

Lineup of software programs and support matrix

NEC Storage software is a group of software programs that allow users to manage NEC Storage series disk array and to control functions of the disk array. These storage management and control functions provided by the software offer a wide range of solutions for the storage.

(1) Storage Management Software

- Integrated Management/Device Management

Manages configuration and status of the storage.

- Performance Management

Provides integrated management of information on performance and capacity of the storage, database and file system, enabling users to operate the storage efficiently.

- Replication Management

Cooperates with storage control or replication control software and provides a variety of solutions for operations of storage such as backup.

(2) Storage Control Software

- Storage Control

Controls configuration and status of the storage with Storage control software(*).

(* Storage control software

Storage control software consists of NEC Storage Manager Express, Storage OS and Firmware.

This software program is responsible for basic control of a disk array such as controlling Host interfaces, Disks, RAID, Logical Disks and Caches.

- Replication Control

Creates a copy of a volume within the storage and enhances integrity and operability of the data without interrupting the online operations.

- Disaster Recovery

Provides a basic function of contingency planning for disaster recovery solution and a function of easy recovery when a disaster strikes

- Resource Control

Achieves effective management and operation of the storage by controlling resources in the storage such as a function to control power supply of disk drives.

- High Availability

Achieves creation of a high-availability system that uses load balancing or data retention functions.

Lineup of software programs and support matrix

NEC Storage M series support the following software.

Category	Functions	Product Name	Need license key	Disk array model				price
				M110	M310	M510	M710	
Integrated System Operation Management								
Integrated Management	Integrated management and integrated monitoring/control platform combined	NEC Storage Manager Suite **1	No	Supported	-	-	-	Paid
	Integrated management (Status monitoring and configuration display)	NEC Storage Manager	No	Supported **2	Supported **3	Supported **3	Supported **3	(M110) Bundled with NEC Storage Manager Suite (M310/M510/M710) Bundled with NEC BaseProduct
Device Management	Integrated monitoring and control platform	NEC Storage Manager Integration Base **10	-	Supported **2	Supported **3	Supported **3	Supported **3	M110) Bundled with NEC Storage Manager Suite (M310/M510/M710) Bundled with NEC BaseProduct
Performance Management	Performance monitoring and performance analysis combined	NEC Storage PerformanceMonitor Suite **4	Yes	Supported	Supported	Supported	Supported	Paid
	Performance monitoring	NEC Storage PerformanceMonitor	Yes	Supported	Supported	Supported	Supported	Paid
	Performance analysis	NEC Storage PerformanceNavigator	Yes	Supported	Supported	Supported	Supported	Paid
	Integrated performance management	NEC Storage Analyzer for VMware vCenter Operations	No	Supported	Supported	Supported	Supported	Paid
Cooperative Management	Cooperation with VMware vCenter	NEC Storage VMware vCenter Plug-in	No	Supported	Supported	Supported	Supported	Free
		NEC Storage VASA Provider **10	No	Supported	Supported	Supported	Supported	Free
	System Integrated Management	NEC Storage Manager Connector for MCOperations	No	Supported	Supported	Supported	Supported	Paid
	Cooperation with VMware SRM	NEC Storage Replication Adapter**10	No	Supported	Supported	Supported	Supported	Free
	Cooperation with OpenStack	NEC Storage OpenStack Cinder driver	No	Supported	Supported	Supported	Supported	Free *14

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Storage Control								
Storage Control	Storage control	NEC Storage BaseProduct **5	Yes	-	Supported and must be Purchased	Supported and must be Purchased	Supported and must be Purchased	Paid
	Server-less management (Status monitoring and configuration display)	NEC Storage Manager Express	No	Supported **6	Supported **3	Supported **3	Supported **3	Bundled with disk array
	Integrated operation commands	NEC Storage ControlCommand **7	No	Supported **8	Supported	Supported	Supported	Paid
Replication Control	Copy and snapshot within an enclosure	NEC Storage DynamicDataReplication **9	Yes	Supported	Supported	Supported	Supported	Paid
		NEC Storage DynamicDataReplication Express **9	Same as DDR	Supported **6	-	-	-	Bundled with disk array
	Copy across the enclosures	NEC Storage RemoteDataReplication **10	Yes	Supported	Supported	Supported	Supported	Paid
		NEC Storage RemoteDataReplication Asynchronous **10	Yes	Supported	Supported	Supported	Supported	Paid
	Microsoft SQL Server link	NEC Storage ReplicationControl SQL Option	No	Supported	Supported	Supported	Supported	Paid
	FileSystem synchronization	NEC Storage ReplicationControl FileSystem Option **13	No	Supported	Supported	Supported	Supported	Paid
Disaster Recovery	Disaster Recovery	NEC Storage RemoteDataReplication/ DisasterRecovery **10	Yes	-	-	Supported	Supported	Paid

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Storage Control								
Resource Control	Access control	NEC Storage AccessControl	Yes	Supported **6	Supported **3	Supported **3	Supported **3	(M110) Bundled with disk array (M310/M510/M710) Bundled with NEC BaseProduct
	Data retention	NEC Storage VolumeProtect	Yes	Supported	Supported	Supported	Supported	Paid
	Power saving	NEC Storage StoragePowerConserver	Yes	Supported **6	Supported **3	Supported **3	Supported **3	(M110) Bundled with disk array (M310/M510/M710) Bundled with NEC BaseProduct
	Thin provisioning	NEC Storage ThinProvisioning	Yes	Supported **6	Supported **3	Supported **3	Supported **3	(M110) Bundled with disk array (M310/M510/M710) Bundled with NEC BaseProduct
	IO flow control	NEC Storage IO Load Manager	Yes	Supported	Supported	Supported	Supported	Paid
	Data allocation optimization	NEC Storage PerforOptimizer	Yes	Supported	Supported	Supported	Supported	Paid
	SSD 2 nd Tier Cache	NEC Storage PerforCache	Yes	Supported	Supported	Supported	Supported	Paid
	Cache Partitioning	NEC Storage VirtualCachePartitioning	-	-	Supported	Supported	Supported	Paid
	Data migration	NEC Storage DataMigration **11	Yes	Supported **6	Supported **3	Supported **3	Supported **3	(M110) Bundled with disk array (M310/M510/M710) Bundled with NEC BaseProduct
Secure data erasing	NEC Storage SecureEraser	Yes	Supported	Supported	Supported	Supported	Paid	
High Availability	Path control	NEC Storage PathManager	No	Supported **12	Supported	Supported	Supported	(M110) Bundled with disk array (Win/Lin) Paid (VMware) (M310/M510/M710) Paid

Lineup of software programs and support matrix

Notes

**1: NEC Storage Manager Suite includes the following functions.

- NEC Storage Manager
- NEC Storage Manager Integration Base

**2: Bundled with NEC Storage Manager Suite.

**3: Bundled with NEC BaseProduct.

**4: NEC Storage PerformanceMonitor and NEC Storage PerformanceNavigator are bundled.

**5: NEC BaseProduct includes the following functions.

- NEC Storage Manager
- NEC Storage Manager Express
- NEC Storage Manger Integration Base
- NEC Storage AccessControl
- NEC Storage StoragePowerConserver
- NEC Storage ThinProvisioning
- NEC Storage DataMigration

**6: The disk array shipped with the licence unlocked.

**7. NEC Storage ControlCommand includes the following functions.

- ReplicationControl
- SnapControl
- ProtectControl
- PowerControl

Usage rights of NEC Storage ControlCommand are granted with the purchase of any of the following product.

- NEC Storage DynamicDataReplication
- NEC Storage RemoteDataReplication
- NEC Storage RemoteDataReplication Asynchronous
- NEC Storage VolumeProtect

**8: Only Linux and Windows are supported.

**9. NEC Storage DynamicDataReplication and NEC Storage DynamicDataReplication Express include NEC Storage DynamicSnapVolume.

**10: Only FC and iSCSI models are supported.

**11: Only FC connection is supported between source and destination disk array. iSCSI/SAS are not supported.

**12 Windows and Linux version are bundled with M110 Disk Array.

**13: Only Linux is supported.

**14 : Driver is free, but support is not free.

Lineup of software programs and support matrix

The following table shows products that must be ordered together to use NEC Storage optional software programs and their combinations.

Product name	Products that must be ordered together				
	NEC Storage Manager Suite **1	NEC Storage BaseProduct **2	NEC Storage PerformanceMonitor **3	NEC Storage PerformanceNavigator **3	NEC Storage ControlCommand Media kit
NEC Storage PerformanceMonitor Suite	Mandatory	Mandatory			
NEC Storage PerformanceMonitor	Mandatory	Mandatory		Recommended	
NEC Storage PerformanceNavigator	Mandatory	Mandatory	Mandatory		
NEC Storage Analyzer for VMware vCenter Operations	Mandatory	Mandatory	Mandatory		
NEC Storage ControlCommand	Mandatory	Mandatory			Mandatory
NEC Storage DynamicDataReplication	Mandatory	Mandatory			Mandatory
NEC Storage RemoteDataReplication	Mandatory	Mandatory			Mandatory
NEC Storage RemoteDataReplication Asynchronous	Mandatory	Mandatory			Mandatory
NEC Storage ReplicationControl SQL Option	Mandatory	Mandatory			Windows version is required
NEC Storage ReplicationControl FileSystem Option	Mandatory	Mandatory			Linux version is required
NEC Storage VolumeProtect	Mandatory	Mandatory			Mandatory
NEC Storage RemoteDataReplication/ DisasterRecovery		Mandatory			Mandatory
NEC Storage ThinProvisioning	Recommended	Mandatory	Recommended		
NEC Storage IO Load Manager	Mandatory	Mandatory	Mandatory	Mandatory	
NEC Storage PerforOptimizer		Mandatory	Mandatory		
NEC Storage PerforCache	Recommended	Mandatory	Recommended	Recommended	
NEC Storage VirtualCachePartitioning		Mandatory	Recommended		
NEC Storage DataMigration		Mandatory			
NEC Storage SecureEraser		Mandatory			
NEC StorageManager Connector for MCOperations	Mandatory	Mandatory			
NEC Storage VASA Provider	Mandatory	Mandatory			
NEC Storage Replication Adapter	Mandatory	Mandatory			Mandatory
NEC Storage OpenStack Cinder Driver **4		Mandatory			

Notes

**1: When a disk array from NEC Storage NEC Storage M110 series is used.

**2: When a disk array from NEC Storage M310, NEC Storage M510 or NEC Storage M710 series is used.


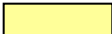
**3: It is strongly recommended to order NEC Storage PerformanceMonitor and NEC Storage PerformanceNavigator to be prepared to tackle unexpected performance degradation during business operations. Order NEC Storage PerformanceMonitor Suite if you order both NEC Storage PerformanceMonitor and NEC Storage PerformanceNavigator.

**4 When a disk array from NEC Storage M310 or above, it is required to order NEC Storage DynamicDataReplication.

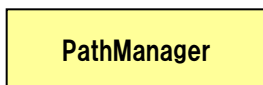
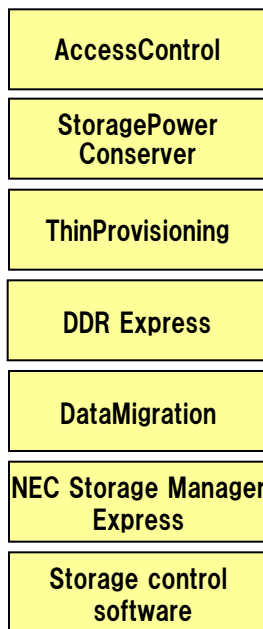
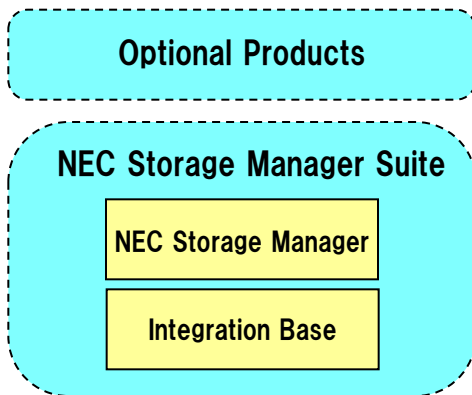
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Software programs that are bundled with a disk array and software programs that need to be purchased separately are different from one model to the other in NEC Storage M Series. This is due to the difference in the scale of system each model supports and marketing strategies considering competitiveness. Make sure to have required software programs in place according to your disk array type and the way the disk array is used.

The following diagrams illustrate products that are bundled with NEC Storage Manager Suite, bundled with NEC Storage BaseProduct, bundled with a disk array, Optional products and Storage Control Software for NEC M series.

 :Product
 :Function

NEC Storage M110



Bundled with Disk Array



NEC Storage M310/M510/M710

