



# D3

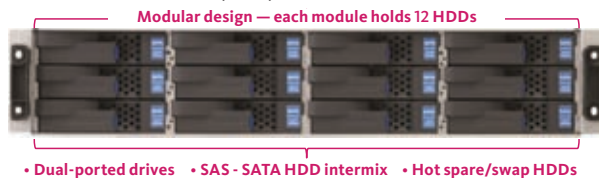
## SAN STORAGE

### NEC D3 Storage

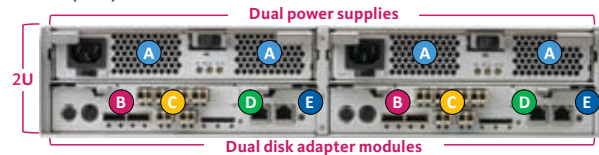
The D3 storage arrays provide the best value in Fibre Channel SAN storage through a superior combination of dependability, scalability, and efficiency at a great price. D-Series arrays are used in iSCSI and Fibre Channel SANs for primary storage, high capacity secondary storage, or both in a tiered storage strategy. D-Series arrays are well-suited for virtualized environments, cloud storage, databases, data warehouses, disk-to-disk backup, and other block-level storage applications.

### D3 at a Glance

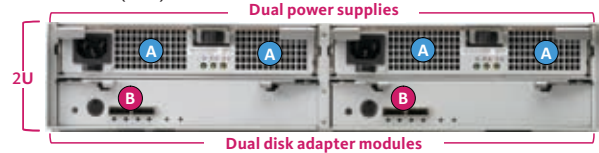
Base Unit/Disk Enclosure (front)



Base Unit (rear)



Disk Enclosure (rear)



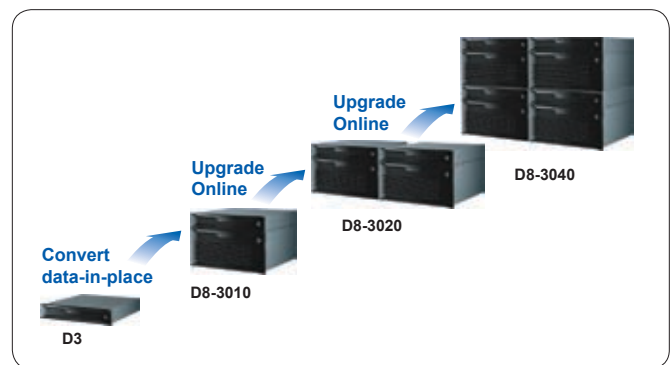
- A** Dual fans per power supply
- B** Dual SAS back-end ports (2.4 Gbps wide-link)
- C** Fibre Channel front-end connectivity
- D** Redundant management ports
- E** ECC cache memory (mirrored, battery-backed)

### Superior Dependability

- **Self-healing** reduces HDD failures by 30-50% and decreases the number of RAID rebuilds by fixing hard drives before they fail
- **Catches silent data corruption** of both SAS and SATA drives that is not detected by other systems
- **Background disk & cache scrubbing** prevents applications from receiving corrupt data

### Wide Scalability

- **Expand RAID groups non-disruptively** adding HDDs one-by-one or many at a time to a maximum of 144 HDDs
- **Grow LUNs online**
- **Increase front-end bandwidth** by growing to 12 ports
- **Scale to over 1,500 hard drives** by converting an NEC D3 into an NEC D8 without moving data or disk drives



### High Efficiency

- **Power off RAID groups** when not in use to save energy
- **Browser-based GUI** allows remote management of up to 32 arrays in a 'single pane of glass'
- **Scale-up architecture** saves you money as you grow
- **No FC switch required** to connect up to 6 servers with dual-pathing

# Specifications

## HARDWARE

Model		D3
Host Ports		4, 8, or 12 Fibre Channel ports at 4 Gbps
Number of Controllers		Dual controllers (active-active)
Configuration		1 - 12 2U enclosures 12 disk drives per enclosure SAS – SATA intermix within an enclosure
Cache Memory	Capacity	4 GB (2 GB per controller)
	Battery Backup Time	24 hours
	Optional BBU Time	72 hours
Supported RAID Level	SAS	1, 10, TM (Triple Mirror), 3, 3DP (3 Double Parity), 5, 50, 6
	SATA	TM (Triple Mirror), 5, 6
Maximum Capacity	SAS	86.4 TB
	SATA	288 TB
Disk Drives	SAS	300 GB, 450 GB, 600 GB rotating at 15,000 rpm
	SATA	1 TB, 2 TB rotating at 7,200 rpm
Number of Disk Drives		3 – 144 (convert into a D8 to continue scaling up to 1,536 HDDs)
Supported Operating Systems		Microsoft® Windows Server 2003 & 2008 (x86, x64), Hyper-V, Red Hat® Enterprise Linux®, VMware®, HP-UX, Solaris™, Citrix® XenServer®
Base Unit/Enclosure Dimensions		2U: 18.9" x 21.3" x 3.4" (480 x 540 x 86.5 mm)
Weight	Disk Array Controller	68.3 lbs. (31kg) or less
	Disk Enclosure	63.9 lbs. (29kg) or less
Power Requirements		AC 100 – 240V single phase 50/60Hz

## SOFTWARE (see software data sheet for details)

Objective	NEC Storage Software	Function
Simple operation	StorageManager (iSM)	Core storage management functionality
High Availability	PathManager	Multi-pathing for failover and load balancing
Data Protection	DynamicDataReplication (DDR)	Replication within same array
	RemoteDataReplication (RDR)	Replication between arrays – synchronous, asynchronous & semi-synch
	RemoteDataReplication Asynchronous	Replication between arrays - asynchronous only
	DynamicSnapVolume (DSV)	On-demand snapshots
	ReplicationControl SQL Option	Transaction-consistent protection for MS SQL Server
Performance Management	PerformanceMonitor	Performance monitoring & alerts
	PerformanceNavigator	Analysis of performance data over time
	PerformanceOptimizer	Automates performance tuning
Energy Conservation	PowerConserver	Turn off HDDs when not needed
Compliance	VolumeProtector	Prevent unauthorized modification of data

Available on the GSA Schedule

## NEC CORPORATION OF AMERICA

2880 Scott Blvd.  
Santa Clara, CA 95050

[www.necam.com/storage](http://www.necam.com/storage)

[sales@necam.com](mailto:sales@necam.com)

1 866 632-3226

1 408 844-1299



## ENVIRONMENTAL

	Maximum Watts		BTUs/Hour	
	All SAS	All SATA	All SAS	All SATA
D3 Base Unit	620 W	550 W	2,108 BTU/hr	1,870 BTU/hr
Disk Enclosure	430 W	370 W	1,462 BTU/hr	1,258 BTU/hr
	Operating		Storage	
Temperature	41 - 104° F (5 - 40° C)		50 - 140° F (10 - 60° C)	
Humidity	10 - 80%		5 - 80%	

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