



## Integration Guide for Tivoli Storage Manager FastBack





## **Integration Guide for Tivoli Storage Manager FastBack**

**Note**

Before using this information and the product it supports, read the information in “Notices” on page 59.

**Edition notice**

This edition applies to Tivoli Storage Manager FastBack Version 6.1 and to Tivoli Storage Manager Version 6.1.3 and to all subsequent releases and modifications until otherwise indicated in new editions or technical newsletters.

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## Preface

This publication provides instructions for a user to install, configure, and use IBM® Tivoli® Storage Manager and IBM Tivoli Storage Manager FastBack in an integrated environment. The integration of Tivoli Storage Manager and Tivoli Storage Manager FastBack provides a cost-effective solution for short-term data recovery and long-term data retention requirements.

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## Who should read this guide

This guide is intended for anyone who wants to integrate a Tivoli Storage Manager and Tivoli Storage Manager FastBack environment.

You must be familiar with the operating system on which each server resides and the communication protocols required for the Tivoli Storage Manager client and server, and the Tivoli Storage Manager FastBack environment. You must also understand the storage management practices of your organization, such as how you are currently backing up workstation files and how you are using storage devices.

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## Publications

Tivoli Storage Manager publications and other related publications are available online.

You can search all publications for Tivoli Storage Manager and Tivoli Storage Manager FastBack and download PDFs from the following locations:

**Tivoli Storage Manager Information Center**

<http://publib.boulder.ibm.com/infocenter/tsminfo/v6>

**Tivoli Storage Manager FastBack Information Center**

<http://publib.boulder.ibm.com/infocenter/tsmfbinf/v6>

**IBM Publications Center**

<http://www.ibm.com/shop/publications/order/>

You can also order some related publications from the IBM Publications Center Web site. The Web site provides information for ordering publications from countries other than the United States. In the United States, you can order publications by calling 800-879-2755.

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## Support information

You can find support information for IBM products from a variety of sources.

## Getting technical training

Information about Tivoli technical training courses is available online.

Go to <http://www.ibm.com/software/tivoli/education/>.

## Searching knowledge bases

If you have a problem with Tivoli Storage Manager, there are several knowledge bases that you can search.

You can begin with the Tivoli Storage Manager Information Center at <http://publib.boulder.ibm.com/infocenter/tsminfo/v6>. From this Web site, you can search all Tivoli Storage Manager publications.

### Searching the Internet

If you cannot find an answer to your question in the Tivoli Storage Manager information center, search the Internet for the latest, most complete information that might help you resolve your problem.

To search multiple Internet resources, go to the support Web site for Tivoli Storage Manager at <http://www.ibm.com/software/sysmgmt/products/support/IBMTivoliStorageManager.html>. From there, you can search a variety of resources including:

- IBM technotes
- IBM downloads
- IBM Redbooks®

If you still cannot find the solution to the problem, you can search forums and newsgroups on the Internet for the latest information that might help you resolve your problem. To share your experiences and learn from others in the user community, go to the Tivoli Storage Manager wiki at <http://www.ibm.com/developerworks/wikis/display/tivolistoragemanager/Home>.

### Using IBM Support Assistant

At no additional cost, you can install on any workstation the IBM Support Assistant, a stand-alone application. You can then enhance the application by installing product-specific plug-in modules for the IBM products that you use.

The IBM Support Assistant helps you gather support information when you need to open a problem management record (PMR), which you can then use to track the problem. The product-specific plug-in modules provide you with the following resources:

- Support links
- Education links
- Ability to submit problem management reports

For more information, see the IBM Support Assistant Web site at <http://www.ibm.com/software/support/isa/>.



## Finding product fixes

A product fix to resolve your problem might be available from the IBM Software Support Web site.

You can determine what fixes are available by checking the Web site:

1. Go to the IBM Software Support Web site at <http://www.ibm.com/software/tivoli/products/storage-mgr/product-links.html>.
2. Click the **Support Pages** link for your Tivoli Storage Manager product.
3. Click **Download**, and then click **Fixes by version**.

## Getting e-mail notification of product fixes

You can get notifications about fixes and other news about IBM products.

To receive weekly e-mail notifications about fixes and other news about IBM products, follow these steps:

1. From the support page for any IBM product, click **My support** in the upper-right corner of the page.
2. If you have already registered, skip to the next step. If you have not registered, click **Register** in the upper-right corner of the support page to establish your user ID and password.
3. Sign in to **My support**.
4. On the My support page, click **Edit profiles** in the left navigation pane, and scroll to **Select Mail Preferences**. Select a product family and check the appropriate boxes for the type of information you want.
5. Click **Submit**.
6. For e-mail notification for other products, repeat steps 4 and 5.

## Contacting IBM Software Support

You can contact IBM Software Support if you have an active IBM software maintenance contract and if you are authorized to submit problems to IBM.

Before you contact IBM Software Support, follow these steps:

1. Set up a software maintenance contract.
2. Determine the business impact of your problem.
3. Describe your problem and gather background information.

Then see “Submit the problem to IBM Software Support” on page ix for information on contacting IBM Software Support.

## Setting up a software maintenance contract

Set up a software maintenance contract. The type of contract that you need depends on the type of product you have.

- For IBM distributed software products (including, but not limited to, Tivoli, Lotus®, and Rational® products, as well as IBM DB2® and IBM WebSphere® products that run on Microsoft® Windows® or UNIX® operating systems), enroll in IBM Passport Advantage® in one of the following ways:
  - **Online:** Go to the Passport Advantage Web page at <http://www.ibm.com/software/lotus/passportadvantage/>, click **How to enroll**, and follow the instructions.
  - **By Phone:** For the phone number to call in your country, go to the IBM Software Support Handbook Web page at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html> and click **Contacts**.

- For server software products, you can purchase a software maintenance agreement by working directly with an IBM sales representative or an IBM Business Partner. For more information about support for server software products, go to the IBM Technical support advantage Web page at <http://www.ibm.com/servers/>.

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States. For a list of telephone numbers of people who provide support for your location, go to the Software Support Handbook page at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html>.

### Determine the business impact

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem you are reporting.

|                   |  |
|-------------------|--|
| <b>Severity 1</b> | <b>Critical</b> business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution. |
| <b>Severity 2</b> | <b>Significant</b> business impact: The program is usable but is severely limited.   |
| <b>Severity 3</b> | <b>Some</b> business impact: The program is usable with less significant features (not critical to operations) unavailable.                                      |
| <b>Severity 4</b> | <b>Minimal</b> business impact: The problem causes little impact on operations, or a reasonable circumvention to the problem has been implemented.               |

### Describe the problem and gather background information

When explaining a problem to IBM, it is helpful to be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently.

To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can the problem be recreated? If so, what steps led to the failure?
- Have any changes been made to the system? For example, hardware, operating system, networking software, and so on.
- Are you currently using a workaround for this problem? If so, be prepared to explain it when you report the problem.

## **Submit the problem to IBM Software Support**

You can submit the problem to IBM Software Support online or by phone.

### **Online**

Go to the IBM Software Support Web site at <http://www.ibm.com/software/support/probsub.html>. Enter your information into the appropriate problem submission tool.

### **By phone**

For the phone number to call in your country, go to the contacts page of the IBM Software Support Handbook at <http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html>.

If the problem that you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. If a workaround is possible, IBM Software Support provides one for you to implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the Tivoli Storage Manager product support Web site at <http://www.ibm.com/software/sysmgmt/products/support/IBMTivoliStorageManager.html>, so that users who experience the same problem can benefit from the same resolutions.



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## Updates for Tivoli Storage Manager and Tivoli Storage Manager FastBack

Several enhancements are available to allow an integration between the Tivoli Storage Manager and FastBack products.

### Tivoli Storage Manager updates

#### Administration Center

A FastBack Servers section is available in the Administration Center navigation tree. When you open this section, you can see a table of FastBack servers that are defined to the Administration Center. This is the starting point for the FastBack Manager User Interface. You can also launch wizards from the FastBack Servers table to add FastBack server connections and complete policy integration by setting up schedules to back up data.

#### Tivoli Storage Manager server updates

For information about updated server commands, see Appendix B, “Command changes for Tivoli Storage Manager server Version 6.1.3,” on page 31.

#### Tivoli Storage Manager client updates

For information about updated commands for the backup-archive client, see Appendix C, “Backup-archive client commands for Tivoli Storage Manager FastBack,” on page 39.

### FastBack updates

Tivoli Storage Manager FastBack provides several functions for the purposes of backing up and restoring data with snapshots. All data is backed up at the disk-block level in full and incremental snapshots. After data is backed up, data can be restored to a disk, or mounted as a virtual volume for an individual file restore.

Tivoli Storage Manager FastBack Version 6.1 includes the following features:

- Built-in data deduplication of FastBack server repository data.
- Addition of Linux<sup>®</sup> operating system support for the FastBack Client, Administrative Command Line, and FastBack Manager components. See Tivoli Storage Manager FastBack Requirements at: <http://www.ibm.com/support/docview.wss?rs=3507&uid=swg21315086> for more information.



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## Chapter 1. Integration overview

Tivoli Storage Manager and Tivoli Storage Manager FastBack can be integrated to provide a cost effective solution for short-term data recovery and long-term data retention requirements.

Tivoli Storage Manager is a storage management application that provides automated storage management services to workstations, personal computers, and file servers for long-term data storage. Tivoli Storage Manager FastBack provides continuous data protection and snapshot capabilities for file servers. Traditional backup windows can be eliminated by continuously capturing data changes at the block level with minimal impact to the systems being protected.

By integrating elements of a Tivoli Storage Manager environment with a Tivoli Storage Manager FastBack environment, data can be better managed. Key advantages for implementing this solution include:

- Support for different long-term retention and recovery requirements.
- Utilization of Tivoli Storage Manager FastBack incremental block snapshots. Copying data to the Tivoli Storage Manager server for long-term data retention is offloaded from the production server.
- The ability to leverage the current investment in your existing storage infrastructure and the Tivoli Storage Manager configuration.

Using features of the Tivoli Storage Manager Administration Center Version 6.1.3, backup and archive operations for Tivoli Storage Manager FastBack data can be managed centrally through the Administration Center interface. After setting up the environment by installing and configuring the products and completing prerequisite tasks, you can add FastBack server connections and create policy schedules through FastBack integration wizards. Several notebooks are available to update or modify the integrated environment.

Tasks for integrating the Tivoli Storage Manager and Tivoli Storage Manager FastBack environments can also be completed using the Tivoli Storage Manager command-line interface. Though the Administration Center provides many features to set up and administer the integrated environment, it is not a requirement to use it. See Appendix A, “Integrating IBM Tivoli Storage Manager and IBM Tivoli Storage Manager FastBack using command interfaces,” on page 27 for information about integrating with the command-line interface.

*Figure 1* shows the flow of data in the integrated environment. Data is backed up from a server that is protected by Tivoli Storage Manager FastBack to the Tivoli Storage Manager server for long-term data retention. In the figure, a backup-archive client is installed on the protected server so that data can be restored directly from the Tivoli Storage Manager server.

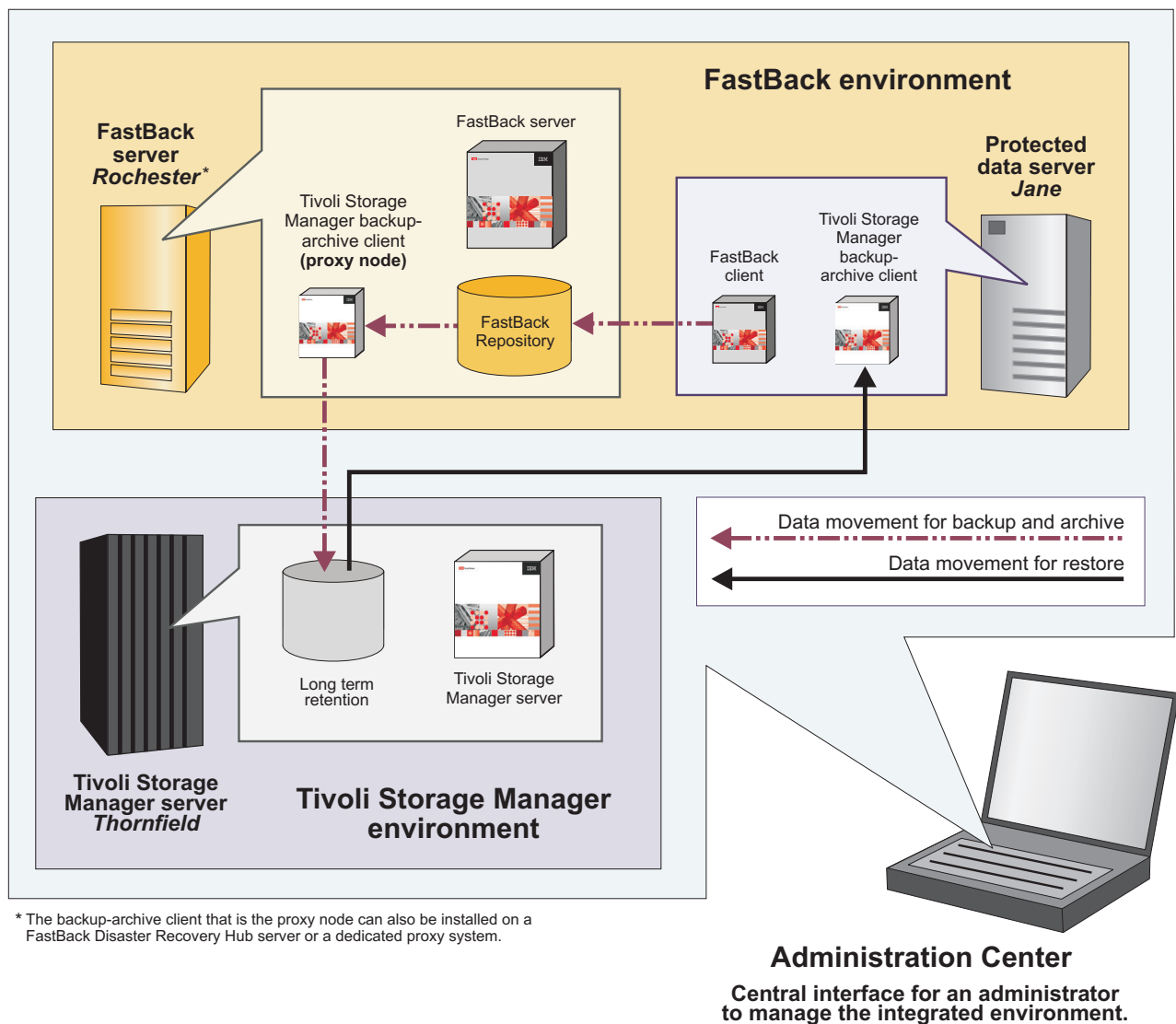


Figure 1. Data flow in the integrated environment

## Goals for integrating the products

The goal of integrating a Tivoli Storage Manager and Tivoli Storage Manager FastBack is to manage data storage with greater flexibility.

Some data, such as files for a project, might only need to be retained for short periods of time, for example, three months. Data in this category can be backed up to a FastBack server for short-term retention. Other types of data, such as medical records and financial data must be kept for longer periods of time, often for legal reasons. Data in this category can be backed up from a FastBack server repository, where it is initially stored, to the Tivoli Storage Manager server, where longer retention requirements can be met. By providing greater options for data storage and allowing data to be managed based on retention requirements, an integrated environment can potentially increase the efficiency and value of your storage configuration.

With an integrated environment, Tivoli Storage Manager FastBack tasks can be managed using the Tivoli Storage Manager Administration Center. You can launch



the FastBack Manager user interface to work with any FastBack server in your environment. You can also use wizards, notebooks, and portlets available in the Administration Center to set up policies for protecting Tivoli Storage Manager FastBack data.

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## Policy integration for Tivoli Storage Manager and Tivoli Storage Manager FastBack

Manage policy integration for data through a central interface by using enhancements available in the Administration Center Version 6.1.3.

A wizard that helps you create FastBack policy schedules is available in the Administration Center. Before launching the wizard to integrate Tivoli Storage Manager and Tivoli Storage Manager FastBack policies, you must define a Tivoli Storage Manager policy domain and management classes for data backed up from a FastBack server.

Running the wizard accomplishes the following tasks:

- Selects the Tivoli Storage Manager server that is used as the backup and archive location for Tivoli Storage Manager FastBack data.
- Identifies a backup-archive client as the proxy node to back up or archive Tivoli Storage Manager FastBack data to the Tivoli Storage Manager server and selects a Tivoli Storage Manager policy domain for managing schedules.
- Selects or creates new client groups, jobs, and policies for managing Tivoli Storage Manager FastBack data.
- Configures a Tivoli Storage Manager schedule and selects a retention policy for Tivoli Storage Manager FastBack snapshots.

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## Tivoli Storage Manager backup-archive client integration

The Tivoli Storage Manager backup-archive client is an essential component of the integration that backs up Tivoli Storage Manager FastBack data to the Tivoli Storage Manager server for long-term retention.

The backup-archive client is installed in one of three locations for the integration, depending on your environment.

- If you install a backup-archive client on the same system as the FastBack server, data is backed up from the FastBack repository to the Tivoli Storage Manager server.
- If a backup-archive client is installed on a FastBack Disaster Recovery Hub server, data is replicated from the FastBack repository to the FastBack Disaster Recovery Hub server and then backed up from the FastBack Disaster Recovery Hub repository to the Tivoli Storage Manager server.
- If you install the backup-archive client on a dedicated proxy system, data is replicated from the FastBack repository to the proxy system and then backed up to the Tivoli Storage Manager server.

Data is backed up and retained based on policy domains and management classes that are defined in the Tivoli Storage Manager server for your FastBack data. When you set up FastBack policy schedules through the Administration Center wizard, you choose a Tivoli Storage Manager domain that manages the schedules for Tivoli Storage Manager FastBack data.

See “Determining where to install the backup-archive client that is the proxy node” on page 7 for information about installation planning.

## Options for restoring data in the integrated environment

In addition to providing greater flexibility for backup and archive operations, an integrated environment also allows for different restore options.

Data can be restored directly from the Tivoli Storage Manager server through a backup-archive client that is installed on a protected data server. The restore process is started from the backup-archive client graphical user interface (GUI) or command-line interface. Data is restored to a specified directory.

If you do not want to install a Tivoli Storage Manager backup-archive client on each protected server, data can be restored through the backup-archive client that is the proxy node, located on a dedicated proxy system. Create a directory on a network shared drive that can be written to by the proxy client and read by the protected server. Restore data through the backup-archive client from either the command line, the GUI, or the Web GUI.

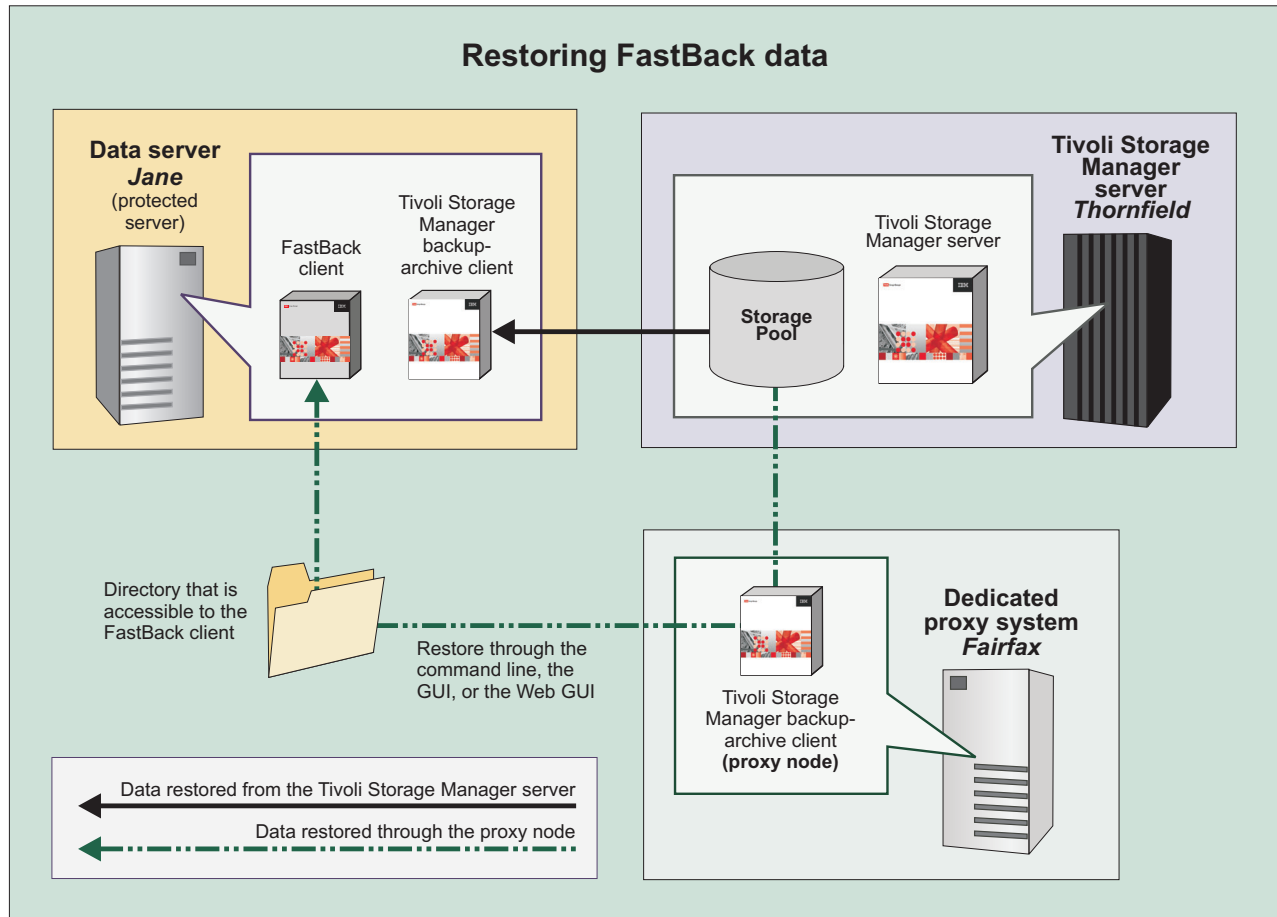


Figure 2. Restoring FastBack data from the Tivoli Storage Manager server

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## Chapter 2. Planning for the integration

Before integrating a Tivoli Storage Manager environment with a Tivoli Storage Manager FastBack environment, you should plan for storage needs, retention requirements, and product configuration.

Space considerations for the integrated environment are based on Tivoli Storage Manager policy requirements. Backup frequency to the Tivoli Storage Manager server is based on the number of FastBack snapshots that you want to maintain and protect.

Ensure that your environment supports the correct operating systems and product levels for the integration. The Tivoli Storage Manager backup-archive client is only supported on Windows for the integration. If you plan to launch the FastBack Manager user interface from the Administration Center, there are requirements for the system running your browser. See “Hardware and software requirements” for more information.

The typical tasks involved in setting up the integrated environment are included in the following list. However, depending on which products you are already using, the integration set-up process might be different.

1. If they are not already installed, install Tivoli Storage Manager and Tivoli Storage Manager FastBack. Tip: You might not need to install any products, depending on your existing environment.
2. If they are not already set up, create a policy domain and define management classes and copy groups on the Tivoli Storage Manager server for Tivoli Storage Manager FastBack data. Pay special attention to the retention values you set for the copy groups. These values determine the length of time that FastBack data is kept in the storage pools.
3. If they are not already set up, create client groups, job schedules, and snapshot policies on the FastBack server to manage data for the FastBack clients.
4. Ensure that the FastBack server and FastBack client can communicate with each other. Ensure that the Tivoli Storage Manager server and Tivoli Storage Manager backup-archive client or clients can communicate.
5. Create schedules that will back up FastBack data in the Administration Center. Schedule backup or archive operations for FastBack data.

---

### Hardware and software requirements

System requirements for the integrating Tivoli Storage Manager and Tivoli Storage Manager FastBack must be met. Ensure that you install the current levels and meet the hardware and software requirements for your configuration.

## Tivoli Storage Manager server requirements

The Tivoli Storage Manager server must be at Version 6.1.3 for the integration.

*Table 1. Tivoli Storage Manager Server Version 6.1.3 supported operating systems*

| Operating system | Hardware and software requirements  |
|------------------|---|
| AIX®             | <a href="http://www.ibm.com/support/search.wss?rs=663&amp;tc=SSGSG7&amp;atrn=Keywords&amp;atr=ServerRequirements">http://www.ibm.com/support/search.wss?rs=663&amp;tc=SSGSG7&amp;atrn=Keywords&amp;atr=ServerRequirements</a> |
| HP-UX            |   |
| Linux            |   |
| Sun Solaris      |   |
| Windows          |   |

## Tivoli Storage Manager client requirements

The Tivoli Storage Manager client must be at Version 6.1.3 for the integration.

*Table 2. Tivoli Storage Manager Client Version 6.1.3 supported operating systems*

| Operating system | Hardware and software requirements  |
|------------------|---|
| Windows          | <a href="http://www.ibm.com/support/docview.wss?rs=663&amp;uid=swg21197133">http://www.ibm.com/support/docview.wss?rs=663&amp;uid=swg21197133</a> |

## Administration Center requirements

The Administration Center must be at Version 6.1.3 for the integration.

*Table 3. Tivoli Storage Manager Administration Center Version 6.1.3 supported operating systems*

| Operating system | Hardware and software requirements  |
|------------------|---|
| AIX              | <a href="http://www.ibm.com/support/docview.wss?uid=swg21328445">http://www.ibm.com/support/docview.wss?uid=swg21328445</a> |
| HP-UX            |   |
| Linux            |   |
| Sun Solaris      |   |
| Windows          |   |

There are browser requirements for the system running the Administration Center and performing the launch of the FastBack Manager user interface. The following applications must be installed:

- Java™ Version 1.6
- Java Web Start

### Launching the FastBack Manager User Interface from the Administration Center

You must also install FastBack Reporting on each FastBack server from which you want to launch the FastBack Manager user interface. See the *Tivoli Storage Manager FastBack Installation and User's Guide* in the FastBack Information Center at: <http://publib.boulder.ibm.com/infocenter/tsmfbinf/v6> for requirements and information about installing FastBack Reporting.

## Tivoli Storage Manager FastBack server requirements

The Tivoli Storage Manager FastBack server must be at Version 6.1 for the integration.

*Table 4. Tivoli Storage Manager FastBack server Version 6.1 supported operating systems*

| Operating system | Hardware and software requirements  |
|------------------|---|
| Windows          | <a href="http://www.ibm.com/support/docview.wss?rs=3507&amp;uid=swg21315086">http://www.ibm.com/support/docview.wss?rs=3507&amp;uid=swg21315086</a> |

## Tivoli Storage Manager FastBack client requirements

The Tivoli Storage Manager FastBack client must be at Version 6.1 for the integration.

*Table 5. Tivoli Storage Manager FastBack client Version 6.1 supported operating systems*

| Operating system | Hardware and software requirements  |
|------------------|---|
| Linux            | <a href="http://www.ibm.com/support/docview.wss?rs=3507&amp;uid=swg21315086">http://www.ibm.com/support/docview.wss?rs=3507&amp;uid=swg21315086</a> |
| Windows          |   |

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## Determining what products to install

Depending on your current environment, different configuration tasks are required to integrate Tivoli Storage Manager and Tivoli Storage Manager FastBack.

You can integrate your environment if you are an existing FastBack user or an existing Tivoli Storage Manager user. There are also set-up instructions if you are configuring a new environment or if you are already using both products.

See “Installing the required products” on page 15 for more information.

---

## Determining where to install the backup-archive client that is the proxy node

A backup-archive client installed as a proxy node performs backup or archive operations for data that is stored as snapshots in the FastBack Repository. Data is moved from the repository to the Tivoli Storage Manager server by the Tivoli Storage Manager backup-archive client for long-term storage.

You can use one of three configurations to deploy the Tivoli Storage Manager backup-archive client that is the proxy node. Depending on your environment, the client can be deployed on the same system as the FastBack server, on the FastBack Disaster Recovery Hub server, or on a dedicated proxy system.

Based on the size of your environment and retention support you need, select a location for the backup-archive client that best suits your configuration. The following planning sections provide information about the benefits and considerations for each set-up.

## Planning for backups or archives from a FastBack server

You can install the Tivoli Storage Manager backup-archive client that is the client proxy node on the same system as a FastBack server.

In this configuration, as seen in the following figure, data is backed up by the FastBack client on the protected server, *Jane*, to the FastBack server repository. The Tivoli Storage Manager backup-archive client installed on the FastBack server, *Edward*, then backs up or archives data to the Tivoli Storage Manager server, *Thornfield*.

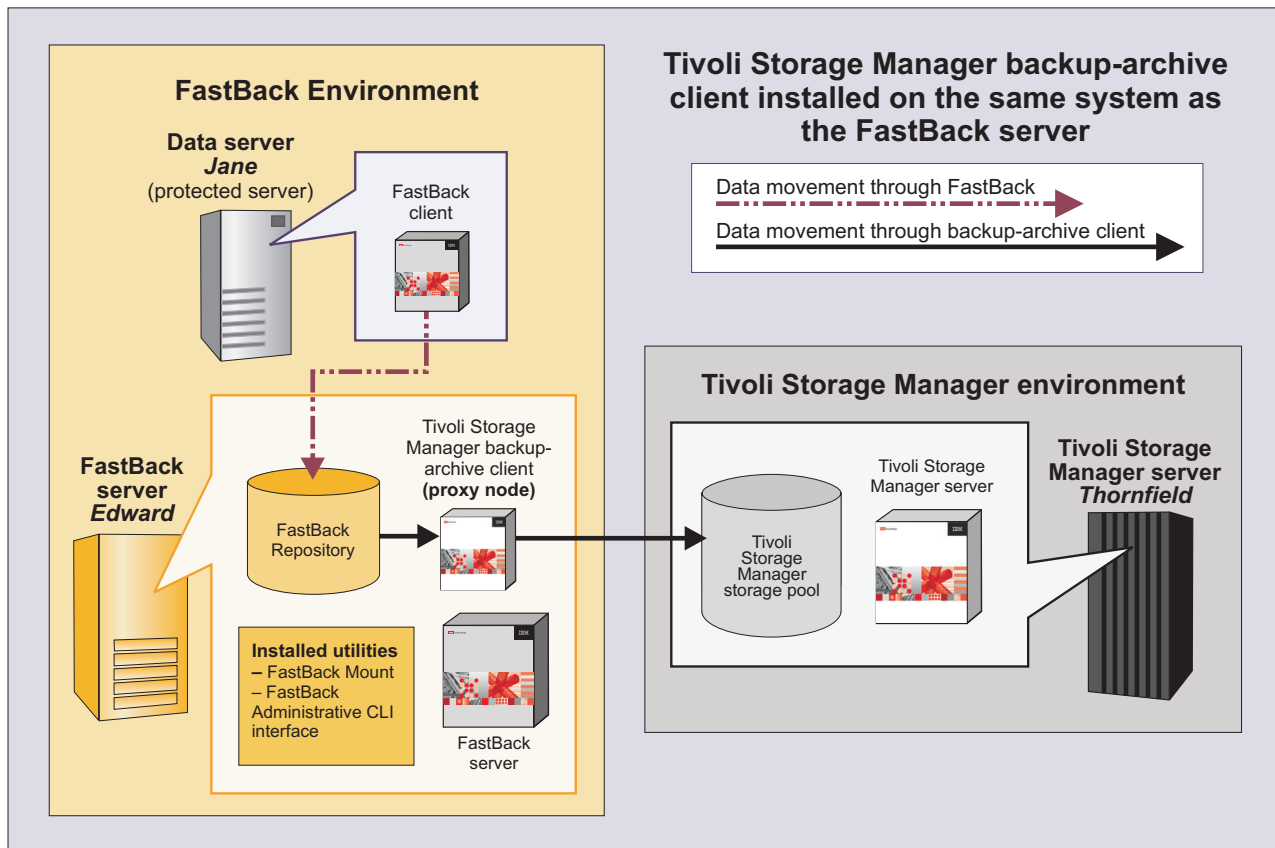


Figure 3. Backup-archive client installed on the FastBack server

Benefits of installing the backup-archive client on the same system as the FastBack server include:

- Elimination of costs involved with maintaining a FastBack Disaster Recovery Hub server.
- Creates a long-term tape-based copy of the data at a disaster recovery site, without having to implement an additional system at that site.
- Better workload balancing for a large environment. If your configuration includes a FastBack Disaster Recovery Hub server and it receives many snapshots from many FastBack servers, it might not be physically capable of keeping up with backup windows to send data to the Tivoli Storage Manager server. You can offload some of the backup operations to a backup-archive client on a FastBack server.
- Faster backups. Because the backup-archive client has direct access to the FastBack repository, data is moved more quickly.

Things to consider when installing the backup-archive client on the same system as the FastBack server include:

- More time is needed for backups or archives to the Tivoli Storage Manager server. Because operations from the backup-archive client are file-based, it could take more time to back up or archive data sent over a wide area network (WAN).
- For a large environment, the configuration is more complex. A backup-archive client is needed on each FastBack server that moves data to the Tivoli Storage Manager server. If you have a large environment with remote offices, significant time and resources might be needed for installation and maintenance.

## **Planning for backups or archives from a FastBack Disaster Recovery Hub server**

Install the Tivoli Storage Manager backup-archive client on the FastBack Disaster Recovery Hub server if you are only protecting snapshots that are replicated from a FastBack server.

In this configuration, as seen in the following figure, data moves from the FastBack client on the protected server, *Jane*, to the FastBack server repository and is then replicated to the FastBack Disaster Recovery Hub server, *Rochester*, by the backup-archive client. The Tivoli Storage Manager backup-archive client that is installed on *Rochester* backs up or archives data to the Tivoli Storage Manager server, *Thornfield*. The Tivoli Storage Manager backup-archive client can only back up data from the FastBack server if it is replicated to the FastBack Disaster Recovery Hub server.

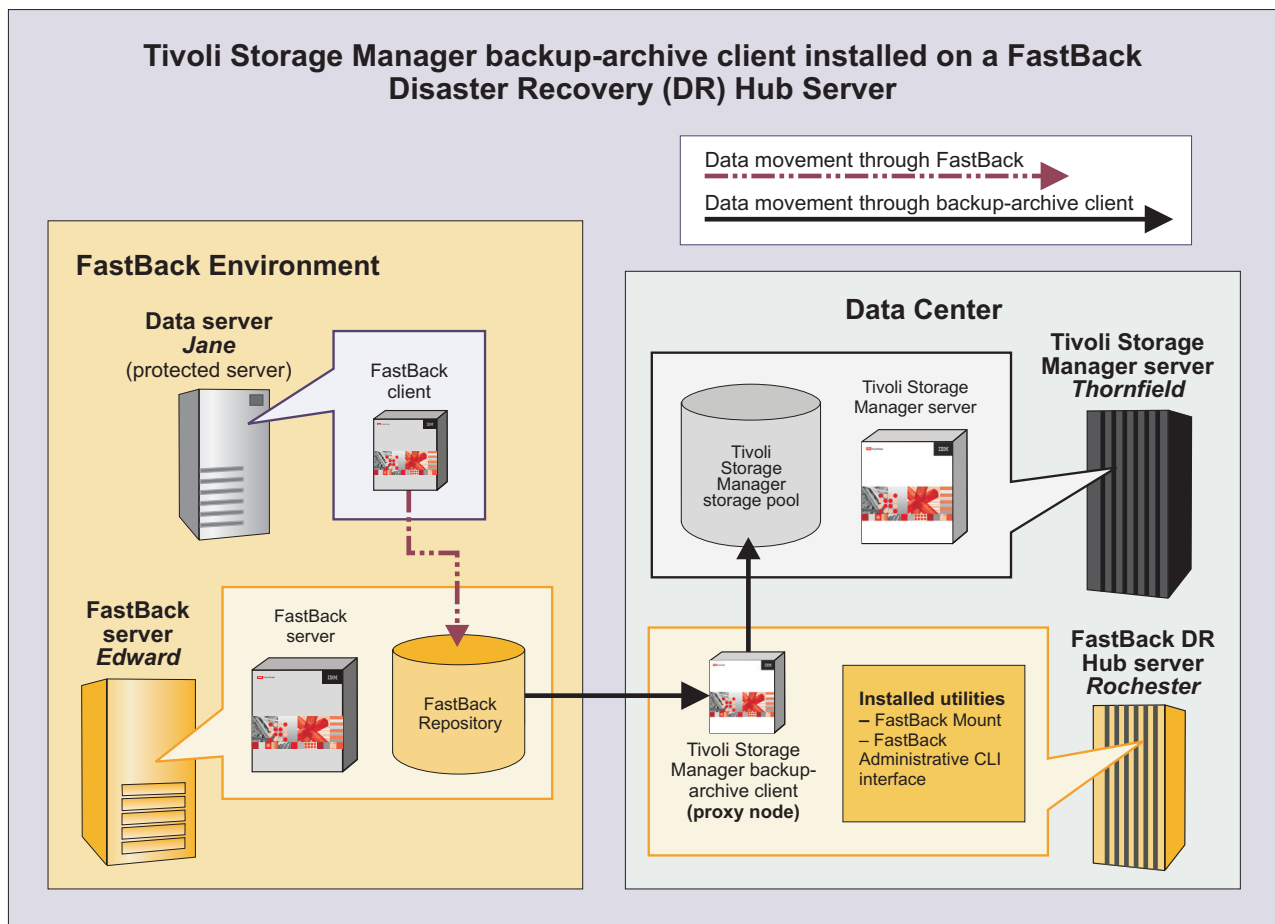


Figure 4. Backup-archive client that is installed on the FastBack Disaster Recovery Hub server

The benefits of installing the backup-archive client on the same system as the FastBack Disaster Recovery Hub server include:

- Less time is needed to complete backup and archive operations. Because a FastBack Disaster Recovery Hub server is often located at a data center that also includes the Tivoli Storage Manager server, data that is backed up or archived can move over a local area network (LAN), which enables faster network communication.
- An additional level of disaster recovery is provided when duplicate sets of block-level snapshots are retained on the FastBack Disaster Recovery Hub server.
- The configuration is simpler. Only one backup-archive client is required to be installed on a FastBack Disaster Recovery Hub server to move data to the Tivoli Storage Manager server. If you choose the FastBack server system as the location for the backup-archive client installation, you must install a client on each FastBack server that is sending data to the Tivoli Storage Manager server.
- For large environments, there is a better balancing of the workload. If you have many FastBack servers replicating snapshot data to the Tivoli Storage Manager server, you can balance the workload by installing a backup-archive client on a FastBack Disaster Recovery Hub server in addition to one or more FastBack servers. This can help backup and archive operations complete more efficiently.
- Potential savings on network time and resources. It takes less time to replicate block snapshot data over a wide area network (WAN) than it does for full file-based backups.



Things to consider when installing the backup-archive client on the same system as the FastBack Disaster Recovery Hub server include:

- Greater investment in storage and maintenance costs for a FastBack Disaster Recovery Hub server.
- Potential for longer backup times. Because data is first replicated to the FastBack Disaster Recovery Hub server and then backed up to the Tivoli Storage Manager server, the environment might be impacted by longer backup times.
- Only data that is replicated to the FastBack Disaster Recovery Hub server can be backed up to the Tivoli Storage Manager server. Any FastBack data that is not replicated to the FastBack Disaster Recovery Hub server is not backed up to the Tivoli Storage Manager server unless a backup-archive client is also installed on the FastBack server.

## **Planning for backups or archives from a dedicated proxy system**

You can install the Tivoli Storage Manager backup-archive client on a system that is dedicated as the location for the backup-archive client that backs up or archives FastBack data. Using a dedicated proxy system can help balance the workload for the FastBack server or FastBack Disaster Recovery Hub server.

In this configuration, as seen in the following figure, data is backed up from the FastBack client on the protected server, *Jane*, to the FastBack server repository. The Tivoli Storage Manager backup-archive client installed on the dedicated proxy system, *Fairfax*, backs up or archives the data to the Tivoli Storage Manager server, *Thornfield*.

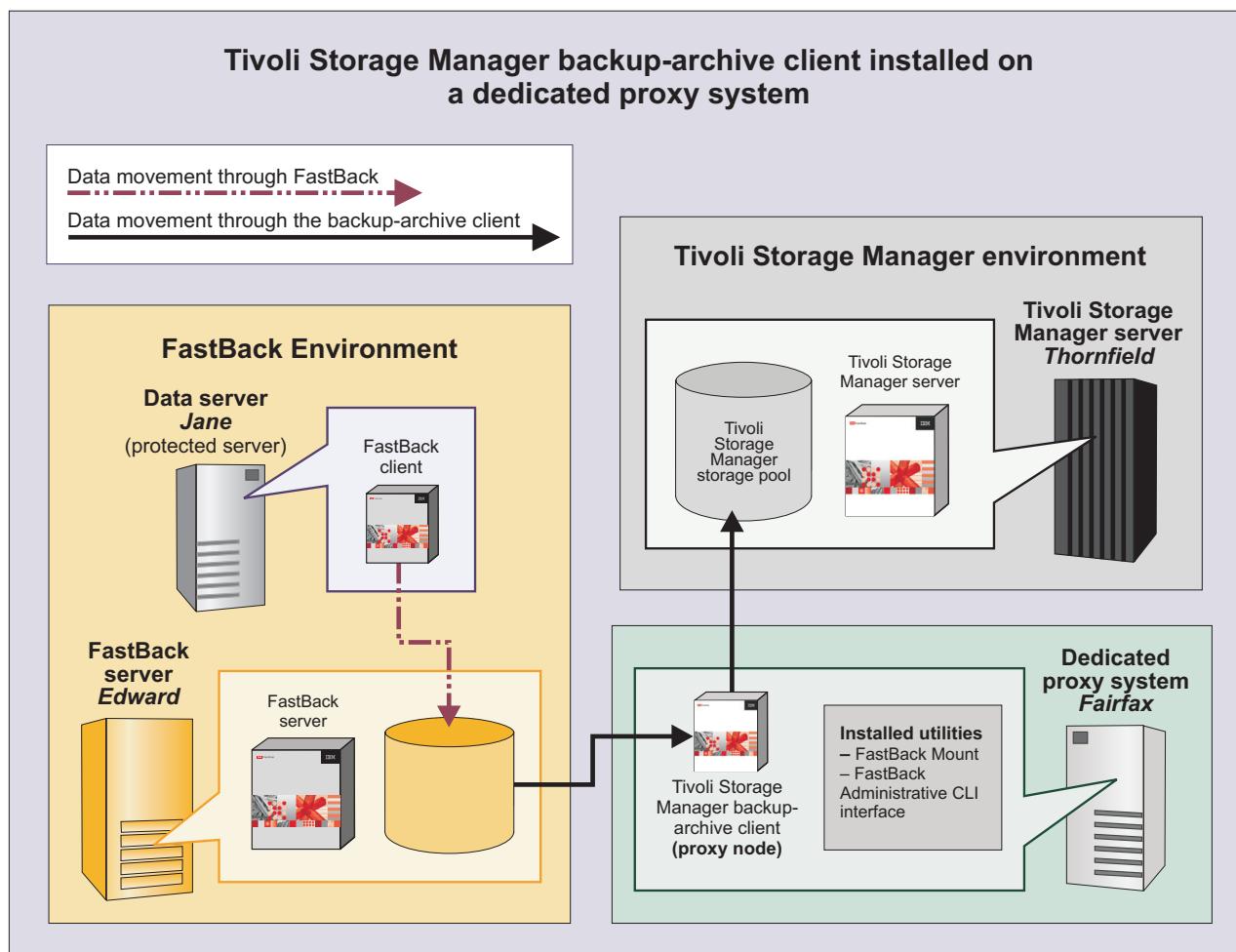


Figure 5. Backup-archive client that is installed on a dedicated proxy system

Benefits of installing the backup-archive client on a dedicated proxy system include:

- Better workload balancing for a large environment. If you have many backup-archive client nodes on FastBack or FastBack Disaster Recovery Hub servers replicating snapshot data to the server, you can balance your workload by installing a backup-archive client on a dedicated proxy system.
- Simpler configuration. Only one backup-archive client is required to be installed on a dedicated proxy system to move data to the Tivoli Storage Manager server. If you choose the FastBack server system as the location for the backup-archive client installation, you must install a client on each FastBack server that is sending data to the Tivoli Storage Manager server.

Things to consider when installing the backup-archive client on the same system as the FastBack server include:

- Greater investment in storage and maintenance costs to maintain a dedicated proxy system.
- Potential for longer backup times. Because snapshots are mounted on a dedicated proxy system from a remote FastBack repository, the environment might be impacted by longer backup times.

---

## Planning policy

Before integrating policies for Tivoli Storage Manager and Tivoli Storage Manager FastBack, you must set up a Tivoli Storage Manager policy domain and management classes for Tivoli Storage Manager FastBack data.

When you set up policy schedules for backing up or archiving data to the Tivoli Storage Manager server, you choose a Tivoli Storage Manager policy domain to manage the data. The management class in the policy domain determines the length of time that data is retained by the Tivoli Storage Manager server. You can use the default STANDARD policy domain or create a new one. One policy domain must be used for all data that is moved from one FastBack server.

Tivoli Storage Manager FastBack policies that are defined for snapshot data from the FastBack client on the protected data server can be configured from the FastBack Manager user interface or through the Administration Center wizard. Policies that are defined for data retention in Tivoli Storage Manager are configured through the Tivoli Storage Manager Administration Center or the command-line interface.

The following examples show how you might set up retention for FastBack data:

### Example 1

- Take snapshots once every four hours and retain them in the FastBack server repository for three months.
- Copy the snapshots to a FastBack Disaster Recovery Hub server once a day.
- Back up the data to the Tivoli Storage Manager server once a week and retain for three years.

### Example 2

- Take snapshots once every hour and retain them in the FastBack server repository for six weeks.
- Copy the snapshots to a FastBack Disaster Recovery Hub server once a day.
- Back up the data to the Tivoli Storage Manager server once a day and retain for one year.



---

## Chapter 3. Installing and configuring the products

When you are ready to integrate your environment, you can begin installing and configuring the products.

See the following topics:

1. "Installing the required products"
2. "Defining a Tivoli Storage Manager policy domain for FastBack data" on page 16
3. "Adding FastBack server connections to the Administration Center" on page 16
4. "Creating policy schedules for FastBack data" on page 17
5. "Installing and configuring the backup-archive client that is the proxy node" on page 17
6. "Optional: Install FastBack Reporting and launch the FastBack Manager user interface" on page 20

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### Installing the required products

You can use one of several installation methods to integrate Tivoli Storage Manager and Tivoli Storage Manager FastBack. Depending on the products you are currently using, you might only need to complete a few of the installation steps.

Several of the steps reference other publications for installation and configuration tasks. You can find these documents in the following locations:

**Tivoli Storage Manager server, backup-archive client, and Administration Center documentation:**

Tivoli Storage Manager Information Center at: <http://publib.boulder.ibm.com/infocenter/tsminfo/v6>

**FastBack documentation:**

Tivoli Storage Manager FastBack Information Center at: <http://publib.boulder.ibm.com/infocenter/tsmfbinf/v6>

Complete the installation tasks that are required for your configuration.

1. Install and configure an IBM Tivoli Storage Manager server. For installation and configuration steps, see the *Tivoli Storage Manager Installation Guide*.
2. Install and configure the IBM Tivoli Storage Manager Administration Center. For complete steps see the *Tivoli Storage Manager Installation Guide*.
3. Install a Tivoli Storage Manager FastBack server. For installation steps, see the *Tivoli Storage Manager FastBack Installation and User's Guide*.
4. Install a FastBack client on each system that you want to protect. For installation steps, see the *Tivoli Storage Manager FastBack Installation and User's Guide*.
5. Configure the FastBack server after the FastBack clients have been connected.
6. Optional: If you want to launch the FastBack Manager user interface from the Administration Center, install, and configure FastBack Reporting on the FastBack server. For complete steps, see the *Tivoli Storage Manager FastBack Installation and User's Guide*.

7. Install the Tivoli Storage Manager backup-archive client that is the proxy node for backup and archive operations to the Tivoli Storage Manager server. For more information, see “Installing and configuring the backup-archive client that is the proxy node” on page 17.
8. Optional: Install a backup-archive client on each protected server to restore data directly from the Tivoli Storage Manager server. For more information, see “Options for restoring data in the integrated environment” on page 4.

---

## Defining a Tivoli Storage Manager policy domain for FastBack data

Create a Tivoli Storage Manager policy domain or use the default policy domain called STANDARD to manage data for each FastBack server in the integrated environment.

You must define policy domains before you start the Administration Center wizard to integrate Tivoli Storage Manager and FastBack policies. Define one policy domain to manage all data from one FastBack server. When a policy domain is defined, a policy set, management class, and copy group are also created.

To create a policy domain using the Administration Center, complete the following steps.

1. Expand **Policy Domains** in the navigation tree.
2. Select the Tivoli Storage Manager server that you want to be the destination for FastBack data. Click the server link to display policy domains that are defined for the server.
3. To create a policy domain, click **Select Action** → **Create Policy Domain**. The Create Policy Domain wizard helps you create a policy for FastBack data.

To create a policy domain for FastBack data using the Tivoli Storage Manager server command line, see Appendix A, “Integrating IBM Tivoli Storage Manager and IBM Tivoli Storage Manager FastBack using command interfaces,” on page 27 or the *Tivoli Storage Manager Administrator’s Guide*.

---

## Adding FastBack server connections to the Administration Center

After you have completed installation tasks for the integration, you can add server connections for FastBack servers.

Using the Administration Center, you can add connections for FastBack servers that are defined to the Tivoli Storage Manager server. After adding connections, you can set up policy schedules and protect data that is backed up to a FastBack repository. You can also launch the FastBack Manager user interface from the Administration Center.

A FastBack server connection is required for each server that you want to manage through the Administration Center. When you add the connection, the Administration Center contacts the FastBack server to obtain a list of domains. This list of domains is used to define administrator credentials for a FastBack server.

Each FastBack server connection must be a unique name. The Administration Center uses the server name as the connection name. If two FastBack servers have the same name, a server connection for the second server cannot be added. Each server connection can be used by one or more ISC users.

After a connection is added, you can log on to the Administration Center using your Integrated Solutions Console user ID and password and work with the FastBack servers that are defined.

Use the Add FastBack Server Connection wizard in the Administration Center to add connections for FastBack servers.

1. In the navigation tree, click **FastBack Servers**.
2. Select a server from the list and then click **Select Action → Add Server Connection** to start the wizard.

See the help panels in the wizard for details about each task.

---

## Creating policy schedules for FastBack data

Use the Administration Center wizard to create a FastBack policy schedule. The wizard helps you configure short-term data retention in FastBack and long-term data retention in Tivoli Storage Manager.

Before creating FastBack policy schedules using the Administration Center wizard, you must set up the required Tivoli Storage Manager policy domain, management classes, and copy groups for use with FastBack data. See “Defining a Tivoli Storage Manager policy domain for FastBack data” on page 16 for more information.

Only certain characters are supported for FastBack policies that are integrated with Tivoli Storage Manager. Policies named with characters that cannot be supported by the Tivoli Storage Manager server do not appear in the list of policies for the **Add Policies** table action. The following characters are supported:

a b c d e f g h i j k l m n o p q r s t u v w x y z  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
0 1 2 3 4 5 6 7 8 9 \_ - + & <space>

If you want to include a specific FastBack policy in a Tivoli Storage Manager schedule and the policy does not appear, rename it to remove any unsupported characters.

Create a policy schedule by completing the following steps:

1. From the Administration Center navigation tree, expand **FastBack Servers**.
2. Select the FastBack server that you want to create a policy schedule for.
3. Click **Select Action → Create a FastBack Policy Schedule** to start the wizard.

See the help panels in the wizard for details about each task.

---

## Installing and configuring the backup-archive client that is the proxy node

Install a backup-archive client on a FastBack server, a FastBack Disaster Recovery Hub server, or a dedicated proxy system. This backup-archive client is the proxy node that backs up or archives FastBack data to the Tivoli Storage Manager

## Installing and configuring the backup-archive client on the same system as the FastBack server

Complete the steps to install a backup-archive client as a proxy node on the same system as the FastBack server.

Repeat this process for each FastBack server in your environment.

1. Choose a name and password for the Tivoli Storage Manager client that is the proxy node that backs up or archives data from the FastBack server. It is a best practice to use the host name of the FastBack server system as the proxy node name. Write down the name and password for later use.
2. Define the FastBack server to the Administration Center by adding a connection for the server. See “Adding FastBack server connections to the Administration Center” on page 16.
3. Run the Create a FastBack Policy Schedule wizard from the Administration Center. See “Creating policy schedules for FastBack data” on page 17.
4. Install the Tivoli Storage Manager backup-archive client on the FastBack server. For installation instructions, see the *Tivoli Storage Manager Backup-Archive Clients Installation and User's Guide*.
5. Verify that the utilities FastBack Mount and the FastBack Administrative Command Line Interface are installed on the same system as the backup-archive client.
6. You must configure the backup-archive client before it can back up or archive FastBack volumes:
  - a. Issue the set password command to provide the backup-archive client with the necessary credentials and allow access to the FastBack repository. Repeat this step for each FastBack repository in the configuration that the backup-archive client connects to.
  - b. Configure the client scheduler to back up or archive data to the Tivoli Storage Manager server.

For information on the set password and configuring the client scheduler, see the *Tivoli Storage Manager Backup-Archive Clients Installation and User's Guide*.

7. Verify that backup or archive operations to the Tivoli Storage Manager are completing successfully by issuing the QUERY EVENT or QUERY SCHEDULE command.

## Installing and configuring the backup-archive client on the FastBack Disaster Recovery Hub server

Complete the steps to install a backup-archive client as the proxy node on the FastBack Disaster Recovery Hub server.

1. Choose a name and password for the Tivoli Storage Manager backup-archive client that is the proxy node and will back up or archive data from the FastBack Disaster Recovery Hub server. You do not need to select the same name as a FastBack server because the backup-archive client that is installed with the FastBack Disaster Recovery Hub server might potentially be backing up or archiving data from more than one server. Write down the node name and password for later use.
2. Define the FastBack server to the Administration Center by adding a connection for the server. If you have more than one FastBack server in your configuration, repeat this step for each server. See “Adding FastBack server connections to the Administration Center” on page 16.



3. Run the Create a FastBack Policy Schedule wizard from the Administration Center. See “Creating policy schedules for FastBack data” on page 17
4. Install the Tivoli Storage Manager backup-archive client on the FastBack server. For installation instructions, see the *Backup-Archive Installation and User's Guide*.
5. Verify that the utilities FastBack Mount and the FastBack Administrative Command Line Interface are installed on the same system as the backup-archive client.
6. You must configure the backup-archive client before it can back up or archive FastBack volumes:
  - a. Issue the set password command to provide the backup-archive client with the necessary credentials and allow access to the FastBack repository. Repeat this step for each FastBack repository in the configuration that the backup-archive client connects to.
  - b. Configure the client scheduler to back up or archive data to the Tivoli Storage Manager server.

For information on the set password and configuring the client scheduler, see the *Tivoli Storage Manager Backup-Archive Clients Installation and User's Guide*.
7. Verify that backup or archive operations to the Tivoli Storage Manager are completing successfully by issuing the QUERY EVENT or QUERY SCHEDULE command.

## Installing and configuring the backup-archive client on a dedicated proxy system

Complete the steps to install a backup-archive client as the proxy node on dedicated proxy system.

1. Choose a name and password for the Tivoli Storage Manager client that is the proxy node and will back up or archive data from the FastBack server. Write them down for later use.
2. Define each FastBack server in your environment to the Administration Center by adding a connection for the server. See “Adding FastBack server connections to the Administration Center” on page 16.
3. Run the Create a FastBack Policy Schedule wizard from the Administration Center. See “Creating policy schedules for FastBack data” on page 17
4. Install the Tivoli Storage Manager backup-archive client on the FastBack server. For installation instructions, see the *Tivoli Storage Manager Backup-Archive Clients Installation and User's Guide*.
5. Install the FastBack utilities FastBack Mount and the FastBack Administrative Command Line Interface on the same system as the backup-archive client.
6. You must configure the backup-archive client before it can back up or archive FastBack volumes:
  - a. Issue the set password command to provide the backup-archive client with the necessary credentials and allow access to the FastBack repository. Repeat this step for each FastBack repository in the configuration that the backup-archive client connects to.
  - b. Configure the client scheduler to back up or archive data to the Tivoli Storage Manager server.

For information on the set password and configuring the client scheduler, see the *Tivoli Storage Manager Backup-Archive Clients Installation and User's Guide*.

7. Verify that backup or archive operations to the Tivoli Storage Manager are completing successfully by issuing the QUERY EVENT or QUERY SCHEDULE command.

---

## Optional: Install FastBack Reporting and launch the FastBack Manager user interface

You can launch the FastBack Manager user interface from the Administration Center to manage a FastBack server. An installation of FastBack Reporting is required on each server from which you want to launch the user interface.

### Installing FastBack Reporting on the FastBack server

Install FastBack Reporting if you want to launch the FastBack Manager user interface from the Administration Center.

As part of the FastBack Reporting application, a Tivoli Integrated Portal server is installed on the FastBack server system. When the Web address for a FastBack server is defined to the Administration Center, it is pointing to the FastBack Reporting application.

The FastBack Reporting application handles requests to start the FastBack Manager user interface and to become the FastBack Manager Web Server.

To install FastBack Reporting on the FastBack server, see complete steps in the *Tivoli Storage Manager FastBack Installation and User's Guide*, available in the Tivoli Storage Manager FastBack Information Center at: <http://publib.boulder.ibm.com/infocenter/tsmfbinf/v6>.

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## Starting the FastBack Manager user interface

When you start the FastBack Manager user interface you can manage FastBack tasks from the Administration Center.

You can start the FastBack Manager user interface after FastBack server connections are added to the Administration Center. The operating system of the machine on which the browser is running is must be a Microsoft Windows, Linux, or AIX platform. Other browser platforms are not supported.

A FastBack Servers section is included in the navigation tree of the Administration Center. When you open this section of the Administration Center, you are presented with a table of FastBack servers that are defined to the Administration Center for your Integrated Solutions Console user ID.

When you want to start the FastBack Manager user interface for an available FastBack server, you can click the corresponding URL in the FastBack Servers table or start the FastBack Manager from the table. The Administration Center determines whether the FastBack Manager Web Server is configured. If the Web Server is not configured, the Administration Center issues an error message. Once you start the FastBack Manager, the Administration Center redirects the request to the URL previously identified for the FastBack Manager user interface.

### Prerequisites for starting the FastBack Manager user interface

- Java Web Start must be installed on the system on which the Web browser resides because it is used to start the FastBack Manager user interface. Java Web Start Version 1.6 is required for the integration.

- FastBack Reporting must be installed on the FastBack server system. There are requirements for installing FastBack Reporting that must be met. See the *Tivoli Storage Manager FastBack Installation and User's Guide*, available in the FastBack Information Center at: <http://publib.boulder.ibm.com/infocenter/tsmfbinf/v6>.
- If you are using Internet Explorer Version 6 or 7 as your Web browser, you must update the default security settings to allow the FastBack Manager user interface to start. Complete the following steps to add a trusted site to your Internet Options:
  1. From the browser window, click **Tools** → **Internet Options** → **Security**.
  2. Click the **Trusted sites** icon and click **Custom Level**.
  3. In the **Downloads** section, under **Automatic prompting for file downloads**, click **Enable**.

If a URL is defined for the selected server, complete the following steps to start the FastBack Manager user interface. The launch can be initiated from the Administration Center in two ways:

#### Method 1

1. Click **FastBack Servers** in the Administration Center navigation tree.
2. In the **Server Name** column of the table, click the link on the server name.

#### Method 2

1. Click **FastBack Servers** in the navigation tree.
2. Select a server from the list of FastBack servers.
3. Click **Select Action** → **Launch FastBack Manager**.



---

## Chapter 4. Backing up and restoring FastBack data

After completing the installation and configuration tasks for your integrated environment, you can begin backing up and restoring data.

For information on backing up data from the protected server to the Tivoli Storage Manager server, see the *Tivoli Storage Manager FastBack Installation and User's Guide* available from the Tivoli Storage Manager FastBack Information Center at: <http://publib.boulder.ibm.com/infocenter/tsmfbinf/v6>.

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### Restoring FastBack data

Data can be restored to the protected server from the Tivoli Storage Manager server through the command line, the client GUI, or the Web GUI.

If you want to restore data directly to the protected server, you can install and configure a Tivoli Storage Manager backup-archive client on the protected server. Or, you can restore data through the backup-archive client that is the proxy node by creating a shared directory that is accessible to the FastBack client and restoring data to the shared directory.

To restore data to the protected server using the backup-archive client graphical user interface (GUI), complete the following steps:

1. Install and configure a backup-archive client on the protected server.
2. Open the GUI.
3. Click **Restore** from the main menu window.
4. Expand the directory tree.
5. Select the objects that you want to restore. To search or filter file names to find a specific subset of files, click **Search**.
6. Click **Restore**. Enter a location for your restored data.
7. Click **Restore**. The Restore Task List window displays the processing status.

For more information about restoring data with the backup-archive client, see the *Tivoli Storage Manager Backup-Archive Clients Installation and User's Guide*.



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## Chapter 5. Administering your integrated environment

After your environment is set up and working, you can modify or update properties for your FastBack servers and clients through the Administration Center.

---

### Managing FastBack servers

After setting up an integrated environment, you can manage FastBack servers in your configuration using notebooks, portlets, and wizards in the Administration Center.

Using the FastBack Server Properties portlet, you can work with FastBack clients and volumes, repair configuration errors, and manage FastBack schedules.

To open the portlet for a FastBack server, complete the following steps from the Administration Center:

1. From the navigation tree, click **FastBack Servers**.
2. Select the FastBack server that you want to manage.
3. Click **Select Action** → **View Server Properties**. The server properties portlet for the selected FastBack server is displayed.

### Modifying Tivoli Storage Manager server connections

You can update or change the properties for a FastBack server connection through the Administration Center.

To update properties for a FastBack server connection, including administrator credentials and server settings, open the **Add FastBack Server Connection** notebook from the Administration Center.

1. From the navigation tree, click **FastBack Servers**.
2. Select the FastBack server that is associated with the server connection that you want to update.
3. Click **Select Action** → **Modify Server Connection** to open the notebook.

---

### Modifying a FastBack policy schedule

You can update or change options for an existing FastBack policy schedule through the Administration Center.

To update properties for a FastBack policy schedule, including policy and retention settings, schedule repetition, and schedule expiration, open the FastBack schedule notebook from the Administration Center.

1. From the navigation tree, click **FastBack Servers**.
2. Select the FastBack server that is associated with the schedule that you want to update.
3. Click **Select Action** → **View Server Properties**. The server properties for FastBack clients and volumes and schedules are displayed.
4. From the **Schedules Protecting FastBack Policies** table, select the schedule you want to update.
5. Click **Select Action** → **Modify Schedule** to open the notebook.





## Appendix A. Integrating IBM Tivoli Storage Manager and IBM Tivoli Storage Manager FastBack using command interfaces

If you do not use the Tivoli Storage Manager Administration Center, you can set up an integrated environment for Tivoli Storage Manager and Tivoli Storage Manager FastBack from the command lines of each product.

The example integration procedure in this topic is based on the environment in following figure:

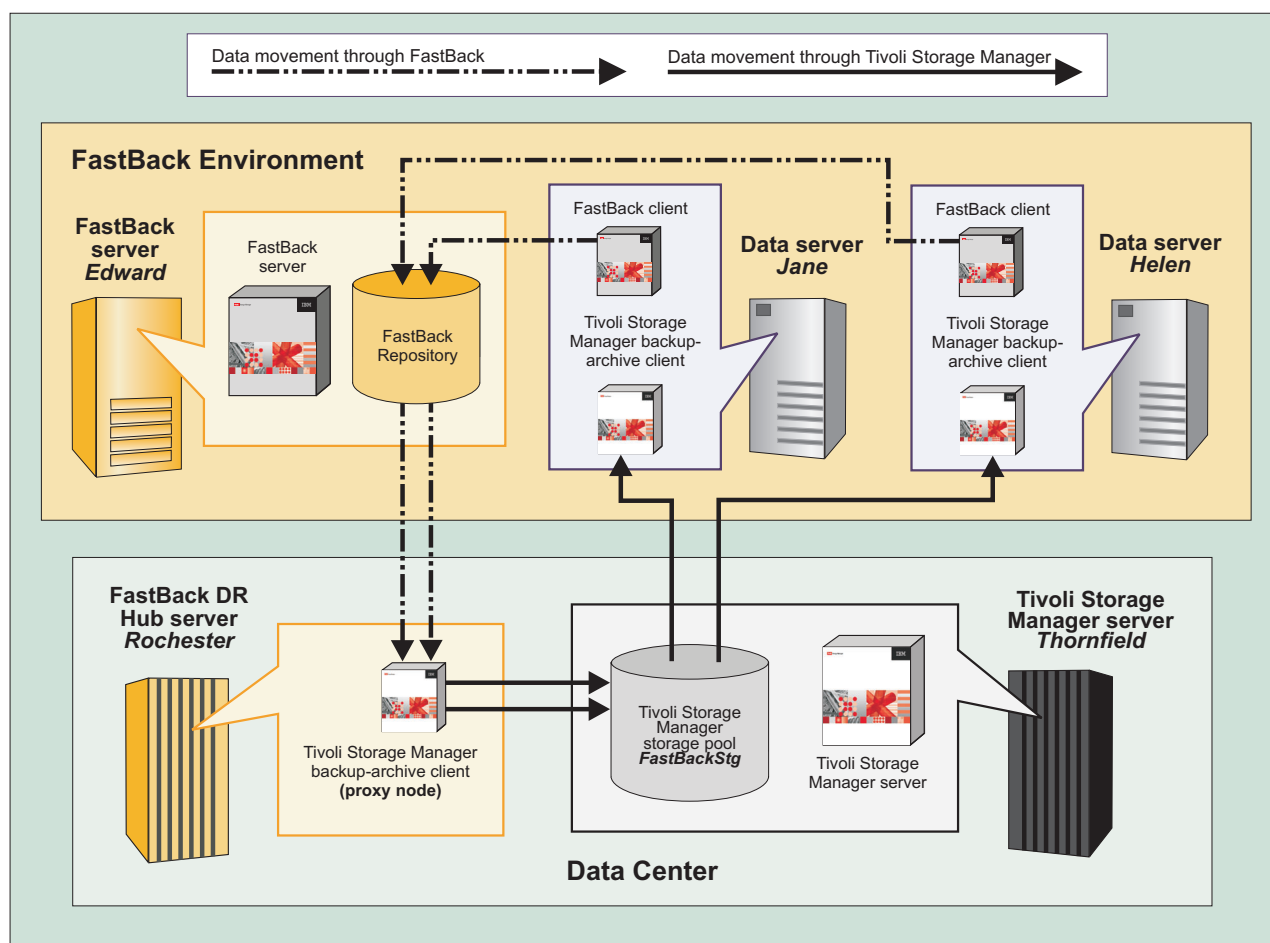


Figure 6. The following command-line example is based on this integration configuration.

Creating an integrated environment involves multiple installations. You can find detailed installation procedures in these sources:

- **Tivoli Storage Manager server:**  
For installation and configuration steps, see the *Tivoli Storage Manager Installation Guide*.
- **Tivoli Storage Manager backup-archive client:**  
For installation and configuration steps, see *Tivoli Storage Manager for Windows Backup-Archive Clients Installation and User's Guide*.

- **Tivoli Storage Manager FastBack server, FastBack Disaster Recovery Hub server, and FastBack client:**

*Tivoli Storage Manager FastBack Installation and User's Guide*

Complete the steps in the following sample procedure to install and configure an integrated environment for Tivoli Storage Manager and Tivoli Storage Manager FastBack.

1. Install and configure the Tivoli Storage Manager server and media libraries.
2. Install and configure the Tivoli Storage Manager FastBack server.
3. **Optional:** Install and configure a Tivoli Storage Manager FastBack Disaster Recovery Hub server. For example, install and configure a server named "Rochester."
4. Install and configure the Tivoli Storage Manager FastBack client on each server to be protected.
5. Install and configure a Tivoli Storage Manager backup-archive client on the FastBack server, the FastBack Disaster Recovery Hub server, or a dedicated proxy system. To decide which configuration is best for your environment, see "Determining where to install the backup-archive client that is the proxy node" on page 7.
6. **Optional:** Install and configure the Tivoli Storage Manager backup-archive clients on any server to be protected so that users can run restore and retrieve operations from those servers.
7. From the FastBack Manager user interface, configure the FastBack server to take snapshots by defining client groups, job schedules, and policies.  
Select the **Configuration** tab, navigate to the panel you want, and specify settings for each object.
  - a. Right click **Client Groups** and select **New Client group**.
  - b. Right click **Job Schedules** and select **New Job Schedule**.
  - c. Right click **Policies** and **New Policy**.

See the *Tivoli Storage Manager FastBack Installation and User's Guide* for details about creating these objects.

8. From the Tivoli Storage Manager server, define a storage pool, a policy domain, a policy set, a management class, and one or more copy groups. Set the retention period for backups and archives.

```
define stgpool fastbackstg

define domain fastbackdomain backretention=30 archretention=365

define policyset fastbackdomain fastbackpolicy

define mgmtclass fastbackdomain fastbackpolicy fastbackclass

define copygroup fastbackdomain fastbackpolicy fastbackclass
type=backup destination=fastbackstg retonly=365
```

9. Register the backup-archive client node that was installed in step 5. Use the Windows computer name as the node name, for example, Rochester.  
register node rochester password
10. If you installed Tivoli Storage Manager backup-archive clients on data servers so that users can restore and retrieve data (see step 6), register those backup-archive clients, and grant proxy authority for them to the FastBack proxy node Rochester. Use the Windows computer names as the node names, for example, Jane.

```
register node jane password
register node helen password
```

Create proxy relationships. For example:

```
grant proxynode target=jane agent=rochester
grant proxynode target=helen agent=rochester
```

11. From the Tivoli Storage Manager client, run the SET PASSWORD command to store the credentials of the Tivoli Storage Manager FastBack repositories where the Tivoli Storage Manager client connects. Run the SET PASSWORD command once for each repository to which the Tivoli Storage Manager client is expected to connect. The type of credentials required is based on the configuration:

- Tivoli Storage Manager client on a FastBack Server
- Tivoli Storage Manager client on a FastBack Hub
- Tivoli Storage Manager client on a dedicated proxy system

See “Set Password (for protecting FastBack data)” on page 43 for details about using this command.

12. Create a client schedule on the Tivoli Storage Manager server to back up or archive the Tivoli Storage Manager FastBack files, or issue the BACKUP FASTBACK or ARCHIVE FASTBACK command from the Tivoli Storage Manager client command line.

- **Create the client schedule on the Tivoli Storage Manager server:**

- a. From the Tivoli Storage Manager server, define schedules to back up or archive Tivoli Storage Manager FastBack files and associate the schedule with one or more node names. Here is an example of a backup schedule:

```
define schedule standard datasrv_back
description="daily backup dataservers F: G:"
action=backup subaction=fastback
options="-fbpolicyname=fbclientpol -backmc=fastbackclass
-fbbranch=rochester" starttime=00:00:00
```

- b. Associate the schedule with the proxy node Rochester. For example:

```
define association fastbackdomain datasrv_back rochester
```

- c. From the proxy node, start the scheduler daemon, or start the client in schedule mode.

- **Issue a command from the Tivoli Storage Manager client command line:**

Issue the BACKUP FASTBACK or ARCHIVE FASTBACK command from the client command line. Here is an example of a BACKUP FASTBACK command:

```
dsmc backup fastback -fbpolicyname=fbclientpol
-fbclientname=fb_client1,fb_client2 -fbreposlocation=
\\myFBServer.company.com\FB_REP_OF_9d6ec80\ -fbserver=edward
```



---

## **Appendix B. Command changes for Tivoli Storage Manager server Version 6.1.3**

In Tivoli Storage Manager Version 6.1.3, the following server commands are updated to provide options for the integration of Tivoli Storage Manager FastBack.

---

## DEFINE SCHEDULE (Define a client backup or archive schedule) - V6.1.3 update

Use the DEFINE SCHEDULE command to define a client schedule. After you define a schedule, use the DEFINE ASSOCIATION command to associate the client with the schedule. This version of the DEFINE SCHEDULE command applies only to Tivoli Storage Manager FastBack operations.

You must start the client scheduler on the client workstation for Tivoli Storage Manager to process the schedule.

Tivoli Storage Manager cannot run multiple schedules concurrently for the same client node.

### Privilege class

To define a client schedule, you must have system privilege, unrestricted policy privilege, or restricted policy privilege for the policy domain to which the schedule belongs.

### Syntax

```
►►DEFINE SCHEDULE—domain_name—schedule_name—————►

┌—————┐
└DESCRiption—=description┘  ACTION—=Archive
                                └Backup┘—————►

►SUBACTION—=FASTBack—OPTions—=option_string—————►

┌—————┐
└STARTDate—=current_date┘
└STARTDate—=date—————►
```

### Parameters

#### *domain\_name* (Required)

Specifies the name of the policy domain to which this schedule belongs.

#### *schedule\_name* (Required)

Specifies the name of the schedule to be defined. You can specify up to 30 characters for the name.

#### DESCRiption

Specifies a description of the schedule. This parameter is optional. You can specify up to 255 characters. Enclose the description in quotation marks if it contains any blank characters.

#### ACTION (Required)

Specifies the operation that occurs when this schedule runs. Possible values are:

##### Archive

Specifies an archive operation.

### Backup

Specifies a back up operation.

### SUBAction (Required)

Specifies that the Tivoli Storage Manager FastBack client operation that is identified by the ACTION parameter is to be scheduled.

### Options (Required)

Specifies the client options to be included when the schedule is processed. See “Tivoli Storage Manager client command options” on page 46 for descriptions of the options that are valid with an ARCHIVE or BACKUP Tivoli Storage Manager FastBack operation.

When you define a scheduler service by using the DSMCUTIL command or the wizard in the backup-archive client GUI, specify an options file for the scheduler service to use. You cannot override the options in that options file by issuing the scheduled command. You must modify the options in your scheduler service.

If the option string contains multiple options or options with embedded spaces, surround the entire option string with one pair of single quotes. Individual options that contain spaces should be enclosed in double quotes. A leading minus sign is required in front of the option. Errors can occur if the option string contains spaces that are not quoted correctly.

The following example shows how to specify a client option. To specify -fbpolicyname="policy 0,policy 1", -fbserver=bronte and -backmc=my\_tsm\_mgmtclass, enter:

```
options='-fbpolicyname="policy 0,policy 1" -fbserver=bronte  
-backmc=my_tsm_mgmtclass'
```

**Tip:** For Windows clients running in batch mode, if the use of double quotes is necessary, use interactive mode or operating system escape characters.

### STARTDate

Specifies the date for the beginning of the window in which the schedule is first processed. This parameter is optional. The default is the current date. Use this parameter with the STARTTIME parameter to specify when the initial startup window of the schedule starts. You can specify the date using one of the values below:

| Value                  | Description   | Example         |
|------------------------|---|-----------------|
| MM/DD/YYYY             | A specific date   | 09/15/1998      |
| TODAY                  | The current date  | TODAY           |
| TODAY+days or<br>+days | The current date plus days specified. The maximum number of days you can specify is 9999. | TODAY +3 or +3. |

You can also use the parameters listed here with the DEFINE SCHEDULE command. The complete syntax and description of the command is in the *Administrator's Reference*.

- PRIORITY
- STARTTIME
- DURATION
- DURUNITS

- PERIOD
- PERUNITS
- DAYOFWEEK
- EXPIRATION

**Note:** Do not use the OBJECTS parameter with this command.



---

## UPDATE SCHEDULE (Update a client schedule) - V6.1.3 update

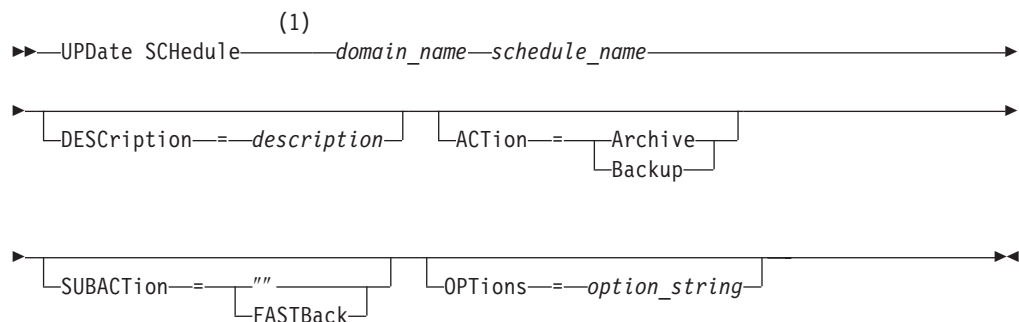
Use the UPDATE SCHEDULE to update selected parameters for a client schedule. This version of the UPDATE SCHEDULE command applies only to Tivoli Storage Manager FastBack operations.

This command does not change the client associations that have been made to this schedule. Any clients that are associated with the original schedule process the modified schedule. This version of the UPDATE SCHEDULE command applies only to Tivoli Storage Manager FastBack operations.

### Privilege class

To update a client schedule, you must have system privilege, unrestricted policy privilege, or restricted policy privilege for the policy domain to which the schedule belongs.

### Syntax



### Notes:

- 1 You must specify at least one optional parameter on this command.

### Parameters

#### *domain\_name* (Required)

Specifies the name of the policy domain to which this schedule belongs.

#### *schedule\_name* (Required)

Specifies the name of the schedule to be updated.

#### DESCRIPTION

Specifies a description of the schedule. This parameter is optional. You can specify up to 255 characters for the description. Enclose the description in quotation marks if it contains blank characters. To remove a previously defined description, specify a null string ("" ) for this value.

#### ACTION

Specifies the operation that occurs when this schedule runs. Possible values are:

##### Archive

Specifies an archive operation.

##### Backup

Specifies a back up operation.

### SUBACTion

Specifies that the type of operation identified by the ACTION parameter is to be scheduled. The parameter is optional.

"" Specifies that a previous setting is to be deleted.

### FASTBack

Specifies that a Tivoli Storage Manager FastBack client operation that is identified by the ACTION parameter is to be scheduled.

### OPTions (Required)

Specifies the client options to be included when the schedule is processed. See "Tivoli Storage Manager client command options" on page 46 for descriptions of the options that are valid with an ARCHIVE or BACKUP Tivoli Storage Manager FastBack operation.

When you define a scheduler service by using the DSMCUTIL command or the wizard in the backup-archive client GUI, specify an options file for the scheduler service to use. You cannot override the options in that options file by issuing the scheduled command. You must modify the options in your scheduler service.

If the option string contains multiple options or options with embedded spaces, surround the entire option string with one pair of single quotes. Individual options that contain spaces should be enclosed in double quotes. A leading minus sign is required in front of the option. Errors can occur if the option string contains spaces that are not quoted correctly.

The following example shows how to specify a client option. To specify -fbpolicyname="policy 0,policy 1", -fbserver=bronte and -backmc=my\_tsm\_mgmtclass, enter:

```
options='-fbpolicyname="policy 0,policy 1" -fbserver=bronte  
-backmc=my_tsm_mgmtclass'
```

**Tip:** For Windows clients running in batch mode, if the use of double quotes is necessary, use interactive mode or operating system escape characters.

### STARTDate

Specifies the date for the beginning of the window in which the schedule is first processed. This parameter is optional. The default is the current date. Use this parameter with the STARTTIME parameter to specify when the initial startup window of the schedule starts. You can specify the date using one of the values below:

| Value                  | Description   | Example         |
|------------------------|---|-----------------|
| MM/DD/YYYY             | A specific date   | 09/15/1998      |
| TODAY                  | The current date  | TODAY           |
| TODAY+days or<br>+days | The current date plus days specified. The maximum number of days you can specify is 9999. | TODAY +3 or +3. |

You can also use the parameters listed here with the UPDATE SCHEDULE command. The complete syntax and description of the command is in the *Administrator's Reference*.

- PRIORITY
- STARTTIME

- DURATION
- DURUNITS
- PERIOD
- PERUNITS
- DAYOFWEEK
- EXPIRATION



---

## Appendix C. Backup-archive client commands for Tivoli Storage Manager FastBack

The Tivoli Storage Manager backup-archive client provides commands to support Tivoli Storage Manager FastBack integration.

---

### Archive FastBack

Use the archive fastback command to archive Tivoli Storage Manager FastBack volumes specified by the fbpolycyname, fbclientname and fbvolumename options for long-term retention.

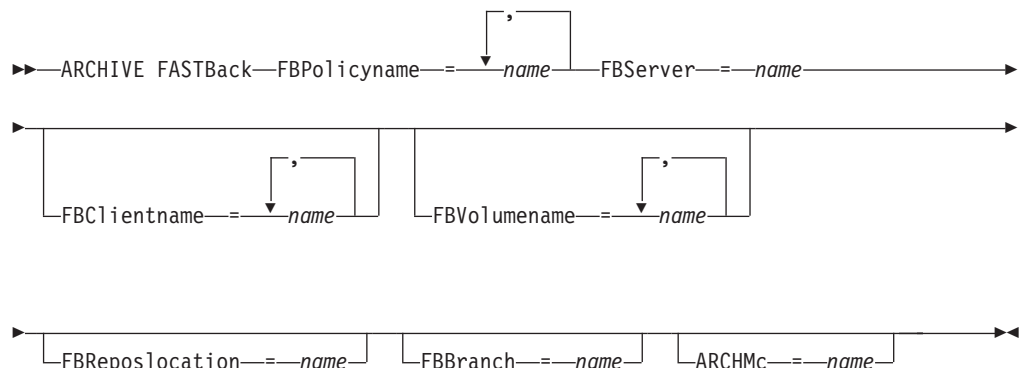
You can use Tivoli Storage Manager FastBack options to archive the latest snapshots of the following volumes:

- All clients and volumes associated with a FastBack policy or a list of FastBack policies.
- All volumes associated with a specific FastBack client or a list of FastBack clients for a given FastBack policy.
- A specific volume or volumes associated with a FastBack client for a given FastBack policy.

### Supported Clients

This command is valid for all Windows clients that are configured as Tivoli Storage Manager FastBack dedicated proxies. This command is also valid for Windows clients that are installed on a Tivoli Storage Manager FastBack server workstation, or a Tivoli Storage Manager FastBack Disaster Recovery (DR) Hub.

### Syntax



### Important:

1. *At least* one FBpolicyName is always *required*.
2. You can specify up to 10 values for FBPolicyName, if no values are specified for both FBClientName *and* FBVolumeName.

3. When you specify a FBClientName value, there must be *only one* value for FBPolicyName.
4. You can specify up to 10 values for FBClientName if *only one* PolicyName is specified, and *no* values for FBVolumeName are specified.
5. When you specify the FBVolumeName option, you can have *only one* FBPolicy, and *only one* FBClientName specified.
6. You can specify multiple FBVolumeNames if condition 5 is satisfied.

## Parameters

Table 6. Archive FastBack command: Related options

| Option  | Where to use                               |
|---|--|
| fbpolicyname<br>"Fbpolicyname" on page 50       | Command line and scheduler.                |
| fbserver "Fbserver" on page 53                  | Command line and scheduler.                |
| fbclientname<br>"Fbclientname" on page 49       | Command line and scheduler.                |
| fbvolumename<br>"Fbvolumename" on page 54       | Command line and scheduler.                |
| fbreposlocation<br>"Fbreposlocation" on page 51 | Command line and scheduler.                |
| fbbranch "Fbbranch" on page 48                  | Command line and scheduler.                |
| archmc "Archmc" on page 46                      | Command line, options file, and scheduler. |

## Examples

### Command line:

```
dsmc archive fastback -Fbpolicyname=policy1
-fbclientname=fb_client1
-FBVolumename=c: -FBReposlocation="//myFBDrHub.company.com\
4_DRHUBSrv\" -FBBranch=Oracle -FBServer=basil
```

Archives volume *c:* from FastBack client *fb\_client1* that is protected by FastBack policy *policy1* in the FastBack Server branch **basil** from the DR Hub *myFBDrHub*, whose base repository location is specified by the FBReposlocation option.

```
dsmc archive fastback -Fbpolicyname=policy1,policy2
-FBReposlocation="//myFBServer.company.com\
FB_REP_OF_9d6ec80\" -FBServer=basil
```

Archives all volumes that are protected by FastBack policies *policy1* and *policy2* from the Tivoli Storage Manager FastBack server **basil**, whose repository is specified by the FBReposlocation option.

```
dsmc archive fastback -Fbpolicyname=policy1
-fbclientname=fb_client1, fb_client2
```

```
-FBReposlocation="//myFBServer.company.com\
FB_REP_OF_9d6ec80\" -FBServer=basil
```

Archives all volumes from FastBack clients *fb\_client1* and *fb\_client2*, that are protected by FastBack policy *policy1* from the Tivoli Storage Manager FastBack server **basil**, whose repository is specified by the FBReposlocation option.

```
dsmc archive fastback -Fbpolicyname=policy1
-FBServer=basil -ArchMC="my_tsm_mgmt_class"
```

Archives all volumes protected by FastBack policy *policy1* from the Tivoli Storage Manager FastBack server **basil**, a local copy of whose repository is available at the location `"C:\Documents and Settings\All Users\Application Data\Tivoli\TSM\FastBack\server"` on the Tivoli Storage Manager Client workstation. The Tivoli Storage Manager client must be installed on a Tivoli Storage Manager FastBack server workstation for the Tivoli Storage Manager client to use a local copy of the FastBack repository.

## Backup FastBack

Use the backup fastback command to back up Tivoli Storage Manager FastBack volumes specified by the fbpolycyname, fbclientname and fbvolumename options for long-term retention.

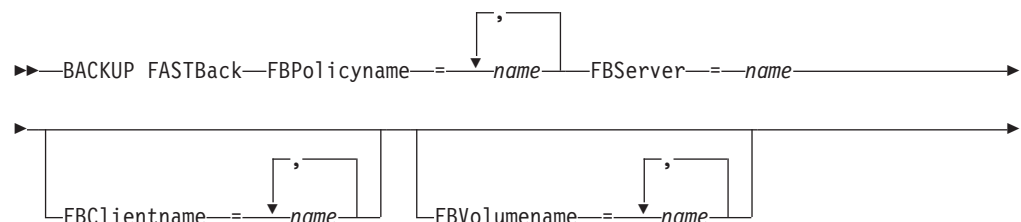
Tivoli Storage Manager FastBack options are supported for the incremental backup of the latest snapshots, depending on the option specified:

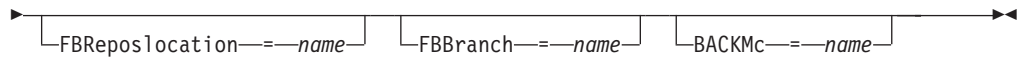
- All clients and volumes associated with a Tivoli Storage Manager FastBack policy or a list of Tivoli Storage Manager FastBack policies.
- All volumes associated with a specific FastBack client or a list of FastBack clients for a given Tivoli Storage Manager FastBack policy.
- A specific volume or volumes associated with a FastBack client for a given Tivoli Storage Manager FastBack policy.

## Supported Clients

This command is valid for all Windows clients that are configured as Tivoli Storage Manager FastBack dedicated proxies. This command is also valid for Windows clients that are installed on a Tivoli Storage Manager FastBack server workstation, or a Tivoli Storage Manager FastBack Disaster Recovery (DR) Hub.

## Syntax





### Important:

1. *At least* one FBpolicyName is always *required*.
2. You can specify up to 10 values for FBPolicyName, if no values are specified for both FBClientName *and* FBVolumeName.
3. When you specify a FBClientName value, there must be *only one* value for FBPolicyName.
4. You can specify up to 10 values for FBClientName if *only one* PolicyName is specified, and *no* values for FBVolumeName are specified.
5. When you specify the FBVolumeName option, you can have *only one* FBPolicy, and *only one* FBClientName specified.
6. You can specify multiple FBVolumeNames if condition 5 is satisfied.

### Parameters

Table 7. Backup FastBack command: Related options

| Option  | Where to use                               |
|---|--|
| fbpolicyname<br>"Fbpolicyname" on page 50       | Command line and scheduler.                |
| fbserver "Fbserver" on page 53                  | Command line and scheduler.                |
| fbclientname<br>"Fbclientname" on page 49       | Command line and scheduler.                |
| fbvolumename<br>"Fbvolumename" on page 54       | Command line and scheduler.                |
| fbreposlocation<br>"Fbreposlocation" on page 51 | Command line and scheduler.                |
| fbbranch "Fbbranch" on page 48                  | Command line and scheduler.                |
| backmc "Backmc" on page 47                      | Command line, options file, and scheduler. |

### Examples

#### Command line:

```
dsmc backup fastback -Fbpolicyname=policy1
-fbclientname=fb_client1
-FBVolumename=c: -FBReposlocation=
"\myFBDHub.company.com\
4_DRHUBSrv\" -FBBranch=Oracle -FBServer=basil
```



Backs up volume *c:* from FastBack client *fb\_client1* that is protected by FastBack policy *policy1* in the FastBack Server branch *basil* from the DR Hub *myFBDrHub*, whose base repository location is specified by the *FBReposlocation* option.

```
dsmc backup fastback
-Fbpolicyname=policy1,policy2
-FBReposlocation=
"\myFBServer.company.com\FB_REP_OF_9d6ec80\"
-FBServer=basil
```

Backs up all volumes that are protected by FastBack policies *policy1* and *policy2* from the FastBack server **basil**, whose repository is specified by the *FBReposlocation* option.

```
dsmc backup fastback -Fbpolicyname=policy1
-fbclientname=fb_client1,
fb_client2 -FBReposlocation=
"\myFBServer.company.com\
FB_REP_OF_9d6ec80\" -FBServer=basil
```

Backs up all volumes from FastBack clients *fb\_client1* and *fb\_client2* that are protected by FastBack policy *policy1* from the FastBack server **basil**, whose repository is specified by the *FBReposlocation* option.

```
dsmc backup fastback -Fbpolicyname=policy1
-FBServer=basil -BACKMC="my_tsm_mgmt_class"
```

Backs up all volumes protected by FastBack policy *policy1* from the FastBack server **basil**, a local copy of whose repository is available at the location `"C:\Documents and Settings\All Users\Application Data\Tivoli\TSM\FastBack\server"` on the Tivoli Storage Manager Client workstation. The Tivoli Storage Manager client must be installed on a Tivoli Storage Manager FastBack server workstation for the Tivoli Storage Manager client to use a local copy of the FastBack repository.

---

## Set Password (for protecting FastBack data)

The **set password** command changes the Tivoli Storage Manager password for your workstation. If you omit the old and new passwords when you enter the **set password** command, you are prompted once for the old password and twice for the new password.

A password is *not* case-sensitive, and it can be as many as 63 characters. Valid characters are:

- |              |  |
|--------------|--|
| <b>a–z</b>   | Any letter, a through z, upper or lower-case |
| <b>0–9</b>   | Any number, 0 through 9                      |
| <b>+</b>     | Plus   |
| <b>.</b>     | Period                                       |
| <b>_</b>     | Underscore                                   |
| <b>-</b>     | Hyphen                                       |
| <b>&amp;</b> | Ampersand                                    |

## Syntax

```
►—SET Password—┐
                  └—otherserver— —otheruserid— —otherpassword—┘
►—TYPE=FASTBack—┐
```

## Parameters

### Type=FastBack

Use this parameter to store the Tivoli Storage Manager FastBack credentials that are required for mounting and dismounting the FastBack volumes to back up or archive to the Tivoli Storage Manager server.

**Important:** You must define the user credentials that are required to mount and unmount FastBack volumes from a repository to the Tivoli Storage Manager client before you enter the Tivoli Storage Manager FastBack subcommand. Use the reposlocation option to define the credentials.

Here is a brief description of the various configurations and credentials that you need:

- If the Tivoli Storage Manager client is installed on the Tivoli Storage Manager FastBack server workstation, the client attempts to connect to a local repository. You must manually define the Tivoli Storage Manager FastBack admin user ID and the corresponding password using this command:

```
dsmc set password -type=fastback fbserver fbadminuserid fbadminpass
```

In the previous command, the fbserver option represents the short host name of the Tivoli Storage Manager FastBack server workstation. This is also the short host name of the Tivoli Storage Manager client workstation because the FastBack server and the Tivoli Storage Manager client are installed on the same workstation.

- If the Tivoli Storage Manager client is installed on the Tivoli Storage Manager FastBack DR Hub workstation, the Tivoli Storage Manager client attempts to connect to a local repository. You must manually define the Tivoli Storage Manager FastBack admin User ID and the corresponding password by using this command:

```
dsmc set password -type=fastback fbserver fbadminuserid fbadminpass
```

If the Tivoli Storage Manager client scheduler is used to run Tivoli Storage Manager server schedules that are set up using the Administration Center, fbserver is the name of the Tivoli Storage Manager FastBack server as specified by that schedule. You must run the previous command for each FastBack server that has a schedule running on this client.

If the client is not being run by the scheduler, fbserver is the short host name of the Tivoli Storage Manager FastBack DR Hub workstation. This is also the short host name of the Tivoli Storage Manager client workstation because the FastBack DR Hub and the Tivoli Storage Manager client are installed on the same workstation. In this case, You only have to run the command a single time.

- If the Tivoli Storage Manager client is installed on a dedicated proxy workstation with FastBack shell and FastBack mount, but not the FastBack server or the Tivoli Storage Manager FastBack DR Hub, a Tivoli Storage Manager dedicated client proxy workstation must connect to multiple network share repositories.

Follow these steps for each of the network share repositories where the Tivoli Storage Manager client is connected:

1. Configure the repository for remote network access from FastBack Manager. Refer to the *Tivoli Storage Manager FastBack Installation and User's Guide* for details.

This step establishes a domain name, a network share user ID, and a network share password to connect remotely to the repository.

2. On the Tivoli Storage Manager client workstation, manually enter the following command:

```
dsmc set password type=fastback fbserver domain:networkaccessuserid  
networkaccesspassword
```

For a proxy node whose repositories are mounted on a FastBack server, the fbserver option specifies the short host name of the FastBack server workstation. You can use this configuration to run client schedules that are set up from the Administration Center.

For a Tivoli Storage Manager FastBack DR Hub, the fbserver option specifies the short name of the workstation where the DR Hub is installed. Do not use this configuration to run client schedules that are set up from the Administration Center

Networkaccessuserid is the user ID on the Tivoli Storage Manager client workstation that has read access to the network share repository.

Domain is the domain name of the user ID.

Networkaccesspassword is the password of the network access user ID.

These credentials are retrieved based on the short host name that you specify with the fbserver option.

#### *otherserver*

Specifies the file server host name if you specify *TYPE=FASTBACK*. The file server host name must be the fully qualified DNS name and cannot be the IP address in dotted-decimal format or the short local-host name. This parameter only applies if you specify *TYPE=FASTBACK*.

#### *otheruserid*

Specifies the user ID to be used for the entity named by the *otherserver* parameter. This parameter only applies if you specify *TYPE=FASTBACK*.

#### *otherpassword*

Specifies the password to be used for the entity named by the *otherserver* parameter. This parameter only applies if you specify *TYPE=FASTBACK*.

## Examples

The following examples use the **set password** command.

**Task** Set up a user ID and password for the FastBack server myFastBackServer. Use the -fbserver option in the archive fastback and backup fastback commands for the server name.

**Command:** dsmc set password -type=FASTBack myFastBackServer  
myUserId "pa\$\$word"

#### **Important:**

- The dsmc set password -type=fastback command must be repeated on a dedicated client proxy workstation once for each FastBack repository where the Tivoli Storage Manager is expected to connect.

- For network share repositories the `dsmc set password -type=fastback` command should be in this format: `dsmc set password -type=fastback myFBServer domainName:userId password`.
- For a FastBack server or a Tivoli Storage Manager FastBack Hub, the user ID and password specified must have Tivoli Storage Manager FastBack administrator privileges.

The Tivoli Storage Manager client is running on a Tivoli Storage Manager FastBack server machine whose short name is "myFbServer". "admin" is a Tivoli Storage Manager FastBack Administrator user ID for the FastBack server, and myAdminPass is the corresponding password.

```
dsmc set password -type=fastback myFbServer admin myAdminPass
```

The Tivoli Storage Manager client is running on a Tivoli Storage Manager FastBack DR Hub machine whose short name is "myFbDrHub". "admin" is a Tivoli Storage Manager FastBack administrator user ID for the Tivoli Storage Manager FastBack DR Hub, and myAdminPass is the corresponding password.

```
dsmc set password -type=fastback myFbDrHub admin myAdminPass
```

The Tivoli Storage Manager client is running on a dedicated proxy machine and is connecting to a FastBack server repository whose short hostname is "myFbServer". user ID is the network user ID that has read/write access to the repository share. DOMAIN is the domain to which the user ID belongs. myNetworkPass is the corresponding password for the user user ID.

```
dsmc set password -type=fastback myFbServer DOMAIN:USERID myNetworkPass
```

The Tivoli Storage Manager client is running on a dedicated proxy machine and is connecting to a repository on a DR Hub machine whose short hostname is "myFbDrHub". The user ID is the network user ID that has read/write access to the repository share. DOMAIN is the domain to which the user ID belongs. myNetworkPass is the corresponding password for the user ID. Do not use this configuration to run client schedules that are set up from the Administration Center

```
dsmc set password -type=fastback myFbDrHub DOMAIN:USERID myNetworkPass
```

---

## Tivoli Storage Manager client command options

The ARCHIVE FASTBACK and BACKUP FASTBACK commands share a common set of options.

### Archmc

Use the *archmc* option with the **archive** command to specify the available management class for your policy domain to which you want to bind your archived files and directories.

You can also use the *archmc* option with the `archive fastback` and `backup fastback` commands.

When you archive a file, you can override the assigned management class using the *archmc* option on the **archive** command or by using the Web client. Overriding the management class using the Web client is equivalent to using the *archmc* option on the **archive** command.

If you do not use the *archmc* option, the server binds archived directories to the default management class. If the default management class has no archive copy group, the server binds archived directories to the management class with the shortest retention period.

## Supported Clients

This option is valid for all Windows clients. The Tivoli Storage Manager client API does not support this option.

## Syntax

►►—ARCHMc =—*managementclass*—►►

## Parameters

*managementclass*

Specifies an available management class in the active policy set of your policy domain. This management class overrides the default management class and any *include* statements for the files and directories you are archiving.

## Examples

### Command line:

```
dsmc archive -archmc=ret2yrs c:\plan\proj1\
budget.jan\*
```

## Backmc

Use the backmc option with the backup fastback or archive fastback commands.

The backmc option specifies the Tivoli Storage Manager management class to apply to the backup fastback command for retention purposes.

The management class specified with the backmc option should be in the same policy domain as the Tivoli Storage Manager nodes representing the FastBack clients being backed up with the dsmc backup fastback command.

## Supported Clients

This option is valid for all Windows clients.

## Options File

Place this option on the command line.

## Syntax

►►—BACKMc=— —*management\_class\_name*—►►

## Parameters

*management\_class\_name*

Specifies the management class name.

## Examples

### Command line:

```
dsmc backup fastback -fbpolicyname=policy1 -fbserver=server1  
-backmc=ret2yrs
```

## Fbbranch

Use the fbbranch option with the backup fastback or archive fastback commands.

The fbbranch option specifies the branch ID of the remote FastBack server to back up or archive. A fbbranch is only required for a Tivoli Storage Manager FastBack DR Hub installation. Do not specify the fbbranch option when the backup-archive client is installed on the FastBack server.

## Supported Clients

This option is valid for all Windows clients.

## Options File

None. You can specify this option only on the command line. The server can also define or override this option.

## Syntax

►►—FBBranch=*branch\_ID*—————►►

## Parameters

*branch\_ID*

Specifies the FastBack server branch ID. The value is part of the disaster recovery configuration of the FastBack server.

## Examples

### Command line:

```
-FBBranch=oracle
```

On a Tivoli Storage Manager client that is installed on a Tivoli Storage Manager FastBack DR Hub:

```
dsmc backup fastback -fbpolicyname=policy1 -fbserver=server1  
-fbbranch=oracle
```

On a Tivoli Storage Manager client that is connecting to a repository on a remote Tivoli Storage Manager FastBack DR Hub:

```
dsmc backup fastback -fbpolicyname=policy1 -fbserver=MyDrHub  
-Fbreposlocation=\\myDrHub.company.com\\REP  
-fbbranch=oracle
```

If the fbbranch option is specified on a Tivoli Storage Manager client workstation that is installed on a FastBack server, the fbbranch option is ignored.

## Fbclientname

Use the fbclientname option with the backup fastback or archive fastback commands.

The fbclientname option is the name of one or more comma-separated FastBack clients to back up from the backup proxy. The values for the fbclientname option are invalid if more than one policy is specified in the fbpolycname option.

You cannot include spaces in the fbclientname option values.

All the volumes from all the FastBack clients in the policy that is specified are backed up, if you do not specify any values for the fbvolumename option. If you specify multiple FastBack clients in the fbclientname option, you cannot specify values for the fbvolumename option.

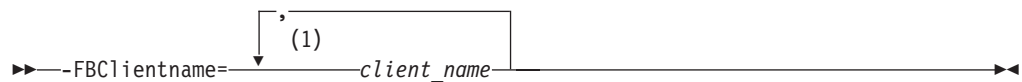
## Supported Clients

This option is valid for all Windows clients.

## Options File

None. You can specify this option only on the command line. The server can also define or override this option.

## Syntax



### Notes:

- 1 Specify up to 10 client\_name values for FBClientname.

## Parameters

*client\_name*

Specifies the name of one or more FastBack clients. You can specify up to 10 FastBack client names.

### Important:

When specifying the archive fastback or backup fastback command:

1. *At least* one FBpolicyName is always *required*.
2. You can specify up to 10 values for FBPolicyName, if no values are specified for both FBClientName *and* FBVolumeName.
3. When you specify a FBClientName value, there must be *only one* value for FBPolicyName.
4. You can specify up to 10 values for FBClientName if *only one* PolicyName is specified, and *no* values for FBVolumeName are specified.
5. When you specify the FBVolumeName option, you can have *only one* FBPolicy, and *only one* FBClientName specified.
6. You can specify multiple FBVolumeNames if condition 5 is satisfied.

## Examples

### Command line:

```
dsmc backup fastback -fbpolicyname=Policy1  
-fbclientname=fbclient1,fbclient2  
-fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

Backs up all volumes for FastBack clients fbclient1 and fbclient2 that are found in policy Policy1.

```
dsmc backup fastback -fbpolicyname=Policy1  
-fbclientname=fbclient1  
-fbvolume=c:,f: -fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

Backs up volumes C: and F: for FastBack client fbclient1 found in policy Policy1.

```
dsmc backup fastback -fbpolicyname=Policy1  
-fbclientname=fbWindowsClient,fbLinuxClient  
-fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

Backs up all volumes for FastBack client fbWindowsClient found in policy Policy1.

## Fbpolicyname

Use the fbpolicyname option with the backup fastback or archive fastback commands.

The fbpolicyname option is the name of one or more comma-separated Tivoli Storage Manager FastBack policies that you want to back up from the backup proxy. You must specify at least one policy name. Specify multiple policy names using a comma-delimited list of policies. There is no default value.

If one or more FB policy names contain spaces, you must specify them within quotation marks. Here is an example: "FB Policy NAME1, FBPolicy Name 2".

All the volumes from all the FastBack clients in the policies that are specified are backed up, if you do not specify any values for the fbclientname and fbvolumename options. If you specify multiple policies in the fbpolicyname option, you cannot specify values for the fbclientname and fbvolumename options.

At least one snapshot should exist in the Tivoli Storage Manager FastBack repository for the FastBack policies being archived or backed up prior to issuing the dsmc command

## Supported Clients

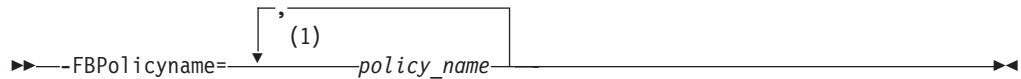
This option is valid for all Windows clients.

## Options File

None. You can specify this option only on the command line. The server can also define or override this option.



## Syntax



### Notes:

- 1 Specify up to 10 FastBack policy names.

## Parameters

### *policy\_name*

Specifies the name of the FastBack policies. You can specify up to 10 FastBack policy names.

### Important:

When specifying the archive fastback or backup fastback command:

1. *At least* one FBpolicyName is always *required*.
2. You can specify up to 10 values for FBPolicyName, if no values are specified for both FBClientName *and* FBVolumeName.
3. When you specify a FBClientName value, there must be *only one* value for FBPolicyName.
4. You can specify up to 10 values for FBClientName if *only one* PolicyName is specified, and *no* values for FBVolumeName are specified.
5. When you specify the FBVolumeName option, you can have *only one* FBPolicy, and *only one* FBClientName specified.
6. You can specify multiple FBVolumeNames if condition 5 is satisfied.

## Examples

### Command line:

```
dsmc backup fastback -fbpolicyname=Policy1,Policy2,Policy3  
-fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

Backs up all volumes for all FastBack clients found in policies Policy1, Policy2 and Policy3.

To specify policies with spaces, enclose them in double quotation marks, for example:

```
-fbpolicyname="Policy 1,Policy2,Policy3"
```

## Fbreposlocation

Use the fbreposlocation option with the backup fastback or archive fastback commands.

The fbreposlocation option specifies the location of the FastBack repository for the Tivoli Storage Manager client proxy to connect to issue FastBack shell commands necessary to mount appropriate snapshots.

On Windows systems, the fbreposlocation option value is ignored when the Tivoli Storage Manager client is installed on a DR Hub server or a Tivoli Storage

Manager FastBack server workstation. When the Tivoli Storage Manager client is installed on a dedicated client proxy, the repository location `fbreposlocation` option is required.

On a dedicated proxy machine, if you specify the `fbreposlocation` option for a Tivoli Storage Manager FastBack DR Hub, specify only the base directory of the DR Hub repository with this option. Then use the `fbbranch` option to indicate the Branch ID of the server to back up.

## Supported Clients

This option is valid for all Windows clients.

## Options File

None. You can specify this option only on the command line. The server can also define or override this option.

## Syntax

►► `--FBReposlocation=—repository_location—` ◄◄

## Parameters

*repository\_location*

Specifies the FastBack repository location.

## Examples

### Command line:

The `fbreposlocation` option is only required on a dedicated proxy machine. If the `fbreposlocation` option is specified on a machine where a FastBack server or FastBack DR Hub is installed, it is ignored.

Use this command when the Tivoli Storage Manager dedicated proxy client is connecting to a remote Tivoli Storage Manager FastBack server repository:

```
dsmc backup fastback -fbpolicyname="Policy 1" -fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

A repository location is required.

`myFbServer` is the short host name of the machine where the FastBack server is installed.

### Command line:

Use this command when the Tivoli Storage Manager dedicated proxy client is connecting to a remote repository on a Tivoli Storage Manager FastBack disaster recovery hub:

```
dsmc backup fastback -fbpolicyname="Policy 1" -fbserver=myDrHub  
-fbreposlocation=\\myDrHub.company.com\REP  
-fbbranch=aFbServerBranch
```

A repository location is required.

`myFbServer` is the short host name of the machine where the Tivoli Storage Manager FastBack disaster recovery hub is installed.

The `fbbranch` option specifies the branch ID of a FastBack server on the disaster recovery hub.

## Fbserver

Use the `fbserver` option with the `backup fastback` or `archive fastback` commands.

The `fbserver` option specifies the short host name of the Tivoli Storage Manager FastBack server workstation or the Tivoli Storage Manager FastBack DR Hub workstation that owns the repository specified by the `fbreposlocation` option. For a DR Hub, the `fbserver` option specifies the short name of the DR Hub workstation where it connects.

The `fbserver` option is a key to retrieving the necessary user credentials required to connect to the repository for mount processing.

## Supported Clients

This option is valid for all Windows clients.

## Options File

None. You can specify this option only on the command line. The server can also define or override this option.

## Syntax

►►—`FBServer=`— `—server_name`—►►

## Parameters

*server\_name*

Specifies the FastBack server name.

## Examples

### Command line:

When the Tivoli Storage Manager client is running on a Tivoli Storage Manager FastBack server machine whose short name is "myFbServer":

```
dsmc archive fastback fbpolycname=Policy1  
-fbserver=myFbServer
```

When the Tivoli Storage Manager client is running on a Tivoli Storage Manager FastBack DR Hub machine whose short name is "myFbDrHub":

```
dsmc archive fastback fbpolycname=Policy1  
-fbserver=myFbDrHub -fbbranch=branch1
```

When the Tivoli Storage Manager client is running on a dedicated proxy machine whose short name is "myMachine" and is connecting to a FastBack server repository:

```
dsmc archive fastback -fbpolycname=Policy1  
-fbserver=myMachine  
-fbreposlocation=\\myFbServerMachine.company.com\\Rep
```

When the Tivoli Storage Manager client is running on a dedicated proxy machine whose short name is `△myMachine△` and is connecting to a remote FastBack DR Hub repository. The short machine name of the FastBack DR Hub is `myDrHubMachine`.

```
dsmc backup fastback -fbpolicyname=Policy1
-fbserver=myMachine -fbreposlocation=
\\myDrHubMachine.company.com\BaseReposLocation
```

## Fbvolumename

Use the `fbvolumename` option with the `backup fastback` or `archive fastback` commands.

The `fbvolumename` option is the name of one or more comma-separated Tivoli Storage Manager FastBack volumes to back up from the backup proxy. Values for the `fbvolumename` option are not valid if more than one FastBack client is specified in the `fbclientname` option.

If you specify multiple FastBack clients in the `fbclientname` option, you cannot specify values for the `fbvolumename` option.

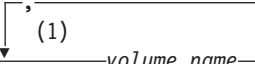
## Supported Clients

This option is valid for all Windows clients.

## Options File

None. You can specify this option only on the command line. The server can also define or override this option.

## Syntax

►► —FBVolumename=  *volume\_name* ►►

### Notes:

- 1 Specify up to 10 FastBack volume names.

## Parameters

*volume\_name*

Specifies the name of the Tivoli Storage Manager FastBack volumes. You can specify up to 10 FastBack volume names.

### Important:

When specifying the `archive fastback` or `backup fastback` command:

1. *At least* one `FBpolicyName` is always *required*.
2. You can specify up to 10 values for `FBPolicyName`, if no values are specified for both `FBClientName` *and* `FBVolumeName`.
3. When you specify a `FBClientName` value, there must be *only one* value for `FBPolicyName`.
4. You can specify up to 10 values for `FBClientName` if *only one* `PolicyName` is specified, and *no* values for `FBVolumeName` are specified.

5. When you specify the FBVolumeName option, you can have *only one* FBPolicy, and *only one* FBClientName specified.
6. You can specify multiple FBVolumeNames if condition 5 is satisfied.

## Examples

### Command line:

```
dsmc backup fastback -fbpolicyname=Policy1 -fbclientname=client1  
-fbvolumename=c:,F: -fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

Backs up volumes c: and f: from FastBack client Client1, found in policy Policy1.

```
dsmc archive fastback -fbpolicyname=Policy1 -fbclientname=client1  
-fbvolumename=c:,F: -fbserver=myFbServer  
-fbreposlocation=\\myFbServer.company.com\REP
```

Archives volumes c: and f: from FastBack client Client1, found in policy Policy1.



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## Appendix D. Accessibility features for Tivoli Storage Manager

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features of Tivoli Storage Manager are described in this topic.

### Accessibility features

The following list includes the major accessibility features in Tivoli Storage Manager:

- Keyboard-only operation
- Interfaces that are commonly used by screen readers
- Keys that are discernible by touch but do not activate just by touching them
- Industry-standard devices for ports and connectors
- The attachment of alternative input and output devices
- User documentation provided in HTML and PDF format. Descriptive text is provided for all documentation images.

The Tivoli Storage Manager Information Center, and its related publications, are accessibility-enabled.

### Keyboard navigation

The Tivoli Storage Manager for Windows Console follows Microsoft conventions for all keyboard navigation and access. Drag and Drop support is managed using the Microsoft Windows Accessibility option known as MouseKeys. For more information about MouseKeys and other Windows accessibility options, please refer to the Windows Online Help (keyword: MouseKeys).

Tivoli Storage Manager follows AIX operating system conventions for keyboard navigation and access.

Tivoli Storage Manager follows HP-UX operating-system conventions for keyboard navigation and access.

Tivoli Storage Manager follows Linux operating-system conventions for keyboard navigation and access.

Tivoli Storage Manager follows Sun Solaris operating-system conventions for keyboard navigation and access.

### Vendor software

Tivoli Storage Manager includes certain vendor software that is not covered under the IBM license agreement. IBM makes no representation about the accessibility features of these products. Contact the vendor for the accessibility information about its products.

## **Related accessibility information**

You can view the publications for Tivoli Storage Manager in Adobe® Portable Document Format (PDF) using the Adobe Acrobat Reader. You can access these or any of the other documentation PDFs at the IBM Publications Center at <http://www.ibm.com/shop/publications/order/>.

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