

# LENOVO® EMC® PX4-300R

## NETWORK STORAGE ARRAY



**DESCRIPTION-** The Lenovo® EMC® px4-300r Network Storage array is a high performance Server Class rackmount array that is ideal for small-to medium-sized businesses and distributed enterprises for advanced data protection and local and remote content sharing. Powered by LenovoEMC™ storage technology, and with up to 16TB of storage capacity, including a diskless option, the px4-300r comes in a space-saving 1U form factor that is better, faster and more reliable for your mission critical data.

### TOP FEATURES

1. Up to 150 users
2. Intel® Celeron Dual core CPU, 2 GbE NICs
3. Diskless & fully populated, Hot swap HDDs
4. Performance, Flexibility, IT Integration, Virtualization
5. Active Snapshot backup (.VSS & .VDS provider)
6. Active Directory High-Availability (ADHA) & hybrid authentication
7. Video Surveillance (Mindtree, Milestone)
8. Built-in McAfee VirusScan Enterprise

### COMPLETE FEATURES

**Capacity:** 0 – 16TB. 4 x SATA HDD bays. Empty bays are fitted with a drive carrier. Carrier can accommodate 2.5" and 3.5" drives. .

**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.

**Snapshots:** Point-In-Time backup of a complete volume image including Active Snap capability. Also uses .VSS and .VDS for compatibility with Windows & VMware hosts.

**SSD Support:** For I/O intensive applications, the px4-300r can be fitted with solid state drives to boost performance.

**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. SSD drives sold separately.

**RAID Support:** RAID 1, 10, 5, hot spare; automatic RAID rebuild and hot swap. RAID 0 and JBOD mode also available.

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

**Dual Gigabit Ethernet** connectivity with high performance embedded architecture.

**Dual Power Supply Capable** – Simply add a second accessory power supply for 1+1 redundancy. Ships with a single power supply.

**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

#### High-Performance

- Server Class Hard Drives
- Solid state drives (optional)
- Dual Core Intel Celeron Processor
- 2GB memory
- Dual GbE NICs



**Scheduled Availability:** May 2013

#### Flexible Configurations

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

**Server-class Pedigree:** Server class drives; certified for VMware® vSphere 5.1, Citrix® XenServer™ ESX 5.1, Windows® Server 2008 R2, and Windows Server 2012.

#### 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.

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

**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.

#### Power Savings:

- Automatic hard drive spin-down assure 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)

**Uninterruptible Power Supply (UPS) Support:** Enables unattended system shutdown via the USB port without data loss in the case of power failure.

#### 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.

**Configuration Backup and Restore:** allows you to back up and restore system configuration information. Backing up a configuration saves various system properties, including users, groups, device identification, and Share names and permissions.

**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.

**Built-in McAfee VirusScan Enterprise:** LenovoEMC's px Network Storage Family now includes virus scanning natively in the storage device. McAfee® VirusScan® Enterprise with px4-300r gives small businesses the ability to safely deploy network storage in places where previously there was the possibility of virus and/or malware vulnerability. McAfee VirusScan Enterprise for Linux permits on-access scanning of local file systems, mounted NFS and Samba/CIFS shares as well as a kernel-level scan cache to enhance performance. In addition, a secure browser interface with authentication and HTTPS (SSL) support is included to aid in administration. This delivers robust reporting features, including the ability to query the database by date range or individual field values, such as by virus name. Results of query can be exported to a CSV file and a diagnostic report can be generated for reporting a problem with the product.

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

**LenovoEMC™ Link iOS & Android application:**

LenovoEMC™ Link gives you a direct link to your px4-300r 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 Android Market)

**Software Compatibility:** Compatible with today's most common backup software, web browsers, media devices and computers.

**Warranty:** 3 year limited warranty

## SOLUTIONS

**Virtualization:** LenovoEMC network storage devices are certified for Citrix® XenServer™ 5.6, Windows® Server 2008 R2, Windows Server 2012, and VMware® vSphere ESX 5.1 which makes them the most cost-effective solution for server virtualization.

### Video Surveillance

Protecting your home or business has never been easier than with LenovoEMC storage's built-in Video Surveillance Management software

- **Mindtree® SecureMind VSMS software**
  - **One free camera license included**, supports up to 32 cameras. (Additional licenses available for purchase)
  - Built in support for hundreds of popular IP cameras
  - Record, store and manage surveillance video
  - Support for high-definition and configurable resolution and frame rate settings, e-mail alerts, and secure access
- **Axis Video Hosting Solution (AVHS)** for local to hosted cloud video storage and management.

### Powerful Backup Functionality

- **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 px4-300r .

- **Public Cloud Backup:** Use one of the integrated 3<sup>rd</sup> party cloud-based storage services such as Amazon S3 or Mozy™ to replicate data from your px4-300r to your public cloud account.
- **Cloud Disaster Recovery:** Utilize two px4-300r devices in different locations and the LenovoEMC Personal Cloud function to create your own disaster recovery scheme.
- **EMC Atmos Cloud Connector:** The Atmos Connector software lets a user backup and share data using LenovoEMC devices as the source and Atmos cloud technology as the target. Enabled by LenovoEMC's integrated copyjob utility, customers can set up cloud folders and configure jobs to automatically copy data to any Atmos cloud.
- **Deduplicating Backup with EMC Avamar –** With Avamar support on the px4-300r, 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.
- **PC 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).
- **Apple® Time Machine™ Backup:** Compatible backup target

### Total Data Protection:

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

## SPECIFICATIONS

- 1U form factor. Less than 20" depth accommodates shallow racks
- Intel Celeron E1500 Dual Core @ 2.2GHz, with 2GB RAM
- Two (2) 10/100/1000 Mbps Ethernet ports (RJ 45 connector)
- 4 x 3.5" Hot swap SATA-II Server Class 7200rpm hard disk drives
- **RAID Support:** RAID 0, 1, 10, 5, hot spare (RAID/storage pool should be the same capacity, speed, and manufacturer. Mixing different types of drives may result in unpredictable behavior)
- **Power Consumption**
  - Max: 150W
  - Min: 55W (drives spun down)
  - Peak: 220W for 5s

NOTE: These values represent a fully loaded device with the highest capacity HDD. Values may vary with other configurations.
- **iSCSI:** Supports both file and block storage pools, 256 hosts maximum with the following parameters;
  - Block storage pools; 32 LUNS maximum per pool. 128 LUNs maximum per device.
  - File storage pools; 256 LUNs Maximum per pool. 256 LUNs maximum per device.
- Three USB 2.0 ports
- LAN standards: IEEE 802.3, IEEE 802.3u
- AC Voltage 100-240 VAC, 50-60 Hz
- Acoustic noise – 39.6 dBA maximum

- 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

The px4-300r Network Storage Array has received the following certifications:

- Windows® Server 2008 R2 and Windows Server 2012
- VMware VSphere ESX 5.1 iSCSI and NAS
- XenServer™ 5.5, 5.6 (w/ MPIO), iSCSI & NFS

## CONTENTS

- Lenovo EMC px4-300r Rackmount NAS Server
- Sliding rail kit for standard 19" rack
- Ethernet cable
- Power cables (support for worldwide distribution – cable for: USA, EU, UK, AUST, China, Switzerland)
- Printed Quick Start Guide

## 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

## WEIGHT AND DIMENSIONS

<u>Unit Information</u>	<u>Single Package Information</u>	<u>Master Carton Information</u>	<u>Pallet Information</u>
20.0 x 16.93 x 1.72 inches	28.0 x 23.5 x 6.625 inches	28.0 x 23.5 x 6.625 inches	48 x 28.35 x 58.0 inches
50.8 x 43.0 x 4.37 cm	71.12 x 59.69 x 16.83 cm	71.12 x 59.69 x 16.83 cm	121.9 x 72.0 x 172.1 cm
17.2 lbs / 7.8 kg with 0 HDDs	27.3 lbs / 12.38 kg with 0 HDDs	28.3 lbs / 12.84 kg with 0 HDDs	477.8 lbs / 217.44 kg with 0 HDDs
22.96 lbs / 10.41 kg with 4 HDDs	33.7 lbs / 15.29 kg with 4 HDDs	34.7 lbs / 15.74 kg with 4 HDDs	580.2 lbs / 263.84 kg with 4 HDDs
		1 unit per master carton	8 layers, 2 master cartons per layer 16 units per pallet

All dimensions LxWxH and are approximations

## ORDERING INFORMATION

SKU	Model	EAN
70BJ9003WW	LENOVO(R) EMC(R) PX4-300R NETWORK STORAGE ARRAY, 0TB DISKLESS	887770964615
70BJ9006WW	LENOVO(R) EMC(R) PX4-300R NETWORK STORAGE ARRAY SERVER CLASS, 4TB (4HD X 1TB)	887770964660
70BJ9007WW	LENOVO(R) EMC(R) PX4-300R NETWORK STORAGE ARRAY SERVER CLASS, 8TB (4HD X 2TB)	887770964684
70BJ9004WW	LENOVO(R) EMC(R) PX4-300R NETWORK STORAGE ARRAY SERVER CLASS, 12TB (4HD X 3TB)	887770964639
70BJ9005WW	LENOVO(R) EMC(R) PX4-300R NETWORK STORAGE ARRAY SERVER CLASS, 16TB (4HD X 4TB)	887942292263
<b>Accessories</b>		
4N40A33704	NAS DRIVE 1TB BARE FOR PX SERIES, SERVER CLASS (EXCLUDES PX12-350R) (HITACHI HUA722010CLA330)	887770965117
4N40A33708	NAS DRIVE 2TB BARE FOR PX SERIES, SERVER CLASS (EXCLUDES PX12-350R) (HITACHI HUA723020ALA640)	887770965155
4N40A33709	NAS DRIVE 3TB BARE 7200RPM FOR PX SERIES (EXCLUDES ALL PX12R) (SEAGATE ST3000DM001)	887770965162
4N40A33711	NAS DRIVE 3TB BARE FOR PX SERIES, SERVER CLASS (EXCLUDES PX12-350R) (HITACHI HUA723030ALA640)	887770965186
4N40A33713	NAS DRIVE 4TB BARE FOR PX SERIES, SERVER CLASS (EXCLUDES PX12-350R) (HITACHI HUS724040ALE640)	887770965209
4N60A33905	NAS POWER SUPPLY FOR PX4-300R, HOT-SWAPPABLE	887770965339
4N80A34102	NAS RAIL KIT FOR PX4-300R (MIN 28.4 IN MAX 33.5 IN)	887770965353
<b>Service Plans **</b>		
5WS0A37772	ENHANCED SERVICE PLAN PX4R -5 YEARS, 24/7 PHONE SUPPORT, NBD ON-SITE	887942292904
5WS0A37770	ENHANCED SERVICE PLAN PX4R -3 YEARS, 24/7 PHONE SUPPORT, NBD ON-SITE	887942292928
5WS0A37776	PREMIUM SERVICE PLAN PX4-R - 3 YEARS, 24/7 PHONE SUPPORT, 4-HOUR ON-SITE WITH SERVER CLASS SPARES KIT (ALL CAPACITIES)	887942292867
5WS0A37778	PREMIUM SERVICE PLAN PX4-R - 5 YEARS, 24/7 PHONE SUPPORT, 4-HOUR ON-SITE WITH SERVER CLASS SPARES KIT (ALL CAPACITIES)	887942292843
<b>Video Surveillance</b>		
4N70A34002	MINDTREE(R) SECUREMIND CAMERA LICENCES FOR 2 CAMERAS IX/PX SERIES	887942375195
4N70A34003	MINDTREE(R) SECUREMIND CAMERA LICENCES FOR 4 CAMERAS IX/PX SERIES	887942375201
4N70A34004	MINDTREE(R) SECUREMIND CAMERA LICENCES FOR 8 CAMERAS IX4/PX SERIES	887942375218
4N70A34006	MINDTREE(R) SECUREMIND CAMERA LICENCES FOR 16 CAMERAS PX SERIES ONLY	887942375232
4N70A34007	MINDTREE(R) SECUREMIND CAMERA LICENCES FOR 32 CAMERAS PX RACKMOUNT ONLY	887942375249

\*\* Available in most geographies, some restrictions apply

ADDITIONAL IMAGES

