

Impulse Advanced Communications Leverages NexentaStor to Manage High Availability Infrastructure



NexentaStor Features

Optimize Performance

NexentaStor improves performance for all workloads by adopting commodity components and leveraging best-of-breed technology, such as flash, SSDs, and CPU architectures, that deliver a near linear scaling architecture to address enterprise environments.

Reduce Cost, Improve Disk I/O Throughput and Latencies

Accelerate storage by leveraging intelligent read and write caches based on commodity components with no vendor lock in.

Deliver Cost Savings with Flexibility: Impact Storage, Power, and Space

Use SSDs in combination, or replace magnetic disk drives to provide superior I/O throughput. Industry standard SSDs consume less power than 15K disks while increasing performance.

Business Overview

For more than 15 years, Impulse Advanced Communications has helped businesses gain a technological advantage by designing, implementing, and managing advanced communications networks that enable a geographically unbound workforce.

Based in Santa Barbara, California, Impulse supports an impressive list of businesses and governmental organizations through a suite of enterprise communications services on its high availability IP network—with hubs in San Luis Obispo, Goleta, Santa Barbara, and Los Angeles. Impulse also has wholesale and interconnection agreements with best-of-breed national Internet, voice, and data services providers, giving the company a worldwide service footprint.

Impulse provides value to growing, multi-location businesses looking for a local single-source business communications provider with significant and accessible engineering depth to design, implement, and manage a company's Internet, wide area networks, and voice systems.

Impulse's services include dedicated Internet access, enhanced quality Internet access, ClearStar-hosted IP PBX service, local and long distance telephone service, hosting, co-location, managed virtual private networks, and MPLS networks.

Challenges

As a company specializing in a variety of IT services, Impulse needed a sound internal infrastructure and a suite of robust data management tools. Like many other IT service providers, Impulse originally was a customer of legacy storage vendors.

Impulse started with the NetApp® Filer. However, Impulse quickly outgrew capacity and, when it came time to expand, the company faced a hefty price tag.

After its experience with NetApp, Impulse decided to try a different service provider: EMC®. Impulse deployed the EMC NS352 Celerra to manage its data storage needs. Soon after, Impulse discovered that EMC's technology had some technological shortcomings.

For example, the EMC NS352 maxed out with 2 GB/sec throughput, resulting in networking bandwidth that was far too low. When Impulse calculated they would max out its existing storage, they decided to evaluate other storage solutions that would mitigate costs and provide more robust data management software than the technology offered through either NetApp or EMC.

“To meet our storage growth, we had to upgrade our existing EMC appliance. However, we chose to replace EMC with NexentaStor instead. Nexenta provided best-in-class features and had superior performance compared to the EMC appliance.”

—Jessie Bryan, Dir. of Systems Engineering, Impulse Advanced Communications

Solution Overview

NexentaStor is the leading storage platform built upon ZFS technology. After consulting with Pogo Linux—a Nexenta Certified Partner—to consider alternative storage technologies, Impulse selected the pre-configured and pre-tested Pogo StorageDirector Z2 HA Cluster SAN solution. This solution—certified for NexentaStor Enterprise—provided a business continuity strategy that was ready to be deployed in hours, not months. NexentaStor was able to provide Impulse with:

Data is Highly Accessible: As an IT service provider, high-availability data storage is a must for Impulse. It's important to make data accessible to Impulse customers around the clock. NexentaStor supports high availability storage and Impulse trusts that its information will be available no matter where or when it's accessed, who needs to access it, or what device is used to do so.

Applications Hosted from Two Data

Centers: Impulse has deployed two data centers from remote locations, one of which is a Nexenta HA deployment. The two systems are connected to a single JBOD with active-active configuration.

VMware® ESX: Since virtualization is a tool often used by Impulse, it was important that its storage solution supported VMware-based activities.

NexentaStor Benefits

NexentaStor helps enterprise customers implement cost-effective, high performance storage by taking advantage of NexentaStor features like inline deduplication, unlimited snapshots, thin provisioning, and high availability clustering.

NexentaStor solution benefits that assisted Impulse in its long-term solution:

- Eliminated a single point of failure with active-active fail-over to a standby system.
- Established fail-over groups and implemented highly cost-effective disaster recovery.
- Achieved zero data loss and downtime with half the complexity of other storage solutions.
- Automated and non-disruptively tested fail-over/fail-back.
- Provided the option to set up manual and automated fail-over of critical applications and services in a clustered environment.

System Configuration

Pogo Storage:

- Director Z2 HA Cluster SAN solution—a pretested and pre-configured Nexenta-certified, high-availability storage solution

NexentaStor Version 3.0.4:

- HA Cluster Plug-In
- 24TB box and an expansion license

VMware Zimbra:

- 18 Web, email, and database servers for:
 - 250 servers
 - 5,000 Web sites
 - 10,000 Zimbra mailboxes
 - Zimbra nightly backups



Nexenta Systems is the leading supplier of enterprise-class OpenStorage solutions. Its flagship software-only platform, NexentaStor, delivers high-performance, ultra-scalable, cloud- and virtualization-optimized storage solutions.

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