ONStor / Nexsan NAS Solution FAQ

Introduction

ONStor and Nexsan now offer a bundled solution that delivers the performance and scalability of enterprise solutions from NetApp and EMC at a price point that matches entry solutions from Dell. Datacenter-proven in Fortune 500 companies, hospitals, government labs and universities, ONStor NAS Gateways provide fast, reliable storage for mission-critical applications in finance, healthcare, design automation, and more. When combined with Nexsan storage, ONStor NAS Gateways deliver scalable, shared storage that helps companies simplify management, enhance data protection, and reduce costs.

What is the bundle?

The bundle includes an ONStor Bobcat NAS Gateway[1] plus Nexsan SATAblade storage. Together they comprise a complete, industry-proven, cost-effective NAS solution that provides shared file storage for Windows, UNIX and Linux clients and servers on the LAN. The combined solution is a secure, high-performance data repository, simultaneously accessible by hundreds or even thousands of clients.

What are the ideal application environments?

SMB: Small to mid-sized companies that have two or more Windows servers and need two terabytes or more of file-level capacity are ready for ONStor/Nexsan solutions. Complete packages start under $35,000.

Enterprise: Companies with large numbers of distributed Windows file servers who wish to consolidate to a centralized storage environment. ONStor solutions grow non-disruptively to support up to 20,000 users and up to 40,000 terabytes of capacity.

Government & Education: ONStor is proven at universities, local government agencies and national labs. Scalable and cost-effective, this highly interoperable solution is a perfect fit for most open-systems environments.

Healthcare: ONStor provides the ideal environment for consolidating medical information and imaging data from multiple separate servers to a single, scalable storage environment. The solution is datacenter proven at regional healthcare providers across North America.

Technology: Design automation (CAD/CAM, EDA, etc…) users generate large amounts of file-based data that is mission critical. ONStor provides the perfect storage solution. Because

Bundle in Brief

What it is:
- ONStor NAS Gateway Model 2220
- Nexsan SATABlade (2TB or 3.2TB)

What it does:
Shared file storage, directly accessible by Windows, Linux, UNIX clients and servers on the LAN.

Key benefits:
- High performance (>200MB/sec Gateway throughput; 10K RPM drives in Nexsan SATABlade)
- Eliminates up to 20 Windows file servers
- Consolidates data backup
- Capacity scalable to petabytes

What it costs:
Street price under $35,000 for the complete solution.

Where to buy it:
End users buy the complete bundle from approved resellers.

[1] A "NAS Gateway" is a NAS system without disk. When combined with disk from Nexsan or other vendors the result is a complete NAS solution. One advantage of NAS Gateways vs. proprietary NAS solutions is open storage. With ONStor, you can deploy the exact storage that meets your application requirements, rather than being locked into a single vendor's offering. This saves cost, lets users re-deploy existing equipment, and provides buying flexibility down the road.

ONStor NAS Gateways allow Windows, UNIX, and Linux users to share information, this fast and scalable solution provides the ideal storage environment.

What problems does it solve?

ONStor NAS Gateways solve real storage problems today for enterprise customers around the world. Here are some typical applications:

Windows file server consolidation: Windows server proliferation is a huge issue for IT managers today. Capacity management, security patches, software updates, antivirus, and backup combine to make Windows servers a management nightmare. According to Forrester, each Windows server costs about $5200 annually to manage. ONStor provides an alternative that allows dozens of Windows file servers to be consolidated into a single ONStor/Nexsan solution.

The ONStor NAS Gateway solution is a file server, so it does not run applications such as Exchange. But ONStor NAS Gateways do replace Windows servers that are used for file sharing. According to Microsoft, file servers accounts for about 40% of all Windows servers.

Nielsen Media Research

"Enterprise-wide storage consolidation is essential to reducing datacenter management costs. ONStor's Bobcat NAS Gateway delivers agnostic NAS storage interoperability at an attractive price and performance point."

- Michael Goode, Director of Storage Services, Nielsen Media Research

Home directory storage: Data housed on distributed PC's is exposed. Important information can be lost to viruses, drive failure and user error. Implementing home directory storage using shared space on ONStor NAS Gateways can help. By maintaining individual user data in a centralized environment, that data is regularly backed up and scanned for viruses. This is a common use for Windows file servers and is an ideal application for ONStor NAS Gateways. Because ONStor NAS Gateways are multi-platform, they can be shared by all clients (including Windows, Linux and UNIX), thus reducing the number of servers needed.

Backup consolidation: Managing data backup in distributed environments is a pain. Multiple backup jobs across multiple distributed servers (usually targeted at a smaller number of tape devices) presents a real management challenge. ONStor simplifies that by consolidating the environment down to a smaller number of devices. Fewer things to backup means less to manage and fewer backup software licenses to buy.

UNIX/Linux/Windows consolidation: Stop managing separate file servers for different clients. With ONStor, UNIX, Linux and Windows users can share a single device. Data management is simple and data sharing is seamless.

Remote site storage: The low cost of the ONStor/Nexsan solution means that users at remote sites can now benefit from an enterprise-class NAS solution. Since ONStor NAS is easy to use (clients see the storage on the network just like a server), users can take advantage of highly reliable shared storage that costs far less than solutions from NetApp.

ESG

ESG Lab Validation

ONStor's Bobcat addresses storage needs in a highly intelligent and cost-effective way. The ESG Lab found that ONStor's Bobcat is easy to use, leverages existing storage, is optimized to support heterogeneous tiers of storage, and can easily scale as the customer's environment demands. In summary, it is an excellent solution for mainstream NAS environments."

- Tony Asaro, Sr Analyst, Enterprise Strategy Group

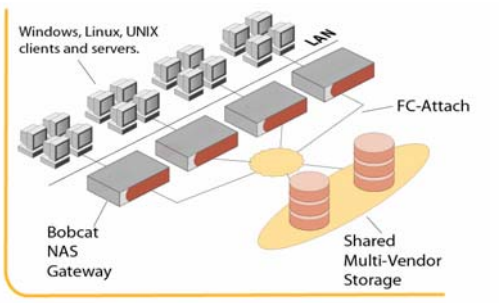
How is it superior to Windows file servers?

ONStor NAS Gateways offer significant advantages compared with Windows-based servers. The same advantages apply when compared with Windows Storage Server-based NAS devices from Dell, HP and others. Here are a few examples:

Performance: A single ONStor NAS Gateway delivers throughput in excess of 200MB/sec, vs. 30-40MB/sec for a Windows server. Performance utilization on Windows servers tends to be quite low (10% on average), so a single 1U NAS Gateway can often replace dozens of general-purpose devices.

Scalability: ONStor NAS Gateways grow seamlessly. It is never necessary to migrate users or data when adding either performance or capacity to the environment. That's because ONStor offers n-way clustering and integrated virtual servers. N-way clustering makes it simple to add extra Gateways that increase overall performance. Virtual servers allow administrators to move workload among Gateways without disrupting users. Load balancing and performance scaling has never been easier.

Availability: For true five-nines uptime, ONStor NAS Gateways can be configured with *multiple levels* of redundancy. Better than conventional clustered pairs, ONStor's n-way clustering enables zero downtime, anytime system maintenance, and non-disruptive firmware updates.



No Windows software: ONStor is a purpose-built hardware and software device, so there's no Windows OS. That means no patch updates, and no security holes.

Consolidated backup: Multiple Windows servers mean multiple environments to backup. ONStor lets you consolidate that to a single storage environment that simplifies the job and reduces backup license expense.

Integrated snapshots: Snapshots are built-in with ONStor. They are integrated in the file system and in the management interface. So this advanced feature (that creates point-in-time copies that let you roll back in time to recover corrupted or accidentally deleted files) is both efficient and easy to use.

How do I get anti-virus protection?

ONStor supports McAfee and Symantec anti-virus software. As with all enterprise-class NAS vendors, ONStor has implemented anti-virus as an external solution. That is, an external Windows server running McAfee or Symantec performs the scanning function. This implementation has a number of advantages vs. running the software directly on the NAS Gateway. One advantage is performance. By keeping the scanning function "out of band" (ie, not in the data path), data throughput is never impacted.

How do I backup my data?

ONStor supports most popular backup software packages, including VERITAS, Legato, Tivoli, and Commvault. Backup can either be done over the net (via a backup server), or directly to tape using the optional NDMP protocol.

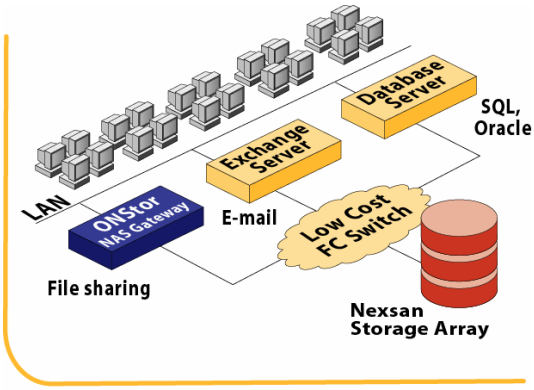
What about print serving?

Enterprise NAS devices (from ONStor and all others) do not act as print servers. The reason for this is simplicity. NAS is intended to be a focused, single-function solution that does one thing very well: serve

files. But when IT managers refer to file servers, they often say “file and print.” That is, the same server is used for file storage and for collecting documents being sent to printers. So when files are moved to NAS, the question is, what to do about print? The print serving function can be handled in several ways. One option is to consolidate print servers onto a smaller number of Windows servers that handle that job exclusively. Since these devices will not be responsible for file sharing, a small number of Windows devices can handle the task. Another option is to employ inexpensive stand-alone print servers.

Can I consolidate Exchange data?

It makes sense to consolidate Microsoft Exchange data and file data in one storage environment. With ONStor’s open storage environment, it’s easy. ONStor NAS Gateways employ the same kind of storage as an Exchange server: Fibre Channel attached RAID storage such as Nexsan’s SATABlade. Sharing that disk between the devices requires only a low-cost FC switch (probably $2000-$3000). This gives both the NAS Gateway and the ONStor device direct access to high-performance storage.



What about Oracle and SQL databases?

Database information, such as SQL and Oracle, can also be stored in the shared environment. Both of these applications can use external block-level storage such as Nexsan that can then be shared with the ONStor NAS Gateway.

What does it cost?

ONStor NAS Gateways start at a list price of $25,000. Nexsan storage solutions start under $10,000. Street pricing for a bundle with 2TB of storage will typically be under $35,000.

What do I need to order for the complete bundle?

From ONStor

- Bobcat NAS Gateway.
- Copper SFPs (two), for attaching the ONStor to the Nexsan.
- Service agreement
- Specify copper or optical for the LAN interconnect.
- Specify faceplate color (blue, black, red, green, or yellow)

From Nexsan

- SATAblade storage
- Specify capacity (2TB or more)

Where do I buy it?

The ONStor Bobcat NAS Gateway plus the Nexsan SATAblade. Together they comprise a complete, industry-proven, and cost-effective NAS solution. For inquiries, call either:

- ONStor: 877-2ON-STOR (877-266-7867)
- Nexsan: 866-4-NEXSAN (866-463-9726)

Summary

ONStor NAS Gateways consolidate enterprise-wide file services for Windows, UNIX and Linux clients and servers onto fibre-channel attached, multi-vendor disk arrays. Combined with Nexsan storage, the complete solution provides a cost effective, easy-to-implement approach to scalable, shared storage.

To find out more, please visit www.onstor.com or call toll-free 1-887-2ON-STOR.