

iSCSI Killer Applications

Document Overview

The development of iSCSI has centered on building a foundation for IP SANs utilizing virtualization for efficiency, simplicity, availability and flexibility. iSCSI technology leverages existing networks to consolidate storage and servers, while increasing capacity, expandability and performance.

Here are some killer apps for iSCSI:

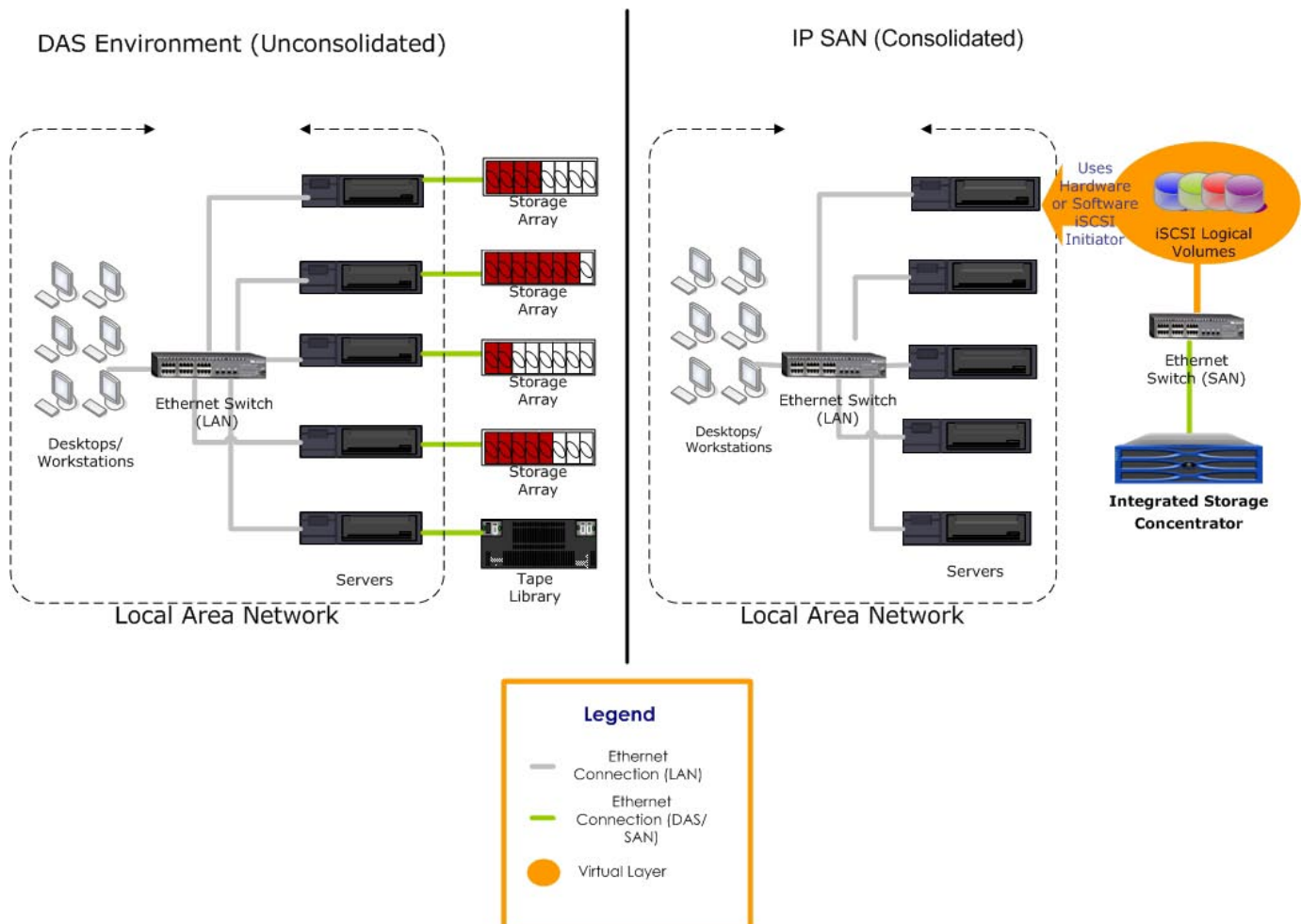
- ✓ Storage Consolidation
- ✓ Virtual Servers
- ✓ Disaster Recovery & Business Continuity
- ✓ Disk-to-Disk (D2D) Backup
- ✓ Blade Servers
- ✓ Email Archiving

Storage Consolidation

As enterprise storage requirements increase exponentially, cost and time needed to maintain the network becomes overwhelming. In order to achieve storage efficiency while reducing overhead and management expenses, IT administrators must consolidate storage resources. A consolidated storage infrastructure allows for painless scalability, high availability and enhanced storage utilization. Deploying an iSCSI SAN for storage consolidation provides exceptional cost-savings over traditional Fibre-Channel SANs by simplifying management. iSCSI SANs reduce the amount of storage required by increasing storage utilization. Other storage intensive tasks, including backups, nearline disaster recovery, and archiving can also be migrated to the IP SAN network, decreasing LAN traffic and network utilization. Learn how consolidating storage with IP SANs can provide efficiency and cost-savings.

Additional Resources

- » Capital Broadcasting Implements Blade Server, Email Archiving, and D2D
- » Ecker Enterprises Constructs Centralized Storage Framework with Backup Advantage
- » PBS-Connecting Stranded Servers Converged iSCSI and Fibre Channel SANs Improve Storage Utilization, Provisioning and Technology ROI



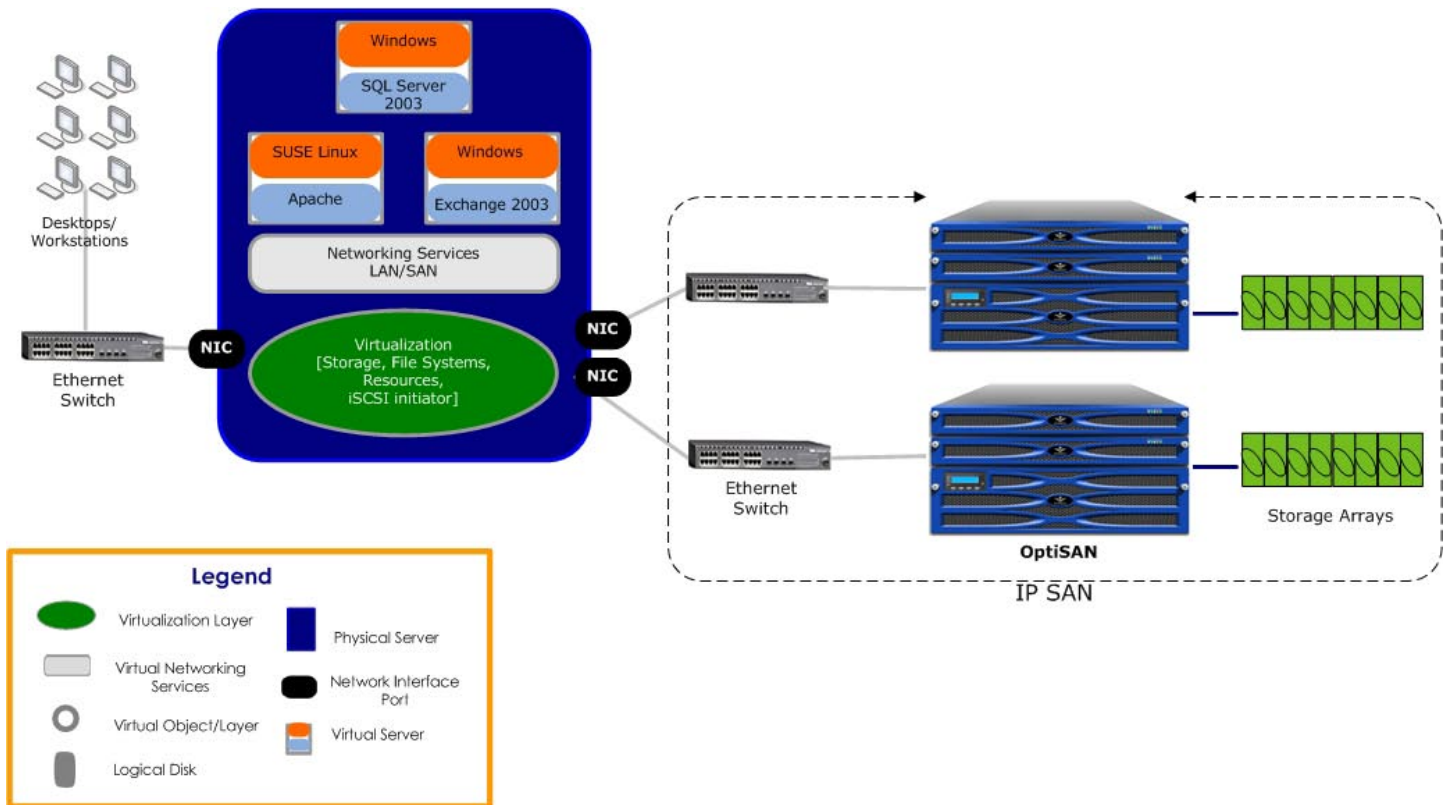
Virtual Servers

The effects of server sprawl can be devastating: high hardware and operating costs, reduced datacenter space, increased cooling and power consumption, and underutilized servers. Yankee Group research shows that server utilization is at a shallow 30%, while power and cooling costs cover 50% of total server expenses. In order to reduce system management requirements, capital expenditures, and administrative overhead, companies can benefit from a centralized and virtualized storage infrastructure environment by deploying virtual servers.

Server Virtualization allows organizations to consolidate physical servers into a single system running multiple operating systems and applications to enhance system utilization by up to 80%. IP SANs in conjunction with virtual servers simplify storage deployment for virtual machines without any downtime, while centralizing storage and server volumes for efficient storage provisioning and management.

Additional Resource

- » eBook: Virtual Infrastructure
- » Randolph College Boosts Storage I.Q. Using IP SAN
- » IP SAN Keeps Data Flowing for Palm Springs' Desert Water Agency by Supporting New Virtualization Initiative



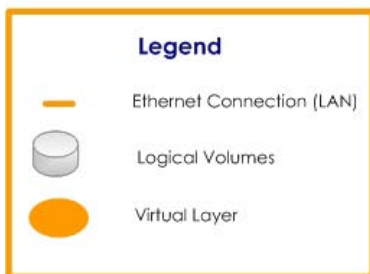
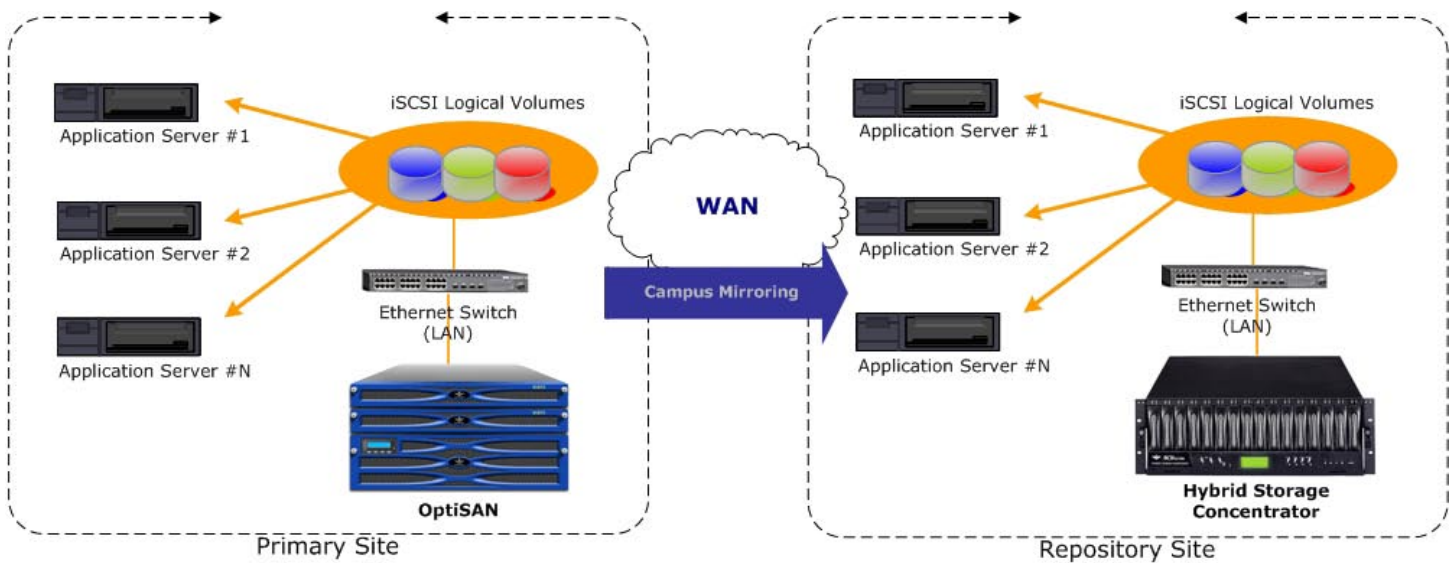
Disaster Recovery & Business Continuity

From the devastating hurricane Katrina that wiped out entire businesses to the severe Amazon s3 outage that stagnated companies that relied on its web services, the effects of a disaster are detrimental to businesses that require continuous data uptime. In fact, research shows that two out of five enterprises that experience a disaster go out of business within five years. With critical data at risk daily, businesses have to be more concerned with developing a comprehensive disaster recovery plan. An efficient insurance policy against disaster disruption is the implementation of a business continuity plan with an IP SAN.

SAN-based replication delivers a simple and convenient foundation for maximizing system reliability, availability and performance into one central solution. With asynchronous replication, copying data from one location to another or setting up copies is easily achievable across the wide area network (WAN). Deploying iSCSI SANs with Comprehensive Data Continuity (CDC) services offers a practical, cost-effective strategy to simplify business continuity efforts and enhance data availability.

Additional Resources

- » IP SAN Delivers Long-Term Benefits to LifeCare Assurance
- » Nancy's Specialty Foods Cooks up Key Ingredients for Business Continuity and Customer Compliance with Affordable, Easy-to-Use IP SAN
- » Denton Appraisal District Maintains Valuable Tax Data with StoneFly IP SAN



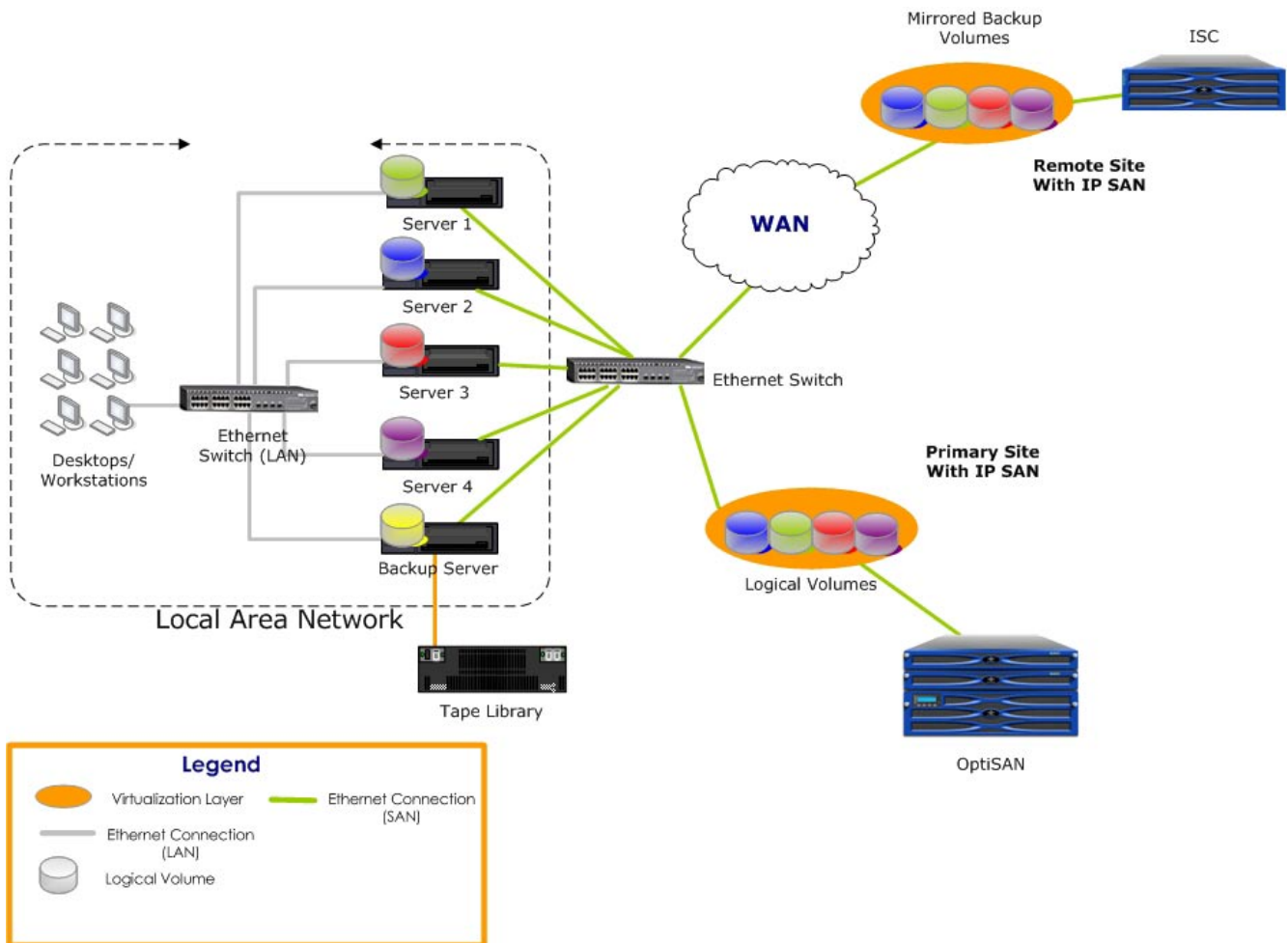
Disk-to-Disk (D2D) Backup

As storage capacities continue to expand, the cost advantage of tape backups have diminished, while low-cost disk arrays have become the popular backup solution. A survey conducted by ESG shows that 64% of the respondents have or are intending to implement a D2D backup solution. Disk-to-disk backup not only reduces backup time, it also accelerates restore time, better than tape backup, for on-the-fly data recovery. Integrating D2D backup with snapshot technology for instantaneous point in time replication enables reliable recovery and restoration of lost or corrupted files.

Additional Resources

- » Capital Broadcasting Implements Blade Server, Email Archiving, and D2D
- » IP SANs Deliver Cost-Effective D2D Backup and Recovery to Karen Foster Design
- » Shoreline Communications Meets a Rising Tide of Data Storage

iSCSI SANs integrate high availability features and expandable storage enables options for adding nodes and supporting primary, secondary and tertiary storage. For a complete IP SAN in a box supporting D2D backups, learn more about integrated storage concentrators.



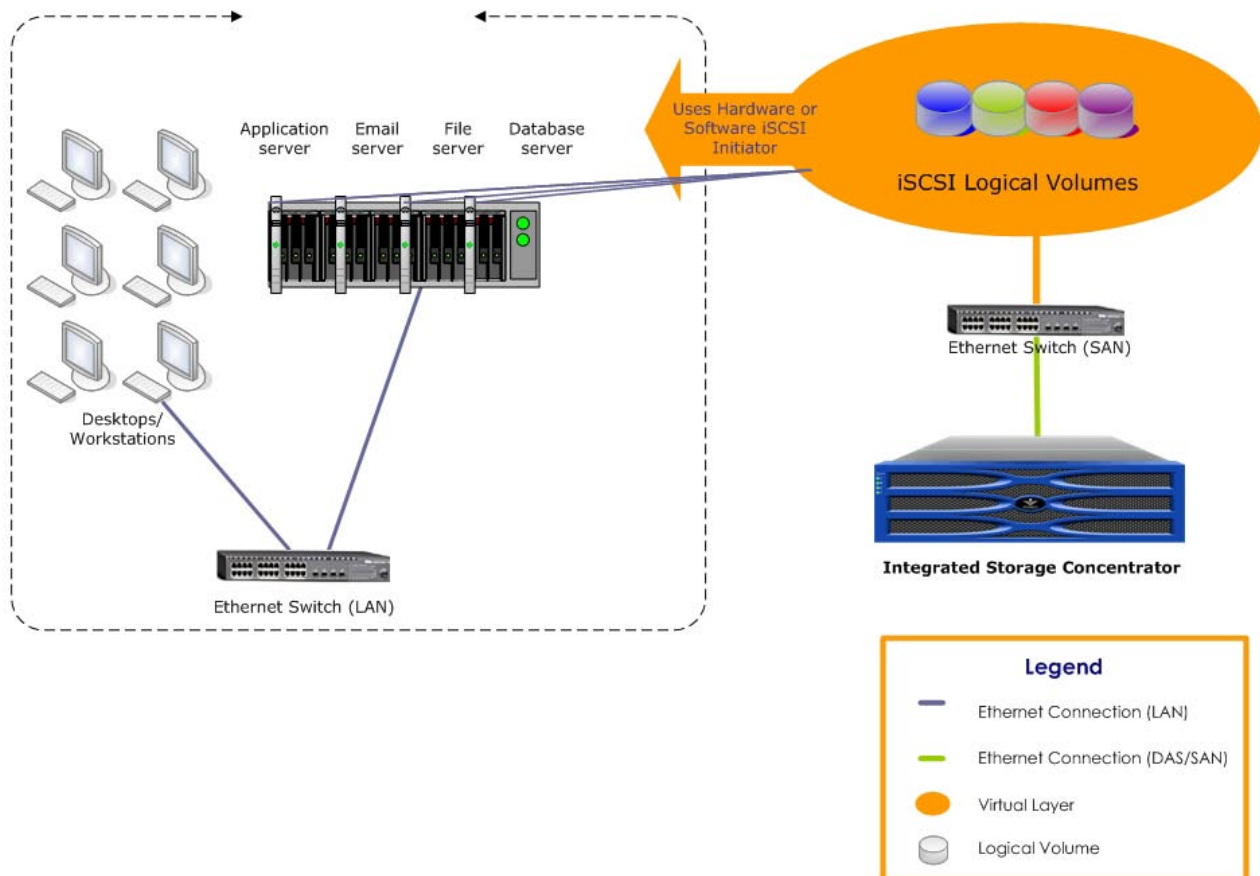
Blade Servers

In environments requiring hundreds of servers, the cost associated with managing individual servers are relatively high. With the help of high-density blade servers, enterprises can maximize data center resources and lessen infrastructure management costs by simplifying cabling, reducing power consumption and eliminating time-consuming IT administration. Deploying blade servers that use IP SAN storage enables server and storage centralization. With each blade incorporating features such as provisioning, load balancing and failover capabilities to reduce system downtime.

IDC reports that blade servers continue to be the fastest-growing segment of the worldwide server market, which has been fueled by increased consolidation incentives and high availability requirements. With the ability to boot from SAN there are significant advantages in deploying diskless blade servers to maintain high availability and reduce operational costs and complexities. Learn how deploying IP SANs in a blade server environment can consolidate storage resources and provide a centralized IT management system.

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- » Randolph College Boosts Storage I.Q. Using IP SAN



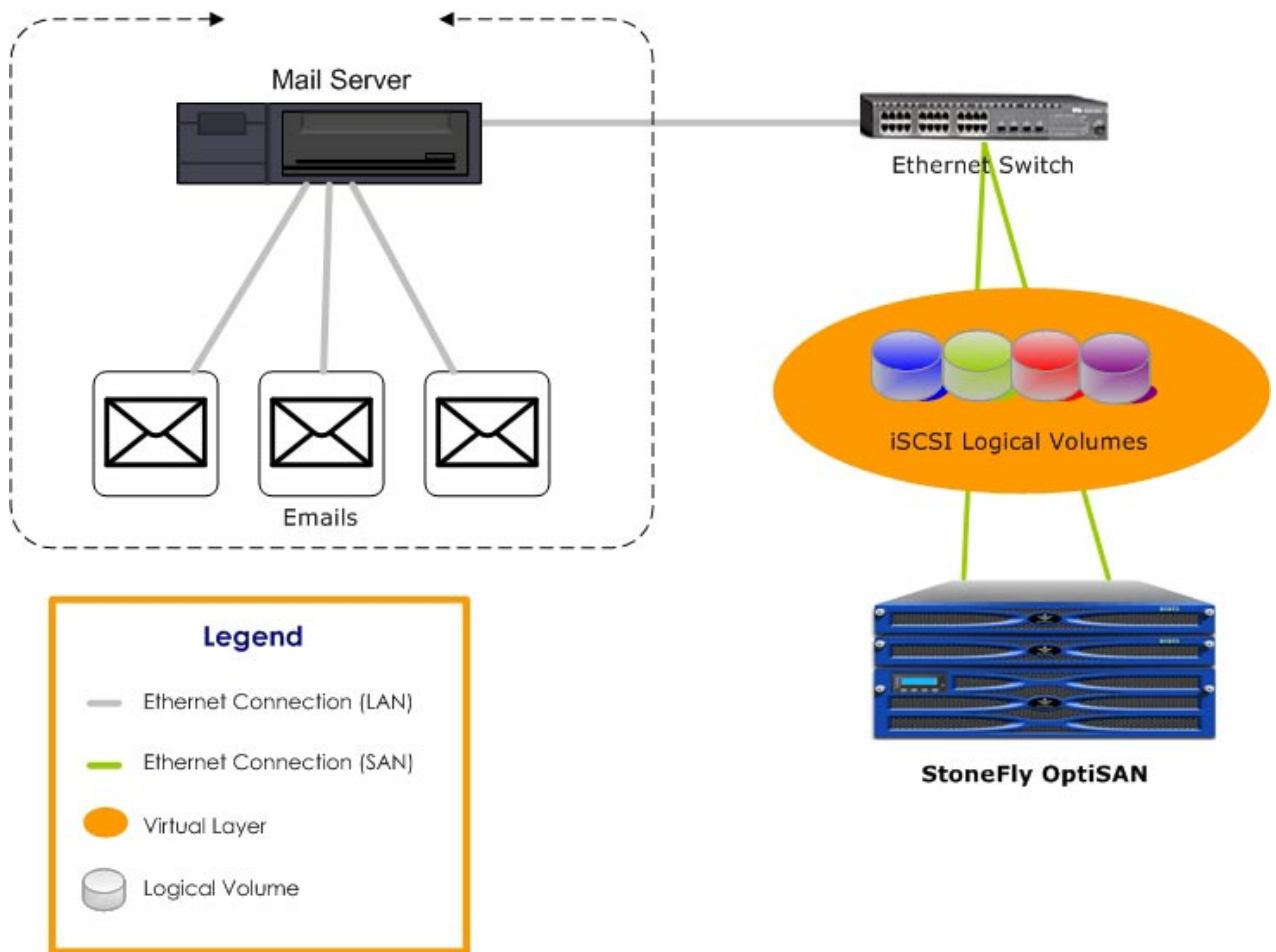
Email Archiving

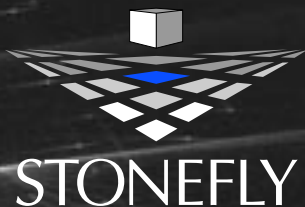
Growing e-mail volumes are increasing storage requirements and forcing enterprises to reevaluate email archiving and management. In order to comply with government regulations, industry standards and litigation surrounding email retention, archiving initiatives have increased management expenditure. According to a study, email archiving is becoming an integral part of regulatory compliance, but more importantly, for efficiently managing email storage growth and shrinking IT administration.

With help from iSCSI SANs, email archiving can streamline storage management, making full recovery and access to data simple. Deploying IP SAN architecture, featuring advanced storage services such as snapshots and synchronous mirroring, enhances data recovery performance. Find out how SANs can simplify email archiving, reduce backup windows, and expedite recovery time.

Additional Resource

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iSCSI Killer Applications

THE STONEFLY ADVANTAGE

StoneFly is one of the earliest vendors in the iSCSI space, designing its products during the first wave of iSCSI. As a result, Stonefly customers have been deploying StoneFusion based solutions since 2002. The StoneFusion powered IP SANs offer key features including active/active clustering, storage virtualization, snapshots, and asynchronous and synchronous mirroring. StoneFly solutions are cost-effective, and offer a range of deployment options to fit every deployment.

SOLUTIONS

StoneFly's cost-effective IP SANs are integral to storage consolidation efforts, server virtualization implementations, email archiving initiatives, layered disaster recovery, and business continuity planning.

AFFILIATIONS AND PARTNERS

StoneFly is a member of the Storage Networking Industry Association [SNIA] and the IP Storage Forum sub-committee. StoneFly partners with industry leaders including Intel, Microsoft, VMware, Xen Source, Sun Microsystems, emBoot, and Qlogic.

ABOUT STONEFLY

StoneFly, Inc., headquartered in San Diego, was founded in April 2000 to deliver upon the vision of simple and affordable storage optimization and disaster recovery protection through its pioneering IP SAN solutions. In 2006, DNF completed its acquisition of StoneFly Networks and StoneFly is a wholly-owned subsidiary of Dynamic Network Factory, Inc. (dba DNF Storage), a leading maker of high-performance network attached storage, storage area networks, RAID and iSCSI systems. Founded in 1989, DNF Storage is a privately-held company based in the Silicon Valley (Hayward, CA). DNF started as a U.S. subsidiary of the publicly-traded Japanese IT conglomerate, CSK Electronics, in 1989. In 1998, the company refined its strategy and began to focus the hardware group on storage solutions. Within a year, DNF's rapid growth resulted in its emergence as an independent, privately held spin-off. Since its inception, DNF has designed custom solutions for organizations of all sizes and built products for many major computer manufacturers. DNF has thousands of customers ranging from consumers and small-to-medium businesses, to government agencies, universities, hospitals, financial institutions and Fortune 500 companies. Key customers include UC Berkeley, MIT, the Federal Aviation Administration, FBI, Lockheed Martin, Bank of America, Citibank, Wells Fargo, Fujitsu, Honda Corporation of America, SBC, BAE Systems, and General Dynamics.

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