IBM® Tivoli® Storage Manager 5.4

Upgrading from IBM Tivoli Storage Manager Express to IBM Tivoli Storage Manager 5.4 Enterprise

Tivoli. software

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Objectives

Upon completion of this module, you will be able to:

- Explain the benefits of upgrading

- Perform the upgrade process

- Define what you need to know after upgrading

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Contents of this presentation

- Benefits of upgrading

- Upgrade process

- What you need to know after upgrading

Upgrade benefits

- Enables an upgrade from IBM Tivoli Storage Manager Express to IBM Tivoli Storage Manager enterprise, preserving the data backed up by Tivoli Storage Manager Express and the Express configuration settings

- Gives Express users enough information during the Tivoli Storage Manager 5.4 installation process to prepare appropriately for the upgrade

- Keeps the Express administrative interface available after the upgrade

- Provides documentation that bridges the gap between the skills learned in Express and what skills are needed to start working in enterprise

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Client upgrade overview

- Tivoli Storage Manager 5.4 client added the ability to easily upgrade from Tivoli Storage Manager Express to Tivoli Storage Manager enterprise.
  - ▶ The client is installed as Tivoli Storage Manager Express; Express client view displayed.
  - ▶ The first time the Tivoli Storage Manager 5.4 client connects to a Tivoli Storage Manager 5.4 server after it has been upgraded from Express, a confirmation prompt will be displayed.
  - ▶ You can change the CLIENTVIEW option (Express or standard) in preferences editor.
- Tivoli Storage Manager 5.3.3 client (first release of Express client) will continue to work in Express mode to an upgraded Tivoli Storage Manager 5.4 server.
- Non-Express clients will also work with Tivoli Storage Manager 5.4 servers upgraded from Express.

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Requirements

- Standard Tivoli Storage Manager 5.4 hardware requirements must be met.

- If you plan to continue using the Express administrative interface, you need to download and install the latest Tivoli Storage Manager Express interim fix before upgrading.

- To access the new online help information, the ISC and the Administration Center must be installed.

- Currently, the Tivoli Storage Manager Express server only runs on Windows Server® 2003, so the upgrade is Windows-specific. There are only two upgrade paths: 32-bit Express to 32-bit enterprise and 64-bit Express to 64-bit enterprise (x64 only).

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What is affected by the upgrade

- During an upgrade installation, some existing Express components are updated or removed, while others are not. These are affected by the upgrade:

- Express server
  - ▶ This package is different than the enterprise server. During the upgrade, this package is removed, and the enterprise server is installed in its place. Database, log, and file-pool information are preserved, along with all configuration data related to the Express server. To prevent accidental upgrades, the enterprise installation automatically detects the Express server package and displays a confirmation panel

- Licensing
  - ▶ The Express license package is not compatible with enterprise. When the enterprise license is installed, it automatically upgrades the Express license

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What is not affected by the upgrade

- Administrative interface
  - ▶ Consists of the base WebSphere®, with desktop icons and Start menu items to launch the interface. This interface can coexist with the ISC and the administration center

- Tivoli Storage Manager Device driver
  - ▶ The Tivoli Storage Manager base device driver is the same as the Express device driver. You will only need to install a new version of the device driver, if one is available, and it will automatically upgrade whatever version is installed

- Tivoli Storage Manager client
  - ▶ The Tivoli Storage Manager enterprise client is the same as the Express client

- Language packs (optional)
  - ▶ Both the client and server language packs are the same for Express and enterprise. Again, if a newer version is installed, it will upgrade whatever version is installed

Server upgrade process

Basic upgrade process:

1. Install the Express interim fix (best practice)

2. Make sure the Express database is backed up

3. Stop the Express server service

4. Install Tivoli Storage Manager enterprise

5. As with a standard upgrade, start the Tivoli Storage Manager Server1 service

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Commands

- **No updates were made to the Administration Center interface to support Express-specific functions.**

- **The following Express commands will be available for Tivoli Storage Manager enterprise:**

    - ▶ `QUERY DIRSPACE`

    - ▶ `DEFINE NODEGROUP`

    - ▶ `DEFINE NODEGROUPMEMBER`

    - ▶ `DELETE NODEGROUP`

    - ▶ `DELETE NODEGROUPMEMBER`

    - ▶ `UPDATE NODEGROUP`

    - ▶ `QUERY NODEGROUP`

- `QUERY NODE F=D` now displays a NODEGROUP parameter.

Client upgrade comment
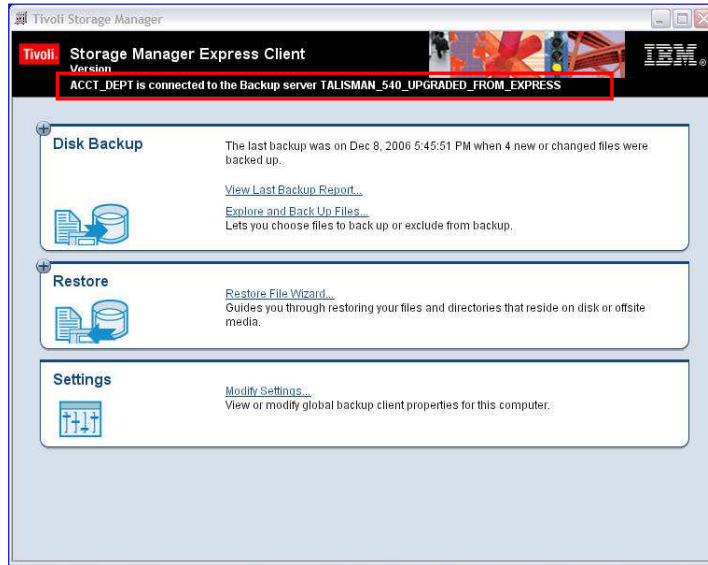
Client upgrade comment (cont.)
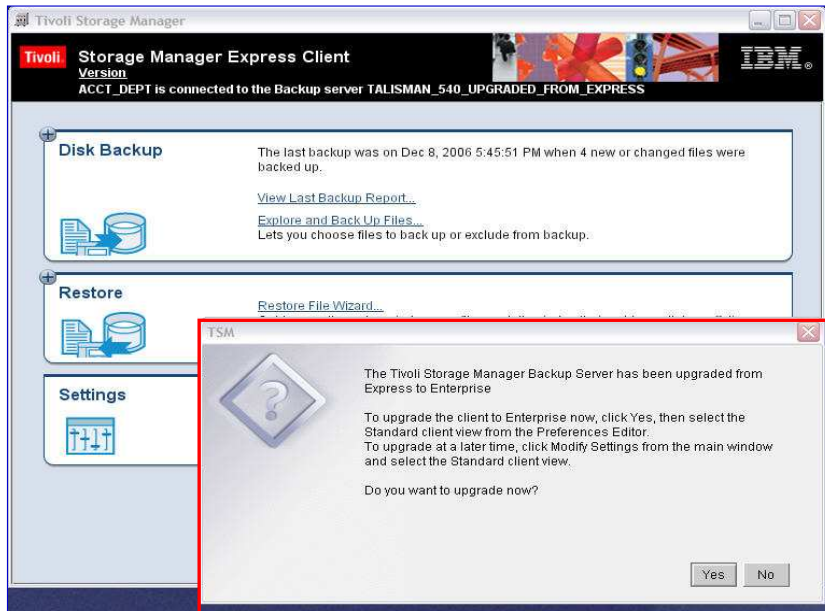
Client view selection

Client view option

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Microsoft® SQL and Exchange

- Microsoft SQL and Exchange data protection clients* are available for Tivoli Storage Manager Express (they are the standard Data Protection clients in a new installation wrapper).

- These Express data protection clients will continue to work (backup and restore) with the upgraded Tivoli Storage Manager server. Data previously backed from these clients can still be restored.

- A new parameter has been added to the GENERATE BACKUPSET command for Tivoli Storage Manager Express 5.4: DATAType = APPL. This data type is only valid when used with a Tivoli Storage Manager server that has been upgraded from Express (and only for SQL and Exchange). For new (non-upgraded) Tivoli Storage Manager enterprise installations, application data still cannot be stored in backup sets.

*IBM Tivoli Storage Manager for Databases: Microsoft SQL

 IBM Tivoli Storage Manager for Mail: Microsoft Express

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Upgrade warning

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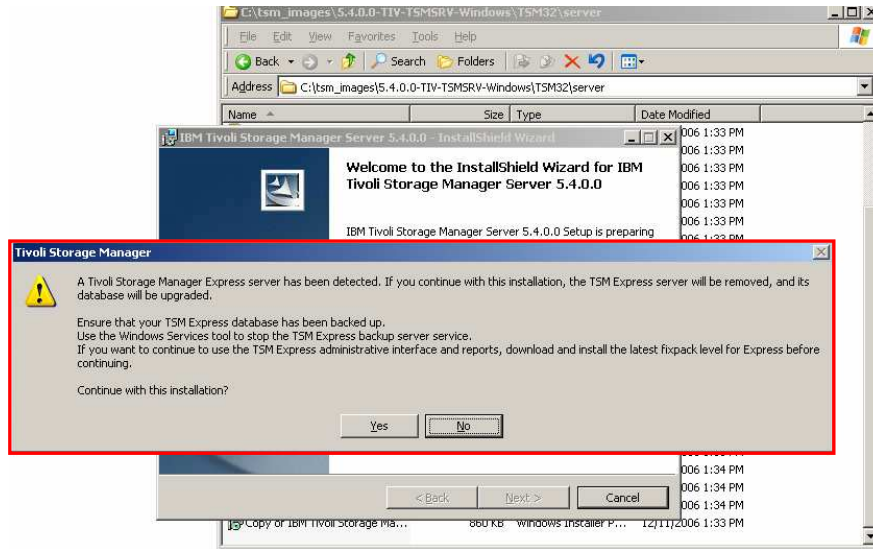
What you need to know after upgrading

Aside from the specifics outlined in this presentation, upgrading from Tivoli Storage Manager Express to Tivoli Storage Manager enterprise is the same as upgrading from one version of the enterprise server to another. You should be able to use standard processes to diagnose and troubleshoot any installation errors.

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What you need to know after upgrading (cont.)

- You can continue to create media copies and implement the GFS model (backup set rotation) using the Express administrative interface. But if you stop using the Express administrative interface, managing media copies gets complicated. It is a good idea to implement a storage pool hierarchy or back up your data directly to tape instead of relying on backup sets as the primary mechanism of transferring data to tape.

- Scripts in Express (for example, automatic database backup) can conflict or be redundant with scripts in the enterprise maintenance plan. The best practice is to delete Express scripts if you create a maintenance plan in enterprise.

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What you need to know after upgrading (cont.)

- You will not receive packing lists or hourly reports if you use operational reporting. However, the information used by Express to create packing lists is available by issuing the QUERY BACKUPSET F=D command.

- Starting with the 5.3.4 fixpack of the enterprise server, the installation process will check for the existence of the Express server and fail with a message if it is found. If you install Tivoli Storage Manager 5.3.2 in the same directory as Express, the Express installation will be overwritten. In this case, the 5.3.2 server will not start because the database version will be at a higher level than the server. To recover, you will need to uninstall the enterprise server and reinstall Express.

What you need to know after upgrading (cont.)

Tivoli Storage Manager Express does not create the standard default administrator ID and password (admin and admin). The Windows® Microsoft Management Console plug-in that is available with the enterprise server makes use of this default ID.

After upgrading, this management console will not be able to communicate with the Tivoli Storage Manager server. To update the ID and password, open the management console and right-click the server name. Then select Properties and click Account.

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Summary

You should now be able to:

- Explain the benefits of upgrading

- Perform the upgrade process

- Define what you need to know after upgrading

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IBM Tivoli Storage Manager 5.4 curriculum roadmap for implementers and administrators

IBM Tivoli Storage Manager 5.4 implementation and administration, Part one

IBM Tivoli Storage Manager 5.4 implementation and administration, Part two

IBM Tivoli Storage Manager Extended Edition 5.4 disaster recovery

IBM Tivoli Storage Manager 5.4 HSM and space management
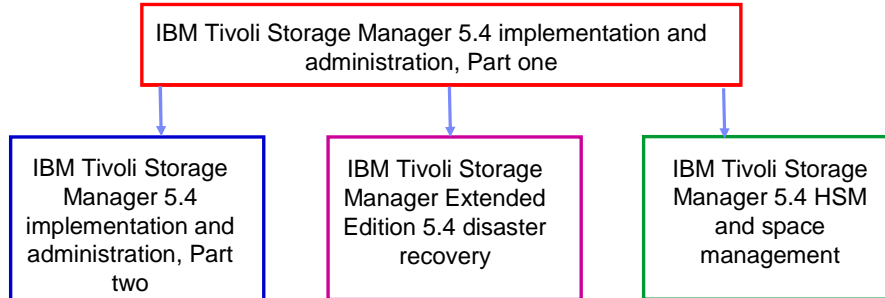
http://www.ibm.com/software/tivoli/education/edu_prd.html

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