DATA SHEET

# EMC Replication Manager and SnapView Replication Software for EMC CLARiiON Arrays in Physical and Virtual Environments

## Application-focused management solution for SnapView point-in-time replicas enables instant restore, backup acceleration, and repurposing

### The Big Picture

- Industry-leading replication for EMC CLARiiON storage
- Orchestrates the operating system, application, and CLARiiON technology for optimal management and use of data replicas
- Powerful local replication for increased business continuity
- Recover directly from the replica
- Increased data availability, performance, and protection
- Effectively creates zero backup windows
- Simplified point-and-click management of local, point-in-time snaps and clones
- Virtually eliminates the need for scripting
- Empowers application and database managers to take control of their data replication needs
- Accelerated backup and recovery of applications and files
- Ideal for physical and virtual VMware ESX Server and Hyper-V environments

Businesses today face the challenge of enabling access to information for all end users, all the time, while also making the same information available for IT for backup, reporting, and testing. Multiple demands for the same information can be too much for a single system, so businesses end up having to prioritize certain processes and functions over others. As a result, functions must compete for access to the system. For this reason, some processes—such as backup and testing—are often scheduled for times when production demand is lower. This requires applications to be taken offline and human resources to be dedicated to these operations, commonly during the off hours.

Disk-based replicas address the information access problem by using point-in-time copies, enabling parallel access to the desired resource in physical and virtual environments. These point-in-time replicas can be leveraged for backup acceleration, reporting, and testing with no impact to production, thus eliminating the need to prioritize access and increasing operational efficiency.

### Easy-to-use point-in-time replicas for business continuance

EMC® SnapView™ software allows the creation of mountable snapshots or full-copy clones of production data, enabling you to run testing, decision support, debugging, or reporting in parallel, without taking applications offline. The process is handled on the EMC CLARiiON® storage array and is transparent to the primary server, yet the resulting data is available to a secondary server with the appropriate access privileges.

The process of scripting the interaction between applications, a storage array, and backup software requires customization and can result in complexity for those who do not posses expertise about these technologies. For this reason, EMC Replication Manager software is an essential capstone to the local replica solution.

EMC Replication Manager resides on the host and automates the creation, management, and usage of these snaps and clones—providing the key linkage between replication and application consistency—all the while masking the underlying technology, thus enabling storage expertise, and no knowledge of scripting required.

For the user, Replication Manager's user-friendly point-and-click GUI makes the process simple and streamlined. Behind the scenes, however, the software's functionality is quite advanced. Replication Manager discovers applications in the environment and identifies the storage devices on which they reside. You can then select which devices to commit to the replication process and define policies for creation and retention. Once the replica is created, Replication Manager lets you choose among mount options to any available server connected to the SAN, to make certain that any backup operation or other use of the replica is conducted apart from the production environment, ensuring no performance impact.

Disk-to-disk data recovery—the fastest possible—is fostered by Replication Manager because you can recover straight from the replica. This allows you to test recovery before impacting production.

Furthermore, EMC Replication Manager enables deep application integration with Oracle, SQL, Exchange, and UDB. For example, Replication Manager integrates with SnapView to create VSS-compliant replicas. In the event that recovery of the Exchange database is required, the recovery process will be supported by Microsoft. Operating in consistent-split mode, restartable images can be applied for repurposing, allowing you to leverage your information storage infrastructure for the easy creation, separation, and reassignment of files and databases elsewhere in your infrastructure.

## Backup acceleration for zero backup windows

EMC SnapView and Replication Manager work together as a solution to effectively create zero backup windows. This is facilitated by the ability to offload backup cycles from production systems, allowing you the flexibility to conduct your backups at any time, without concern for affecting other functions on the system.

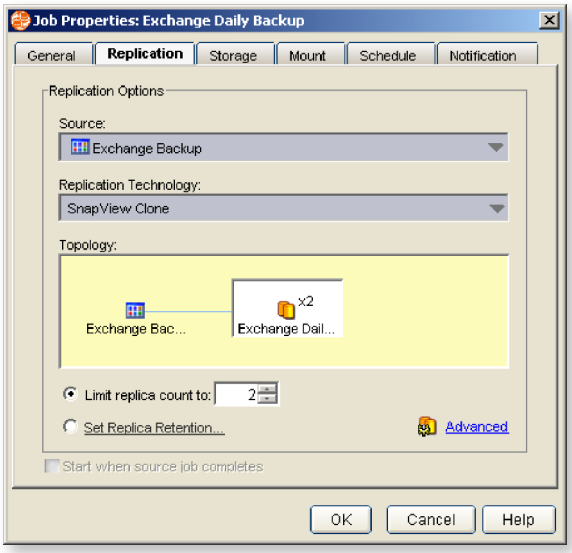
**SnapView enhances business continuance and data protection because it:**

- Keeps applications online and productive during backups
- Runs backups against a logical image
- Allows more frequent backups for data protection
- Maintains application integrity through consistency technology
- Facilitates instant restore from disk

**In a typical backup scheme, you would use Replication Manager to automatically:**

- Discover applications in the environment and create application sets that need to be replicated
- Allocate storage discovered in the SAN for the purpose of creating SnapView replicas
- Define a schedule for precisely when and how often SnapView replicas will be created
- Establish the policy around retention time for each replica, or the number of replicas to keep online
- Bring the application into a consistent state, instruct SnapView to create the replica, and then return the application to production
- Use simple pre- and post-processing scripts to engage a third-party backup application, and back up the contents of a replica to tape—without interruption to the production application

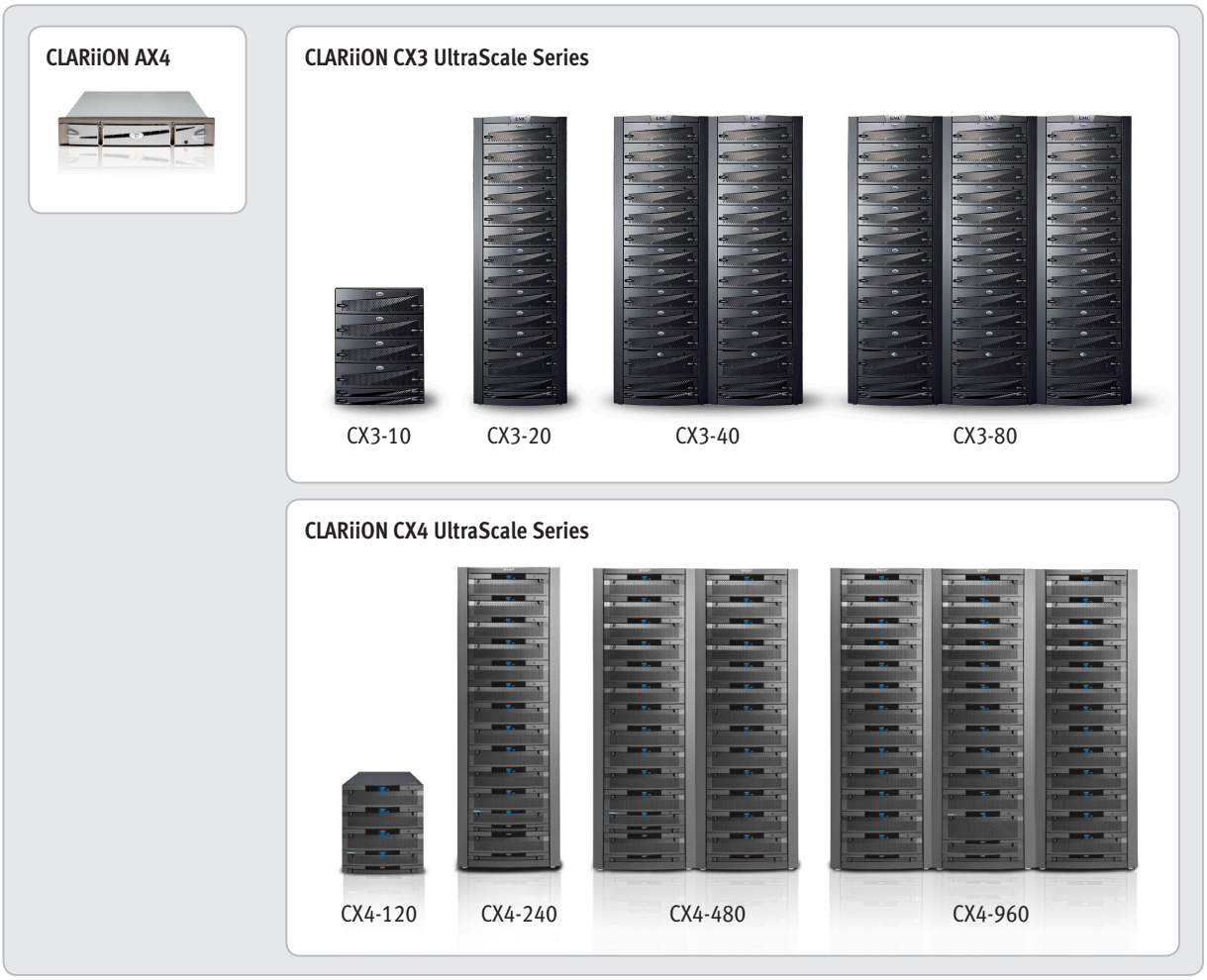
While many customers use Replication Manager for backup acceleration at their primary data center, it can also be used to create and manage SnapView snaps and clones on a remote CLARiiON array in an EMC MirrorView™/Synchronous (MirrorView/S) environment for customers who want to perform backup operations at a secondary site.



EMC Replication Manager creates a SnapView clone for an accelerated Exchange backup on local CLARiiON arrays from the source LUNs. The screen shows Replication Manager's ability to create Exchange clones (without impacting production) retaining a replica count of two clones. When the third clone is created, Replication Manager will auto-expire the first clone.

## Customized for CLARiiON

EMC SnapView and Replication Manager provide a comprehensive local replication solution for the CLARiiON CX series, CX3 UltraScale™, and CX4 series arrays. The software solution, customized for the CLARiiON storage platform, delivers powerful and easy-to-use replication capabilities that increase data availability and data protection.




The EMC SnapView and Replication Manager software solutions support CLARiiON AX4, CX3 UltraScale, and CX4 series arrays.

## Heterogeneous support with Replication Manager

Replication Manager integrates application, host, and array technologies to support the implementation of an information lifecycle management (ILM) strategy. In addition to support for CLARiiON arrays with SnapView clones and snaps, Replication Manager also supports SAN Copy™ for copying data between CLARiiON arrays or from an EMC Symmetrix® array to a CLARiiON array. Replication Manager manages SnapView snaps and clones on a remote CLARiiON array when MirrorView/Synchronous is in session. This integration facilitates repurposing for development and test environments and reporting in addition to the backup acceleration and business continuance benefits mentioned above.

| Replication Manager Supported Environments | |
|---|---|
| File Systems | Solaris UFS, VxFS, NTFS, JFS, JFS2, HP-HFS, Linux ext3 FS |
| Scalability | Up to 30 Clients per Replication Manager Server |
| Databases | Oracle, SQL Server, Microsoft Exchange, DB2 UDB |
| Operating Systems | Windows Server 2000, 2003, and 2008; Sun Solaris; HP-UX; IBM AIX; Red Hat Linux; Oracle Enterprise Linux; SuSE Linux Enterprise Server |
| Applications | Oracle, Exchange, SQL Server, DB2 UDB |
| Volume Managers | VxVM, HP LVM, Oracle ASM, AIX native LVM |
| Clusters | MSCS, VCS, Sun Cluster, HP/Service Guard, IBM HACMP, Oracle RAC, ORACLE RAC W/ASM |
| Virtual Environments | VMware® ESX Server™ on Windows & Linux guest OS<br>VMware ESX Server VMFS replicas<br>Hyper-V Child Partitions on iSCSI arrays |

| Integration with EMC Replication Technology | | | |
|---|---|---|---|
| **Symmetrix Environments** | **CLARiiON Environments** | **iSCSI Celerra Environments** | **Invista Environments** |
| EMC TimeFinder®/Mirror | SnapView | EMC Celerra® SnapSure™ | EMC Invista® Clones |
| TimeFinder/Clone | SAN Copy | Celerra Replicator™ | |
| TimeFinder/Snap | SnapView on the remote array within MirrorView/S environments | | |
| TimeFinder/Mirror of the R2 within EMC SRDF®/S environments | RecoverPoint family | | |
| TimeFinder/Snap of the R2 within SRDF/S environments | | | |
| TimeFinder/Clone of the R2 within SRDF/S environments | | | |
| RecoverPoint family | | | |

## Getting ready to implement

The Configuration Checker within Replication Manager automatically discovers hardware and software components of the server environment and alerts you to any potential issues. It verifies that all required software is present and suggests remedies for any issues found.

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To learn more about EMC's SnapView and Replication Manager software solution, contact your EMC account manager, visit us online at www.EMC.com, or call 866.464.7381 (outside the U.S. call +1.508-435-1000).