QUICK START GUIDE

iSeries File System *i*DataAgent

Quick Start Guide - iSeries File System *i*DataAgent

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Overview - iSeries File System

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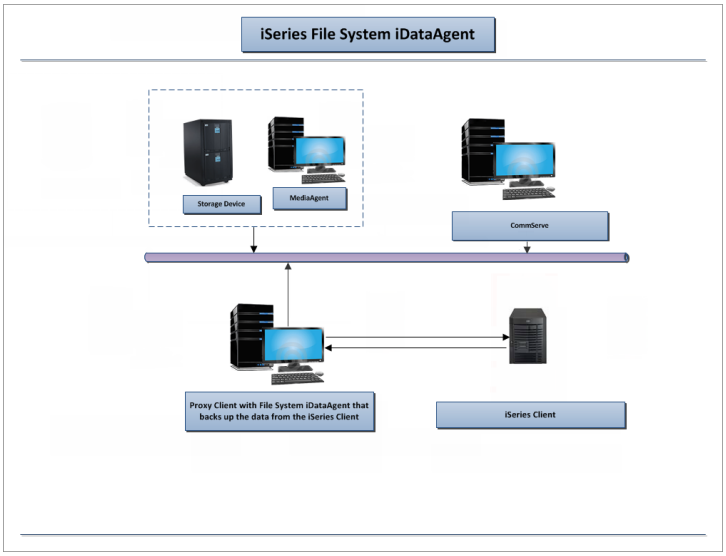
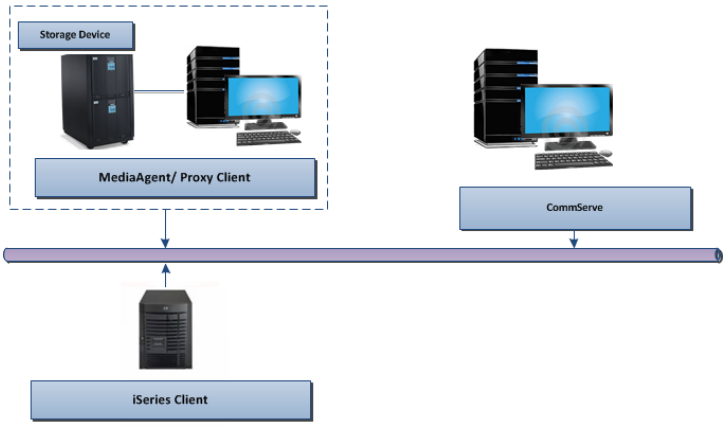
INTRODUCTION

The iSeries File System iDataAgent provides unified protection and recovery for the file system data on iSeries clients using a proxy client. In addition to complete protection of the file system data for disaster recovery, it also provides more granular backup and recovery options. Added options for deduplication, job management and reporting help ensure all your file system data is traceable and retrievable whenever the need arises.



Alternative configuration with MediaAgent and Proxy Client on the same computer:



KEY FEATURES

The iSeries File System iDataAgent offers the following key features:

SIMPLIFIED DATA MANAGEMENT

The iSeries File System *i*DataAgent enables easy management of all the file system data on iSeries clients in your environment, by providing a singular approach to manage the data using the same unified console and infrastructure.

SECURITY

As all the data protection and recovery requests to the iSeries client pass through the proxy client, security for data present on the iSeries clients is ensured.

POINT-IN-TIME RECOVERY

In the event of a serious system failure, such as the breakdown of hardware, software, or operating systems, the iSeries File System *i*DataAgent provides point-in-time recovery of files at any given time.

BACKUP AND RECOVERY FAILOVERS

In the event that a MediaAgent used for the backup or recovery operation fails, it is automatically resumed on alternate MediaAgents. In such cases, the backup or restore job will not restart from the beginning, but will resume from the point of failure. This is especially useful for backups and restores of large amount of file system data.

In the event, that a network goes down between the proxy client and the MediaAgent, the backup and recovery jobs are resumed on alternate data paths. Similarly, in the event of a device failure, the jobs are automatically switched to alternate disk and tape drives.

EFFICIENT JOB MANAGEMENT AND REPORTING

You can view and verify the status of backup and recovery operations from the Job Controller and the Event Viewer within the CommCell Console. You can also track the status of the jobs using Reports, which can be saved and distributed. Generate reports for different aspects of data management. Customize the reports to display only the required data and save them to a specific location in different formats. For example, you can create a backup job summary report to view the completed backup jobs.

You can schedule, generate and send the Reports via email without user intervention.

For more information on different types of reports, see Reports Overview.

BLOCK LEVEL DEDUPLICATION

Deduplication provides a smarter way of storing data by identifying and eliminating the duplicate items in a data protection operation. During iSeries backups, data is transferred from the iSeries client to the proxy client where deduplication comparison is performed.

Deduplication at the data block level compares blocks of data against each other. If an object (file, database etc.) contains blocks of data that are identical to each other, then block level deduplication eliminates storing the redundant data and reduces the size of the object in storage. This way dramatically reduces the backup data copies on both the disk and tapes.

TERMINOLOGY

The iSeries File System documentation uses the following terminology:

PROXY CLIENT	A physical computer separate from the host computer on which the *i*DataAgent is installed. In this case, the Linux computer on which the File System *i*DataAgent is installed. This will act as a proxy to communicate with the iSeries client and facilitates data movement from the iSeries client to the backup media.
CLIENT	The iSeries computer which contains the data to be secured.
BACKUP SET	A group of subclients which includes all of the data backed up by the *i*DataAgent.
SUBCLIENT	The iSeries file system data to be backed up.

System Requirements - iSeries File System

The following are the requirements for the iSeries File System *i*DataAgent:

Operating System		Architecture
IBM i	IBM i 7.1	Power PC
	IBM i 6.1	Power PC

Hard Drive

150 MB of minimum disk space is required for installing the software.

400 MB of minimum free disk space is required for job result and log directory.

Miscellaneous

NETWORK

TCP/IP services configured on the iSeries computer.

No firewall settings between the iSeries computer and the proxy client computer.

DISCLAIMER

Minor revisions and/or service packs that are released by application and operating system vendors are supported by our software but may not be individually listed in our System Requirements. We will provide information on any known caveat for the revisions and/or service packs. In some cases, these revisions and/or service packs affect the working of our software. Changes to the behavior of our software resulting from an application or operating system revision/service pack may be beyond our control. The older releases of our software may not support the platforms supported in the current release. However, we will make every effort to correct the behavior in the current or future releases when necessary. Please contact your Software Provider for any problem with a specific application or operating system.

Additional considerations regarding minimum requirements and End of Life policies from application and operating system vendors are also applicable

Supported Features - iSeries File System

The following table lists the features that are supported by this Agent.

FEATURE	SUB-FEATURE	SUPPORT	COMMENTS
ADVANCED BACKUP/ARCHIVE OPTIONS	Data tab - Catalog		
	Data tab - Verify Synthetic Full		
	Job Retry tab		
	Media tab - Allow other Schedule to use Media Set		
	Media tab - Mark Media Full on Success		
	Media tab - Reserve Resources Before Scan		
	Media tab - Start New Media		
	Startup tab		
	Vault Tracking tab		
	Comments		
ADVANCED FILE SYSTEM IDATAAGENT OPTIONS	On Demand Data Protection Operation		
	Restore by Jobs	✓	
	Restore Data Using a Map File		
	Comments		
ALERTS AND MONITORING	Global Alerts	✓	
	Job-Based Alerts*		
	Comments		
AUTOMATIC UPDATES	Automatic Updates	✓	
	Comments		
BACKUP/ARCHIVE OPTIONS	Differential Backup	✓	
	Full Backup	✓	
	Incremental Backup	✓	
	Other Backup Types		
	Synthetic Full Backup	✓	
	Comments		
BROWSE	Browse from Copy Precedence	✓	
	Browse the Latest Data	✓	
	Browse Using Filters	✓	
	Exclude Data Before	✓	
	Find	✓	
	Full Backup Transparent Browse	✓	
	Image Browse		
	No Image Browse	✓	
	Page Size	✓	
	Specify Browse Path	✓	
	Specify Browse Time	✓	
	Subclient Browse	✓	
	Use MediaAgent	✓	
	View All Versions	✓	
	Comments		
CLUSTERING	Unix Cluster		
	Windows - Microsoft Cluster (MSCS)		
	Windows - Non-Microsoft Cluster		
	Comments		
COMMAND LINE INTERFACE	Command Line Interface		
	Comments		
COMMCELL MIGRATION	CommCell Migration		
	Comments		

CONTENT INDEXING	Offline Content Indexing		
	Comments		
DATA AGING	Basic Retention Rules	✓	
	Deleting a Job	✓	
	Extended Retention Rules	✓	
	Retaining a Job	✓	
	Unique Data Aging Rules	✓	
	Comments		
DATA COMPRESSION	Client Compression		
	Hardware Compression		
	MediaAgent Compression		
	Comments	✓	Supported only on the proxy client and the MediaAgent
DATA ENCRYPTION	Data Encryption Support		
	Third-party Command Line Encryption Support		
	Comments	✓	Supported only on the proxy client and the MediaAgent
DATA MULTIPLEXING	Multiplexing		
	Comments		
DEDUPLICATION	MediaAgent-Side Deduplication		
	Source-Side Deduplication		
	Comments	✓	Supported only on the proxy client and the MediaAgent.
ERASE BACKUP/ARCHIVED DATA	End-User Erase		
	Erase Data by Browsing		
	Erase Stubs		
	Comments		
FILE SYSTEM BACKUP QUOTA	File System Backup Quota		
	Comments		
GLOBAL FILTERS	Global Filters	✓	
	Comments		
GRC	GRC		
	Comments		
INSTALLATION	Custom Package	✓	
	Decoupled Install		
	Remote Install		
	Restore Only Agents		
	Silent Install		
	Comments		
INSTALLING 32-BIT COMPONENTS ON A MICROSOFT WINDOWS X64 PLATFORM	Install 32-bit On x64		
	Comments		
JOB RESTART - DATA PROTECTION	Not Restartable		
	Restarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure	✓	
	Comments		
JOB RESTART - DATA RECOVERY	Not Restartable		
	Restarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure	✓	
	Comments		
LIST MEDIA	List Media Associated with a Specific Backup Set or Instance	✓	
	List Media Associated with Index	✓	
	List Media Associated with Specific Files and/or Folders	✓	

	List Media Associated with Specific Jobs	✓	
	Comments		
MULTI INSTANCING	Multi Instance		
	Comments		
OPTIMIZED SCAN	Optimized Scan		
	Comments		
PRE/POST PROCESSES	Pre/Post Process with Data Protection and Recovery	✓	
	Comments		
RESTORE/RECOVER/RETRIEVE DESTINATIONS	Cross-Application Restores (Different Application version)		
	Cross-Platform Restores - Different Operating System		
	Cross-Platform Restores - Same Operating System - Different Version		
	In-place Restore - Same path/ destination - Same Client	✓	
	Out-of-place Restore - Different path/ destination	✓	
	Out-of-place Restore - Same path/ destination - Different Client	✓	
	Restore Data Using a Map File	✓	
	Restore to Network Drive /NFS-Mounted File System		
	Comments		
RESTORE/RECOVER/RETRIEVE OPTIONS	Automatic Detection of Regular Expressions		
	Filter Data From Recover Operations		
	Rename/ Redirect Files on Restore		
	Restore Data Using Wildcard Expressions		
	Restore Data with Pre/Post Processes		
	Restore from Copies		
	Skip Errors and Continue		
	Use Exact Index		
	Use MediaAgent		
	Comments		
RESTORE/RECOVER/RETRIEVE OVERWRITE OPTIONS	Overwrite Files	✓	
	Overwrite if file on media is newer	✓	
	Restore only if target exists	✓	
	Unconditional Overwrite	✓	
	Unconditionally overwrite only if target is a DataArchiver stub		
	Comments		
SCHEDULE POLICY	Agent Specific Data Protection Schedule Policy	✓	
	All Agent Types Schedule Policy	✓	
	Comments		
STORAGE POLICIES	Incremental Storage Policy*		
	Standard Storage Policies		
	Comments		
SUBCLIENT POLICIES	Subclient Policy		
	Comments		
USER ADMINISTRATION AND SECURITY	Backup Set/Archive Set		
	Instance		
	Subclient		
	Comments		
WEB CONSOLE SUPPORT	Web Console Interface		
	Comments		

Additional features are listed below:

Activity Control	Deconfigure/Reconfigure Components
Auxiliary Copy	Languages
CommCell® Console	MediaAgent
GridStor®	Scheduling
Log Files	Snapshot Engines
Operation Window	Vault Tracker® Feature
##_DOC_INTELLISNAP_## Backup	Restore/Recover/Retrieve - Other Options
Cloud Storage	

License Requirements - iSeries File System

By default, the agent is installed using an Evaluation license. Once the evaluation period is complete, you need to obtain a permanent license from your Software Provider.

You can choose to use one of the following licensing mechanisms:

- **Traditional License**, based upon products and features in your CommCell.
- **Capacity License**, based on the amount of data you want to protect.

For comprehensive information on licensing, see License Administration.

TRADITIONAL LICENSE

The following license types are available for the iSeries File System *i*DataAgent. You need to obtain the appropriate licenses based on your environment.

AGENT OR COMPONENT	LICENSE TYPE
iSeries File System	Server File System

* installed on the proxy Linux client

CAPACITY LICENSE

If you plan to use capacity based licensing, the following license must be obtained for a CommCell:

LICENSE TYPE	LICENSE CONSUMPTION
Data Protection Enterprise infrastructure	1 license per CommCell for *n* Terabytes (TB) of protected data
Data Protection Core infrastructure	1 license per CommCell for *n* Terabytes (TB) of protected data

Deployment - iSeries File System

Where to Install

iSeries backups and restores take place through a proxy running on a Linux computer. Install the software on a Linux computer that will act as a proxy client.

Then, you must transfer the installation package, CVINSTPKG.savf, using File Transfer Protocol (FTP) from the proxy client to the iSeries client as CVINST file and install it.

All updates for the iSeries client get installed on the proxy client as Linux updates and then pushed automatically to all the connected iSeries clients during the next communication session between the proxy client and the particular iSeries client.

Before You Begin

System Requirements

Verify that the proxy client in which you wish to install the software satisfies the minimum requirements specified in System Requirements - Linux.

Verify that the iSeries client satisfies the minimum requirements specified in System Requirements - iSeries.

Download Software Packages

Download the latest ##_DOC_PRODUCT_NAME_##® software using the Download Manager application. The Download Manager bundles an installation package from the ##_DOC_PRODUCT_NAME_## components that you chose to download. Use the installation package to launch the software installer on a client computer.

See Download Manager - Getting Started for instructions on creating an installation package.

Installation

1. **INSTALLATION ON THE PROXY CLIENT**

   METHOD 1: REMOTE INSTALL ON THE PROXY CLIENT USING COMMCELL CONSOLE

   METHOD 2: INTERACTIVE INSTALL ON THE PROXY CLIENT

2. **INSTALLATION ON THE ISERIES CLIENT**

Method 1: Remote Install on the Proxy Client Using CommCell Console

1. From the ribbon in the CommCell Console, click **Tools**, and then click **Add/Remove Software**.

   Click **Install Software**.

2. In the **Install Wizard** page, click **Next**.

3. In the **Select the computer's operating system** page, click **Unix and Linux**.

   Click **Next**.

4. In the **Select how to discover the computes for installing the software** page, **Manually select computers** option is selected by default.

   Click **Next**.

5. In the **Enter the host names of the computers** page, type the fully qualified domain name of the client computer.

   For example: `mycomputer.mydomain.mycompany.com`

   Click **Next**.

   Do not use space and the following characters when specifying the host name:

   \|`~!_@#$%^&*()+=<>/?,[]{}:;'"

6. In the **Select Software Cache** page, click **Next** to use the default cache location.

   To change the location, select the **Override Software Cache** check box. Type a new location in the **Software Cache** box and then click **Next**.

   - The software cache is the location from where the remote install program installs the software.
   - This screen does not appear if the remote cache is not configured. For more information, see Managing Cache - Remote Cache.

7. In the **Enter Account Information** page, type a user name and a password to access the client computer, and then click **Next**.

   - You can also specify the SUDO user credentials, provided that the user is an Administrator or a member of the Administrator group with root privileges on that computer.

For steps to add a SUDO user to `/etc/sudoers`, see Adding SUDO Users with Root Privileges to Log On to a UNIX Client.

- Account information is required while performing remote installs for the first time on a client. For subsequent remote installs on that client, click **Next** without specifying the account information.

8. In the **Select Package(s) to Install** page, select **File System** under File System.

   Click **Next**.

9. In the **Enter Recommended Settings for the Selected Software** page,
   - Select a client group from the **Available** list, click **Add>** to move it under the **Selected** list.
   - Select one of the following from the **Global Filters** list,
     - **Use Cell level Policy** to inherit the global filter policy configuration set for the CommCell.
     - **Always use Global Filters** to apply the global filter policy to the default subclient regardless of the policy set for the CommCell.
     - **Do not use Global Filters** if you plan to define specific filters for the agent.
   - Select the **Configure For Laptop Backups** option to install Backup Monitor utility. This utility allows you to view the backup job summary from the client computer without opening the CommCell Console. See Monitor - Laptop User for more information.
   - Select a storage policy from the **Storage Policy To Use** list.
   - Select a subclient policy from the **Subclient Policy to Use** list.

   Click **Next**.

   - This screen will not be displayed if client groups are not configured in the CommCell Console. For more information, see Client Computer Groups.
   - If you do not have a storage policy, the **Storage Policy To Use** list will not be displayed. For more information, see Creating a Storage Policy.

10. In the **Enter Additional Install Options** page, click **Next**.

    If necessary you can select other install options. Click **Help** to get more information on the available options.

11. In the **Unix Advanced Options** page, specify a name for the **Unix Group** and click **Next**.

    If necessary you can select other advanced options. Click **Help** to get more information on the available options.

12. In the **Optional Settings** page, click **Next**.

    If necessary you can select the optional settings. Click **Help** to get more information on the available options.

13. In the **Firewall Configuration** page, click **Next** if the client and the CommServe is not separated by a firewall.

    Else, select the **There is firewall between client machine and CommServe** check box and other options as required. Click **Next**.

    For more information on the firewall configuration, see Firewall Configuration.

14. In the **Please Select When To Run The Job** page, click **Next** to run the install immediately.

15. In the **Summary** page, click **Finish**.

16. From the ribbon in the CommCell Console, click **Home**, and then click **Job Controller | Show All Jobs** to track the progress of the install job.

    To view the job details after the job is complete,

    - Right-click the ***<CommServe>***, point to **View**, and then click **Admin Job History**.
    - In the **Admin Job History Filter** dialog box, click **Install/Upgrade/Remove/Repair Software**.
    - Click **OK**.
    - In the **Admin Job History** window, right-click the job to view additional details, such as:
      - Details of the job
      - Option to resubmit the job
      - Events associated with the job
      - Logs associated with the job
      - Option to send the logs associated with the job

For additional options on remotely installing the software from the CommCell Console, refer to Install Software from the CommCell Console (Remote Install).

METHOD 2: INTERACTIVE INSTALLATION

1. Log on to the client computer as **root**. Run the following command from the installation package that was created using the Download Manager.

   ./cvpkgadd

If the installation package was copied to a DVD, run the following command to mount the DVD:

mount -t iso9660,udf /dev/dvd /mnt/dvd

You can also run the installation command as a SUDO user with root privileges:

`./sudo cvpkgadd`

To add a SUDO user to `/etc/sudoers`, see Adding SUDO Users with Root Privileges to Log On to a UNIX Client.

2. The product banner and other information is displayed.

   Press **Enter**.

3. Read the license agreement. Type **y** and press **Enter**.
4. In the **Selecting Unix Setup Task** dialog, press **Enter** to proceed with the default selection of **1**.
5. In the **Setting Client/Physical Machine Host Name** dialog,
   - The default network interface name of the client computer is displayed if the computer has only one network interface (NIC card). Press **Enter** to accept.
   - If the computer has multiple network interfaces, enter the interface name that is preferred for communication with the CommServe, and then press **Enter**.
6. In the **Setting Client Name** dialog, the local name of the client computer is displayed. Press **Enter** to accept.
   - If necessary you can also enter a new (friendly) name for the client, and then press **Enter**. This name will be used in the CommCell and will also be displayed in the CommCell Console.
   - Do not use spaces when specifying a new name for the client.
7. In the **Selecting Modules to Install** dialog, type the number associated with **File System**, and then press **Enter**.
8. In the extended **Selecting Modules to Install** dialog, type **d** for **Done**, and then press **Enter**.
9. In the **Deciding If to Config for Laptop or Desktop Backups** dialog, press **Enter** to proceed with the default option.
10. In the **Deciding If to Install Agents for Restore Only** dialog, press **Enter** to proceed with the default option.
11. In the **Preparing Installation Directory** dialog, verify the default path for the software installation, and then press **Enter**.

    If necessary, enter a path to modify the default path and press **Enter**.

    - Do not install the software to a mapped network drive.
    - Do not use the following characters when specifying the path:

      !@#$%^&*():/?\

    - It is recommended that you use only the alphanumeric characters.
12. In the **Preparing Log Directory** dialog, verify the default path for the log files, and then press **Enter**.

    If necessary, enter a path to modify the default path and press **Enter**.

    - Do not use the following characters when specifying the path:

      !@#$%^&*():/?\

    - It is recommended that you use only the alphanumeric characters.
    - All the modules installed on the computer will store the log files in this directory.
13. In the **Deciding If to Use a New Unix Group** dialog, press **Enter** to proceed with the default option.
14. In the **Setting Unix Group** dialog, type the group name, and then press **Enter**.
15. In the **Setting Access Permissions for Group and Other Users** dialog, type **d** for done to proceed with the default selection, and then press **Enter**.
16. In the **Setting Instance Port Number of CVD** dialog, the default port number used for the CommCell communication is displayed. If necessary, you can modify the port number.

    Press **Enter**.

17. In the **Setting Instance Port Number of EvMgrC** dialog, the default port number selected for the instance is displayed. If necessary, you can modify the port number.

    Press **Enter**.

18. In the **Deciding If to Configure Firewall** dialog,
    - If the firewall configuration is not required, press **Enter** to proceed with the default option.
    - If this computer and the CommServe is separated by a firewall, type **Yes** and then press **Enter**.

For firewall options and configuration instructions, see Firewall Configuration.

19. In the **Setting CommServe Host Name** dialog, type the fully qualified domain of the CommServe host name, and then press **Enter**.

    Do not use space and the following characters when specifying the CommServe host name:

    \|`~!@#$%^&*()+=<>/?,[]{}:;'"

20. In the **Specifying If the CommServe Per-Client Certificate is Enabled** dialog,
    - If you have not enabled per-client certificate on the CommServe, then press **Enter** to proceed with the default option.
    - If you have enabled per-client certificate on the CommServe, then type **yes** and press **Enter**.
21. In the **Selecting How to Set CommCell Level Global Filters** dialog,
    - To inherit the global filter policy configuration set for the CommCell, press **Enter** to proceed with the default selection of **1**.
    - To apply the global filters policy to the default subclient regardless of the policy set for the CommCell, type **2** and then press **Enter**.
    - To define specific filters for the agent, type **3** and then press **Enter**.
22. In the **Selecting Client Computer Groups** dialog, type the number associated with the client group you want to select, and then press **Enter**.

    This dialog will be displayed only if client groups are configured for the CommCell.

23. In the extended **Selecting Client Computer Groups** dialog, type **d** for **Done**, and then press **Enter**.
24. In the **Deciding if to Configure Storage Policy** dialog, press **Enter** to proceed with the default option.

    If you do not have a storage policy created, a message is displayed asking you to create a storage policy before running your first backup. For more information, see Creating a Storage Policy.

INSTALLATION ON THE ISERIES CLIENT

Installation on the iSeries client requires the administrator to transfer an installation package, CVINST, using FTP from the proxy client to the iSeries client and install it. The installation program copies all the necessary binaries into the program library, CVLIB, prepares the configuration settings, and registers the ##_DOC_PRODUCT_NAME_## TCP service.

The administrator can start or stop the ##_DOC_PRODUCT_NAME_## service using the standard iSeries utility, STRTCPSVR SERVER (*##_DOC_PRODUCT_NAME_##) and ENDTCPSVR SERVER(*##_DOC_PRODUCT_NAME_##).

PREREQUISITES

- TCP/IP services must be enabled.
- The iSeries computer must have a valid IP address and a host name that can be resolved from the proxy client computer.
- The iSeries computer must have the DNS services configured and the proxy client computer host name must be resolvable.

Follow these steps to transfer and install the installation package.

1. On the iSeries computer, create a save file that will be used to receive the downloaded installation save file using the following command. The file should be located within the General Purpose Library (QGPL).

   ```
   CRTSAVF FILE(QGPL/CVINST) TEXT('##_DOC_PRODUCT_NAME_## SAVF file')
   ```

2. FTP the installation save file (.savf) directly into the QGPL/CVINST file on the iSeries computer. Perform the following commands after logging in to the iSeries computer.

   ```
   # ftp usidev1.mycomany.com
   Connected to usidev1.mycompany.com.
   220-QTCP at usidev1.mycompany.com.
   220 Connection will close if idle for more than 5 minutes.
   Name (usidev1.mycompany.com):cvbkp
   331 Enter password.
   Password:
   230 CVBKP logged on.
   Remote system type is .

   ftp> cd QGPL
   250 "QGPL" is current library.

   ftp> bin
   200 Representation type is binary IMAGE.

   ftp> put CVINSTPKG.savf cvinst
   ```

```
local: CVINSTPKG.savf remote: cvinst
229 Entering Extended Passive Mode (|||45999|).
150 Sending file to member CVINST in file CVINST in library QGPL.
22% |**********************
```

3. Log on to the iSeries computer using a user in the *SECOFR class, such as the QSECOFR user ID.
4. Restore the installation library stored in the .savf save file using the following command.

   ```
   RSTLIB SAVLIB(CVSTAGE) DEV(*SAVF) SAVF(QGPL/CVINST) RSTLIB(CVINST)
   ```

5. Run the installation CVINST/INSCVSIM command.

   The installation program requires the following parameters to be set.

   - CLIENT name : set the client name (same as it is configured on the CommServe)
   - USRPRF : set the user profile that will own the files that are installed.

     Choose an appropriate user profile for using ##_DOC_PRODUCT_NAME_##. This user profile will be used to run any ##_DOC_PRODUCT_NAME_## operation such as backup and restore.

   Optional parameters:

   - SBSNM : set the iSeries subsystem name (*DEF uses default QSERVER).
   - PORT : set the port number (*DEF uses default 9401). The port number should match the port number selected when creating the iSeries client from the CommCell Console.
   - DATADIR : set the location of the data files (*DEF uses default /var/##_DOC_OEM_UNIX_OEM_INSSUBDIR_##).

   The installation command will copy all the necessary files into a library, QCVDP (CV Data Protection). If the library QCVDP does not exist, the library will be created, and then it creates the configuration file(s) (in the /etc/##_DOC_UNINSTALL_DISPLAY_NAME_PREFIX_## directory); prepares data directory and sets the ownership for library, directories and files.

   ```
            ##_DOC_UNINSTALL_DISPLAY_NAME_PREFIX_## ##_DOC_PRODUCT_NAME_## Installation (INSCVSIM)

   Type choice, press Enter.
   ##_DOC_PRODUCT_NAME_## Client Name..>ISERIES
   User Profile to run services... CVBKP    Character value
   Subsytem Name to run services..'QSERVER' Character value
   Port number.....................9401     Number
   Data directory path.............'/var/##_DOC_OEM_UNIX_OEM_INSSUBDIR_##'_________________
   ________________________________________________________________
   ```

   As a minimum, you can also run the following command for installation.

   ```
   CVINST/INSCVSIM CLIENT(ISERIES) USRPRF(CVBKP)
   ```

6. Once the installation is complete, delete the installation file.

   ```
   DLTLIB LIB(CVINST)
   ```

7. Delete the .savf file.

   ```
   DLTF FILE(QGPL/CVINST)
   ```

8. Start ##_DOC_PRODUCT_NAME_## services.

   ```
   STRTCPSVR SERVER(*##_DOC_PRODUCT_NAME_##)
   ```

   To stop ##_DOC_PRODUCT_NAME_## services:

   ```
   ENDTCPSVR SERVER(*##_DOC_PRODUCT_NAME_##)
   ```

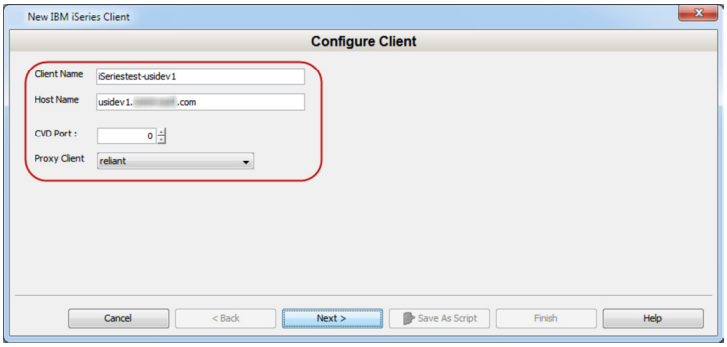
Configuration - iSeries File System

CONFIGURATION

Once you have installed the File System *i*DataAgent on the proxy client, create an iSeries client from the CommCell Console using the following steps.

1. From the CommCell Bowser, right-click **Client Computers**, point to **New Client | File System**, and then click **IBM iSeries**.
2. On the **New IBM iSeries Client** dialog box, perform the following:
   - In the **Client Name** box, type the iSeries client name.
   - In the **Host Name** box, type the host name of the iSeries client.
   - In the **CVD Port** box, type or select the CVD port number.

     The port number must be the same that is specified during the iSeries client host configuration. The default value is 9401 and a value of 0 indicates the default port number.
   - In the **Proxy Client** box, select the proxy client name on which the File System *i*DataAgent was installed.
   - Click **Next**.



3. Click **Finish**.

   The iSeries client will be added as a client in the CommCell as soon as it is created.
4. From the CommCell Browser, navigate to **Client Computers** | ***<Client>*** | **Proxy Client File System** | **defaultBackupSet**.

   Right-click the default subclient and click **Properties**.

   On the **Subclient Properties of default** dialog box, click the **Storage Device** tab.

   In the **Storage Policy** box, select the storage policy.

   Click **OK**.

   Proceed to the next page.

   If you do not have Storage Policy created, follow the step given below to create a storage policy.
5. In the **Backup Schedule** dialog box, click **Do Not Schedule**, and then click **OK**.
6. Creating a Storage Policy:
   a. Click **Create Storage Policy**.
   b. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
      i. Select the Storage Policy type as **Data Protection and Archiving** and click **Next**.
      ii. Enter the name in the **Storage Policy Name** box and click **Next**.
      iii. From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

      Ensure that you select a library attached to a MediaAgent operating in the current release.
      iv. From the **MediaAgent** list, click the name of a MediaAgent that will be used to create the primary copy and then click **Next**.
      v. For the device streams and the retention criteria information, click **Next** to accept default values.
      vi. Select **Yes** to enable deduplication for the primary copy.
      vii. From the **MediaAgent** list, click the name of the MediaAgent that will be used to host the Deduplication database (DDB).

In the **Location** box, type the name of the folder in which the DDB must be located or click the **Browse** to select the folder, and then click **Next**.

viii. Review the details and click **Finish** to create the Storage Policy.

Backup - iSeries File System

Perform a Backup

Once the iSeries client is created and the storage policy is configured for the default subclient, you are ready to perform your first backup.

The following section provides step-by-step instructions for performing your first backup:

1. From the CommCell Browser, navigate to **Client Computers** | ***<Client>*** | **Proxy Client File System** | **defaultBackupSet**.
2. Right-click the default subclient, and then click **Backup**.
3. On the **Backup Options for Subclient** dialog box, click **Full**, and then click **Immediate**.
4. Click **OK** to start the backup job.
5. You can track the progress of the job from the **Job Controller** window.
6. Once the job is complete, you can view the job details from Backup History. Right-click the **Subclient**, and then select **Backup History**.
7. On the **Backup History Filter** dialog box, click **OK**.
8. You can right-click the job and view the following details:
   - Items that failed during the job
   - Details of the job
   - Events of the job
   - Log files of the job
   - Media associated with the job

WHAT GETS BACKED UP	WHAT DOES NOT GET BACKED UP
FILE SYSTEMS	By default, the following file systems are automatically skipped during backups: • nfs • cifs
FILE SYSTEM ELEMENTS Files with names containing non-ASCII characters as long as the appropriate locales are set	Locked files are not backed up by default.

Restore - iSeries File System

PERFORM A RESTORE

It is recommended that you perform a restore operation immediately after your first full backup to understand the process. The following section explains how to restore the **etc** directory to a new location.

1. From the CommCell Browser, navigate to **Client Computers** | **<*Client*>** | **Proxy Client File System** | **defaultBackupSet**.
2. Right-click the default subclient**,** and then click **Browse and Restore**.
3. On the **Browse and Restore Options** dialog box, click **View Content**.
4. Expand the **defaultBackupSet** and navigate to **etc** folder.
5. Select the **etc** directory.
6. Click **Recover All Selected**.
7. On the **Restore Options for All Selected Items** dialog box, clear the **Overwrite Files** and **Restore to same folder** check boxes. This will ensure that the existing files are not overwritten.
8. Type the destination path in the **Specify destination path** box. You can either browse and select or type the destination path, but make sure that the browse path is in the UNIX file system format.
9. Click **OK** to close the **Restore Options for All Selected Items** dialog box.
10. Click the **Job Initiation** tab, click **Immediate**, and then click **OK** to start the restore job.
11. You can monitor the progress of the restore job in the **Job Controller** window.
12. Once the restore job is complete, right-click the **defaultBackupSet** , point to **View**, and then click **Restore History**.
13. On the **Restore History Filter for defaultBackupSet** dialog box, click **OK**.
14. You can right-click the job and view the following details:
    - View Restore Items

      You can view them as **Successful**, **Failed**, **Skipped** or **All**.
    - View Job Details
    - View Events of the restore job
    - View Log files of the restore job
15. Once the File System is restored, verify that the restored files/folders are available in the restore destination provided during step 8.

    ```
    # ls /.etc

    etc
    ```

CONGRATULATIONS - YOU HAVE SUCCESSFULLY COMPLETED YOUR FIRST BACKUP AND RESTORE.

If you want to further explore this Agent's features read the **Advanced** sections of this documentation.