Continuous Data Protection (CDP)

Protects your data all the time, so you never have to worry about doing your backups again!

Continuous Data Protection (CDP) is the new backup philosophy for systems and data in today's world. The idea is that all your data and systems will be backed up and protected continuously instead of at fixed times or scheduled intervals as used in traditional backup solutions.

In order to perform CDP, the DataSaver breaks down the backup process into two parts. The first is a full and complete backup called the "Base System Image" (BSI). After a BSI has been created, then all changes and modifications to the system, files, programs and data can be recorded and backed up continuously. This second portion is called "Continuous Incremental Backup" (CIB).

Base System Image (BSI)

This operation backs up the entire disk and all its files and programs. People often ask why we back up everything and not selected items. This is because our philosophy is that it is better to back up everything and select what we want to restore later than to realize at a later time that we forgot to include certain files or folders in the backup in the first place. Furthermore, by backing up everything, we will be able to perform a full system recovery quickly and easily.
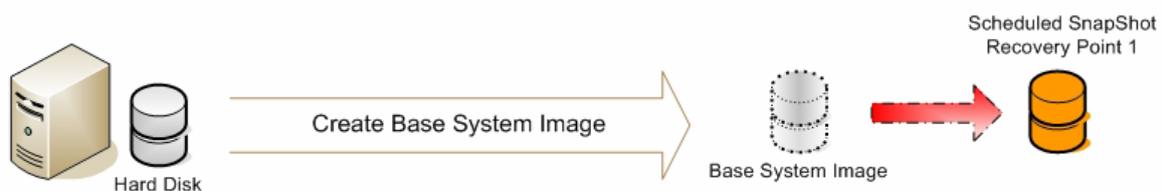

Once the BSI has been successfully created, a Recovery Point snapshot will be performed. It is the Snapshot Recovery Point that will be used for recovery from a point in time.

Continuous Incremental Backup (CIB)

After creating a Base System Image (BSI), the DataSaver Client Agent will continuously monitor the disk and capture/cache all changes made to the system. These changes can include, for example, installing new software, creating new document files or editing existing documents. All changes are then sent across the network to the DataSaver. The two major benefits of CIB are:

- reduced network bandwidth and backup timing as only incremental changes are transmitted over the network
- the BSI on the DataSaver is always kept up to date

In the event that the network connection might not be available (as is often the case for mobile laptop users), the DataSaver Client Agent can still keep track of all the changes even when the system is disconnected from the network. Once the network connection is restored, the DataSaver Client Agent will automatically transmit the changes in the background.
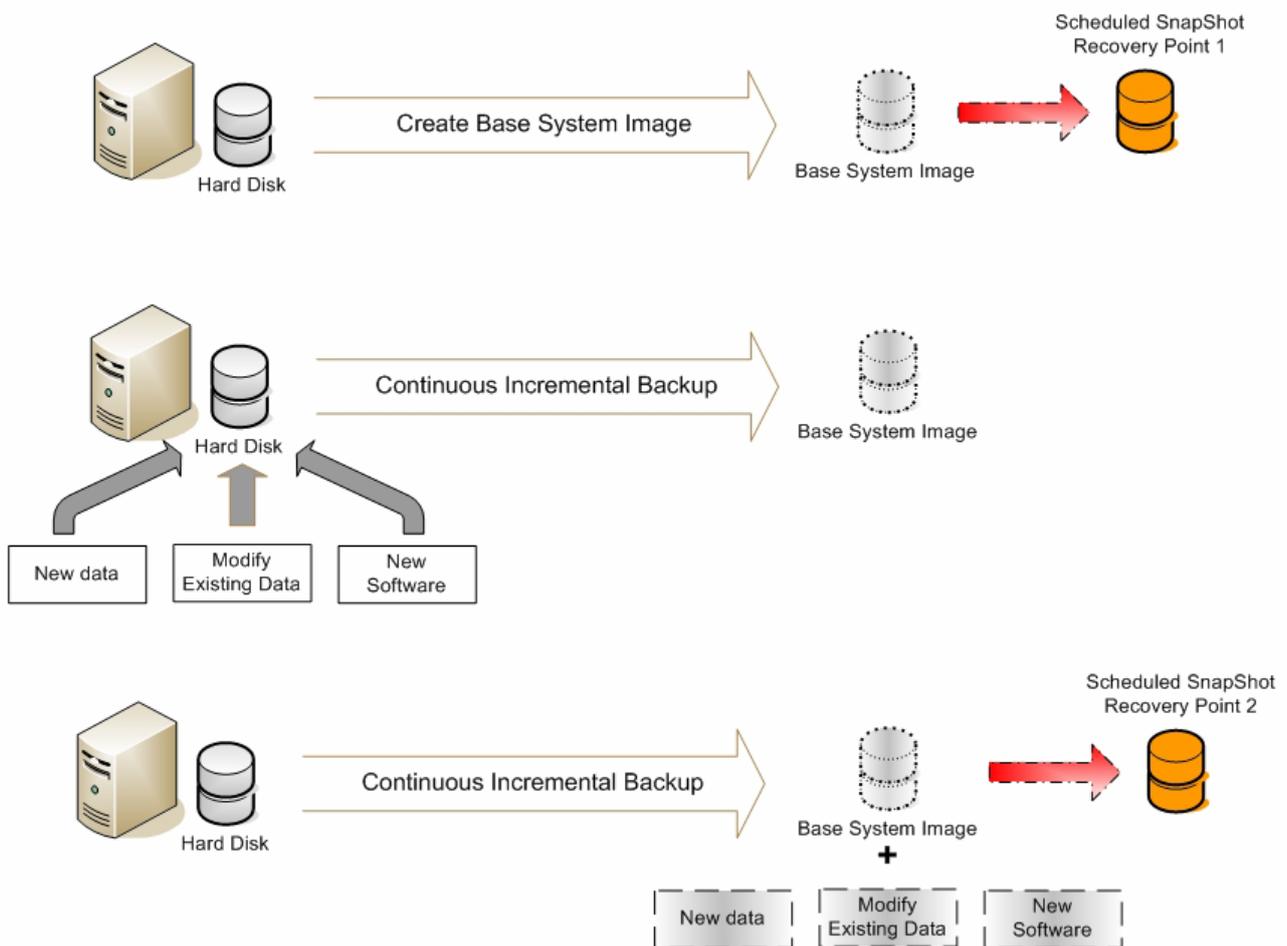
In traditional backup systems, full backups and incremental data are often kept separately. In the DataSaver however, merging of incremental data and the original full backup is done automatically and transparently into the BSI, so you always have a full backup instead of only incremental backup data. Again, to allow you to perform a recovery, the DataSaver will then take a "snapshot" of the BSI and create a Recovery Point Snapshot. The Recovery Point Snapshot is then used for recovery purposes, while CIB can continue in the background on the BSI.