



## White Paper: Bare Metal Restore (BMR)

Backing up Windows for Bare Metal Restore (BMR) - DS-Client (Windows)

**Summary:** A Bare Metal Restore is the restore of an entire machine (usually to replacement hardware and to a new Operating System installation).

To be able to perform BMR, you must protect the target computer with a single backup set that contains:

- ☒ System State and Services Database
- ☒ Operating System Volume

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**NOTE:** Some applications can be installed and can store data across multiple volumes. You must include all of those volumes in this backup set if you want to be able to restore those applications.

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Depending on the applications running on the target computer, you may need to stop them for the initial backup, in order to facilitate a smooth BMR. To protect those services after the initial backup and when they are running (i.e. in .hot. mode), you must create separate backups with the corresponding special backup sets.

### Details

The reason you must perform at least one backup of the target computer with the service applications stopped is to ensure that any locked files used by those applications are backed up at least once. Otherwise, those services will not start after you perform the BMR.

In order to restore from the special backup sets (e.g. MS SQL Server), the DS-Client needs to connect to a running service. If the service cannot start, you must repair that service installation with the corresponding Installation Package.

In general, the steps for BMR of a Windows computer running MS SQL Server are:

1. Assemble the replacement hardware for the target BMR computer.
2. Re-install the same Windows Operating System (you do not need to apply any Service Packs).
3. If the Hardware is different from the original computer, you must install the corresponding hardware drivers.
4. Restore from the target computer's backup set (including Operating System Volume, System State and Services Database). The restore of System State, Services Database and Operating System files must be done in one step (at the same time).
5. Restart the MS SQL Server (if applicable).
6. Restore the latest version of MS SQL Server from the separate special backup set (if applicable).

There is no extra cost to create a bare metal restore set, this will be included in your monthly storage fee as additional storage.