# ReadyNAS 300/500/600 Series Network Attached Storage (NAS)

Data Sheet

RN312/RN314/RN316/RN526X/RN626X



## ReadyNAS: Storage Made Easy

The next generation 10gigabit Ethernet is quickly becoming the standard network backbone, driven by faster computing end-points and 802.11ac connected mobile devices. RN626X meets the demand of the next generation network by integrating a dual 10gigabit Ethernet interface, and by an architecture that is based on the powerful Intel Xeon server processor.

Set up and monitor your ReadyNAS® with the NETGEAR Insight™ app for iOS and Android. Insight is an industry first—the ease of use of an app-based management interface, allowing you to setup and monitor your ReadyNAS whether the ReadyNAS is on the network or not. Plug the Bluetooth adapter into the ReadyNAS, download the Insight app to your mobile device, and get a powerful view into your ReadyNAS.

Application data, virtual images, client files, email... the types of data central to running a successful business can seem endless. With ReadyNAS you finally have an advanced and easy-to use solution for centralizing, securing and controlling access to your digital assets. Way more than just simple unified (NAS and SAN) storage for your company, ReadyNAS allows you to do more than you ever thought you could afford by pairing the latest in performance with innovative efficiency technologies such as unlimited snapshots, thin provisioning and cloud-managed replication. Every networked attached storage (NAS) device from NETGEAR runs on the revolutionary ReadyNAS 6.0 operating system. This custom-built OS protects stored data not only with automatic RAID configuration, but is the first of its kind to feature the continuous data protection of unlimited snapshots along with real-time anti-virus and native encryption. Designed with ease-of-use in mind, ReadyNAS devices utilize proprietary ReadyCLOUD™ technology for cloud-based discovery, provisioning and even ongoing management.

These days, your data is your world. With ReadyNAS, protecting and accessing that world has never been easier. ReadyNAS 6.0 - Storage Made EASY.

## **Key Business Features**



 Automatic Backup & Sync: Using the ReadyCLOUD app for PC, scheduled protection is easier than ever before



 Bit Rot Protection: A proprietary technology protecting your files from unplanned degradation



• Unlimited Snapshots: Unlimited data snapshot capability for on-box protection and flexible data recovery



• XRAID2 & Instant Provisioning: Easily expand capacity and feel confident knowing that data is always protected



 Cloud-managed Replication: Maintain data sets in multiple locations or ensure protection of data from remote or branch office locations



• iSCSI and Thin Provisioning: Powerful tools for a businesses taking advantage of virtual infrastructures



• Anti-virus & Encryption: Keep data protected from outside threats and safe from prying eyes



 Modern GUI and Cloud/Remote Access from Anywhere: Sleek modern interface and patented technology for secure remote access without configuration effort

## **Key Business Solutions**



 File Server: Unified storage platform for sharing files between Windows, Mac and Linux-based computers



 Backup: RAID redundancy with automatic expansion and unlimited data snapshots for point-in-time restore



 Disaster Recovery: Cloud-managed replication for maintaining multiple sets of data and performing easy restores in case of disaster



Virtualization: Thin provisioning, iSCSI support and certified with VMware and Microsoft

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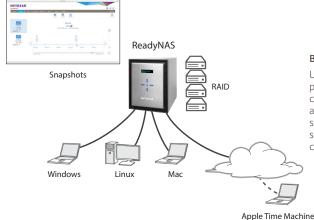
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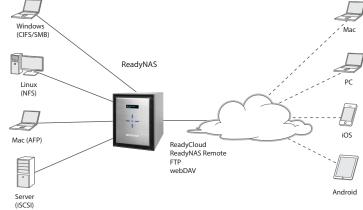
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### **ReadyNAS Solutions**

### File Sharing

These days, running a successful business often depends on successful file sharing—application data, virtual images, client files, email, all the digital files that make your business go. With ReadyNAS, you finally have an advanced and easy-to-use solution for centralizing, securing, and sharing those critical assets. Faster processors mean more simultaneous users can access unified storage—across PC, Mac and Linux environments. ReadyCLOUD and full Dropbox integration make it easier than ever to sync your important files, photos or videos across all of your webconnected devices.



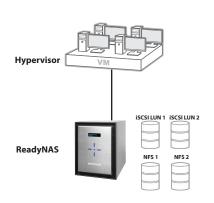


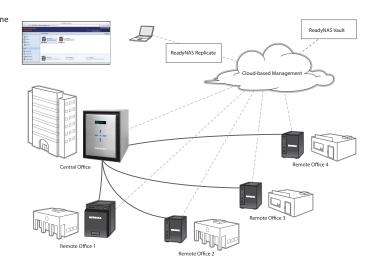
### Backup

Unlimited snapshots give you complete control over the past, present, and future of your data. This enterprise-class feature copies any point of time in the file system, can be manually or automatically scheduled, and can restore any version with a simple click. Other data protection innovations for disk-based storage like Real Time Anti-Virus and Encryption bring new confidence to the integrity of your data and back-ups.

### **Disaster Recovery**

The custom-built ReadyNAS OS protects stored data with automatic RAID configuration, the continuous security of Unlimited Snapshots, and easy-to-manage Cloud Replication. By maintaining multiple copies of vital data through cloud replication, it makes it easy for you to move data offsite to protect against natural disasters and theft.





### Virtualization

With Unlimited Snapshots, thin provisioning, and improved iSCSI support, ReadyNAS delivers a virtualization platform with next-generation features at an affordable price.

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# ReadyNAS Desktop Model Comparison - 300/500/600 Series











	ReadyNAS 312	ReadyNAS 314	ReadyNAS 316	ReadyNAS 526X	ReadyNAS 626X
СРИ	Intel Atom 2.1GHz Dual Core	Intel Atom 2.1GHz Dual Core	Intel Atom 2.1GHz Dual Core	Intel® D-1508 Dual Core 2.2GHz Server Processor	Intel® D-1521 Quad Core 2.4GHz Xeon Server Processor
Memory	2GB	2GB	2GB	4GByte DDR4 ECC	8GByte DDR4 ECC
Drive Bays	2	4	6	6	6
Drive Types Supported	SATA/SSD 2.5" or 3.5"	SATA/SSD 2.5" or 3.5"	SATA/SSD 2.5" or 3.5"	SATA/SSD 2.5" or 3.5"	SATA/SSD 2.5" or 3.5"
Hot Swappable Drives	Yes	Yes	Yes	Yes	Yes
Tool-less 3.5" disk installation	Yes	Yes	Yes	Yes	Yes
eSATA Expansion Ports	1	2 (1 Shared USB/ eSATA port)	2	1	1
Internal Capacity and Optional EDA500 Expansion Total Capacity	20/70	40/140	60/160	60/110	60/110
Gigabit LAN Ports	2	2	2	0	2
10Gbps LAN Ports	0	0	0	2 (10GBase-T)	2 (10GBase-T)
USB Ports	One (1) USB 2.0, Two (2) USB 3.0	One (1) USB 2.0, Two (2) USB 3.0	One (1) USB 2.0, Two (2) USB 3.0	Three (3) USB 3.0 (1 front, 2 rear)	Three (3) USB 3.0 (1 front, 2 rear)
HDMI Port	1	1	1	0	0
Power Supply	12V, 5A External 60W: input 100- 240VAC, 50/60Hz	12V, 7A External 90W: input 100- 240VAC, 50/60Hz	Internal 200W: input 100-240V AC, 50/60Hz	Internal 200W: input 100-240V AC, 50/60Hz	Internal 200W: input 100-240V AC, 50/60Hz
BTU at Full power supply utilization	51W	69W	111W	153W	173W
Power consumption: Operation	35W	49W	55W	88W	96W
Power consumption: (Wake on LAN)	627mW	843mW	802mW	798mW	800mW
Power consumption: (Power Off)	266mW	472mW	338mW	417mW	420mW
2-Line LCD Display	No	Yes	Yes	Yes	Yes
Touch Screen Navigation	No	Yes	Yes	Yes	Yes
Fan (mm)	92	92	120	120	120
Dimensions DxWxH (mm)	220 x 101 x 142	223 x 134 x 205	288 x 192 x 259	288 x 192 x 259	288 x 192 x 259
Weight (kg)	2.22	3.97	7.53	7.97	7.97
MTBF @ 40C (hours)	56119	55694	57049	54852	54852
ProSUPPORT Service Packs Available					
On Call 24x7	1-year: PMB0312 3-year: PMB0332 5-year: PMB0352	1-year: PMB0312 3-year: PMB0332 5-year: PMB0352	1-year: PMB0312 3-year: PMB0332 5-year: PMB0352	1-year: PMB0313 3-year: PMB0333 5-year: PMB0353	1-year: PMB0313 3-year: PMB0333 5-year: PMB0353
Bluetooth dongle	No	No	No	Yes	Yes
NETGEAR Insight set-up and monitor app	No	No	No	Yes	Yes

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### **Technical Specifications**

### Data Protection (Backup & Replication)

- Unlimited block-based snapshots for continuous data protection
- · Restore Snapshots to any point in time
- Restore Snapshot data from local admin GUI, ReadyCLOUD, or native Windows File Explorer
- · Scheduled and manual snapshots
- · Instantly clone snapshots
- · File Synchronization (rsync)
- Encrypted Remote Replication
- Cloud managed Remote Replication (ReadyNAS to ReadyNAS). No licenses required for ReadyNAS OS 6 devices.
- AES 256-bit volume based encryption
- X-RAID2™ (automatic single volume online expansion)
- Expand multiple RAID groups (vdev)
- · Single Disk, JBOD
- RAID Levels: 0, 1, 5, 6, 10
- · RAID Global Hot Spare
- · eSATA Expansion
- · Backup to external storage (USB/eSATA)
- · Apple Time Machine support
- Remote Apple Time Machine backup and restore (over ReadyNAS Remote)
- ReadyNAS Vault Cloud backup (optional service)
- DropBox file synchronization (requires DropBox account)
- Real-time Anti-Virus scanning using signature and heuristic algorithms. (No end-user licenses required) Protection for viruses, malware, worms, and Trojans.
- Bitrot automatic detection & correction for degraded media

# Storage Area Networks (SAN), Virtualization

- · Unlimited iSCSI LUN Snapshot
- · Thin or thick provision LUNs
- · Multi-LUN per target
- · LUN mapping
- LUN masking
- SPC-3 Persistent Reservation (iSCSI)
- · MPIO (iSCSI)
- · MC/S (iSCSI)
- · Max # iSCSI Target: 256
- Max # iSCSI LUN: 256
- · VMware vSphere 5
- Citrix XenServer 6
- Windows Server 2008 Hyper-V
- Windows Server 2008 Failover Clustering
- · Windows Server 2012 R2

### ReadyCLOUD (cloud access to ReadyNAS)

- ReadyCLOUD portal based data access and management
- · Upgrade firmware remotely
- VPN quality remote data transfer and management
- Share data with friends & co-workers directly from portal
- · Share file via email link

### ReadyCLOUD Client Applications

- ReadyCLOUD client applications for Apple OS X, Microsoft Windows, Android, and Apple iOS
- VPN quality remote data transfer and management
- Simple remote access through ReadyCLOUD client (no firewall or router configuration needed)
- Sync files/folders between PC (Mac/ Windows) & ReadyNAS
- Sync files/folders between multiple PCs and ReadyNAS
- Sync files/folders between multiple users & ReadyNAS
- Backup files/folders from PC to ReadyNASSync files/folders between PC (Mac/
- Windows) & ReadyNASSync files/folders between multiple PCs and
- Sync files/folders between multiple PCs and ReadyNAS
- Sync files/folders between multiple users & ReadyNAS
- · Backup files/folders from PC to ReadyNAS

### File System & Transfer Protocols

- ReadyNAS OS 6.2 or later
- Linux 3.x
- Internal File System: BTRFS
- External File System: EXT3, EXT4, NTFS, FAT32, HFS+
- · Copy-on-write file system
- · Data Compression
- Microsoft Network (CIFS/SMB 3)
- Apple OS X (AFP 3.3)
- · Linux/Unix (NFS v4)
- Internet (HTTP)
- Secure Internet (HTTPS)
- File Transfer Protocol (FTP)
- FTP over SSL / TLS (explicit)
- FTP Passive mode with port range setup
- FTP Bandwidth control
- FTP Anonymous
- FTP Transfer Log

- · Secure Shell (SSH)
- Web Authoring (WebDAV)
- Storage Array Network (iSCSI)
- File Synchronization (rsync)
- · Local web file manager

### Users/Groups:

- Max # Users: 8192
- Max # User Groups: 8192
- · Max # Share Folder: 1024
- · Max # Concurrent Connections: 1024
- · Share Folder Level ACL Support
- Advanced Folder Permissions with Subfolder ACL support for CIFS/SMB, AFP, FTP
- Microsoft Active Directory (AD) Domain Controller Authentication
- Local access list
- · ReadyCLOUD based ACL
- · Domain user login via CIFS/SMB, AFP, FTP

### Management

- ReadyCLOUD cloud-based discovery and management
- RAIDar local discovery agent (Windows/Mac)
- Save and restore system configuration (clone devices)
- · Local event log
- Connection reporting (SMB)
- Local Graphical User Interface (GUI)
   Languages: English, German, French,
   Japanese, Chinese (Traditional & Simplified),
   Russian, Swedish, Portuguese, Italian,
   Spanish, Polish, Czech, Dutch, Korean
- Unicode support
- · Volume Management
- Thin provision Shares and LUNs
- Instant Provisioning/Expansion with data protection
- · Restore to factory default
- Operating Systems supported: Microsoft Windows 7, 8/8.1, 10, Microsoft Windows Server 2008 R2/2012, Apple OS X, Linux/ Unix, Solaris, Apple iOS, Google Android
- Supported Web Browsers (Microsoft Internet Explorer 9+, Mozilla Firefox 14+, Google Chrome 20+, Apple Safari 5+)

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## **Technical Specifications**

### **System Monitoring**

- Device capacity, performance, resource and health monitoring
- Bad block scan
- · Hard Drive S.M.A.R.T.
- · File System Check
- · Disk Scrubbing
- · Disk Defragment
- · Volume balance
- · Alerts (SMTP email, LCD, SNMP, local log)
- · Auto-shutdown (hard drive, fan, UPS)
- · Auto-restart on power recovery

### **Networking Protocols**

- · TCP/IP
- · IPv4
- · Next-generation Internet Protocol (IPv6)
- · Static IP Address
- · Dynamic IP Address
- · Multiple IP Settings
- · DHCP Client
- UPnP Discovery
- Bonjour Discovery
- Link Aggregation IEEE 802.3ad
- Port Trunking (balanced round robin, active backup, balance xor, broadcast, 802.3ad link aggregation LACP, transmit load balancing, adaptive load balancing)
- Hash Types IEEE 802.3ad LACP or XOR (Layer 2, Layer3, Layer 4)
- · Jumbo Frames
- Static routes
- Secure Shell (SSH)
- · Simple Network Management Protocol v2, v3
- · Network Time Protocol (NTP)

#### Media

- ReadyDLNA (UPnP DLNA Media Server)
- ReadyDLNA streams to any compliant device including Playstation and Xbox
- ReadyDLNA mobile clients for remote media streaming (iOS, Android)
- ReadyDLNA supported music formats (wav, wma, pcm, ogg, mp3, m4a, flac, aac)
- ReadyDLNA supported photo formats (jpg, jpeq)
- ReadyDLNA supported video formats (3gp, mp4, wmv, xvid, vob, ts, tivo, mts, mpeg, mpg, mp4, mov, mkv, m4v, m4p, m2t, m2ts, flv,flc, fla, divx, avi, asf)
- ReadyDLNA supported playlist formats (pls, m3u)
- ReadyNAS Surveillance (free trial, license required) supports over 85 brands and 2000 models of IP cameras
- ReadyNAS Surveillance supports up to 16 cameras for ReadyNAS 300 series, 32 cameras for ReadyNAS 516 & 64 cameras for ReadyNAS 716
- · iTunes Server
- iTunes supported audio formats (mp3, m4a, m4p, wav, aif)
- iTunes supported video formats (m4v, mov, mp4)
- $\cdot \text{ iTunes supported playlist formats (m3u, wpl)}\\$
- TiVo Archiving (varies by model and region)
- Plex Media Server streams to DLNA and Plex clients (mobile, desktop, Google TV, Roku, Samsung & LG TVs)

### Compliance

- ENGR 10049 EST Environmental Stress Test Guideline
- ENGR 10045 EVT Engineering Validation Test Guideline
- ENGR 10048 CVT Compliance Validation Test Guideline
- ENGR 10046 System Validation Test Guideline
- ENGR 10023 HALT Accelerated Life Test Guideline
- ENGR 10036 CDG Component Derating Guideline

#### **Environment**

- Noise levels: <28dBA @ 30C (ReadyNAS 516/716), <24.9dBA @ 30C (all other units)</li>
- · Operating Temperature: 0-40C
- Operating Humidity: 5-95% relative humidity, non-condensing
- . Smart Fan
- · Scheduled Power on/off
- · UPS Support
- Network UPS with SNMP Management
- · Wake on LAN
- Hard drive disk spin down
- Schedule power on/off
- Auto-power on (after shutdown)
- AC Input Power Voltage 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Certification: FCC Class B, CE Class B, RoHS, VCCI Class B
- · Warranty: 5 years\*

### **Accessories**

• RTRAY05: Replacement/additional 3.5" or 2.5" disk drive tray

### · Add-on Applications

- One click installation of add-on applications directly through local GUI
- Application available for productivity, media, backup, surveillance, and many others.
- NETGEAR applications include Surveillance, Photo Sharing, Advanced configuration
- Partner applications include BitTorrent Sync, Plex, Memeo, DVBlink
- Community applications include Transmission, ownCloud, Qbittorrent, mqSQL, VPN server, Syslog, Wordpress, joomla, Media Wiki, and others
- · Application availability subject to change
- Applications may impact overall performance
- Software Development Kit (SDK) available for 3rd party developers



### INDUSTRY-LEADING 5-YEAR HARDWARE WARRANTY

5-year next-business-day replacement, 90 day complimentary technical support