

Compatible Hardware Lists

XigmaNAS works with a wide variety of hardware, there is no way we can test every combination available or guarantee that your particular hardware will be 100% compatible. It is your responsibility to determine if your hardware will work with a particular version of XigmaNAS? The first step in finding out is to take a look at the versions and check' Compatibility List. If your hardware is on the list for a particular version.

Building Your Ultimate Server

So far over the years we have found that systems that are build on Intel chipsets and Intel network interfaces gives lesser problems/bugs and does perform a little better than some other brands. We also see regular commits and driver updates for Intel hardware in the FreeBSD sources.

Motherboard of choice: Consumer boards and often "prosumer" boards are not always the best choice for a 24/7 running server. All the extra hardware that allows you to do overclocking, exotic audio and video features, etc is a big waste of power. Even when left disabled in the BIOS they will use power 24x7 nonstop. It might have all sorts of great features that are useful for desktops but we aren't building a desktop. We're building a server and we're looking for reliability and high uptime. You want a motherboard that has as much on-board that you need without the extra stuff you don't. For this we recommend server-grade boards like they are made by Supermicro, Supermicro is known for good engineering experience with server-grade hardware!

An extra bonus is the fact that most of those comes with an onboard IPMI lan connection. IPMI is really awesome. You can remotely connect to your server's if you don't want to leave a monitor/keyboard/mouse hooked up all of the time this *is* something you should get. It's easy to install an XigmaNAS.ISO over IPMI and/or adjust your Bios settings, or run the console of the server from any desktop/laptop you use and if needed, from anywhere around the world.

CPU of choice: There is no need to buy an ultra expensive CPU. When choosing from the recommended CPUs make sure your CPU is 64-bit compatible with your motherboard. We do recommend Intel Xeon Dual core's or better as those do support ECC if you really like to know what we prefer. In the end it's your choice. Keep in mind for high network transfer speed that the CPU frequency is important for Samba as Samba is single-threaded on a per-user basis. Generally any 3Ghz+ CPU will be more than capable of handling Samba at Gigabit speeds without a problem. Something that is mostly overlooked by a lot of users and custom builders.

Hardware issues

- If you have hardware problems, or you suspect hardware problems, determine exactly what hardware you are using; CPU, MotherBoard make and model, controller's IDE, SATA, RAID, SCSI and USB, NIC make and model, etc..
- If you find that a piece of your hardware does not appear to be currently supported, please endeavor to find the FreeBSD drivers, or a link to them yourself by (XigmaNAS x.x.x.x.xxxx release based on FreeBSD version.

- Reviewing the Hardware compatibility list, select one from below.
- Searching your hardware vendors website for FreeBSD compliant drivers (they may not exist and you may have to check with the vendors support site to find out if they exist or are under development).
- If you find drivers, please submit a [Feature Request](#) that includes the web link of the driver and the make and model of the hardware.
- If you **'think'** a feature might be useful to other users, post it to [XigmaNAS forum](#) for the community to review and comment on.

XigmaNAS & FreeBSD Versions

Default XigmaNAS hardware support:

XigmaNAS	FreeBSD Version	Link Hardware list
11.4.0.4.xxxx	11.4	FreeBSD 11.4R Hardware Compatibility List
12.1.0.4.xxxx	12.1	FreeBSD 12.1R Hardware Compatibility List
Past releases	FreeBSD Version	Link Hardware list
12.0.0.4.xxxx	12.0	FreeBSD 12.0R Hardware Compatibility List
11.3.0.4.xxxx	11.3	FreeBSD 11.3R Hardware Compatibility List
11.2.0.4.xxxx	11.2	FreeBSD 11.2R Hardware Compatibility List
11.1.0.4.xxxx	11.1	FreeBSD 11.1R Hardware Compatibility List
11.0.0.4.xxxx	11.0	FreeBSD 11.0R Hardware Compatibility List
11.0.0.3.xxxx	11.0	FreeBSD 11.0R Hardware Compatibility List
10.3.0.3.xxxx	10.3	FreeBSD 10.3R Hardware Compatibility List
10.2.0.2.xxxx	10.2	FreeBSD 10.2R Hardware Compatibility List
10.1.0.2.xxxx	10.1	FreeBSD 10.1R Hardware Compatibility List
9.3.0.2.xxxx	9.3	FreeBSD 9.3R Hardware Compatibility List

SATA NAS Hard Drives

Please learn about the precautions you must take when using so called “Green” drives from **any** manufacturer. It is up to you to understand the tradeoffs between power consumption, speed, and safety of your data! Please read: [Q: Should I use so called “Green” drives in a NAS system and what is WDIDLE?](#) before buying your drives. XigmaNAS highly recommends 24/7 Certified drives!

update 2020-04-14 [Western Digital admits 2TB-6TB WD Red NAS drives use shingled magnetic recording](#) avoid their 2TB-6TB drives with EFAQ label! also read [Shingled hard drives have non-shingled zones for caching writes](#)

It's best with all brands not to use SMR drives at all, DM-SMR DRIVE == STAY AWAY and unsupported by XigmaNAS

[hard-drive-failure-rates 2019](#) [hard-drive-failure-rates 2018](#) [hard-drive-failure-rates-q1-2017](#) [hard-drive-failure-rates-q3-2016](#)

Vendor	Model	Size	RPM	Works out of the box?	24/7 Certification	Energy Read/Write
HGST	Deskstar NAS (H3IKNAS30003272SE)	3TB	7200	Yes	24/7 Yes	
HGST	Deskstar NAS (H3IKNAS40003272SE)	4TB	7200	Yes	24/7 Yes	
HGST	Deskstar NAS (H3IKNAS500012872SE)	5TB	7200	Yes	24/7 Yes	
HGST	Deskstar NAS (H3IKNAS600012872SE)	6TB	7200	Yes	24/7 Yes	
HGST	Deskstar NAS (H3IKNAS800012872SWW)	8TB	7200	Yes	24/7 Yes	
HGST	Ultrastar He8 (HUH728080ALE600)	8TB	7200	Yes	24/7 Yes	7.4 W
HGST	Ultrastar He8 (HUH728080ALE604)	8TB	7200	Yes	24/7 Yes	7.4 W
HGST	Ultrastar He10 (HUH721010ALE600)	10TB	7200	Yes	24/7 Yes	6.8 W
Seagate	IronWolf HDD (ST1000VN002)	1TB	5900	Yes	24/7 Yes	3.6 W
Seagate	NAS HDD (ST2000VN000)	2TB	5900	Yes	24/7 Yes	
Seagate	NAS HDD (ST2000VN001)	2TB	5900	Yes	24/7 Yes	
Seagate	IronWolf HDD (ST2000VN004)	2TB	5900	Yes	24/7 Yes	5.0 W
Seagate	NAS HDD (ST3000VN000)	3TB	5900	Yes	24/7 Yes	5.6 W
Seagate	IronWolf HDD (ST3000VN007)	3TB	5900	Yes	24/7 Yes	5.6 W
Seagate	NAS HDD (ST4000VN000)	4TB	5900	Yes	24/7 Yes	4.8 W
Seagate	IronWolf HDD (ST4000VN008)	4TB	5900	Yes	24/7 Yes	4.8 W
Seagate	NAS HDD (ST6000VN0021)	6TB	5900	Yes	24/7 Yes	9.0 W
Seagate	IronWolf HDD (ST6000VN0041)	6TB	7200	Yes	24/7 Yes	9.0 W
Seagate	NAS HDD (ST8000VN0002)	8TB	5900	Yes	24/7 Yes	9.0 W
Seagate	IronWolf HDD (ST8000VN0022)	8TB	7200	Yes	24/7 Yes	9.0 W
Seagate	IronWolf Pro HDD (ST8000NE0004)	8TB	7200	Yes	24/7 Yes	7.4 W
Seagate	IronWolf HDD (ST10000VN0004)	10TB	7200	Yes	24/7 Yes	6.8 W
Seagate	IronWolf Pro HDD (ST10000NE0004)	10TB	7200	Yes	24/7 Yes	6.8 W
Seagate	IronWolf HDD (ST12000VN0007)	12TB	7200	Yes	24/7 Yes	7.8 W
Seagate	IronWolf Pro HDD (ST12000NE0007)	12TB	7200	Yes	24/7 Yes	7.8 W
Seagate	IronWolf HDD (ST14000VN0008)	14TB	7200	Yes	24/7 Yes	7.9 W
Seagate	IronWolf Pro HDD (ST14000NE0008)	14TB	7200	Yes	24/7 Yes	7.9 W
Seagate	IronWolf HDD (ST16000VN001)	16TB	7200	Yes	24/7 Yes	7.3 W
Seagate	IronWolf Pro HDD (ST16000NE000)	16TB	7200	Yes	24/7 Yes	7.6 W
Western Digital	Red (WD10EFRX)	1TB	5400	Yes	24/7 Yes	3.3 W
Western Digital	Red (WD20EFRX)	2TB	5400	Yes	24/7 Yes	4.1 W
Western Digital	Red (WD30EFRX)	3TB	5400	Yes	24/7 Yes	4.1 W
Western Digital	Red (WD40EFRX)	4TB	5400	Yes	24/7 Yes	4.5 W
Western Digital	Red (WD50EFRX)	5TB	5400	Yes	24/7 Yes	5.3 W
Western Digital	Red (WD60EFRX)	6TB	5400	Yes	24/7 Yes	5.3 W
Western Digital	Red (WD80EFZX)	8TB	5400	Yes	24/7 Yes	6.4 W

Vendor	Model	Size	RPM	Works out of the box?	24/7 Certification	Energy Read/Write
Western Digital	Red (WD100EFAX)	10TB	7200	Yes	24/7 Yes	6.2 W
Western Digital	Red Pro (WD2001FFSX)	2TB	7200	Yes	24/7 Yes	6.5 W
Western Digital	Red Pro (WD2002FFSX)	2TB	7200	Yes	24/7 Yes	7.8 W
Western Digital	Red Pro (WD3001FFSX)	3TB	7200	Yes	24/7 Yes	8.6 W
Western Digital	Red Pro (WD4001FFSX)	4TB	7200	Yes	24/7 Yes	8.6 W
Western Digital	Red Pro (WD4002FFSX)	4TB	7200	Yes	24/7 Yes	9.1 W
Western Digital	Red Pro (WD5001FFWX)	5TB	7200	Yes	24/7 Yes	10.6 W
Western Digital	Red Pro (WD6001FFWX)	6TB	7200	Yes	24/7 Yes	10.6 W
Western Digital	Red Pro (WD6002FFWX)	6TB	7200	Yes	24/7 Yes	9.1 W
Western Digital	Red Pro (WD8001FFWX)	8TB	7200	Yes	24/7 Yes	7.2 W
Western Digital	Red Pro (WD101KFBX)	10TB	7200	Yes	24/7 Yes	5.7 W
Western Digital	Red Pro (WD121KFBX)	12TB	7200	Yes	24/7 Yes	6.0 W
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LCD for LCDproc

Vendor	Model	Connection	Status	Drivers	Webpage	Info
CW12832 LCD	CW12832	Serial or USB	Works	CwLnx	check: http://www.cwlinux.com/products/cw12832	check: http://www.xigmanas.com/forums/viewtopic.php?f=51&t=955
HD44780 LCD	U204FB-A3	USB	Works	HD44780	check: http://www.lcdmodkit.com/lcd/U204FB-A3.html	Works perfectly check: https://www.xigmanas.com/forums/viewtopic.php?f=51&t=979&p=20716#p20716
HD44780 LCD	U204FY-A2	USB	Works	HD44780	check: http://www.lcdmodkit.com/lcd/U204FY-A2.html	
HD44780 LCD	U204FR-A2	USB	Works	HD44780	check: http://www.lcdmodkit.com/lcd/U204FR-A2.html	
HD44780 LCD	U204FW-A1	USB	Works	HD44780	check: http://www.lcdmodkit.com/lcd/U204FW-A1.html	
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UPS - Known to Work Uninterruptible Power Supplies

Vendor	Model	Notes / Reference
CyberPower	VALUE800E-GP	-dead link-
APC	Back-UPS 550 VA	-dead link-
APC	Back-UPS ES 350 to 650	UPS will not power down all the rest works
APC	Back-UPS CS 650 VA	UPS will not power down all the rest works
APC	APC BACK-UPS RS 1500VA	Reported working
APC	Smart-UPS 1000 VA	Reported working
Mustek	PowerMust 600 VA	Reported working

Vendor	Model	Notes / Reference
Power Inspired	CIX3085	Reported working
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note: The best supported ups devices are of the brand Eaton! [NUT UPS Compatibility List](#)

DOM/IDE/USB Flash Drives

Note - Some flash drives (SanDisk Cruzer, others) come pre-installed with an emulated, read-only CD-ROM drive holding data from the manufacturer. These should be wiped to ensure trouble free use.

Vendor	Model	Works out of the box?	Notes
Addonics	Addonics IDE CF	Yes	
HyperStone	Flash Disk 30/06/03 IDE CF	Yes	
IEI	CF-KIT04 Adapter	Yes	
Kingston	2GB Compact Flash	Yes	
PC Engines GmbH	CFDISK.1E	Yes	
PQI	512MB turbo DOM 40pin vertical	Yes	
SanDisk	Cruzer 4GB	No	Wipe before using! Then it works fine.
SanDisk	Ultra II CompactFlash 4GB	Yes	
SanDisk	Ultra II CompactFlash 8GB	Yes	
SanDisk	Extreme PRO® 16GB	Yes	Transfer speeds of up to 160MB/s
Transcend	2GB 40Pin vertikal	Yes	
Transcend	4GB 40Pin vertikal	Yes	
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XigmaNAS UPnP Hardware/Software Compatibility List

Hardware

- DENON AV Receivers: AVR-4810, AVR-4520, AVR-4311, AVR-4306, AVR-4308, AVR-3311, AVR-3313, AVR-3310, AVR-2313, AVR-2113, AVR-1913 and newer models (NET-AUDIO usage on the receiver, DENON AVR profile UPnP service).
- ONKYO AV Receivers: TX-NR3008, TX-NR3009, TX-NR5008, TX-NR5009 and newer models.
- Philips Streamium SL400i.
- Netgear MP101.
- Kodak EX1011 WiFi Digital Picture Frame.
- Linksys WMLS11B.
- Freecom MusicPal.
- Bewan iMedia HD 100 (ok via Samba (all formats) / ok via UPnP (except ISO and MKV which hang the box)).
- Tivo (with PyTivo).
- Popcorn Hour devices for streaming using cifs/smb or NFS

Software

- Plex App when Plex Media Server plugin on XigmaNAS is used.
- Winamp + On2Share for Winamp v0.1 Plugin
- Geebox 1.0
- Windows Media Player
- CLAMP
- VLC (UPNP version only)
- PyTivo

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