

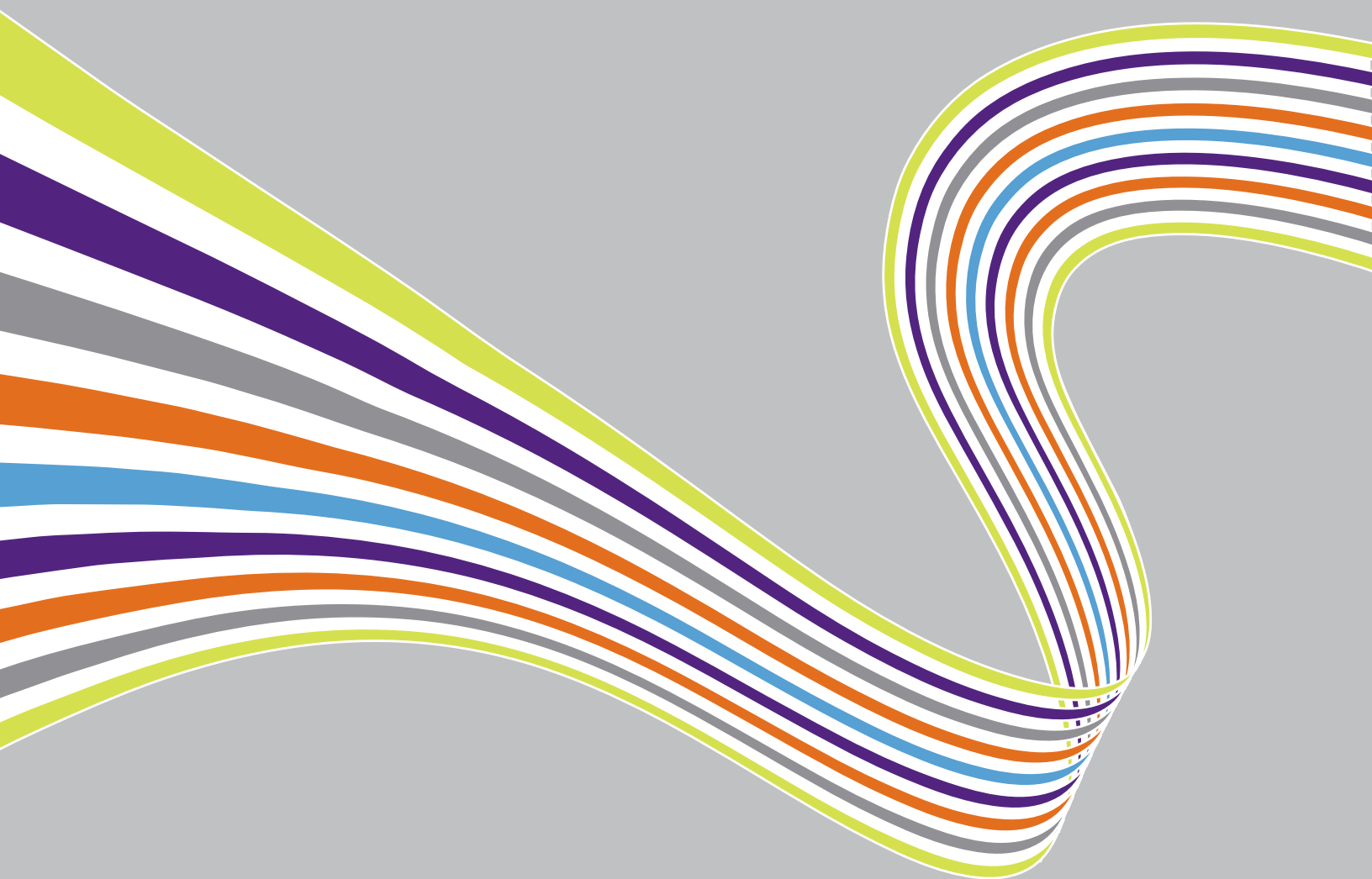
**SNIA Data Protection and
Capacity Optimization
Product Selection Guide**

SPRING 2013





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Capacity Optimization
Product Selection Guide 2013**



The SNIA Data Protection and Capacity Optimization (DPCO) Committee Product Selection Guide

The rapidly evolving data protection market is a complex landscape for IT buyers to navigate. The SNIA Data Protection and Capacity Optimization Committee's Product Selection Guide (PSG) is a valuable resource for end users and the consultants who assist them to research and compare products that meet their selection criteria. The three product categories currently covered in the PSG are Backup and Recovery, Capacity Optimized Storage, and Replication. This guide highlights a wide range of products in each of these categories with an easy-to-use chart of key features. We encourage you to use this guide as a starting point and then go to the online PSG for far more detailed information. The online PSG is continuously being updated by vendors and can be found at: www.sniadataprotectionguide.org/.

Organization of this Document

Introduction

Product Listings

- Backup/Recovery Products
- Capacity Optimized Storage Products
- Replication Products

Glossary of Terms

SNIA Member Companies

Join the SNIA DPCO

The Storage Networking Industry Association (SNIA) is a not-for-profit global organization, made up of some 400 member companies spanning virtually the entire storage industry. SNIA's mission is to lead the storage industry worldwide in developing and promoting standards, technologies and educational services to empower organizations in the management of information. The Data Protection and Capacity Optimization (DPCO) Committee was created to foster the growth and success of the market for data protection and capacity optimization technologies, and membership is open to all SNIA members. We encourage vendors to join SNIA and the DPCO at www.snia.org/member_com/join.

Disclaimer

SNIA collects product information from vendors and combines the entries to produce the Product Selection Guide. This Guide is produced for the industry as a source of information about and comparison of the subject products. SNIA has no ownership interest in any of the products included in this Guide and had no involvement in their design, development or sale. As such, SNIA is not responsible for the truth or accuracy of any information in the Guide related to the products. Nor is SNIA liable or responsible for the sale, use or operation of the products or for any consequences that may arise from these activities.

Backup/Recovery Products

Vendor Name	Product/Series/ Model	Backup Target	Deployment Packaging	Client Platforms	Backup Methodology	Deduplication - When
Cleversafe, Inc.	dsNet Storage Platform	Disk	Virtual Appliance, Appliance	Windows, Linux, MacOS	Level 0, Level 1, Level 2+, Incremental Forever, Continuous	
Dell	Dell AppAssure Backup, Recovery, and Replication 5	Disk	Application	Windows	Level 0, Incremental Forever	Inline
EMC Corporation	Avamar 6.1	Disk, Tape	Application, Virtual Appliance, Appliance	Windows, Unix, Linux, MacOS, Novell	Incremental Forever	Inline
EMC Corporation	NetWorker 8.0	Disk, Tape, Cloud	Application	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+	Inline
FalconStor Software	Continuous Data Protector (CDP)	Disk, Tape	Application, Virtual Appliance, Appliance	Windows, Unix, Linux, Other	Level 2+, Incremental Forever, Continuous	
Fujitsu	ETERNUS CS800	Disk, Tape	Appliance	Windows, Unix, Linux, Other	Level 0, Level 1, Level 2+, Incremental Forever	Inline
Fujitsu	ETERNUS CS High End	Disk, Tape	Virtual Appliance, Appliance	Windows, Unix, Linux, MacOS, Other	Level 0, Level 1, Level 2+	Post-Process, Policy-Based
Hewlett Packard (HP)	HP 1/8 G2 Tape Autoloader	Tape	Appliance	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Hewlett Packard (HP)	Autonomy LiveVault	Cloud	Application	Windows, Linux, Other	Level 0, Incremental Forever, Continuous	Inline
Hewlett Packard (HP)	HP Data Protector	Disk, Tape, Optical, Cloud	Application	Windows, Unix, Linux, MacOS, Novell, Other	Level 0, Level 1, Level 2+, Incremental Forever	Inline
Hewlett Packard (HP)	HP ESL G3 Tape Library	Tape	Appliance	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Hewlett Packard (HP)	HP LTO Ultrium Tape Drives	Tape	Appliance	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Hewlett Packard (HP)	HP MSL2024/MSL4048/MSL8048/MSL8096 Tape Libraries	Tape	Appliance	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Hitachi Data Systems	Hitachi Data Protection Suite (HDPS)	Disk, Tape, Optical, Cloud	Application	Windows, Unix, Linux, MacOS, Novell, Other	Level 0, Level 1, Level 2+, Incremental Forever, Continuous	Inline, Post-Process, Policy-Based
Hitachi Data Systems	Hitachi Dynamic Replicator (HDR)	Disk, Cloud	Application	Windows, Unix, Linux, Other	Continuous	Inline
Huawei Technologies Co., Ltd.	OceanStor HDP3500E	Disk	Appliance	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	Inline
IBM Corporation	Tivoli Storage Manager	Disk, Tape, Optical	Application	Windows, Unix, Linux, MacOS, Novell, Other	Incremental Forever	Inline, Post-Process
IBM Corporation	Tivoli Storage Manager FastBack	Disk	Application	Windows, Linux	Incremental Forever, Continuous	Post-Process
IBM Corporation	Tivoli Storage Manager Suite for Unified Recovery	Disk, Tape, Optical	Application	Windows, Unix, Linux, MacOS, Novell, Other	Incremental Forever, Continuous	Inline, Post-Process
Imation	DataGuard R4	Disk, Cloud	Appliance	Windows, Unix, Linux, MacOS	Incremental Forever	
Imation	DataGuard T5R	Disk, Cloud	Appliance	Windows, Unix, Linux, MacOS	Incremental Forever	
InMage Systems	InMage Scout	Disk, Cloud	Application, Appliance	Windows, Unix, Linux, Other	Continuous	Inline
InMage Systems	InMage ScoutCloud	Disk, Cloud	Application, Appliance	Windows, Unix, Linux	Incremental Forever, Continuous	Inline
NetApp, Inc.	SnapVault	Disk	Virtual Appliance	Other	Incremental Forever	Post-Process
Spectra Logic	Spectra T50e	Tape		Windows, Unix, Linux, MacOS, Novell, Other	Level 0, Level 1, Level 2+, Incremental Forever	
Spectra Logic	Spectra T120	Tape		Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Spectra Logic	Spectra T200	Tape		Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Spectra Logic	Spectra T380	Tape		Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Spectra Logic	Spectra T680	Tape		Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Spectra Logic	Spectra T950	Tape		Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Spectra Logic	Spectra T-Finity	Tape		Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever	
Symantec	NetBackup	Disk, Tape, Cloud	Application, Appliance	Windows, Unix, Linux, MacOS, Novell	Level 0, Level 1, Level 2+, Incremental Forever, Continuous	Inline
Symantec	Backup Exec 2012	Disk, Tape, Cloud	Application	Windows, Linux	Level 0, Level 1, Level 2+	Inline
Symantec	Backup Exec 3600 Appliance	Disk, Tape, Cloud	Appliance	Windows, Linux	Level 0, Level 1, Level 2+	Inline
Visual Storage Intelligence	Storage Resource Management Software as a Service		Application			

Capacity Optimized Storage Products

Vendor Name	Product/Series/ Model	Deployment Packaging	Scalability Approach	Connectivity	Maximum Raw Capacity (GB)	VTL Support
BridgeSTOR, LLC	CRUNCH	Gateway	Scale-up	Ethernet	500 000	No
Dell	Dell Compellent SAN and NAS Storage Systems	Storage System	Scale-out	Ethernet, Fibre Channel	1 500 000	No
Dell	Dell EqualLogic iSCSI SAN and NAS Storage	Storage System	Scale-out	Ethernet	2 300 000	No
Dell	PowerVault SAN and NAS Storage Systems	Storage System	Scale-out	Ethernet, Fibre Channel	1 000 000	No
EMC Corporation	Disk Library for mainframe	Storage System	Scale-up	Fibre Channel, ESCON	5 700 000	No
EMC Corporation	Data Domain deduplication storage systems	Storage System	Scale-up	Ethernet, Fibre Channel	1 680 000	Yes
FalconStor Software	File-interface Deduplication System (FDS)	Controller, Gateway, Storage System	Scale-out	Ethernet, Fibre Channel	5 000 000	No
Fujitsu	ETERNUS CS High End	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel, ESCON	3 700 000	Yes
Fujitsu	ETERNUS CS800	Controller, Storage System	Scale-up	Ethernet, Fibre Channel	163 840	Yes
Hewlett Packard (HP)	HP StoreOnce B6200 Backup	Storage System	Scale-out	Ethernet, Fibre Channel	768 000	Yes
Hewlett Packard (HP)	Hp StoreOnce D2D Backup System	Storage System	Scale-up	Ethernet, Fibre Channel	96 000	Yes
Hewlett Packard (HP)	HP IBRIX X9320 Storage	Storage System	Scale-out	Ethernet	576 000	No
Hewlett Packard (HP)	HP X5000 Storage	Storage System	Scale-up	Ethernet	192 000	No
Hewlett Packard (HP)	HP X1000 Storage	Storage System	Scale-up	Ethernet	9 999 999	No
Hewlett Packard (HP)	HP IBRIX X9730 Storage	Storage System	Scale-out	Ethernet	1 700 000	No
Hitachi Data Systems	VSP (Virtual Storage Platform)	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	2 521 000	No
Hitachi Data Systems	Hitachi Unified Storage (HUS) Model 110	Storage System	Scale-up	Ethernet, Fibre Channel	360 000	No
Hitachi Data Systems	Hitachi Unified Storage (HUS) Model 130	Storage System	Scale-up	Ethernet, Fibre Channel	756 000	No
Hitachi Data Systems	Hitachi Unified Storage (HUS) Model 150	Storage System	Scale-up	Ethernet, Fibre Channel	2 880 000	No
Hitachi Data Systems	Hitachi Content Platform (HCP) Model 500	Storage System	Scale-up	Ethernet, Fibre Channel	5 000 000	No
Hitachi Data Systems	Hitachi Content Platform (HCP) Model 300	Storage System	Scale-up	Ethernet, Fibre Channel	140 000	No
Hitachi Data Systems	Hitachi Content Platform (HCP) Model 500XL	Storage System	Scale-up	Ethernet, Fibre Channel	40 000 000	No
Hitachi Data Systems	Hitachi NAS (HNAS) Model 3080	Gateway, Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	4 000 000	No
Hitachi Data Systems	Hitachi NAS (HNAS) Model 3090	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	8 000 000	No
Hitachi Data Systems	Hitachi NAS (HNAS) Model 3200	Gateway, Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	16 000 000	No
Huawei Technologies Co., Ltd.	OceanStor N8500	Storage System	Scale-out	Ethernet, Fibre Channel	15 000 000	No
Huawei Technologies Co., Ltd.	OceanStor VTL6000	Storage System	Scale-up	Ethernet, Fibre Channel	2 304 000	Yes

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Capacity Optimized Storage Products - continued

Vendor Name	Product/Series/ Model	Deployment Packaging	Scalability Approach	Connectivity	Maximum Raw Capacity (GB)	VTL Support
Huawei Technologies Co., Ltd.	OceanStor T series	Storage System	Scale-up	Ethernet, Fibre Channel	5 760 000	No
Huawei Technologies Co., Ltd.	OceanStor HVS88T	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	7 680 000	No
Huawei Technologies Co., Ltd.	OceanStor HVS85T	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	4 608 000	No
Huawei Technologies Co., Ltd.	OceanStor UDS	Storage System	Scale-out	Ethernet	300 000 000	No
Huawei Technologies Co., Ltd.	OceanStor VIS6600T	Gateway	Scale-out	Ethernet, Fibre Channel	268 435 456	No
IBM Corporation	System Storage SAN Volume Controller	Gateway	Scale-up, Scale-out	Ethernet, Fibre Channel	32 000 000	No
IBM Corporation	Storwize V7000	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	36 000	No
Imation	InfiniVault M70	Storage System	Scale-out	Ethernet	270 000	No
Imation	InfiniVault M35	Storage System	Scale-out	Ethernet	158 000	No
Imation	InfiniVault 5	Storage System	Scale-out	Ethernet	10 500	No
NEC	HYDRAsstor HS8-3000	Storage System	Scale-out	Ethernet	1 956 000	No
NEC	HYDRAsstor HS3-310	Storage System	Scale-up	Ethernet	12 000	No
NEC	HYDRAsstor HS8-4000	Storage System	Scale-out	Ethernet	7 920 000	No
NEC	HYDRAsstor HS3-410	Storage System	Scale-up	Ethernet	24 000	No
NetApp, Inc.	V-Series	Gateway, Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	4 300 000	No
NetApp, Inc.	FAS	Storage System	Scale-up, Scale-out	Ethernet, Fibre Channel	4 300 000	No
Qsan Technology, Inc.	P600Q iSCSI SAN	Storage System	Scale-up	Ethernet	768 000	Yes
Qsan Technology, Inc.	F600Q FC SAN	Storage System	Scale-up	Ethernet, Fibre Channel	768 000	Yes
Qsan Technology, Inc.	U400Q Unified Storage	Storage System	Scale-up	Ethernet	768 000	Yes
Qsan Technology, Inc.	U600Q Unified Storage	Storage System	Scale-up	Ethernet	768 000	Yes
Qsan Technology, Inc.	P400Q iSCSI SAN	Storage System	Scale-up	Ethernet	768 000	Yes
Scality	RING	Storage System	Scale-out	Ethernet	1 000 000 000	No
SMART Storage Systems Inc.	Optimus	Component	Scale-out	Not Applicable	1 638	Yes
SMART Storage Systems Inc.	CloudSpeed 1000	Component	Scale-out	Not Applicable	960	Yes

Replication Products

Vendor Name	Product/Series/ Model	Deployment Packaging	Supported Storage Systems	Replication Modes	Replication Distance	Topology
EMC Corporation	Data Domain Replicator	Storage Device	Homogeneous	Asynchronous	Wide Area	1:1, 1:Many, Many:1, Bi-directional, Multi-hop
FalconStor Software	Network Storage Server (NSS)	Host, Storage Device	Heterogeneous	Synchronous, Periodic	Local Area, Metro Area, Wide Area	1:1
Fujitsu	ETERNUS CS800	Storage Device	Homogeneous	Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:1, Many:1, Bi-directional, Multi-hop
Fujitsu	ETERNUS CS High End	Storage Device	Homogeneous	Synchronous, Asynchronous	Local Area, Metro Area, Wide Area	1:1, 1:Many, Many:1, Many:Many, Bi-directional, Multi-hop
Geminare Incorporated	Cloud Recovery	Host	Heterogeneous	Asynchronous	Local Area, Metro Area, Wide Area	1:1
Hewlett Packard (HP)	HP StoreOnce Catalyst	Storage Device	Homogeneous	Synchronous	Wide Area	1:1, 1:Many, Many:1, Many:Many, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi Content Platform (HCP) Model 300	Storage Device	Heterogeneous	Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:1, Many:1, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi Content Platform (HCP) Model 500	Storage Device	Heterogeneous	Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:1, Many:1, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi Content Platform (HCP) Model 500XL	Storage Device	Heterogeneous	Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:1, Many:1, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi NAS (HNAS) Model 3080	Storage Device	Heterogeneous	Synchronous, Asynchronous	Local Area, Metro Area, Wide Area	1:1, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi NAS (HNAS) Model 3090	Storage Device	Heterogeneous	Synchronous, Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:1, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi NAS (HNAS) Model 3200	Storage Device	Heterogeneous	Synchronous, Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:1, Bi-directional, Multi-hop
Hitachi Data Systems	Hitachi Application Protector (HAPRO)	Host	Homogeneous	Asynchronous	Local Area	1:1, Many:1
Hitachi Data Systems	Hitachi Replication Manager (HRpM)	Storage Device	Homogeneous	Synchronous, Asynchronous	Local Area, Metro Area, Wide Area	1:1, Many:1, Many:Many, Bi-directional
NEC	HYDRAsor RepliGrid	Storage Device	Heterogeneous	Asynchronous	Local Area, Metro Area, Wide Area	1:1, 1:Many, Many:1, Many:Many, Bi-directional
NetApp, Inc.	SnapMirror	Storage Device	Homogeneous	Synchronous, Asynchronous, Periodic	Local Area, Metro Area, Wide Area	1:Many

Glossary of Terms

Backup/Recovery Products

Backup Target: The physical backup media may be **disk** (including VTL), or **removable media** (including tape and optical disc). **Cloud** indicates the backup target is a storage service accessed over the internet, or a private network.

Deployment Packaging: Backup **appliances** are deployed as hardware. Backup **applications** and **virtual appliances** are deployed as software.

Client Platforms: Computing platform/OS the backup client can execute on.

Backup Methodology: **Level 0** = backup all objects (aka **full**); **Level 1** = backup only objects changed since the last full backup (aka **differential or cumulative incremental**); **Level 2+** = backup only objects changed since the last backup [at the next lowest level] (aka **incremental**); **Incremental Forever** (after initial full backup); **Continuous** = backup all writes (aka **Continuous Data Protection**).

Deduplication—When: **Inline** indicates data deduplication is performed before writing the deduplicated data.

Post-process indicates data deduplication is performed after the data to be deduplicated has been initially stored. A vendor may specify **policy-based** data deduplication and provide further information as “Additional Features/Options.”

Capacity Optimized Storage Products

Deployment Packaging: A **storage system** includes the storage media with deduplication capabilities. A **gateway** is a dedicated data deduplication engine that must be combined with a storage system. A **component** is hardware such as a chip or a card which performs space reduction functions that may be integrated into a system.

Scalability Approach: **Scale-up** means capacity and performance growth of the system is bound to a single product unit boundary. **Scale-out** allows capacity and performance growth to span product unit boundaries.

Connectivity: This refers to cable connector type: **Ethernet**, **Fibre Channel**, or **ESCON**. Note that FICON is Fibre Channel.

Maximum Raw Capacity (GB): Gigabyte (GB) refers to 1 000 000 000 bytes.

VTL Support: Virtual Tape Libraries are virtual devices with the characteristics of a physical tape library; typically aVTL uses one or more disk devices as its storage medium, but responds to commands like a tape library. **Yes** if the number of virtual tape libraries supported is > 0; else **No**.

Replication Products

Deployment Packaging: Replication may be **host-**, **network-**, or **storage device-**based.

Supported Storage Systems: Indicates if the source and replica storage systems must be the same type (**homogeneous**) or not (**heterogeneous**).

Replication Modes: **Synchronous** and **Asynchronous** refer to methods of maintaining synchronization. **Periodic** creates and transmits a replica (e.g., clones and delta snapshots) one or more times.

Replication Distance: Indicates the replication distance the solution was designed to support (**local area**, **metro area**, or **wide area**).

Topology: **1:1**, **1:Many**, **Many:1**, **Many:Many** indicate the number of source and replica storage systems that replication can be established between. **Bi-directional** indicates a storage system can act as a source and replica storage system simultaneously. **Multi-hop** indicates a storage system can act as a replica storage system and then as a source storage system.

SNIA Member Companies Participating in the Product Selection Guide

Actifio

Actifio is radically simple copy data management. Our Protection and Availability Storage (PAS) lets businesses recover anything instantly, for up to 90 percent less. PAS eliminates siloed data protection applications, virtualizing data management to deliver an application-centric, SLA-driven solution that decouples the management of data from storage, network and server infrastructure. Actifio has helped liberate IT organizations and service providers of all sizes from vendor lock-in and the management challenges associated with exploding data growth. Actifio is headquartered in Waltham, Mass., with offices around the world. For more information, please visit <http://www.actifio.com> or email info@actifio.com.

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ATTO Technology, Inc.

ATTO Technology, Inc. is a global leader of storage and network connectivity and infrastructure solutions for data-intensive computing environments. With a focus toward markets that require higher performance, we manufacture host bus adapters, RAID adapters, network adapters, RAID storage controllers, Thunderbolt technology enabled Desklink devices, bridges, switches and software. ATTO solutions are based on providing a high level of connectivity to all storage interfaces including Fibre Channel, SAS, SATA, iSCSI, 10GbE, FCoE and Thunderbolt. Distribution is worldwide through OEMs, systems integrators, VARs and authorized distributors.

ATTO Technology, Inc.

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Cleversafe, Inc.

Cleversafe has created a breakthrough technology that solves petabyte and beyond big data storage problems. This solution drives up to 90 percent of the storage cost out of the business while enabling secure and reliable global access and collaboration. The world's largest data repositories rely on Cleversafe.

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EMC Corporation

EMC is a global leader in enabling businesses and service providers to transform their operations and deliver information technology as a service (ITaaS). Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments to store, manage, protect and analyze their most valuable asset – information – in a more agile, trusted and cost-efficient way.

EMC

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FalconStor Software

FalconStor Software is Defining Data Protection again with data protection solutions that transform traditional backup and recovery into next-generation service-oriented data protection. FalconStor solutions maximize data, system, and service availability ensuring business continuity, simplifying management, and improving efficiency. Our open, integrated, scalable solutions work in any customer environment and reduce vendor lock-in. FalconStor products are built upon an award-winning platform that delivers disk-based backup, continuous data protection, WAN-optimized replication, and disaster recovery (DR) automation to meet the evolving needs of today's data center.

Available through a worldwide network of partners, including solution providers, top-tier strategic partners, and major OEMs, FalconStor solutions are deployed by thousands of customers worldwide, from small businesses to Fortune 100 enterprises. For more information, visit www.falconstor.com.

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Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Over 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers.

Fujitsu

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HP is a technology company that operates in more than 170 countries around the world. We explore how technology and services can help people and companies address their problems and challenges, and realize their possibilities, aspirations and dreams. We apply new thinking and ideas to create more simple, valuable and trusted experiences with technology, continuously improving the way our customers live and work.

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Hewlett-Packard

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Hitachi Data Systems

Hitachi Data Systems contributes to business and to society by helping our customers convert huge stores of data into information they can use to innovate. Useful innovation ranges from a simple improvement in an internal procedure, to a dramatically different product that changes everything.

Hitachi Data Systems

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Huawei Technologies Co., Ltd.

Huawei is a leading global ICT solutions provider. Through our dedication to customer-centric innovation and strong partnerships, we have established end-to-end capabilities and strengths across the carrier networks, enterprise, consumer, and cloud computing fields. We are committed to creating maximum value for telecom carriers, enterprises and consumers by providing competitive ICT solutions and services. Our products and solutions have been deployed in over 140 countries, serving more than one third of the world's population.

Huawei Industrial Base

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Imation

Imation is a global scalable storage and data security company. The company's portfolio includes tiered storage and security offerings for small and mid-sized enterprise businesses.

With a 60-year legacy of technology leadership, Imation maintains the number one global market share in recordable optical media and magnetic tape cartridges.

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Imation

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Microsoft Corporation

Founded in 1975, Microsoft (Nasdaq "MSFT") is the worldwide leader in software, services and solutions that help people and businesses realize their full potential.

Microsoft

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NEC Corporation

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NEC

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NetApp, Inc.

NetApp is a leading vendor of innovative storage and data management solutions that help organizations around the world store, manage, protect, and retain their data. Headquartered in Sunnyvale, California, NetApp is a member of the NASDAQ-100 and ranks on the Fortune 1000.

NetApp, Inc.

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Qsan Technology, Inc.

Founded in 2004, QSAN technology Inc. is a RAID system manufacturer focusing on iSCSI IP SAN and targeting small to medium sized businesses (SMB) worldwide. Qsan products are designed and positioned to respond to leading storage technology trends such as iSCSI, SAS, and FCoE as well as customer requirements for business continuity.

Headquartered in Taipei, Taiwan, Qsan storage expertise specializes in flexible production capability. Focusing on delivering the best price-performance storage arrays, Qsan has a clear go-to-market strategy that revolves around distribution partners in the European tier 1 markets, the United States and the Greater China Region. Based on the vision of "making data smart," Qsan's technology is aimed at making business data smart enough to be always available under any unexpected circumstances, efficient enough not to waste any IT investment, and allowing easy retrieval during the whole ILM (information lifecycle management) process. For more information, please visit www.qsantechology.com.

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SNIA Member Companies Participating in the Product Selection Guide

Quantum Corporation

Quantum is dedicated to addressing its customers' pivotal needs with solutions that combine technologies such as data deduplication, tape, shared file systems, encryption, and storage virtualization - all with an approach that leverages their existing infrastructure. From its StorNext software, which features shared file systems and tiered storage capabilities, to the DXi-Series, which uses advanced technology to reduce disk requirements by more than 90 percent, Quantum is committed to working with its customers to find the solution that best fits their needs.

Quantum Corporation

1650 Technology Drive, Suite 700
San Jose, CA 95110-1382
United States
www.quantum.com



SafeNet

Founded in 1983, SafeNet, Inc. is one of the largest information security companies in the world, and is trusted to protect the most sensitive data for market-leading organizations around the globe. SafeNet's data-centric approach focuses on the protection of high-value information throughout its lifecycle, from the data center to the cloud. More than 25,000 customers across commercial enterprises and government agencies trust SafeNet to protect and control access to sensitive data, manage risk, ensure compliance, and secure virtual and cloud environments.

SafeNet

4690 Millenium Drive
Belcamp, MD 21017
United States
www.safenet-inc.com



Scality

Scality redefines storage at scale to make petabyte scale storage easier, less expensive, more reliable and higher performance. Scality's RING Organic software turns generic x86 servers into a rock solid storage platform. The servers provide the storage media, whether it is performance oriented SSD or capacity oriented SATA, and Scality award-winning software takes care of the rest: Centralized management, data protection, self-healing, high availability and automated-tiering. At the core, Scality leverages a completely scale-out, software-based, design, based on modern object storage technology with no single point-of-failure which delivers outstanding scalability while the end to end parallel architecture provides unsurpassed performance.

With its fully standards based design, Scality RING supports POSIX file systems, REST standards such as CDMI, Hadoop and block storage to extend virtual machines within the OpenStack framework. The software solution delivers the promise of the cloud, without requiring massive changes to your application. Scality is used by cloud providers, video broadcasters, Web 2.0 portals and HPC labs to deliver service to millions of users worldwide since 2010. For more information, visit: www.scality.com or follow @Scality on Twitter.

Scality

50 California St, Suite 3200
San Francisco, CA 94111
United States
www.scality.com



SMART Storage Systems Inc.

SMART Storage Systems is a technology leader in the design, development and deployment of current and next-generation enterprise solid-state storage products. Combining leading-edge, enterprise-class design, and proven world-class support, SMART Storage Systems leverages its deep expertise in flash and enterprise storage technology. SMART Storage Systems delivers high-quality, high-reliability solutions to a broad customer base, including tier one storage and server OEMs. In support of these designs, SMART Storage Systems provides award-winning innovations in solid-state storage technology, such as NAND high-endurance Guardian Technology, to a variety of customers in the enterprise storage, enterprise server, data center, defense and industrial markets. SMART Storage Systems is part of the SMART family of global companies.

Smart Storage Systems, Inc.

39672 Eureka Drive
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www.smartstoragesys.com



SNIA Member Companies Participating in the Product Selection Guide

Spectra Logic

At Spectra Logic we define, design and deliver innovative data protection through tape and disk-based backup, recovery and archive storage solutions. By igniting innovation we challenge expectations of the data protection market with intelligent, integrated, and simple to use backup and archive technologies. With over 30 years of experience in storage, our goal is to develop high-density, feature-rich storage products with unmatched service and support to customers worldwide. To guarantee superior quality for our clients, we manufacture all T-Series libraries onsite at our Boulder, Colorado USA-based headquarters.

Since our beginning, we have remained a privately held business. This gives our team a greater sense of ownership, inspires them to make their best contributions and has led to our many innovations throughout our history. This is marked by our 54 US patents and 46 live applications for patent. We are continually motivated to be the leader in an ever-evolving industry and our touch can be seen around the world through our thousands of T-Series installations around the globe in over 72 countries.

Spectra Logic

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Symantec

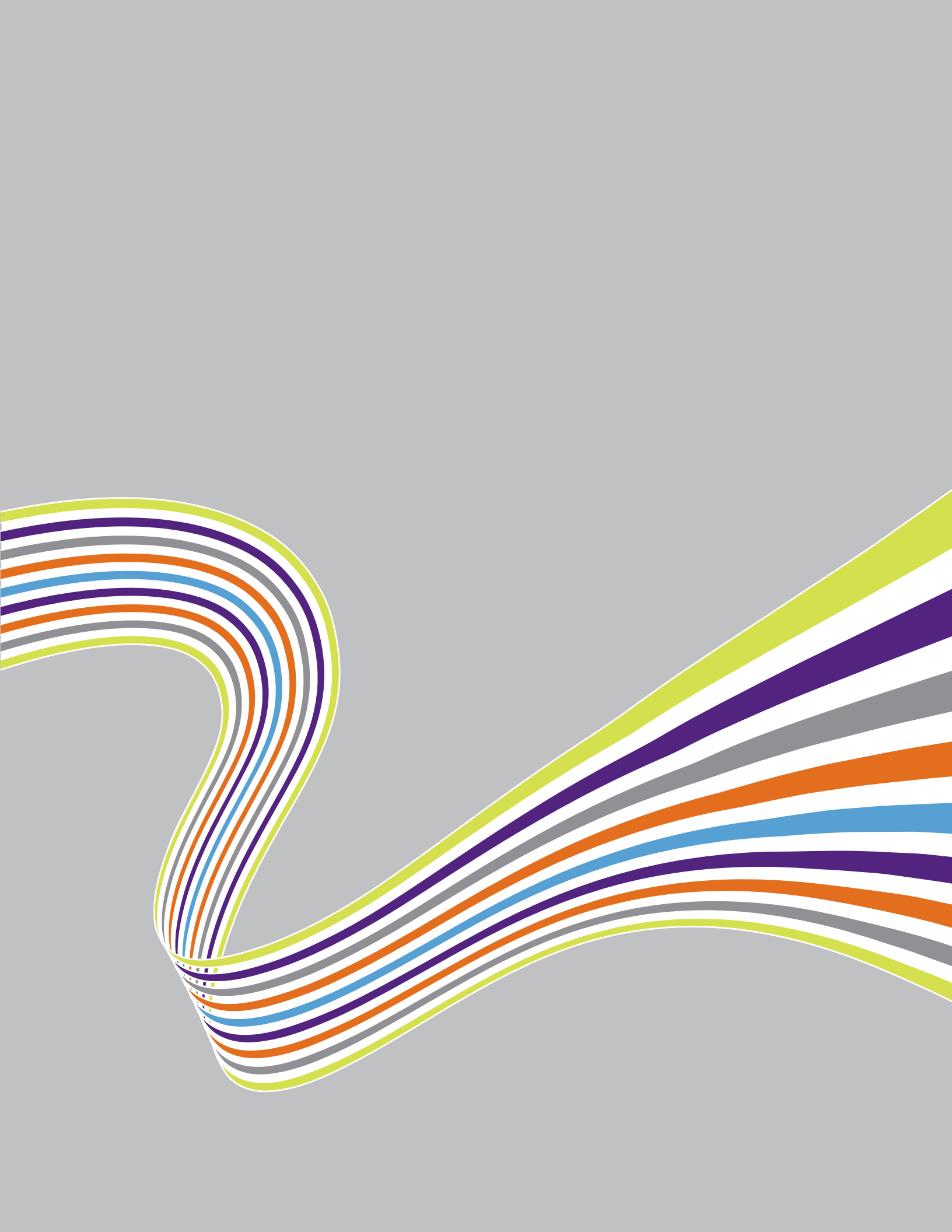
Symantec, a world leader in software with over 18,000 employees in 50 countries, provides security, storage and systems management solutions to help our customers – from consumers and small businesses to the largest global organizations – secure and manage their information-driven world.

Storage and Availability Management focuses on providing enterprise customers with storage management and high availability as well as data protection solutions across heterogeneous storage and server platforms.

Symantec

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