ExaGrid EX Series Tops DCIG 2014-15 Under $50K and Under $100K Deduplicating Backup Appliance Buyer's Guides by Continuing to Deliver on Both Next Gen IT Priorities and Established Organizational Requirements

By DCIG Senior Analyst Charley McMaster

Deduplicating backup appliances are now an integral part of the backup process. However choosing the right one for an organization's next generation IT infrastructure that still satisfies established organizational requirements may be more difficult than ever with multiple products from which organizations may choose. The good news is that the ExaGrid EX Series has made choosing the right product easier than ever.

EXAGRID™

COMPANY

ExaGrid Systems, Inc.
2000 West Park Drive
Westborough, MA 01581
800.868.6985

Founded 2002

www.exagrid.com

SOLUTION

- ExaGrid EX Series Deduplicating Backup Appliances

DIFFERENTIATORS

- Multiple NAS shares for multiple backup applications
- Scale-out GRID architecture
- Landing zone with adaptive deduplication

Organizations instinctively know that their IT infrastructures are changing or have already changed. Virtualizing infrastructures to form public, private or hybrid clouds that are supported by a single IT team is rapidly becoming the new norm. Yet even as this transformation in IT occurs, what organizations expect of the technologies that underlie their virtualized infrastructure in terms of reliability and stability remains remarkably the same.

Cost-effective, easy to manage, flexible, high performing and scalable are attributes that the technologies that power the IT infrastructure of tomorrow should ideally deliver. The challenge every company faces is identifying the best products to deliver on these established requirements while still delivering the features needed to power tomorrow's IT infrastructures.

To assist in this task, DCIG Buyer's Guides identify, weight and score product features to help organizations select products that deliver on these competing requirements. It is when DCIG turned its attention to deduplicating backup appliances that it identified the ExaGrid EX Series of appliances as the best set of solutions for midsize enterprises to select from in order to meet their next generation IT infrastructure priorities while continuing to satisfy their age-old requirements.

ExaGrid EX Series Defines Modern Deduplicating Backup Appliances

The ExaGrid EX Series of products essentially defines what modern target-based deduplicating backup appliances should deliver. Capturing six (6) and seven (7) of the Top 10 spots, respectively, in the DCIG 2014-15 Under $50K and

Under $50K Deduplicating Backup Appliances

TOP 10 OVERALL SCORES AND RANKINGS

1.	ExaGrid EX13000E	77.09	Recommended
2.	ExaGrid EX10000E	75.72	Recommended
3.	ExaGrid EX7000	73.94	Excellent
4.	ExaGrid EX5000	73.94	Excellent
5.	ExaGrid EX4000	73.10	Excellent
6.	ExaGrid EX3000	72.93	Excellent
7.	Dell DR4100	70.22	Good
8.	EMC Data Domain 2200	69.88	Good
9.	Hewlett Packard StoreOnce 4500	69.20	Good
10.	Quantum DXi6701/DXi6702	69.00	Good

Under $100K Deduplicating Backup Appliances

TOP 10 OVERALL SCORES AND RANKINGS

1.	EMC Data Domain 2500	78.35	Recommended
2.	**ExaGrid EX32000E**	**77.80**	**Recommended**
3.	**ExaGrid EX21000E**	**77.38**	**Recommended**
4.	**ExaGrid EX13000E**	**77.09**	**Recommended**
5.	**ExaGrid EX10000E**	**75.72**	**Excellent**
6.	Dell DR6000	75.36	Excellent
7.	Hewlett Packard StoreOnce 4700	75.28	Excellent
8.	**ExaGrid EX7000**	**73.94**	**Excellent**
9.	**ExaGrid EX5000**	**73.94**	**Excellent**
10.	**ExaGrid EX4000**	**73.10**	**Excellent**

Under $100K Deduplicating Backup Appliance Buyer's Guides, ExaGrid essentially stands alone in these classes of deduplicating backup appliances by offering a wide selection of appliances with the features that organizations most desire.

The ExaGrid EX Series of deduplicating backup appliances scored well across all categories that DCIG evaluated. However there were three sets of features found on all ExaGrid EX Series appliances that particularly contributed to their high scores and rankings in these Buyer's Guides to include:

- Multiple NAS shares for multiple backup applications
- Scale-out GRID architecture
- Landing zone with adaptive data deduplication

Multiple NAS Shares for Multiple Backup Applications

Almost any deduplicating backup appliance can act as a backup target for any backup software. The ExaGrid EX Series also performs this function. However ExaGrid sets itself apart by facilitating the creation of multiple NAS shares on a single appliance.

This option serves the following three purposes:

1. Multiple backup targets may be set up for physical backup applications, virtual backup appliances and direct database dumps so all of these backup applications can write to a single appliance.

2. Organizations get increased flexibility should they decide to change their backup application(s) in their environment.

3. Multiple shared targets may be set up per backup stream to run backups concurrently or in parallel to achieve shorter backup windows.

Used in this manner the ExaGrid EX Series can function as a backup target for a wide range of backup applications by backing up data in a manner best suited for each application's specific backup requirements whether that be physical backup, virtual backup or database dumps. This gives organizations the flexibility to add or trade out backup applications at any time without needing to also swap out their ExaGrid EX appliance.

Scale-out GRID Architecture

The scale-out GRID architecture found on all of the ExaGrid EX Series appliances contributes more than any other feature to ExaGrid meeting next generation IT infrastructure priorities while satisfying established requirements of affordability, simplicity and high levels of performance. All of the ExaGrid EX Series of deduplicating backup appliances can plug into a scale-out GRID architecture that provides the following benefits:

ExaGrid EX3000/EX7000/EX13000E

1. Organizations may mix and match up to 14 appliances in a GRID that may consist of any of the ten ExaGrid EX models. In this way organizations may buy what they need when they need it as their data grows.

2. Full appliances are added as data grows. Each appliance has disk capacity along with network ports (bandwidth), processor and memory. As backup data grows, all four of these resources are added with each appliance which facilitates backup windows staying fixed in length even as data grows.

3. Old and new ExaGrid appliances may be mixed and matched in the same GRID helping to eliminate product obsolescence and freeing organizations to extend their investment.

The ExaGrid EX Series scale-out GRID architecture gives organizations the flexibility to start with only as much storage and networking capacity as they initially need and then non-disruptively scale-out more appliances as needed. All of the appliances in each ExaGrid EX Series model function as one logical deduplicating backup appliance which minimizes the need for organizations to manage multiple different devices.

This architecture particularly comes into play as backup data increases. It makes the task of balancing and distributing backup datastores and workloads across all of the appliances much easier than having to manually do so across separate, distinct deduplicating backup appliances.

Landing Zone with Adaptive Deduplication

Many deduplicating backup appliances covered in the DCIG's Buyer's Guide include the deduplication license as part of the base price, and ExaGrid

> **"ExaGrid's expanded deduplicating backup appliance lineup provides the simple building blocks that organizations need to scale backup in their environments by giving them the flexibility to choose and configure capacities across ten different models."**
>
> **— Charley McMaster, DCIG Senior Analyst**

is no exception. Yet organizations should not assume that all appliances implement deduplication in the same way.

The ExaGrid EX Series of deduplicating backup appliances stands apart in this way. ExaGrid offers a Landing Zone to which all backup data is sent and stored in its native format to ensure the backups are completed as fast as possible. As backup data grows, full EX Series appliances are added to the scale-out GRID which increases the size and number of landing zones in order to maintain a fixed-length backup window as backup data grows.

To then deduplicate data, ExaGrid performs Adaptive Deduplication. Using Adaptive Deduplication, as the data is sent to the disk ExaGrid deduplicates data in parallel with the backups. This approach has three benefits:

- Backup jobs complete unencumbered without the overhead of having to perform deduplication.

- Deduplication occurs in parallel with backups for up-to-date recovery points at both the primary site and the disaster recovery site.

- Recoveries of recent backup jobs will occur quickly since ExaGrid maintains the most recent backups in the Landing Zone in an undeduplicated form. This provides for fast restores, copies to tape and VM boots since data re-hydration is not required. Deduplicated data is then kept in a deduplicated data repository separate from the Landing Zone.

"Eight ExaGrid EX Series appliances ranked at the top of the DCIG 2014-15 Under $100K Deduplicating Backup Appliance Buyer's Guide alone. Offering enterprise class features across its lineup, everyone from remote backup offices to midsized and enterprise datacenters have access to a robust set of deduplicating features on an appliance that fits in their budget."

— Charley McMaster, DCIG Senior Analyst

ExaGrid's Landing Zone and deduplicated data repositories can be individually configured for each environment. Some organizations need shorter-term retention policies and require a larger Landing Zone with a smaller deduplicated data repository while others require long-term retention periods and need appliances configured to support a larger deduplicated data repository. The ExaGrid EX Series of appliances gives organizations the flexibility to configure each of these areas according to their respective needs.

ExaGrid EX Series of Deduplicating Backup Appliances: Winners in All the Ways that Matter

Almost every organization at some level has a desire to be at the forefront of technology. They just do not want to sacrifice other priorities they value such as affordability, ease of management and simplicity to get there. Using the ExaGrid EX Series of deduplicating backup appliances, they can achieve this fine balance of getting the IT infrastructure of tomorrow that they want while satisfying proven and established organizational requirements.

The ExaGrid EX Series of appliances excels at balancing these demands. By providing scalability and flexibility in its solutions and interweaving into them features such as affordability, ease of management and simplicity, organizations get a solution that transcends today's requirements and tomorrow's priorities. The end result is a set of solutions that are winners in all the ways that truly matter and which the DCIG Under $50K and Under $100K Deduplicating Backup Appliance Buyer's Guides rightly recognize as such. ■

About ExaGrid Systems
ExaGrid offers the only disk-based backup storage solution that solves all the problems of backup storage up front and over time. ExaGrid provides a unique landing zone, unique approach to deduplication, and the only scale-out solution in its class.

With ExaGrid's unique landing zone, backups land straight to disk without any inline processing. Backups are fast, resulting in the shortest backup window. Adaptive Deduplication allows deduplication and offsite replication to occur in parallel with the backups and never impede the backup process as they are always a second order priority.

Since backups write directly to the landing zone, the most recent backups are in their full undeduplicated form ready for any request. Local restores, instant VM recoveries, and tape copies do not require rehydration and are as fast as disk. ExaGrid offers the fastest recoveries and restores.

ExaGrid provides full appliances in a scale-out GRID. As data grows, all resources are added, including additional landing zone, bandwidth, processor, and memory as well as disk capacity. The backup window stays fixed in length regardless of data growth which eliminates expensive forklift upgrades. ExaGrid is the only solution in its class that offers this approach.

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DCIG, LLC // **7511 MADISON STREET** // **OMAHA NE 68127** // **402.884.9594**
dcig.com