



Backup and Restore Operations

The following topics are covered in this chapter:

- Types of backup options
 - Hot continuous backup (Backup eMTool)
 - Directory backup and restore in NWCONFIG
 - DIB backup through DSREPAIR
 - NDSBackup
 - TSA backup
 - File copy
 - DIBClone
- Backup and restore strategies
- Using hot continuous backup
 - The backup file header
 - Roll-forward logging
 - Using iManager to configure and perform backup and restore
- Backing up the security infrastructure

eDirectory has built-in fault tolerance. Because eDirectory is a multi-master directory, any read/write replica can become the master replica and distribute replicas to other servers. So, if a server fails because of a hardware problem or for any other reason, the eDirectory information can be re-sent from another server that holds a replica of the same data to the failed server after the failure has been resolved.

Even though eDirectory has built-in fault tolerance, it is a good idea to back up the eDirectory database on each server, especially if the server

contains replicas of very large partitions. With large partitions, or a large number of objects broken up into many partitions, it will take a while to replicate all of the objects back to the server that failed. If you have made a backup of the local database, the backup can be restored fairly quickly, leading to less down time.

Types of Backup Options

There are several ways to back up the eDirectory database. Some of the methods are platform specific. This section covers the different backup methods and makes recommendations on which one to use and when to use it.

Hot Continuous Backup (Backup eMTool)

The Novell eDirectory Backup eMTool (hot continuous backup) is designed to give you a complete backup and restore solution of the database and associated files on an individual server. The eMTool will verify the state of other servers in the tree that hold replicas of the same partitions that the “bad” server held and will restore the replicas to the current state on the server that went down. The eMTool does this by restoring the last full backup and incremental backups taken and then re-executing any transactions that occurred after the last backup.

Advantages

- Same tool is used for all platforms.
- Backs up the database with the directory agent still running.
- Restores very quickly, for minimal down time.
- Provides remote task-management support, so you don’t have to be at the server to use it.
- Supports unattended backups through scripts.
- Maintains partition boundary information.

Note For detailed information on the eMBox Backup tool, see “Backing Up and Restoring Novell eDirectory” in the *Novell eDirectory 8.7.3 Administration Guide*, at <http://www.novell.com/documentation/edir873/edir873/data/a2n4mb6.html>.
