

MICROSOFT® WINDOWS STORAGE SERVER® 2012 ON LENOVO® THINKSERVERS® SALES CHEATSHEET



CUSTOMER STORAGE PAINS / CONCERNS

THE COMPLEXITY OF A STORAGE ENVIRONMENT CAN SEEM OVERWHELMING

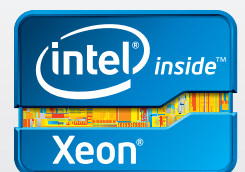
- Constantly increasing demand for storage
- Expensive storage hardware
- Complicated installation and deployment
- Unfamiliar storage analysis tools
- Management via multiple command line interfaces

LENOVO OFFERING

Available on Lenovo ThinkServers®, Microsoft Windows Storage Server® 2012 delivers enterprise-class storage management technology in an affordable offering. Windows Storage Server® 2012 is an advanced storage and file-serving solution for organizations of any size and it offers new levels of performance and reliability on proven and reliable Lenovo ThinkServers. Lenovo offers validated Windows Storage Server® 2012 Standard via the Reseller Option Kit (ROK) program.

MICROSOFT WINDOWS STORAGE SERVER® 2012 ON LENOVO THINKSERVERS DELIVERS THE FOLLOWING:

- Network-attach storage solution that helps reduce the cost of storage significantly by delivering FiberChannel / SAN-like performance on industry standard ThinkServers.
- Delivers highly reliable, high performance shared storage by offering unified storage with support for both file (SMB and NFS) and block (iSCSI) protocols and enables efficient storage utilization with thin provisioning and data de-duplication technologies.
- Leverages existing skillsets making it easy to deploy, manage and provision application storage in the same familiar ways as with other Microsoft products.
- Tested and validated ThinkServer configurations that provide outstanding performance and value with "Think" reliability.



RECOMMEND THINKSERVER® SERVERS

For customer convenience we have listed three recommended ThinkServer configurations to support Windows Storage 2012 Standard: small, medium and large. Drive sizes, type, and quantity can be tailored to your customer's specific storage needs.

THINKSERVER RD330



Small Configuration	Description	Part Number
Base	ThinkServer RD330	4304-E1U (US) 4304-E1G (EMEA)
Processor	Intel® Xeon® E5-2407	Included in base
Memory	4GB	Included in base
HDD x 4	2TB HS 3.5	0A89475
RAID	RAID 700 Adapter	0A89463
RAID Battery Back Up	RAID 700 BBU	67Y2647
Power Supply	550W PSU	0A89427
ThinkServer Management Module	TMM Premium	67Y2624
Software	Microsoft® Windows Storage Server® 2012 Standard (ROK)	0C19614

Upsell Ideas

- 4GB of Memory
- 4-Hour Service Response

THINKSERVER RD430



Medium Configuration	Description	Part Number
Base	ThinkServer RD430	3064-G4U (US) 3064-G4G (EMEA)
Processor	Intel® Xeon® E5-2420	Included in base
Memory	8GB	Included in base
HDD x 8	2TB HS 3.5	0A89475
RAID	RAID 700 Adapter	0A89463
RAID Battery Back Up	RAID 700 BBU	67Y2647
Power Supply	800W PSU	0A89426
ThinkServer Management Module	TMM Premium	67Y2624
Ethernet Card	Gigabit Ethernet	0A89423
Software	Microsoft® Windows Storage Server® 2012 Standard (ROK)	0C19614

Upsell Ideas

- 4-Hour Service Response

THINKSERVER RD330



Large Configuration	Description	Part Number
Base	ThinkServer RD430	3057-E5U (US) 3057-E5G (EMEA)
Processor (2)	Intel® Xeon® E5-2420	Included in base
Memory	32GB	Included in base
HDD x 12	600 GB HS 3.5 15K	67Y2618
RAID	RAID 700 Adapter	Included in base
RAID Battery Back Up	RAID 700 BBU	Included in base
Power Supply (2)	800W PSU	Included in base
ThinkServer Management Module	TMM Premium	Included in base
Ethernet Card	10 Gbps Ethernet	0C19497
Software	Microsoft® Windows Storage Server® 2012 Standard ROK	0C19614

Upsell Ideas

- 4-Hour Service Response

Windows Storage Server® 2012 Standard Specs

Architecture	X64
Max. CPU sockets / Hyper-V VMs (with base license)	2 / 2
Maximum memory	4 TB
Hardware RAID supported	Yes
Hardware RAID levels supported	0/1/5/6/10/50
Number of disks supported	Unlimited
Number of users allowed	Unlimited
Client Access Licenses (CALs)	Not required

Storage Protocols Supported

File protocols (NAS)	SMB 1.0, 2.0, 2.1, 3.0 NFSv2, NFSv3, NFSv4.1 HTTP, WebDAV, S/FTP
Block protocol targets	iSCSI Software Target (now built-in)
Block protocol initiators	iSCSI, SAS, Fibre Channel, SATA

Efficiency Features

Data Deduplication	Yes
Thin Provisioning	Yes
BranchCache – Hosted Cache	Yes

Data Protection / High Availability Features

Backup	Yes (Windows Server Backup and Windows Azure Online Backup)
DFS Replication	Yes
Clustering	Yes
Storage Spaces	Yes
Configurable data protection levels (Storage Spaces)	Yes (spanned, mirrored and parity)

Security Features

BitLocker Drive Encryption	Yes
Identity-based access control	Yes
SMB 3.0 Encryption	Yes
Run anti-virus software on server	Yes (if Windows Server 2012-certified)

Management Features

Single management interface for all storage-related tasks	Yes (Windows Server Manager)
File Classification Infrastructure	Yes
File Services Resource Manager (Quotas, File Screening)	Yes

Infrastructure Services

Active Directory Lightweight Directory Service	Yes
Print server	Yes
DHCP, DNS and WINS	Yes

FREQUENTLY ASKED QUESTIONS

1

What are my anti-virus options for Windows Storage Server® 2012?

You can run any Windows Server 2012 certified anti-virus software on Windows Storage Server® 2012. See www.windowsservercatalog.com.

2

What are the backup capabilities of Windows Storage Server® 2012?

With Windows Storage Server® 2012, you can:

- Use it as a backup target for other systems.
- Use Folder Redirection to store user data on the server for centralized backup.
- Use Windows Server Backup to backup the data on Windows Storage Server® 2012.

3

What about migrating data from an existing NAS or storage solution?

Windows Storage Server® 2012 supports multiple storage protocols, making it easy to move data. It can also connect to existing disk arrays, eliminating the need to transfer data.

4

How is Windows Storage Server® 2012 different than Windows Server® 2012?

Windows Storage Server® 2012 is designed for data storage workloads. It is not meant to be used as an application server.

5

We already have Active Directory. Does Windows Storage Server® 2012 support it?

Yes. You can join it to an existing Active Directory domain for easy identity-based access control.

6

Can I use Windows Storage Server® 2012 as a domain controller?

No. It can connect to an Active Directory domain, but it can't function as a domain controller.

7

Can we back up a SQL Server database to Windows Storage Server® 2012?

Yes. You can use Windows Storage Server® 2012 to store SQL Server data or as a backup target.

8

How does Windows Storage Server® 2012 facilitate disaster recovery?

Windows Storage Server® 2012 supports disaster recovery at all levels of the storage stack:

- Disk failure: RAID, Storage Spaces
- Data corruption / unintended deletion: snapshots, Shadow Copy for Shared Folders
- Array failure: DFS Replication, Hyper-V Replica
- Server failure: Failover Clustering

WINDOWS® STORAGE SERVER® SUPPORTED LANGUAGES

- English, German, French and Italian

Windows Storage Server® 2012 Product Page
www.microsoft.com/storageserver



WWW.LENVO.COM/THINKSERVER

For more information contact your Lenovo Representative

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Visit www.lenovo.com/safecomputing periodically for the latest information on safe and effective computing.

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