A background image of a cable-stayed bridge with a white tower and cables, set against a blue sky. The image is overlaid with a white grid pattern.

NetApp Syncsort Integrated Backup

Simple, Integrated, Proven

Backup is Broken

Users and industry observers agree: backup is broken. Users are expressing frustration at ever increasing costs for solutions that no longer do what they're supposed to do because they are overwhelmed by data growth rates and the impact of server virtualization.

Backups are not getting done on time. Recovery takes too long. Users are driven to multiple solutions to solve specific problems. Disaster recovery is complex and unreliable. Costs are continually rising.

What's needed is a single, integrated combination of hardware and software that resolves all of these problems while delivering ease of use and cost savings from end to end. That solution is NetApp Syncsort Integrated Backup (NSB).

Fundamentally Different Architecture

NSB combines Syncsort software with NetApp high performance disk storage to modernize data protection for any storage environment

It starts with a fundamentally different backup design. Backups are sent by NSB agents directly to the NetApp target storage with nothing else in the data path, removing the need for a backup media or device server layer. This simplifies design, reduces cost and complexity, provides enhanced performance by eliminating bottlenecks, and delivers greater reliability by removing a potential point of failure.

The result is a data protection solution with 99% and higher backup success rates, which drives down management costs significantly.

Read and Move Data Once

A key design strategy of NSB is that data should be moved once and once only. Traditional backup copies the same data many times over, creating a significant amount of strain on application environments.

Reading data once reduces backup impact by 90% or more. Unlike host-side deduplication solutions, NSB does not scan and hash the file system to determine changed data, so the CPU impact is negligible, only a few percent. And NSB only does one full, initial base backup. After that, only new data blocks are copied.

While reduced impact is vital for any application, it is especially important in virtual environments where physical resources are shared and there are far fewer cycles available for backup processing. By limiting the impact of backup, NSB lets you put more virtual machines on a server, thereby enhancing return on investment.

Another benefit is that backups become much faster. Backups that used to take hours to run will complete in minutes with NSB. This also means you can back up more often. No longer do you have to rely on once-a-night backups with up to a 24 hour recovery point. With NSB, you can easily backup critical applications every hour, giving you a much better recovery point objective. And because only new, unique data blocks are moved, frequent backups use little more storage than once a night backups.

NSB also integrates with your applications to ensure that backups have data integrity and can be used immediately.

Store Smart for Rapid Recovery

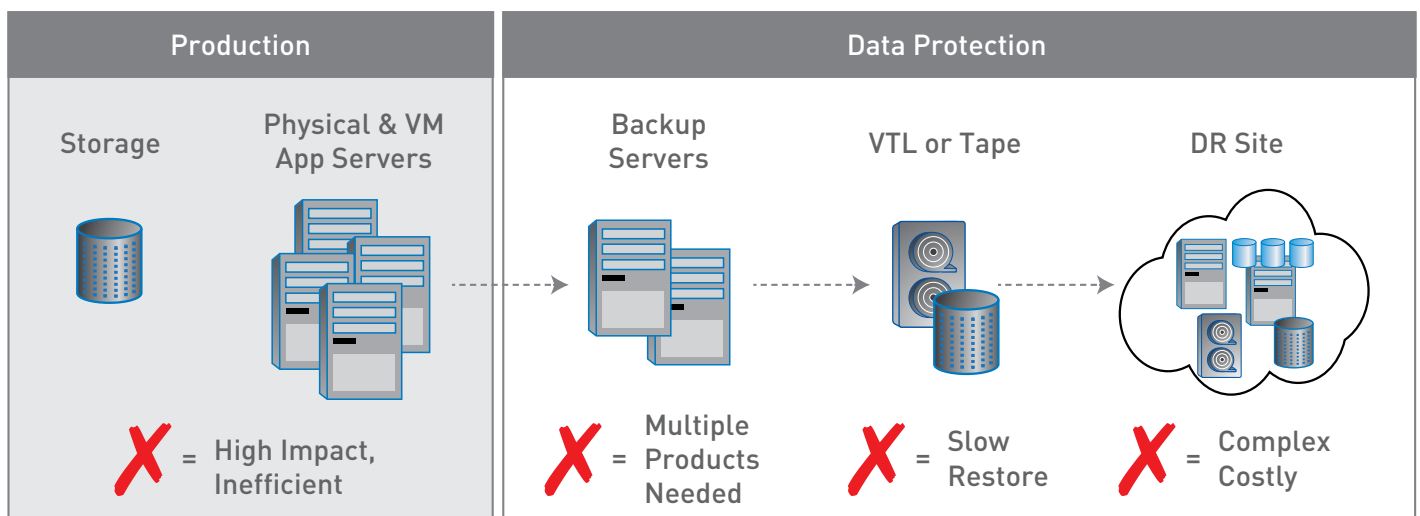
Another key design strategy of NSB is to *store smart*. That means several things.

First, it means storing backups as usable snapshots. This is where the “integrated” of NSB really comes into play. Rather than managing snapshots using a PC in front of the disk,

NSB uses the native, extremely efficient and reliable NetApp snapshot technology.

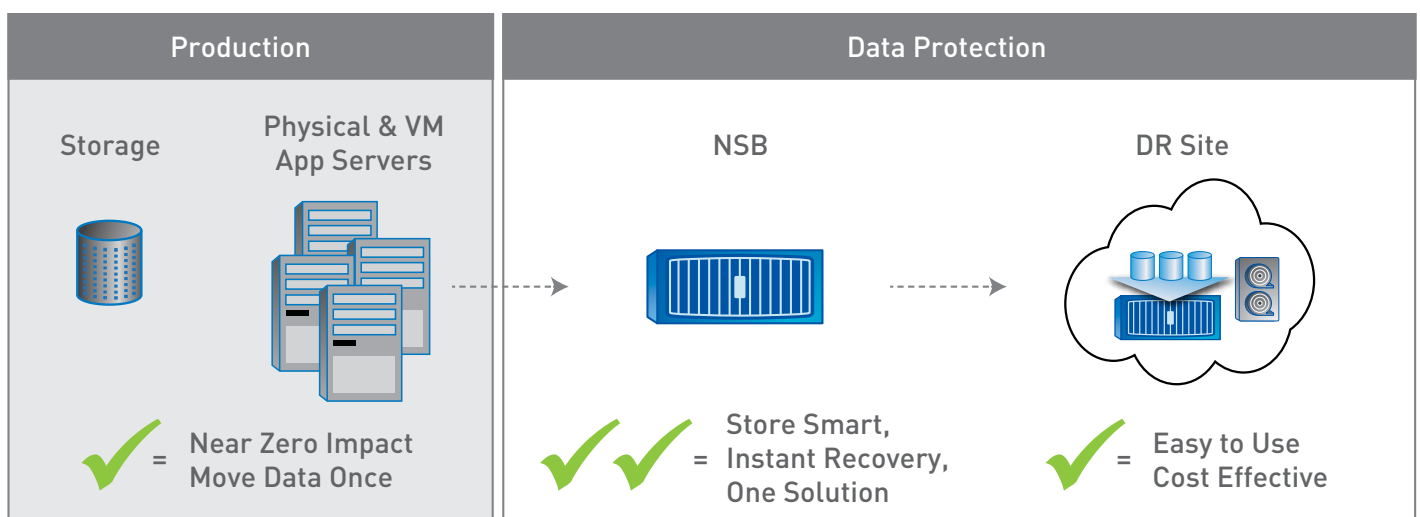
By leveraging snapshots, NSB collapses the recovery window by providing instant access to data. Every backup exists in a native format snapshot that can be directly accessed within minutes, no matter the size of the data set. Lost files are easy to find because snapshots are cataloged and searchable.

Traditional Backup Environment



Traditional backup environments have significant problems from end-to-end. Inefficient backup models impact server performance. A growth in point products adds complexity and cost. Data is stored in hard-to-access formats, slowing recovery time. And disaster recovery is both complex and expensive.

NSB Backup Re-Design



NetApp Syncsort Integrated Backup resolves all key backup issues. By moving data only once, backup impact is nearly eliminated. A single solution across physical and virtual servers with key application support simplifies the environment and saves costs. Smart storage of data provides rapid recovery. And integrated, easy to use disaster recovery reduces complexity and improves return on investment.

Snapshots can be mapped to stand in for lost volumes with only two mouse clicks. Entire failed systems can be recovered in minutes as virtual machines through patented Instant Virtualization™ technology or restored to new physical systems using Bare Metal Recovery.

Snapshot technology also lets you easily share data with multiple users. NSB makes use of the NetApp FlexClone technology letting you share snapshots of data with no additional storage overhead. This data can be used for multiple purposes: testing, development, reporting, data mining and so on.

Store smart also means that you shrink the data footprint as much as possible. NSB does this in two ways. First, it handles the problem at the source. By moving data only once, NSB doesn't create the enormous amounts of duplicate data that are created by traditional backup. On top of that, NSB also provides data deduplication to maximize storage efficiencies.

Integrated Disaster Recovery and Tape

Low-bandwidth data replication is included via NetApp SnapMirror® software, making NSB a full end-to-end disaster recovery solution. By replicating backup images to an alternate site, all of the same recovery mechanisms can be used remotely.

NSB is a disk-to-disk backup solution, but it can also spin data out to tape if needed for long term archiving. Even if tape is required, NSB's data reduction lets you extend retention time on disk to reduce tape acquisition, storage and shipping costs. Management across disk and tape reduces administrative overhead.

Integrated, single-pane-of-glass management with an easy-to-use and intuitive user interface makes data protection simple and reliable, freeing IT engineers to innovate rather than spending time on mundane operational tasks.

Finally, NSB uses a capacity based pricing model that eliminates the constant need to pay for licenses every time a server is added. This is especially useful in virtual environments where new servers can be deployed in minutes.

Simple, Integrated, Proven

NSB delivers the data protection you need, in a solution that is simple, integrated and proven.

Simple: Easy to use. Easy to deploy. Simple to maintain and expand when needed.

Integrated: A seamless combination of storage and software for both local and remote data protection.


Proven: Jointly engineered by NetApp and Syncsort over five years, with proven, field-tested results in hundreds of customer sites.

Support Matrix

Supported Primary Storage	Any block-level primary storage, both SAN and Direct Attached.
Supported Client Operating Systems	Microsoft Windows: Windows 2008 R2, Windows 2008, Windows 2003, Windows 2000 Linux: RedHat Enterprise Linux, SUSE Linux Enterprise Server, CentOS, Oracle Linux (x64, x86) Sun Solaris: Solaris 10, Solaris 10 SPARC, Solaris 9 SPARC
Supported Hypervisors	VMware: ESX Server v 3.0, 4.0, 4.1, 5.0; ESXi 3.5, 4.0, 4.1, 5 (vSphere) Microsoft Hyper-V: v 1.0 and 2.0.
Supported Applications	Microsoft Exchange: 2000, 2003, 2007 and 2010 Microsoft SQL Server: 2000, 2005, 2008, 2008R2 Oracle: 9.x (Solaris only), 10G, 11G (on supported OS platforms) Microsoft SharePoint: 2007, 2010

Please consult www.syncsort.com for the latest supported operating systems and applications.

NetApp Syncsort Integrated Backup Components

Syncsort NSB software	Client agents (unlimited); Master Server; Reporting Server (optional)
NetApp Software	SnapMirror®, SnapVault Secondary, FlexClone®, HTTP, iSCSI, NearStore, FCP
NetApp FAS disk system	NetApp FAS2000 and 3000 Series storage systems 

About NetApp

NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate business breakthroughs. NetApp's passion for simplicity, innovation, and customer success helps companies around the world go further, faster. To learn more about NetApp please visit netapp.com.



Strategic Alliance Partner

About Syncsort

Syncsort is a global software company that helps the world's most successful organizations rethink the economics of data. Syncsort provides extreme data performance and rapid time to value through easy to use data integration and data protection solutions. With over 15,000 deployments, Syncsort has transformed decision making and delivered more profitable results to thousands of customers worldwide.

syncsort RETHINK THE ECONOMICS OF DATA*

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