



# N12000 / N16000 HDD Compatibility List

<b>Enterprise:</b>	(note 2)
Environment:	Business critical
Availability:	24/7
Reliability:	High

<b>Hitachi</b>									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
Ultrastar SSD400M	HUSML4040ASS60C	SAS 6.0Gb/s	400	-	-	1.00.10	2.5"	OK 2011/10/11	
Ultrastar SSD400M	HUSML4020ASS60C	SAS 6.0Gb/s	200	-	-	1.00.10	2.5"	OK 2011/10/11	
Ultrastar 7K3000	HUS723030ALS640	SAS 6.0Gb/s	3000	7200	64	1.00.11	3.5"	OK 2011/12/05	
Ultrastar 7K3000	HUS723020ALS640	SAS 6.0Gb/s	2000	7200	64	1.00.11	3.5"	OK 2011/12/05	
Ultrastar 7K3000	HUA723030ALA640	SATA 6.0Gb/s	3000	7200	64	1.00.09	3.5"	OK 2011/04/27	
Ultrastar 7K3000	HUA723020ALA640	SATA 6.0Gb/s	2000	7200	64	1.00.09	3.5"	OK 2011/04/27	

<b>Seagate</b>									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
Cheetah 15K.7	ST3600057SS	SAS 6.0Gb/s	600	15000	16	1.00.10	3.5"	OK 2011/10/11	
Cheetah 15K.6	ST3450856SS	SAS 3.0Gb/s	450	15000	16	1.00.01	3.5"	OK 2011/02/09	
Cheetah 15K.6	ST3300656SS	SAS 3.0Gb/s	300	15000	16	1.00.01	3.5"	OK 2011/02/09	
Cheetah 15K.6	ST3146356SS	SAS 3.0Gb/s	146	15000	16	1.00.01	3.5"	OK 2011/02/09	
Savvio 10K.5	ST9900805SS	SAS 6.0Gb/s	900	10000	64	1.00.10	2.5"	OK 2011/08/12	
Savvio 10K.5	ST9300605SS	SAS 6.0Gb/s	300	10000	-	1.00.02	2.5"	OK 2011/03/03	
Constellation ES.2	ST33000650NS	SATA 6.0Gb/s	3000	7200	64	1.00.09	3.5"	OK 2011/05/20	
Constellation.2	ST91000640SS	SAS 6.0Gb/s	1000	7200	64	1.00.02	2.5"	OK 2011/03/03	
Constellation.2	ST9500620SS	SAS 6.0Gb/s	500	7200	64	1.00.02	2.5"	OK 2011/03/03	
Constellation.2	ST91000640NS	SATA 6.0Gb/s	1000	7200	64	1.00.02	2.5"	OK 2011/03/03	
Constellation.2	ST9500620NS	SATA 6.0Gb/s	500	7200	64	1.00.02	2.5"	OK 2011/03/03	
Constellation.2	ST9250610NS	SATA 6.0Gb/s	250	7200	64	1.00.02	2.5"	OK 2011/03/03	
Constellation ES	ST32000444SS	SAS 6.0Gb/s	2000	7200	16	1.00.02	3.5"	OK 2011/03/03	
Constellation ES	ST31000424SS	SAS 6.0Gb/s	1000	7200	16	1.00.02	3.5"	OK 2011/03/03	
Constellation ES	ST3500414SS	SAS 6.0Gb/s	500	7200	16	1.00.02	3.5"	OK 2011/03/03	
Constellation ES	ST2000NM0011	SATA 6.0Gb/s	2000	7200	64	1.00.10.3	3.5"	OK 2011/10/18	
Constellation ES	ST1000NM0011	SATA 6.0Gb/s	1000	7200	64	1.00.10.3	3.5"	OK 2011/10/18	
Constellation ES	ST500NM0011	SATA 6.0Gb/s	500	7200	64	1.00.10.3	3.5"	OK 2011/10/18	
Constellation ES	ST32000644NS	SATA 3.0Gb/s	2000	7200	64	1.00.02	3.5"	OK 2011/03/03	
Constellation ES	ST31000524NS	SATA 3.0Gb/s	1000	7200	32	1.00.02	3.5"	OK 2011/03/03	
Constellation ES	ST3500514NS	SATA 3.0Gb/s	500	7200	32	1.00.02	3.5"	OK 2011/03/03	



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<b>Toshiba</b>									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
MBF2-RC	MBF2600RC	SAS 6.0Gb/s	600GB	10025	16	1.00.10.3	2.5"	OK 2011/10/24	
MBF2-RC	MBF2450RC	SAS 6.0Gb/s	450GB	10025	16	1.00.10.3	2.5"	OK 2011/10/24	
MBF2-RC	MBF2300RC	SAS 6.0Gb/s	300GB	10025	16	1.00.10.3	2.5"	OK 2011/10/24	

<b>Western</b>									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
WD VelociRaptor	WD6000HLHX	SATA 6.0Gb/s	600	10000	32	1.00.01	3.5"	OK 2011/02/09	
WD VelociRaptor	WD4500HLHX	SATA 6.0Gb/s	450	10000	32	1.00.01	3.5"	OK 2011/02/09	
WD RE4	WD2003FYYS	SATA 3.0Gb/s	2000	7200	64	1.00.04	3.5"	OK 2011/03/03	
WD RE4	WD1503FYYS	SATA 3.0Gb/s	1500	7200	64	1.00.04	3.5"	OK 2011/03/03	
WD RE4	WD1003FBYX	SATA 3.0Gb/s	1000	7200	64	1.00.04	3.5"	OK 2011/03/03	
WD RE4	WD5003ABYX	SATA 3.0Gb/s	500	7200	64	1.00.04	3.5"	OK 2011/03/03	
WD RE4	WD2503ABYX	SATA 3.0Gb/s	250	7200	64	1.00.04	3.5"	OK 2011/03/03	



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<b>Consumer:</b>	(note 2)
Environment:	Small office / Home
Availability:	8 Hours / day
Reliability:	Moderate

<b>Hitachi</b>									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
Deskstar 7K3000	HDS723030ALA640	SATA 6.0Gb/s	3000	7200	64	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K3000	HDS723020BLA642	SATA 6.0Gb/s	2000	7200	64	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K3000	HDS723015BLA642	SATA 6.0Gb/s	1500	7200	64	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721010CLA332	SATA 3.0Gb/s	1000	7200	32	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721075CLA332	SATA 3.0Gb/s	750	7200	32	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721064CLA332	SATA 3.0Gb/s	640	7200	32	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721050CLA362	SATA 3.0Gb/s	500	7200	16	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721032CLA362	SATA 3.0Gb/s	320	7200	16	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721025CLA382	SATA 3.0Gb/s	250	7200	8	1.00.01	3.5"	OK 2011/02/09	
Deskstar 7K1000.C	HDS721016CLA382	SATA 3.0Gb/s	160	7200	8	1.00.01	3.5"	OK 2011/02/09	
Deskstar 5K3000	HDS5C3030ALA630	SATA 6.0Gb/s	3000	CoolSpin	32	1.00.09	3.5"	OK 2011/05/20	
Deskstar 5K3000	HDS5C3020ALA632	SATA 6.0Gb/s	2000	CoolSpin	32	1.00.09	3.5"	OK 2011/05/20	
Deskstar 5K3000	HDS5C3015ALA632	SATA 6.0Gb/s	1500	CoolSpin	32	1.00.09	3.5"	OK 2011/05/20	

<b>MemoRight</b>									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
Commercial Series	FTM Plus	SATA 6.0Gb/s	480			1.00.11	2.5"	OK 2011/12/13	
Commercial Series	FTM Plus	SATA 6.0Gb/s	240			1.00.11	2.5"	OK 2011/12/13	
Commercial Series	FTM Plus	SATA 6.0Gb/s	120			1.00.11	2.5"	OK 2011/12/13	
Commercial Series	FTM Plus	SATA 6.0Gb/s	60			1.00.11	2.5"	OK 2011/12/13	



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Seagate									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
Barracuda XT	ST33000651AS	SATA 6.0Gb/s	3000	7200	64	1.00.09	3.5"	OK 2011/05/09	
Barracuda XT	ST32000641AS	SATA 6.0Gb/s	2000	7200	64	1.00.09	3.5"	OK 2011/05/09	
Barracuda	ST3000DM001	SATA 6.0Gb/s	3000	7200	64	1.00.11	3.5"	OK 2011/11/25	
Barracuda	ST2000DM001	SATA 6.0Gb/s	2000	7200	64	1.00.11	3.5"	OK 2011/11/25	
Barracuda 7200.12	ST500DM002	SATA 6.0Gb/s	500	7200	16	1.00.11	3.5"	OK 2011/11/02	
Barracuda 7200.12	ST31000528AS	SATA 3.0Gb/s	1000	7200	32	1.00.01	3.5"	OK 2011/02/09	
Barracuda 7200.12	ST3750528AS	SATA 3.0Gb/s	750	7200	32	1.00.01	3.5"	OK 2011/02/09	
Barracuda 7200.12	ST3500418AS	SATA 3.0Gb/s	500	7200	16	1.00.01	3.5"	OK 2011/02/09	
Barracuda 7200.12	ST3500410AS	SATA 3.0Gb/s	500	7200	16	1.00.01	3.5"	OK 2011/02/09	
Barracuda 7200.12	ST3320418AS	SATA 3.0Gb/s	320	7200	16	1.00.01	3.5"	OK 2011/02/09	
Barracuda 7200.12	ST3250318AS	SATA 3.0Gb/s	250	7200	8	1.00.01	3.5"	OK 2011/02/09	
Barracuda 7200.12	ST3160318AS	SATA 3.0Gb/s	160	7200	8	1.00.01	3.5"	OK 2011/02/09	

Western									
Series	Model	Interface	Capacity (GB)	Rotational Speed (RPM)	Buffer Size (MB)	NAS Firmware	Form Factor	Recently Updated *	
Caviar Black	WD2002FAEX	SATA 6.0Gb/s	2000	7200	64		3.5"	Not recommend (*9)	
Caviar Black	WD1502FAEX	SATA 6.0Gb/s	1500	7200	64		3.5"	Not recommend (*9)	
Caviar Black	WD1002FAEX	SATA 6.0Gb/s	1000	7200	64		3.5"	Not recommend (*9)	
Caviar Black	WD6402AAEX	SATA 6.0Gb/s	640	7200	64		3.5"	Not recommend (*9)	
Caviar Black	WD2001FASS	SATA 3.0Gb/s	2000	7200	64		3.5"	Not recommend (*9)	
Caviar Blue	WD10EALX	SATA 6.0Gb/s	1000	7200	32		3.5"	Not recommend (*9)	
Caviar Blue	WD7500AALX	SATA 6.0Gb/s	750	7200	32		3.5"	Not recommend (*9)	
Caviar Blue	WD5000AAKX	SATA 6.0Gb/s	500	7200	16		3.5"	Not recommend (*9)	
Caviar Blue	WD10EALS	SATA 3.0Gb/s	1000	7200	32		3.5"	Not recommend (*9)	
Caviar Green	WD20EARS	SATA 3.0Gb/s	2000	IntelliPower	64		3.5"	Not recommend (*9)	
Caviar Green	WD15EARS	SATA 3.0Gb/s	1500	IntelliPower	64		3.5"	Not recommend (*9)	
Caviar Green	WD10EARS	SATA 3.0Gb/s	1000	IntelliPower	64		3.5"	Not recommend (*9)	
Caviar Green	WD20EADS	SATA 3.0Gb/s	2000	IntelliPower	32		3.5"	Not recommend (*9)	
Caviar Green	WD15EADS	SATA 3.0Gb/s	1500	IntelliPower	32		3.5"	Not recommend (*9)	
Caviar Green	WD10EADS	SATA 3.0Gb/s	1000	IntelliPower	32		3.5"	Not recommend (*9)	
AV-GP	WD20EVDS	SATA 3.0Gb/s	2000	IntelliPower	32		3.5"	Not recommend (*9)	



# N12000 / N16000 HDD Compatibility List

## Notes:

1. It's recommended to have the newest available firmware installed on the NAS.
2. For business critical environments, we HIGHLY RECOMMEND using enterprise HDD'S:
  - Enterprise versus Desktop HDD's (Intel)  
[ftp://download.intel.com/support/motherboards/server/sb/enterprise\\_class\\_versus\\_desktop\\_class\\_hard\\_drives\\_.pdf](ftp://download.intel.com/support/motherboards/server/sb/enterprise_class_versus_desktop_class_hard_drives_.pdf)
  - Western Digital TLER  
<http://www.wdc.com/en/library/other/2579-001098.pdf>
  - Samsung CCTL  
[http://www.samsung.com/global/business/hdd/learningresource/whitepapers/LearningResource\\_CCTL.html](http://www.samsung.com/global/business/hdd/learningresource/whitepapers/LearningResource_CCTL.html)
  - Seagate ERC  
<http://seagate.custkb.com/seagate/crm/selfservice/search.jsp?DocId=203991&NewLang=en>
3. The listed HDD's have all been tested in room temperature environments.
4. Please keep the NAS in an airconditioned environment.
5. Thecus does NOT guarantee any RAID data safety and the NAS storage administrator should back up important data regularly.
6. The EXT3 File System is limited to 8TB per volume. Use one of the following methods for larger RAID volumes:
  - 6.1 Use another File System (XFS, EXT4) that supports larger RAID volumes.
  - 6.2 Use multiple RAID volumes.
7. The EXT4 File System has a limitation of 16TB per volume.
8. The XFS file system has no upward limit on volume size.
9. WD has suggested not to use the desktop consumer hard disk in business-critical RAID environments because the drives may not work correctly.  
For more detail, please refer to [http://wdc.custhelp.com/app/answers/detail/a\\_id/1397](http://wdc.custhelp.com/app/answers/detail/a_id/1397)