

EMC Centera Backup and Recovery Module

The Big Picture

- Automated or manual data backup to tape, supporting data protection policies for vaulting and offsite storage
- Full or incremental backup and restore allows administrators to use standard backup and recovery practices
- Low-cost alternative to replication for operational recovery
- Open backup infrastructure for protecting EMC Centera content
- Support for industry-standard NDMP protocol and Data Management Applications (DMA) gives EMC Centera customers more options for selecting backup applications
- Direct Access Restore (DAR) for improved restore efficiency

Tape-based solution for added data protection

EMC® Centera® Backup and Recovery Module (CBRM) is a software module that enables EMC Centera® storage system content to be backed up to and restored from tape by using industry-standard backup products. CBRM supports EMC NetWorker®, Symantec NetBackup, and IBM Tivoli Storage Manager (TSM). The backup product originates the backup and restore operations, maintains the backup indexes, and manages all tape operations, while CBRM transports EMC Centera C-Clips between the Network Data Management Protocol (NDMP) and the EMC Centera API.

CBRM provides an important backup and restore capability for EMC Centera customers. While EMC Centera replication is the primary method for protection of EMC Centera content, many organizations require the additional ability to back up EMC Centera content to tape. This enables organizations to maintain consistency with corporate policies that govern data protection. And many EMC Centera users simply desire a tape-based solution for added operational recovery options.

CBRM leverages the Network Data Management Protocol (NDMP) to provide an open backup infrastructure for protecting EMC Centera data. CBRM acts as an NDMP data server and works with an NDMP-enabled Data Management Application (DMA) to back up and restore data stored on EMC Centera storage systems.

Features

CBRM provides the option for automated or manual backup at the C-Clip™ level. A C-Clip includes the stored content and a descriptor file of the EMC Centera object. Customers have the ability to recover all or a subset of C-Clip content. This feature offers selective recovery based on company policies and increases operational efficiency.

Backup

CBRM supports two types of backup:

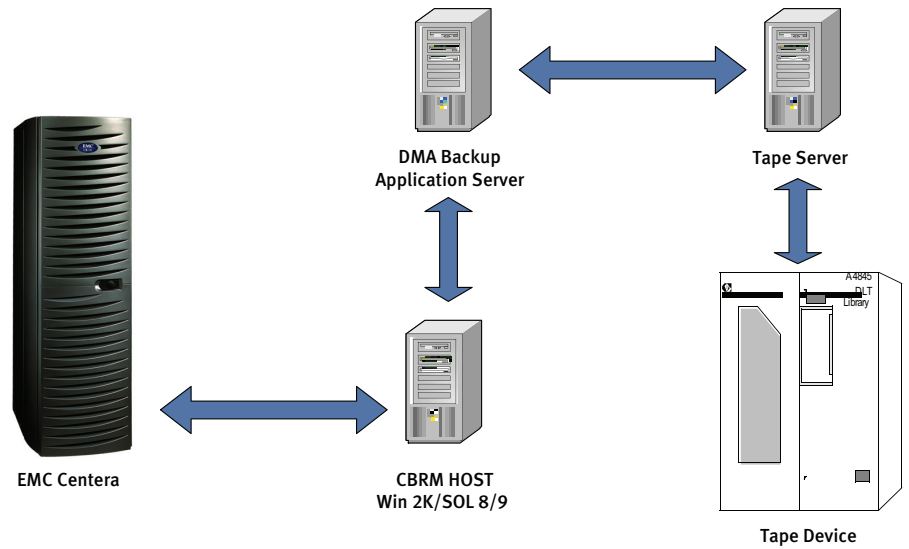
- A manual and nonrecurring backup where both start and end dates for the backup are independent of a previous backup
- An incremental and recurring backup which is a series of interrelated backups where the start date is the end date of a previous backup

Restore

The CBRM software, in combination with DMA software, provides the ability to restore data back to the EMC Centera storage system. Supported recovery operations include recovery of:

- A single C-Clip
- Multiple C-Clips
- All C-Clips

C-Clips can only be restored back to the originating EMC Centera system.



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Direct Access Restore (DAR)

DAR capability improves the efficiency of the restore function. This feature allows the tape to be positioned at the right location for the requested file so that CBRM can begin the restore process more quickly.

Features	Benefits
Backup-to-tape	Provides backup, recovery, archival, and disaster recovery capability. Delivers low TCO alternative and complementary solution to replication.
Full, differential, date range, or individual C-Clip backups	Shorten backup window; increase operational efficiency for backup.
Recovery of all, a subset of, or individual C-Clip content	Offers flexible, selective recovery based on customer priorities. Increases operational efficiency for recovery.
Automated or manual backups	Simplifies on-demand backups and backup management by policy and offers powerful scheduling capability.
NDMP-based backup and recovery infrastructure	Provides robust open architecture.
Direct Access Restore	Tape is positioned at the right location for the requested file so that CBRM can read only the data that is needed for the restore.

Compliance

It is important that customers fully understand the potential compliance issues associated with backing up EMC Centera data to tape. The authenticity capabilities of EMC Centera may be compromised by lax or incomplete tape policies and/or processes. EMC Centera Backup and Recovery Module is not a compliance solution.

Installation

CBRM is designed to be installed by the customer. It is installed external to the EMC Centera system upon either a Windows or Solaris server.

Configurations

CBRM supports several configurations. The DMA's architecture or the NDMP features implemented by the DMA may impose limitations and the customer should consult the DMA provider prior to installation.

Configurations include:

- **Single Host:** The NDMP data server (CBRM), the tape server, and the DMA reside on the same host.
- **Dual Host:** The tape server and CBRM reside on the same host and the DMA on a different host. In this configuration CBRM and the tape server would be hosted on the Windows or Solaris OS, but the DMA can be hosted on any OS.
- **Dispersed:** CBRM, the tape server, and the DMA each reside on different hosts. In this scenario the DMA and the tape server can be hosted on any operating system, but CBRM would be on either Windows or Solaris.

Requirements

Minimum operating system and hardware requirements for the EMC Centera Backup and Recovery Module:

Windows Server:

- 2.5 GHz P4 or faster Pentium-compatible processor
- 512 MB RAM
- 20 MB disk space for installation and additional space for logs and diagnostic files (approximately 1 GB of available hard-disk space).
- Additional space is needed for backup and recovery logs following installation.
- The EMC Software Compatibility Guide contains the current versions of supported Solaris editions. (Server, Advanced Server, Enterprise Server, and Datacenter Editions). Please consult your EMC representative for additional information.

Solaris Server:

- 512 MB RAM
- 4 GB disk drive
- The EMC Software Compatibility Guide contains the current versions of supported Solaris editions. Please consult your EMC representative for additional information.



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