IDC
Analyze the Future

BUYER CASE STUDY

# Balboa Park Online Collaborative Deploys the Exablox OneBlox Solution: Achieves Cost and Management Savings

Laura DuBois Ashish Nadkarni

## IDC OPINION

Object-based storage platforms hold promise of unprecedented scale while offering the management of infrastructure in a cost-contained manner. However, one of the challenges to broader adoption of object platforms is the lack of general-purpose file and block interfaces on IP-based storage systems that can be easily managed by IT organizations everywhere. Interfaces like NFS and CIFS or even iSCSI make it easy for the organizations to deploy these platforms without any application development or integration work. IDC believes that object-based platforms that offer purpose-built delivery models and deployment scenarios that leverage standard file or block interfaces in addition to the object interfaces will gain quicker market adoption than pure-play platforms. Exablox is breaking the mold, with its introduction of OneBlox, on how object-based platforms are delivered to the market. In addition:

- Exablox has chosen to suppress the underlying object-based platform and instead focus on the use case: unstructured data management for SMBs.
- Because of Exablox's focus on small and midsize businesses (SMBs), the company has chosen to lead with CIFS as the primary access mechanism and plans to release NFS and block access for virtual environments.
- Not ignoring the capabilities of the object platform itself, Exablox also plans to release cloud access and enterprise collaboration capabilities for OneBlox to allow its customers to offer an integrated experience to their users.

## IN THIS BUYER CASE STUDY

This IDC Buyer Case Study looks at the approach Exablox has taken in capitalizing on the object-based storage platform opportunity and the use of the Exablox OneBlox technology by the Balboa Park Online Collaborative (BPOC). IDC recently spoke with Jason Quinn, director of Information Technology for the Balboa Park Online Collaborative, whose charter is to further the technology objectives of the Balboa Park Online Collaborative and the institutions in Balboa Park.

Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com

Filing Information: June 2013, IDC #241642, Volume: 1
Storage Solutions: Disk-Based Data Protection and Recovery: Buyer Case Study

## SITUATION OVERVIEW

### Organization Overview

BPOC was founded in 2008 to serve 17 organizations in San Diego's Balboa Park. BPOC helps these organizations — which include museums and other art, science, and cultural organizations — to make cost-effective, sustainable technology decisions. Its model has enabled small organizations in San Diego to reach a level of technical sophistication on par with cultural institutions with far greater financial resources. BPOC has since expanded its focus to serve more than 30 organizations — including museums outside of Balboa Park such as the Museum of Contemporary Art San Diego and the New Children's Museum.

BPOC has consistently enhanced the technology capabilities of its clients, including relaunching more than 25 Web sites on Drupal, a community-based content management system (CMS); digitizing more than 180,000 museum objects; providing more than 800 person days of technology-focused training; providing affordable desktop/server support for 13 organizations; and building needed parkwide technical infrastructure to support future collaboration, including a high-speed fiber network. BPOC also launched a successful IT training program for transitioning members of the U.S. military to gain marketable technical skills while augmenting the low-cost IT support that BPOC provides. To stay nimble, BPOC's team includes full-time staff, part-time staff, contractors, and interns. Centralized IT support services include:

- **IT support:** Standard desktop, server, and networking services, either hourly or on an annual support contract basis
- **Fiber optic network:** Access to a high-speed network connecting multiple organizations and the Balboa Park Commons, an online library of digitized museum content
- **High-speed Internet access:** A faster connection at the same cost of a current plan
- **Data backup:** Storing backup data at an offsite location for extra resiliency
- **Server collocation:** A safer home for vital server technology
- **Shared VoIP phone system:** Benefits that include access to an online switchboard panel for managing calls
- **Conference calling:** An institutional conference calling number
- **Shared purchasing and licensing:** For discounts and better rates as a collective

### Challenges and Solution

The issues that the BPOC IT organization faced are similar to the issues faced by many other small or midsize organizations — asset fragmentation coupled with burgeoning data growth and accompanying infrastructure costs. To meet these

 

challenges, BPOC needed to standardize in order to keep management overhead in line. With a team of six IT personnel (and another six Web development and media personnel) supporting more than 30 institutions with varied technical projects, the IT organization not only supports the central infrastructure but also 500 desktop users. However, management overhead was only part of the challenges. BPOC is a nonprofit collaborative with support from a range of foundations and national grants and earns revenue from clients and as such has a fiscal responsibility to keep both capital and operating costs low, in particular for its storage infrastructure.

As part of the BPOC mission, it provides an online repository and Web presence for the participating institutions. This includes digitizing objects such as photos, sculptures, and maps. The digital asset management system (DAMS) repository has to support both smaller 100MB TIF files and 100GB movie formats. As an example, BPOC digitization services include digital preservation of photos, slides, videos, audio clips, and other archival materials and assistance with ingestion of content into the BPOC DAMS for managing digital assets among departments and standardization of assets. Additionally, BPOC offers collection management and online access services.

BPOC was looking for a standardized storage solution to support three use cases:

- File storage for users — approximately 10TB
- A target for backups — approximately 80TB
- Digital asset management system repository — approximately 400TB

With a highly virtualized compute environment, leveraging VMware, Dell, and HP servers, BPOC considered shared iSCSI storage solutions from both NetApp and Dell Equallogic. Quinn and his team found both solutions to be outside the BPOC budget, but BPOC needed more storage without the management overhead of local or direct-attached storage (DAS). According to Quinn, "Every time we needed more storage, we had to add another drive letter to the server, which introduced more management, and with participating organizations needing an additional 2TB each month, this approach did not scale."

Another issue BPOC faced was with data protection. The organization was already using a range of solutions from Symantec Backup Exec software with local disk storage to Drobo iSCSI storage to a Backblaze Storage Pod. Again, Quinn and his team sought to standardize on a common solution. BPOC sought a backup approach, which could securely support multiple tenants and leverage the 1GbE fiber optics network for remote backup services for data in a variety of on-premise or collocated datacenters within the park network.

## Results

BPOC was looking for a shared storage solution to address its budget and management objectives, serving the three use cases mentioned in the Challenges and Solution section. BPOC identified Exablox as a potential supplier. Exablox provides a scale-out storage solution with cloud-based management that is both affordable and easy to use — addressing both of BPOC's challenges. The Exablox

OneBlox combines hardware architecture and integrated, enterprise-grade software, including continuous data protection, inline deduplication, and disaster recovery.

Exablox's OneBlox is a scalable object platform that behaves like an NAS solution. This means that it gets its scaling properties by virtue of the object platform that runs under the covers, and yet by way of its support for native file and block interfaces, it has the look and feel of a typical NAS or IP SAN solution. Exablox's immediate use case focus for OneBlox is in unstructured data and backup/recovery environments.

Exablox designed OneBlox to combine all the essential storage features in a single easy-to-deploy model. OneBlox therefore offers features like scalability, resiliency, availability, and storage efficiency that are found in higher-end purpose-built SAN and NAS solutions. However, as a next-generation solution for unstructured data and backup/recovery environments, Exablox has also engineered cloud access capabilities into the solution.

Exablox's distributed object file system and object store use a ring concept used in other object platforms — a construct of a shared nothing architecture to manage resources disks, nodes, and sites that are configured in a RAID-free manner to protect against failure domains. Nodes share and replicate data in real time. The namespace within each site is set up as a ring. Multiple rings can be set up to replicate data between each other. Metadata indexes on each node are stored on an SSD tier for fast access. Another aspect about OneBlox that is noteworthy is the ability to manage this solution from a multitenant cloud platform known as OneSystem. OneSystem is a great way to visualize ringed topologies, configure site parameters, and perform maintenance tasks all from a single console. With OneSystem, Exablox joins a growing list of cloud management and monitoring solutions.

In running the Exablox OneBlox system in the proof of concept (POC), BPOC quantified the following savings:

- **Capital savings:** BPOC estimates that leveraging the Exablox system will be more cost effective than deploying a shared storage solution from NetApp or Dell.
- **Operational savings:** BPOC estimates that by leveraging the Exablox system, it has saved around 8–10 hours per week in management time.

BPOC plans to move the Exablox system into production to support the DAMS and Backup Exec environment initially. Once the primary storage system is in production, a secondary unit will be deployed in a secondary datacenter to serve as a target for remote replication. Additionally, BPOC has several requirements for Exablox for the future that include Active Directory integration for easily adding users and support for a cloud interface.

## ESSENTIAL GUIDANCE

Other small and midsize businesses considering lower-cost alternatives to name brand storage solutions should consider Exablox solutions, in particular, because of

its out-of-the-box features and easy support model. Unlike other object storage platforms, OneBlox supports standard network interfaces, making integration with existing applications easy. Included with an investment in OneBlox is value-added software such as centralized management data protection and replication, all features that most commercial suppliers make customers pay extra for. Additionally, the value of the OneSystem management model cannot be overlooked. The ability to manage large numbers of OneBlox systems by a third party such as a cloud service provider using the OneSystem cloud management interface offers a dramatically easier management model. Last, the distribution model and pricing are optimal for midmarket customers.

## LEARN MORE

### Related Research

- *Exablox Comes Out of Stealth Mode — Ushers in an Era of Purpose-Built Object Storage Platforms* (IDC #IcUS24083213, April 2013)
- *IDC's Worldwide Software-Based (Software-Defined) Storage Taxonomy, 2013* (IDC #240500, April 2013)
- *IDC's Worldwide File- and Object-Based Storage Taxonomy, 2013* (IDC #239143, January 2013)
- *Worldwide Enterprise Storage Systems 2012–2016 Forecast Update* (IDC #237886, November 2012)
- *Worldwide Storage and Virtualized x86 Environments 2012–2016 Forecast* (IDC #235868, July 2012)
- *IDC's Worldwide Storage Software Taxonomy* (IDC #235648, June 2012)

### Copyright Notice