to an InfiniVault Model 70 offers a substantial advantage in driving down the cost of enterprise storage and eliminates the expense of unnecessary data migration operations every three to five years.

### Delivering High Performance While Scaling Capacity

Featuring quad-core processor technology, intelligent disk-based caching and a distributed processing architecture that efficiently scales both capacity and performance, the InfiniVault has the capacity to take in more than 800 gigabytes per hour and handle more than 6 million file requests per day from the online repository. The Model 70 supports twin 10GbE network ports with options for expansion to an array of up to 64 enterprise-class SATA disk drives. Bandwidth is never a problem and performance increases exponentially as more online storage is added.

### Reduce Storage Costs with RDX®

RDX removable disk cartridges provide the nearline and offline tiers of storage. RDX technology offers the fast random access performance of disk combined with the economics of tape, with a cost of only pennies per GB. The Model 70 includes 10 RDX drive bays and can be expanded to 100 bays with the addition of extra Removable Disk Units (RDUs).

Disk cartridges in the bays constitute the nearline tier, where copies of files are moved based on data protection and archive policies. RDX cartridges can be taken away to offsite vaults and contents will continue to be tracked by the system. In addition, files can be replicated to an additional InfiniVault system to accommodate online disaster recovery requirements. See the *RDX Data Sheet* for more details on RDX.

### Data Center Ready

The Model 70 is a data center designed rack mount system. The main controller unit is a 3u chassis with an online disk store of sixteen 2TB enterprise SATA drives. The standard system includes one RDU with 10 RDX drive bays. The online store can be expanded by adding up to three 3u ODUs with sixteen 2TB SATA drives each. The nearline store can be expanded by adding up to ten 3u RDUs with 10 RDX bays each.

All critically important data is securely protected and constantly available even in the event of component failures, data corruption or site outages. The Model 70 features built-in component redundancy, including dual redundant power; hot-swappable components, such as fans and disk drives; and protection against multiple, simultaneous disk failures within the online disk store. Data integrity is ensured by "write validation," guaranteeing that files transferred to the nearline tier have accurately been written. In addition, a cartridge validation option confirms that all files on nearline and offline storage remain readable.

The Model 70 is the ideal storage platform for DCM/ECM applications, video archives, image repositories, user home shares and tiered archive with long-term retention for email, business records and content that must be maintained for compliance reasons.

### Management Features

The Model 70 is supported by the all-inclusive InfiniVault Management System software, which provides the management capabilities for the system. Key features of the software include:

- Multi-tier pool definition and management
- RDX media management
- Data reliability to ensure long-term data safety
- Compliance enforcement, including WORM (Write-Once-Read-Many) and auditing
- Space efficiency by offering compression and deduplication

See the *InfiniVault Management System Feature Brief* for more details.

## InfiniVault Model 70 Product Specifications

Product Configuration	Rack-mount controller unit with 24TB of online storage plus a single Removable Disk Unit (RDU). Includes the complete InfiniVault Management System and the web-based InfiniVault Management Console.
Online Disk	24TB (raw) internal to the controller unit
Online Disk Units (ODUs)	3u rack mountable, 16 x 2TB enterprise SATA drives, 32TB (raw) capacity
Online disk expansion	Up to three ODUs
Online disk RAID level	RAID 6 (10+2 internal, 14+2 in the ODUs)
Online performance (throughput)	350MB per second read, 240MB per second write
Online performance (file requests)	140 file requests per second
Removable Disk Units (RDUs)	3u rack mountable, 10 RDX drive bays
Nearline disk expansion	Up to ten RDUs (for a maximum of 100 RDX drive bays)
Nearline performance (file requests)	50 file requests per second
Offline capacity	Infinite
Connectivity	2x1Gb Ethernet, 2x10Gb Ethernet Network Interface Cards
Client support	Windows, Linux, Unix, Apple, iSeries
Protocol support	NFS v3 (UDP or TCP), CIFS, HTTP, HTTPS, SMTP
Network authentication	Workgroup or Active Directory Domain
Power supply	Dual (redundant) hot swap power supplies
AC input	Universal 110/220V (plug type: NEMA 5-15P)
Power consumption	System controller: 325/760 watts (typical / max); ODU: 270/460 watts; RDU: 150/400 watts
Operating temperature	50° F to 95° F (10° to 35° C)
BTUs	System controller: 1109 BTU per hour; ODU: 922 BTU per hour; RDU: 512 BTU per hour
Relative humidity	20% to 80%, non-condensing (operating)
Thermal gradient	10° C per hour (operating)
Altitude	-50 to 10,000 ft (-15.2 to 3,048 m)

The InfiniVault product line offers innovative solutions that drive business value by preserving and protecting important data and reducing the cost of long-term data storage.

Storage for Terabyte-Years™ That's the ProStor way.