EMC²

EMC VisualSAN
Version 4.0.0

3.x to 4.x Upgrade Notes
for Dell Use Only

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This document contains supplemental information about EMC VisualSAN 4.0. Included are steps related to running a utility to prepare systems for the VisualSAN upgrade, along with a recovery procedure, in the event users encounter problems with the upgrade process.

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Running the Upgrade Utility

A pre-installation utility is provided on the Dell support website for Dell customers who want to upgrade their V3.x installations of VisualSAN to VisualSAN V4.0. This utility *must be run* before starting the VisualSAN Setup program that performs the application upgrade. This step ensures that the existing VisualSAN database can be properly modified during the upgrade.

After obtaining the utility from the website, verify that your VisualSAN V3.x system meets the following requirements:

1. VisualSAN 3.x with Dell Device Managers installed and running.
2. All VisualSAN user interface windows are closed.

You can then run the VisualSAN 4.0 Pre-Install Utility, followed by the VisualSAN 4.0 Setup.

This utility is an InstallShield packaged executable that presents only one prompt for user action: the user must confirm whether or not to run the utility. There are no other steps and no additional entries required.

As the utility proceeds, it verifies the validity of the VisualSAN 3.x database prior to execution and notifies the user if it encounters any problems. The problem most likely to be encountered is that the VisualSAN database is incompatible with the pre-install utility. This occurs if an upgrade was already attempted without first running the utility. (This problem has been observed in a Dell NAS environment.)

If you encounter this problem, perform the recovery steps described in the next section.

Recovering from a Failed Upgrade

If customers fail to run the pre-install utility prior to attempting to upgrade from V3.x to V4.0, the upgrade might not proceed properly the first time. When the upgrade program is unable to execute properly, it rolls back any changes to the previous version but may not be able to properly roll back the databases. If this occurs, you will need to restore the database from backups.

Although the user has the option of *not* backing up the database prior to upgrade, in which case backups would not be available, having the upgrade program perform the backup is the default, and it is expected that most users will simply click **Next** during the process and thereby accept the default. Consequently the backups are likely to be present so they can be used to restore the database.

By default, the database backups from the failed upgrade will reside in the `C:\VSAN_DBBackup` directory, and will be named `NM.bak`, `PM.bak`, and `CM.bak`. If, during the VisualSAN 4.0 upgrade, the user specified a database backup directory other than the default, replace the occurrences of `C:\VSAN_DBBackup` with the user-defined path.

After the VisualSAN 4.0 upgrade fails and completes the rollback steps, perform the following steps:

1. Stop VisualSAN services: from the **Start** menu, select **Programs**, **EMC**, **VisualSAN**, **Stop Services**.
2. Open a command prompt window: from the **Start** menu, select **Programs**, **Accessories**, **Command Prompt**.
3. Execute the following commands:

```
osql -E -Q "restore database NM from disk =
'C:\VSAN_DBBackup\NM.bak' WITH REPLACE"

osql -E -Q "restore database PM from disk =
'C:\VSAN_DBBackup\PM.bak' WITH REPLACE"

osql -E -Q "restore database CM from disk =
'C:\VSAN_DBBackup\CM.bak' WITH REPLACE"
```

4. Start VisualSAN services: from the **Start** menu, select **Programs**, **EMC**,**VisualSAN**, **Start Services**.
5. Perform the upgrade steps described in *Running the Upgrade Utility* on page 3.

CAUTION

If the user attempts to run the VisualSAN 4.0 upgrade again after the first attempt has failed, and does not first restore the V3.x databases as described above *or* has not made additional copies of the V3.x database backup files, the V4.0 upgrade will fail again and will overwrite the original 3.x database backup files with the incomplete V4.0 versions. At this point, the original 3.x databases are unrecoverable. The only option at this point is to remove the VisualSAN V3.x software and install VisualSAN V4.0 as a new installation. If necessary, removeVisualSAN using the Add/Remove Programs utility under Control Panel in Windows. Then delete the VisualSAN databases from the database management system on the VisualSAN management station. Finally install VisualSAN 4.0.