

DESCRIPTION

Perfect for small-to medium-sized businesses and distributed enterprises, the LenovoEMC™ px4-400r Network Storage 1U, 4-bay rackmount is an affordable, full-featured Server Class NAS that combines advanced data protection plus local and remote content sharing with the simplicity and power of the LenovoEMC™ LifeLine operating system. Available in capacities ranging from diskless up to 16TB (equipped with enterprise class disks), the px4-400r's compact 1U rackmount form factor fits into any business environment.

TOP FEATURES

1. Up to 75 users
2. 4-bay, 1u rackmount NAS, with up to 16TB of storage capacity
3. Outstanding data throughput performance with up-to 151.5 (MB/s) read and 131.7 write speeds.
4. 2.13GHz dual-core Intel® Atom D2701 Processor
5. Leading software application options included

SPECIFICATIONS

- Rackmount form factor
- 2.13GHz dual-core Intel® Atom D2701 processor
- 2GB of 1600MHz DDR3 Memory
- 4 x 3.5" hot swap SATA-III Server Class, 7200rpm hard disk drives
- RAID Level Support: RAID 0, 1, 10, 5
- Power Consumption
 - o Max: 73.72W
 - o Min: 29.72W (drives spun down)
 - o Peak: 110.99W for 6s
- iSCSI: Supports both file and block storage pools, 256 hosts maximum with the following parameters
 - o Block storage pools; 32 LUNs maximum per pool. 128 LUNs maximum per device.
 - o File storage pools; 256 LUNs Maximum per pool. 256 LUNs maximum per device.
- 1 x USB 3.0 port (front) and 4 x USB 2.0 ports (rear), to connect external HDD, UPS
- 1x eSATA port to connect external eSATA hard drive
- 1x HDMI video port
- 2x RJ45 1GbE Ethernet networking ports
- LAN standards: IEEE 802.3, IEEE 802.3u
- AC Voltage 100-240 VAC, 50-60 Hz
- Acoustic noise – 42.5 dBA typical
- Temperature, Humidity and Altitude

	Operating	Non-Operating
Ambient Temp	10° to 40° C	-40° to 60° C
Temp Gradient	12 ° C per hour	n/a
Humidity (non-condensing)	8% to 85% R.H.	5% to 95% R.H.
Max Wet Bulb	26.6°C	29.4 °C
Altitude	to 7500 ft.	to 40,000 ft.

- User interface localized for English, French, Italian, German, Spanish, Brazilian Portuguese, Russian, Traditional Chinese, Simplified Chinese, Korean, Japanese, Arabic, Hebrew, Turkish, Swedish, Dutch, and Polish

Certifications

- Windows® Server 2008 R2 and Windows Server 2012 R2
- VMware vSphere ESX 5.5 iSCSI and NAS
- XenServer™ 6.1, 6.2 (w/ MPIO), iSCSI & NFS



CONTENTS

- LenovoEMC px4-400r Network Storage Array
- Ethernet cable
- Power cable
- Printed Quick Start Guide

NOTE: LenovoEMC™ Storage Manager software and user help documentation is available via download.

SYSTEM REQUIREMENTS

- Available 10/100/1000 Mbps network Ethernet port (required).
- Internet Explorer 7, Firefox® 3.x, Chrome 9, Safari 4 or later browser.

PERSONAL CLOUD AND REMOTE ACCESS SPECIFIC REQUIREMENTS:

- Internet connection
- Universal Plug and Play (UPnP™) compatible router, or administrative rights to port forward.
- Recommended minimum sustained connection speeds for a good Personal Cloud experience.
- Download: 2.5 Mbit/s
- Upload: 500Kbit/s
- Personal Cloud is not compatible with Active Directory
- Personal Cloud is not compatible with XP 64 bit

PC Users:

Microsoft® Windows® XP / Vista / 7 / 8 (all versions - exclusive of XP 64 bit for Personal Cloud)

Mac® Users:

Mac OS X 10.6 – 10.8

Linux® Users

Redhat Enterprise 6, Ubuntu 11, OpenSUSE 11.4, Other compatible Linux versions

Warranty: 3 year limited warranty

Scheduled Availability: January 2014

FEATURE DESCRIPTIONS

Hardware

Capacity: 0 – 16TB.

4 x SATA III HDD bays. Empty bays are fitted with a drive carrier. Carrier can accommodate 2.5" or 3.5" drives.

Flexible Configurations

- Diskless option, bring your own drives
- Storage pools with RAID expansion, migration and hot spares
- Advanced RAID levels including RAID 5 and RAID 10

7200RPM Server Class Hard Drives ensure higher reliability and performance. These drives are designed to better handle rotational vibration and continuous operation for mission critical applications.

SSD Support: For I/O intensive applications, the px4-400r can be fitted with solid state drives to boost performance. (SSDs not included)

Advanced Networking Capabilities:

- NIC bonding for failover and load balancing including 802.3ad link aggregation.
- Jumbo frame support for 4000 and 9000 byte payloads
- VLAN tagging capability to IEEE 802.1Q standard.
- iSCSI persistent reservations for clustered Microsoft environments.

Power Savings:

- Automatic hard drive spin-down assures the most efficient (minimal) power consumption.
- **Scheduled Power:** Automatically power on or turn off your LenovoEMC device at a pre-selected time schedule.
- **Wake-on-LAN:** Powers on your LenovoEMC device when a "magic-packet" wake-up signal is sent over the network. (Wake-on-LAN magic packet application not included)

FILE MANAGEMENT & SECURITY

Simple Management:

- Simple set up with an intuitive web-based interface. Web interface can be accessed locally or remotely.
- Feature Selection gives admin ability to customize the viewable features.

Network File Protocols Supported: CIFS/SMB/Rally (Microsoft), NFS (Linux/UNIX), AFP/Bonjour (Apple), FTP, SFTP, TFTP, HTTP, HTTPS, WebDAV, Windows DFS, SNMP.

Data Organization and Access: Windows DFS organizes folders and files on a network, such that they appear to be all in one directory tree on a single LenovoEMC storage system, even if the folders reside on many devices in many different locations. WebDAV (Web-based Distributed Authoring and Versioning) enables viewing, adding, or deleting files on a LenovoEMC storage device from the web, via HTTP or HTTPS for added security.

iSCSI target provides block-level access for the most efficient storage utilization, especially for backup, database and email application performance. It can be used in parallel with file-level storage access via CIFS/NFS. Includes support for SCSI-3 persistent reservations

Business-class features with Windows Active Directory High Availability (ADHA), Hybrid Authentication, MSCS and Hyper-V Live Migration support

SSD Cache Pools: Set up dedicated SSDs for fast reads & writes of frequently accessed data, providing improved performance for I/O intensive applications such as databases. (SSDs not included)

Built-in Cloud Technology

- LenovoEMC™ Personal Cloud
- Amazon® S3™ Client connector

Native Security Support with robust username and password authorized access. Create additional users and secure their content with password protection.

Encrypted Volume: Allows you to create an encrypted volume with an assigned password; thus securing the data on the encrypted volume. (256-bit AES)

User Quotas: Easily manage capacity by setting maximum limits per user.

Configuration Backup and Restore: Allows backup and restore of system configuration information. Backing up a configuration saves various system properties, including users, groups, device identification, and Share names and permissions.

Uninterruptible Power Supply (UPS) Support: Allows device to receive unattended shutdown requests from UPS through USB port to prevent data loss in case of power failure

System Status: Consolidated resource on space utilization, device information, and status. In addition, you can manage controls such as device restart from here.

SMART Hard Drive Monitor: Continually monitors and reports on the health of all drives in the LenovoEMC storage system.

BACKUP & REPLICATION

Data Replication / Device to Device Data Copy Jobs:

Easily copy files to and from attached USB drives or any network share, including LenovoEMC Personal Cloud locations, using the secure rsync or CIFS protocol. Define your Copy Job to copy/synchronize files to and from connected drives and/or any other shared storage on your network. Schedule jobs to run on a predetermined schedule.

Symantec® Backup: LenovoEMC network storage products are identified as compatible disk targets for Backup Exec software.

LenovoEMC Personal Cloud Backup: Synchronize data between personal cloud member systems and the px4-400r.

Public Cloud Backup: Use integrated Amazon S3 to copy data from your px4-400r to your public cloud account. Additional charges apply.

Active Snapshot (.VSS & .VDS provider): Point in time backup of a complete volume image including Active Snap capability. Also uses .VSS and .VDS for compatibility with Windows & VMware hosts.

Cloud Disaster Recovery: Utilize two px4-400r devices in different locations and the LenovoEMC Personal Cloud function to create your own disaster recovery scheme.

PC-to-NAS Backup with True Image Lite 2013 by Acronis: Powerful backup software from Acronis protects content, recovers data in case of any disasters (3 licenses included).

NAS-to-NAS Backup with Acronis ABR for NAS: Powerful backup software from Acronis enables backup from the NAS to another network target. (Acronis license sold separately)

SERVER-to-NAS Backup with Acronis ABR 11.5 OEM: Powerful backup software from Acronis enables backup from a Windows or Linux server to the px4-400r. (Acronis license sold separately)

Apple® Time Machine™ Backup: Compatible backup target

VIRTUALIZATION

LenovoEMC network storage devices are certified for Citrix® XenServer™ 6.1, 6.2, Windows® Server 2008 R2, Windows Server 2012 R2, and VMware® vSphere ESX 5.5 which makes them the most cost-effective solution for server virtualization.

VIDEO SURVEILLANCE STORAGE

With LenovoEMC network storage devices, it's easy to view, archive, protect and share physical security video and audio files from anywhere with built-in video surveillance solutions. The LenovoEMC px4-400r comes equipped with Milestone Arcus™ and Mindtree® SecureMind™ Surveillance Manager and to deliver stand-alone VMS options that easily set up recordings and configurations directly and offer live monitoring, video recording, and easy, fast video playback from multiple IP cameras.

THIRD-PARTY APPLICATIONS

Application Manager: Third party applications can be installed using the embedded application manager.

Upgradeable Software Applications: Applications from leading software vendors will automatically appear as an icon in LifeLine system management interface as they are released. Planned software applications include:

- **McAfee® VirusScan® Enterprise**
Built-in, real-time on-access and automatic anti-virus scanning and cleaning using the embedded VirusScan engine. Including McAfee ePO Support. Free license is valid for 3 years from activation.
- **Acronis® Backup & Recovery (ABR) for LenovoEMC NAS**
Optional software provides complete image backup of your LenovoEMC NAS to a secondary network target (sold separately).
- **EMC® Avamar™ Client**
Existing Avamar users have the industry's first storage product that natively supports EMC's industry-leading Avamar sub-file deduplication for remote office/branch office (RoBo) backup.

- **Milestone Arcus™ Video Surveillance**
 - Embedded video management software from market leader Milestone that simplifies video surveillance. Featuring automated configuration, wide camera compatibility, motion detection, live monitoring, playback, and easy export.
 - Two (2), 30-day trial licenses included. Suggested max of 20 cameras (permanent camera licenses available)
- **Mindtree® SecureMind™ VSMS software**
 - The SecureMind™ VSMS software delivers multi-channel live monitoring, video recording, and easy, fast video playback from multiple IP cameras.
 - The px4-400r supports up to 16 cameras. One free camera license included. (Additional licenses sold separately)

ADDITIONAL FEATURES

LenovoEMC Personal Cloud: LenovoEMC Personal Cloud is a web-based computing architecture that connects your LenovoEMC Network Storage devices to other individuals and/or devices via the Internet.

LenovoEMC™ Link iOS & Android application: LenovoEMC™ Link gives you a direct link to your px4-400r via your iOS or Android device. You have the ability to upload, download, browse and copy content on your network storage devices using LenovoEMC Link mobile app. (Download app from iTunes™ or Google® Play™)

Management without a PC: Fully manage your NAS device without the need of a dedicated computer. Attach a display to the HDMI port and connect a USB keyboard and mouse to access and manage your device. (Supports most HDMI displays)

WEIGHT AND DIMENSIONS (EU/IMPERIAL)

<u>Unit Information</u>	<u>Single Package Information</u>	<u>Master Carton Information</u>	<u>Pallet Information</u>
20.5 x 17.125 x 1.73 inches 15.85 lbs with 0 HDDs 22.05 lbs with 4 HDDs	34.25 x 23.62 x 8.82 inches 31.7 lbs with 0 HDDs 37.9 lbs with 4 HDDs	34.25 x 23.62 x 8.82 inches 32.7 lbs with 0 HDDs 38.9 lbs with 4 HDDs 1 unit per master carton	48 x 40 x 75.28 inches 548.2 lbs with 0 HDDs 647.4 lbs with 4 HDDs 8 layers, 2 master cartons per layer 16 units per pallet

WEIGHT AND DIMENSIONS (EU/METRIC)

<u>Unit Information</u>	<u>Single Package Information</u>	<u>Master Carton Information</u>	<u>Pallet Information</u>
52.07 x 43.5 x 4.39 cm 7.19 kg with 0 HDDs 10 kg with 4 HDDs	87 x 59.99 x 22.4 cm 14.38 kg with 0 HDDs 17.19 kg with 4 HDDs	87 x 59.99 x 22.4 cm 14.83 kg with 0 HDDs 17.64 kg with 4 HDDs 1 unit per master carton	121.92 x 101.6 x 191.2 cm 249.28 kg with 0 HDDs 294.24 kg with 4 HDDs 8 layers, 2 master cartons per layer 16 units per pallet

All dimensions LxWxH and are approximations

ORDERING INFORMATION:
Systems

SKU	DESCRIPTION*	EAN
70CK9000WW	LenovoEMC™ px4-400r Network Storage Array, 0TB Diskless EMEA	0888228784601
70CK9004WW	LenovoEMC™ px4-400r Network Storage Array Server Class, 4TB (4HD X 1TB)	0888228784663
70CK9001WW	LenovoEMC™ px4-400r Network Storage Array Server Class, 8TB (4HD X 2TB)	0888228784670
70CK9002WW	LenovoEMC™ px4-400r Network Storage Array Server Class, 12TB (4HD X 3TB)	0888228784649
70CK9003WW	LenovoEMC™ px4-400r Network Storage Array Server Class, 16TB (4HD X 4TB)	0888228784656

Accessories

SKU	DESCRIPTION	EAN
4N40A33704	NAS Drive 1TB Bare for PX Series, Server Class (HGST HUA722010CLA330)	0887770965117
4N40A33708	NAS Drive 2TB Bare for PX Series, Server Class (HGST HUA723020ALA640)	0887770965155
4N40A33711	NAS Drive 3TB Bare for PX Series, Server Class (HGST HUA723030ALA640)	0887770965186
4N40A33713	NAS Drive 4TB Bare for PX Series, Server Class (HGST HUS724040ALE640)	0887770965209
4N40A33712	NAS Drive Multi-pack 4TB (4HD x 1TB) for px Series, Server Class (HGST HUA722010CLA330)	0887770965193
4N40A33714	NAS Drive Multi-pack 8TB (4HD x 2TB) for px Series, Server Class (HGST HUA723020ALA640)	0887770965216
4N40A33702	NAS Drive Multi-pack 12TB (4HD x 3TB) for px Series, Server Class (HGST HUA723030ALA640)	0887770965094
4N40A33703	NAS Drive Multi-pack 16TB (4HD x 4TB) for px Series, Server Class (HGST HUS724040ALE640)	0887770965100
7N80E65471	NAS Rail Kit for px4-400r 26"	0888228784700
0C19506	ThinkServer 1Gbps Ethernet I350-T2 Server Adapter by Intel	0887942798819

Service Plans

SKU	DESCRIPTION**	EAN
5WS0A37780	Extended Service Plan px4r- 5 Years, 24x7 Phone Support	0887942292829
5WS0A37770	Enhanced Service Plan px4r -3 Years, 24/7 Phone Support, NBD On-Site	0887942292928
5WS0A37772	Enhanced Service Plan px4r -5 Years, 24/7 Phone Support, NBD On-Site	0887942292904

Video Surveillance Accessories

SKU	DESCRIPTION	EAN
4N70A34015	Milestone Arcus™ 1 Camera License with 1 Year Support for LenovoEMC NVR	0887942293031
4N70A34014	Milestone Arcus™ Update Plan for Single Camera/1 Year for LenovoEMC NVR	0887942293024
4N70A34002	Mindtree® SecureMind Camera Licences For 2 Cameras IX/PX Series	0887942375195
4N70A34003	Mindtree® SecureMind Camera Licences For 4 Cameras IX/PX Series	0887942375201
4N70A34004	Mindtree® SecureMind Camera Licences For 8 Cameras IX4/PX Series	0887942375218
4N70A34006	Mindtree® SecureMind Camera Licences For 16 Cameras PX Series Only	0887942375232

Notes:

* 3rd party software application icons will automatically appear in Lifeline console upon release. Internet connection required.

** Available in most geographies, some restrictions apply.

Product Release Information

LENOVOEMC™ PX4-400R
SERVER CLASS

lenovo FOR
THOSE
WHO DO.

ADDITIONAL IMAGES

