Sterling Control Center

Reports Guide

Version 5401

14122012

Sterling Control Center

Reports Guide

Version 5401

14122012

Note
Before using this information and the product it supports, read the information in "Notices" on page 77.

This edition applies to version 5.4.0.1 of IBM Sterling Control Center and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Reports overview

There are four main types of IBM® Sterling Control Center reports:

- Standard Sterling Control Center reports are produced from the Sterling Control Center console, either on demand (**Tools** > **Reports** > **Define/Run**) or by scheduling them to be run at a certain time and sent to designated recipients through email (**Tools** > **Reports** > **Automate**). You can run existing reports using the Web Console.

  The Audit Log is a standard report of changes made to IBM Sterling Connect:Direct® server configuration objects. It can be run as an on-demand report or displayed on screen (by selecting **Tools** > **Audit Log**).
- Database reports use SQL queries or a third-party tool such as Crystal Reports to extract data from the Sterling Control Center databases and create the reports. Sterling Control Center provides several sample reports in Crystal Reports format that you can use with the Sterling Control Center databases if you already have Crystal Reports. You can also use these samples as templates to design your own reports. For more information on database schemas, including database tables and field definitions, see *Data for Third-Party Reporting Tools*.
- Log files on standard reports are saved to the Cognos/logs folder. After using these logs for general debugging and maintenance purposes, you may want to clear out these backups on a regular basis to keep this directory to a reasonable size.
- The SLC Debug Report is useful for troubleshooting an SLC. This report includes the SLC definition, definition of all schedules referenced by the SLC, related SLC events produced for the SLC, definition of rules triggered by the SLC events generated, definition of actions taken by triggered rules, and the email system settings for the engine. This report is initiated from the Sterling Control Center Console (by selecting **Tools** > **Run SLC Debug Report**). The report is saved to the Sterling Control Center engine log folder and the name of the file is SLCDebugReport.html.

Important: When you add an IBM Sterling Connect:Direct node to Sterling Control Center for monitoring, you must run configuration management on the node before you can run reports on it. To manage a configuration option, such as, functional authorities, Sterling Control Center polls the node and puts the information in the database. After the database is populated with the information, you can run reports on the node.

Table of buttons

You may see the following buttons when using report functionality in Sterling Control Center. Clicking the button allows you to perform the action listed in the Description column of the following table:

Button	Name	Description
	Create button	Opens the Create Report dialog.

Button	Name	Description
	Right Arrow button	Allows you to select an existing report, schedule, or email list when automating a standard report. When creating a report, allows you to select columns for sorting purposes.
	Left Arrow button	Allows you to deselect an existing report, schedule, or email list when automating a standard report. When creating a report, allows you to deselect columns for sorting purposes.
	Down Arrow button	Sorts the data in the selected column in descending order.
	Up Arrow button	Sorts the data in the selected column in ascending order.
	Run Report button	Starts the process of running a report and opens the IBM Cognos® Viewer.
	Remove button	Deletes a saved report.
	Duplicate button	Allows you to duplicate an existing report, schedule, or email list when automating a standard report. On the Report Listing window, allows you to duplicate the highlighted report and opens the Customize Report dialog.
	Keep this version drop-down list	In the IBM Cognos Viewer, allows you to select the Email Report option to send the report output. **Note:** Make sure you already have the desired export format selected before you select this option.
	View in HTML drop-down list	In the IBM Cognos Viewer, allows you to select one of the following export formats for your report output: • PDF • Excel (Excel 2007, Excel 2002, CSV) • HTML • XML **Note:** Because of the save and print functionality built into their applications, PDF and Excel are easy formats to use.

Button	Name	Description
	Filter button	Allows you to filter the contents of the current window using Key, Operator, and Value criteria. The filter criteria displays in the window title bar.
	Clear Filter button	Clears the filter criteria and the contents of the current window are displayed as originally shown. The filter criteria is shown as NONE in the window title bar.
	Export list to PDF button	Allows you to export the contents of the current window to a PDF file.
	Help button	Opens the IBM Sterling Control Center Documentation Launch Page.
	Properties button	Opens the Report Properties window for the report selected on the Report Listing window.

Chapter 2. Standard reports overview

Sterling Control Center includes a number of standard reports which you can create on demand or using automation.

Standard reports are grouped into the following categories or reports types:

Report Category	Report Name
QuickFile	QuickFile File Transfer Report QuickFile Users Detail Report
Configuration Management	Functional Authorities Report Sterling Connect:Direct Secure Plus Cipher Suites Report Initialization Parameters Report Sterling Connect:Direct Secure Plus Key Certificates Report Netmap Communication Paths Report Sterling Connect:Direct Secure Plus Nodes Report Netmap Modes Report Sterling Connect:Direct Secure Plus Trusted Certifications Report Netmap Nodes Report User Proxies Report Versions Report
Monitoring	Sterling Connect:Enterprise® Statistics Log Report Sterling File Gateway Route Detail by Producer Sterling Connect:Direct Process Statistics Summary Sterling File Gateway Route Detail by Consumer Sterling Connect:Direct Statistics Log Report Sterling B2B Integrator Business Process Details Sterling Connect:Enterprise Batch Statistics Details Sterling B2B Integrator Business Process Summary Sterling Connect:Enterprise Batch Statistics Summary Sterling B2B Integrator File Transfer Report High Watermark Report Sterling Connect:Enterprise Statistics Log Report FTP File Transfer Report Sterling Connect:Direct File Agent Process Submission Report Sterling Connect:Express Process Statistics Summary Sterling Connect:Express Process Statistics Details
Node Discovery	Potentially Inactive Netmap Entries Report Netmap Connections Summary Report Potentially Missing Netmap Entries Report Node Discovery Topology Report
System	Alerts Report Server Inventory ReportAudit Log Report Server Status Report Sterling Control Center License Report Service Level Criteria Summary Report Database Events Report Users-Roles Summary Report Monthly File Transfer Activity Report

Creating standard reports

When you create a standard report, you can save it to rerun later. You can also export the report output to a variety of formats, and email and print it as well.

Before you begin

This procedure assumes you have Adobe Reader installed and focuses on that export format. You can also easily select an Excel format (Excel 2007 Format, Excel 2002 Format, CSV Format) and use the print and save functionality in that application as well.

About this task

This procedure covers the following functions:

- Creating a report by defining the data it will contain and how data in the columns will be sorted
- Changing the sorting priority in a report
- Exporting the report output to a variety of formats
- Printing a report
- Saving report output
- Emailing report output
- Saving a report format to run later

Procedure

1. Select **Tools** > **Reports** > **Define/Run** to display the Report Listing window.
2. Click the Create button to open the Create Report dialog.
3. On the Report Type wizard panel, select the **Report Category** and **Report Type** you want to create, and click **Next**.

   For Configuration Management reports to include non-current versions of configuration objects in reporting, check **Allow celection of non-current versions**. If you do not click this option, only current versions of configuration objects are included.
4. To limit a report to certain criteria, specify those criteria on the Filter wizard panel, and click **Next**. (Not all reports allow you to specify criteria to narrow the report or to specify parameters.) For more information, see *About report criteria* and *Defining report criteria*.

   Note: Specifying the same Key value more than once is treated as an AND condition. **Example**: To narrow an Alerts report to a date/time range, specify report criteria similar to the following: Alert Date/Time - Greater Than - Sept 30, 2010 00:00:00 America/Chicago Alert Date/Time - Less Than -Today 00:00:00 America/Chicago.
5. In the **Available Columns** section of the Sort wizard panel, highlight the columns whose data want to sort and click the Right Arrow button. Depending on your reporting needs, take any of the following actions:
   - In the **Selected Columns** section, change the priority sorting order by selecting the column name and clicking **Move Up** or **Move Down**.
   - The default sort order for each column is ascending. To sort the data in a column in descending order, highlight the column name and click the Down Arrow button for the **Sort Direction**.

Note: Certain reports, such as the Sterling Connect:Enterprise Statistics Log Report, contain so much data that an additional Columns wizard panel opens for you to select the data you want in the report output before the Sort wizard panel is displayed.

6. When you are finished selecting options on the Sort wizard panel, click **Next**.
7. On the Confirm Choices wizard panel, click the Run Report button to generate the report. The report is displayed in the IBM Cognos Viewer, which is a separate browser.
8. To select the export format for the report output, click the **View in HTML Format** drop-down list and select **View in PDF Format**.
9. To print and save the report output, use the print and save functions in Adobe Reader.

   CAUTION:
   Do not use the print command in your Web browser to print reports.
10. To email report output, make sure the export format is set to the appropriate file type, and then click the **Keep this version** drop-down list. Select the **Email Report** option.

    CAUTION:
    Do not change the default email options. Keep only the Attach the report option selected.
    A separate pop-up window opens for you to enter one or more email addresses and other optional information.
11. When you are finished entering email options, click **OK**. The pop-up window closes and the report is attached to the email being sent.
12. When you are finished using the IBM Cognos Viewer, click the browser close button to close the report output window.
13. To save the report with the criteria you selected, type a **Report Name** and optional **Description** on the Save Report wizard panel and click **Save**. The report is saved and displayed in the **Existing Reports** section where all reports are listed in alphabetical order.
14. Click the close button to close the Create Report dialog.

About report criteria

When you create or modify a report, the output may be limited by one or more filter criteria.

At least one criterion is required. The available criteria depend on the report type selected. For many reports, the list of filter criteria is equivalent to the report's available columns. See individual report descriptions for details.

When filtering on Server or Server Group, you select from a list of managed servers/groups. For Date and Time you select Relative to identify a date/time relative to report generation time, or Absolute to select a specific date and time.

Wildcard characters can be used in the selection criteria for some reports and are as follows:

Wildcard Character	Meaning
*	Represents one or more characters. **Example 1**: 'C*' represents any value that begins with the letter C. **Example 2**: 'abc*abc*abc' could match on a variety of strings, such as abc1abc2abc, abc1111abcabc, or abcfabcstrabc.
?	The individual character in this exact position can be any character.

Defining report criteria

You can limit report output based on one or more criteria.

About this task

To define report criteria:

Procedure

1. From the Report Listing window, double-click the report to modify or click the Create button to create a new report.
2. Do one of the following:
   - If you are modifying an existing report, click the **Filter** tab and select the criteria used to limit the report output in the **Key** field.
   - If you are creating a new report, follow the prompts. When prompted for **Filter**, select a filter criterion to use in the **Key** field.
3. Select the **Operator** to use to further define the criteria. Choices of operator depend on type of data. For example, numeric-based keys typically take an operator of "equal to," 'not equal to," "greater than," or "less than," while character-based keys take operators of "matches," "doesn't match," and "contains."

   Note: Some reports also allow wildcard characters in the selection criteria.
4. Click the cell in the **Value** column and select an argument to finish defining the filter criterion.
5. Repeat the previous steps to define multiple selection criteria. Multiple criteria must all be true for a record to be selected (they result in a logical AND condition).
6. Do one of the following:
   - If you are modifying an existing report, click **Update**.
   - If you are creating a new report, follow the prompts to complete the report. For more information, see *Creating standard reports*.

Customizing a report

Once you create and save a report definition, you can run it any time. A report definition identifies the criteria used to create the report output. Use the customize option to modify a report definition.

About this task

To customize a report:

Procedure

1. Select **Tools** > **Reports** > **Define/Run**.
2. Highlight the report you want to customize and click the Duplicate button. The Customize Report window opens.
3. Make changes as necessary to the existing filter and sort criteria and click **Update**.
4. On the Confirm Choices wizard panel, click the Run Report button to generate the report. The report is displayed in the IBM Cognos Viewer, which is a separate browser.
5. For more information about printing, emailing and exporting the report output, see *Creating standard reports*.

   When you are finished using the IBM Cognos Viewer, click the browser close button to close the report output window.
6. To save the report with the criteria you selected, type a **Report Name** and optional **Description** on the Save Report wizard panel and click **Save**. The report is saved and displayed in the **Existing Reports** section where all reports are listed in alphabetical order.
7. Click the close button to close the Create Report dialog.

Generating your own reports

From Sterling Control Center, you can access IBM Cognos Connection to generate and save reports and to run saved reports.

About this task

Unrestricted users with Manage Report permission can go directly into Cognos Connection from the Sterling Control Center console. From Cognos Connection, you can access Report Studio to generate your own reports and save them. You can also run a saved report. To access IBM Cognos Connection:

Procedure

From the Sterling Control Center console, click **Tools** > **IBM Cognos Reports**. For more information on using Cognos Connection, see the IBM Cognos Business Intelligence 10.1.1 Information Center.

Viewing or modifying report output

You can view or modify report output.

About this task

For more information, see*Creating standard reports*.

To view or change report output:

Procedure

1. Select **Tools** > **Reports** > **Define/Run**.
2. Double-click the report to view or modify. The Run Report windows is displayed.
3. Modify fields on the **Filter** and **Sort** tabs as necessary. For more information, see *About report criteria* and *Defining report criteria*.

4. Click **Update**.

Running reports on demand

You can run an existing report on demand.

About this task

If you do not have a report defined yet, see *Creating standard reports* for more information. To run a report that has been saved:

Procedure

1. From the Sterling Control Center menu, select **Tools** > **Reports** > **Define/Run** to display the **Report Listing** window.
2. Select the report you want to run and click the Run Report button. The report is displayed in the IBM Cognos Viewer, which is a separate browser.
3. To select the export format for the report output, click the **View in HTML Format** drop-down list and select **View in PDF Format**.
4. To print and save the report output, use the print and save functions in Adobe Reader.

   CAUTION:
   Do not use the print command in your Web browser to print reports.
5. When you are finished using the IBM Cognos Viewer, click the browser close button to close the report output window.

Printing a report

You can print a report using the built-in print function in Adobe Reader or Excel.

About this task

To print a report:

Procedure

1. Select **Tools** > **Reports** > **Define/Run**.
2. On the Report Listing window, highlight the report you want to print, and click the Run Report button to generate the report. The report is displayed in the IBM Cognos Viewer, which is a separate browser.
3. To select the export format for the report output, select one of the following options from the **View in HTML Format** drop-down list:
   - **View in PDF Format**
   - **View in Excel Options** and then select the desired Excel format (Excel 2007, Excel 2002, CSV)
4. To print the output, use the print function in Adobe Reader or Excel.

   CAUTION:
   Do not use the print command in your Web browser to print reports.
5. When you are finished using the IBM Cognos Viewer, click the browser close button to close the report output window.

Removing a saved report

You can delete an existing report.

About this task

To remove a saved report:

Procedure

1. Select **Tools > Reports > Define/Run**.
2. On the Report Listing window, highlight the report you want to remove and click the Remove button.
3. Click **OK** to remove the report. The report is removed from the Report Listing window
4. Click the browser close icon to close the Report Listing window.

   Note: You cannot delete a report that is referenced by an automated report.

Automating reports

You can automate standard Sterling Control Center reports to run according to a defined schedule and to be sent to a list of email recipients.

About this task

Note: For UNIX systems, you must have an X11 graphics package on the UNIX host where the Sterling Control Center engine is installed and a video card for graphics.

A Filter function is available throughout this wizard to facilitate selecting items. For example, if you have a long list of reports and want to see those that start with `Net`, start typing the characters and only matching reports appear in the list.

To automate a report:

Procedure

1. Click **Tools** > **Reports** > **Automate**. The Automated Report listing displays.
2. Click the Create button. The **Add Automated Report** wizard displays.
3. Supply a **Name** and **Description** for the automated report. Make sure the **Enabled** option is selected. **Name** is required.
4. To schedule an existing report, highlight the report in Reports and click the Right Arrow button to move it to Selected Reports. You can also take one of the following actions if the report you want to automate does not exist:
   - To create a new report to schedule, click the Create button. See *Creating standard reports*.
   - To create a new report to schedule using an existing report as a starting point, select the report and click the Duplicate button and modify the report as needed.
5. Click **Next**. The wizard proceeds to Report Schedules.
6. To select an existing schedule, select a **Report Schedule** and click the Right Arrow button to move it to Selected Report Schedules. Click **Next**. You can also take one of the following actions if the schedule you want to use does not exist:
   - To create a new schedule, click the Create button. For more information, see *Schedule field descriptions* in *System Administration*.

- To create a new schedule using an existing schedule as a starting point, select the schedule, click the Duplicate button, and modify the schedule as needed.

7. Click **Next**. The wizard proceeds to Email Lists.
8. To select a list of email recipients, highlight the list in Email Lists and click the Right Arrow button to move it to Selected Email Lists. You can also take one of the following actions if the email list you want to use does not exist:
   - To create a new email list, click the Create button. See *Creating email lists for automated reports*.
   - To create a new email list using an existing one as a starting point, select the email list and click the Duplicate button and modify the email list as needed.
9. Click **Next**. The wizard proceeds to Parameters.
10. Select a **Report Format** (PDF, CSV, XML, HTML) and report **Attachment Extension**. You can modify the file extension to circumvent email attachment restrictions. Add a **From** email address and a **Subject** line and click **Next**.
11. Click **Next**. The wizard proceeds to Summary.
12. Review your entries and click **Finish** to create the automated report. The newly created report is displayed in the Automated Reports list.

Automated reports field definitions

Sterling Control Center provides automated reports field definitions.

Following are descriptions of automated reports fields.

Field	Description
Name	Automated report name.
Description	A description of the automated report.
Report Schedule	The schedule attached to the automated report. The schedule determines when the automated report is generated and sent.
(List of recipients)	The name of the list or lists of email recipients for the automated report.
Report Format	Format of the automated report. Options are comma-separated (CSV), portable document format (PDF), or Excel spreadsheet (XLS).
Attachment Extension	The file type or extension of the report file. You can specify no file type or an alternative type which can later be changed by the recipient to circumvent firewall restrictions.
From	The “from” address to be specified in the email.
Subject	The subject line of the email.

Creating email lists for automated reports

Automated reports are generated and sent via email to individual email addresses or lists of addressees. You can create and maintain these lists of email addressees.

About this task

Because you can specify more than one email list for an automated report, you can maintain a list specifically for a given report or construct the list from multiple email lists.

To create an email list:

Procedure

1. Click **Manage** > **Email Lists** and click the Create button. The Add Email List dialog is displayed.
2. Add a **Name** and **Description** for the new email list and click **Next**. The Email wizard panel is displayed.
3. To add email addresses to whom you want to send one or more generated reports, type the email addresses separating the addresses with commas. You can also take one of the following actions:
   - To sort the email addresses in the **To:** field., click the **S...** button. The arrow next to the button indicates whether the addresses will be sorted in ascending or descending order.
   - To import email addresses from a text file, click **Import**. A separate pop-up window is displayed to allow you to browse and locate the existing file. Select the file and click **Import**. The email address information is displayed in the **To:** field.
   - To export the list of email addresses displayed in the **To:** field, click **Export**. A separate pop-up window is displayed. Type a filename and click **Export**. The pop-up window closes.
4. Click **Next**. The wizard proceeds to Permissions which displays the existing **Restricted Roles**.
5. You can take one of the following actions on the Permissions wizard panel to identify who can view and use the email list:
   - To allow all users to view and use the email list, select the **This Email List is visible to all users** option.

     Note: If you make the email list visible to all users, you cannot restrict visibility to specific roles after it is created.
   - To not let any users view and use the email list, select the **This Email List is visible to restricted users in these Selected Restricted Roles** option.
   - To give a restricted role permission to view and use the email list, highlight the role and click the Right Arrow button to move it to **Selected Restricted Roles** and make sure the **This Email List is visible to restricted users in these Selected Restricted Roles** option is selected.
6. Click **Next**. The wizard proceeds to Summary.
7. Review your entries and click **Finish** to create the email list. The Finish wizard panel is displayed.
8. Click **Close** to exit the wizard. The newly created email is displayed in the Email List window.

Automated reports frequently asked questions

Following are solutions to issues that might arise with automated reports.

What could cause an automated report not to be delivered?

If an automated report fails to be delivered as expected, check for these conditions:

- The email server could be down. Make sure it is up.
- The output attachment size could exceed the limit allowed by the email server.
- Email servers may strip attachments with certain extensions. To prevent this from happening, double-click the report in the Automated Reports listing, click

the Parameters tab, and change the Attachment Extension. Inform recipients to change the file's extension back after receiving it via email to reflect the report's format.

- Email settings may not have been set up. Check on the Email tab of System Settings (on the Manage menu).
- Make sure that the report schedule is correct.

If you are still having problems, look in the engine log file for errors.

Are there best practices to follow for automated reports?

It is a good idea to schedule automated reports to run when less activity is occurring on managed servers. This reduces the impact of report generation on normal monitoring activity.

Standard reports: QuickFile

Sterling Control Center features reports that describe file transfer activities and the users involved in those activities.

QuickFile File Transfer Report

The QuickFile File Transfer Report presents information on file transfer activity for QuickFile servers managed by Sterling Control Center.

The following table describes the columns included in this report:

Column	Description
Date/Time	Date and time of the transfer.
Package	Subject of the QuickFile file transfer.
File Name	Name of the file being transferred.
File Size	Size of the file transferred, in bytes.
User	Name of the user who sent the file.
User ID	User ID of the user who submitted the Process.
Event	A QuickFile event, for example, whether the file was sent or downloaded.
Status Code	QuickFile status for the file transfer.
Total Files	Total numbers of files transferred.
Total Size	Total size of files transferred, in bytes.

QuickFile Users Details Report

The QuickFile Users Details Report contains statistics information about users transferring files with QuickFile.

The following table describes the report columns:

Column	Description
Date/Time	Date and time that the statistics records were generated.
Package	Subject of the QuickFile file transfer.
File Name	Name of the file being transferred

Column	Description
File Size	Size of the file being transferred.
User	Email address of the QuickFile user who triggered the file transfer.
Registered	User has completed the QuickFile registration process. True | False
Sender	User who sent the file.
Recipient	User who received the file.
Event	Type of system event. Sent | Downloaded.
Status Code	QuickFile status for the file transfer.

Standard reports: configuration management

Sterling Control Center features reports that describe aspects of Sterling Control Center server configuration management.

Functional Authorities Report

The Functional Authorities Report lists details about the functional authorities that have been set up for Sterling Connect:Direct servers added to Sterling Control Center.

The following table describes the report columns:

Column	Description
Server Name	Name of the selected server.
Functional Authority Name	The name of the functional authority.
Version	Version of the functional authority.
Parameter	The functional authorities parameters selected for this report.
Value	Parameter value.

For more information about parameters you can choose to report on in the Parameter column, see *Functional authorities field definitions* in *Configuration Management*.

Initialization Parameters Report

The Initialization Parameters Report lists initialization parameter (initparm) values for selected servers. The listing is broken down by server and initialization parameter version.

The following table describes the report columns:

Column	Description
Server Name	Name of the selected server.
Initialization Parameters Name	This column simply reflects that the object being reported upon is initialization parameters.
Version	Version of the initialization parameters. Version indicates the date and time that the initialization parameters were last changed.

Column	Description
Parameter	The specific initialization parameters that were selected for the report.
Value	Parameter value.

The set of parameters you can choose to report on in the Parameter column vary depending on server operating system. Definitions of the parameters can be found in the console in the form of tooltips. When you hover the cursor over an initialization parameter its definition displays. You can find further detail on initialization parameters in the Sterling Connect:Direct documentation for the relevant platform (z/OS, UNIX, or Microsoft Windows).

Netmap Nodes Report

The Netmap Nodes Report lists all nodes in the netmap of selected servers.

The following table describes the report columns:

Column	Description
Server Name	Name of the selected server.
Netmap Node Name	The name of the netmap node.
Version	Version of the netmap node.
Parameter	The netmap node parameters selected for this report.
Value	Parameter value.

For more information about parameters you can choose to report on in the Parameter column, see *Manage netmap nodes* in *Configuration Management*.

Netmap Modes Report

The Netmap Modes Report lists the netmap modes associated with selected servers.

The following table describes the report columns:

Column	Description
Server Name	Name of the selected server.
Netmap Mode Name	The name of the netmap mode associated with the server.
Version	Version of the netmap mode.
Parameter	The netmap mode parameters selected for this report.
Value	Parameter value.

For more information about parameters you can choose to report on in the Parameter column, see *Manage netmap modes* in *Configuration Management*.

Netmap Communication Path Report

The Netmap Communication Path Report lists communication paths (comm paths) associated with the nodes in a server's netmap.

The following table describes the report columns:

Column	Description
Server Name	Name of the selected server.
Netmap Communication Path Name	The name of the communication path.
Version	Version of the communication path.
Parameter	The communication path parameters selected for this report.
Value	Parameter value.

For more information about parameters you can choose to report on in the Parameter column, see *Manage Netmap Communication Paths* in *Configuration Management*.

Sterling Connect:Direct Secure Plus Nodes Report

The Sterling Connect:Direct Secure Plus Nodes Report lists details about the Sterling Connect:Direct Secure Plus Nodes used by selected servers to move data securely.

Following are the columns included in this report:

Column	Description
Server Name	Name of the server.
Sterling Connect:Direct Secure Plus Node Name	Name of the key certificate.
Version	Version of key certificate.
Parameter	Parameters to include in the report.
Value	Value of the parameter in question.

For more information about parameters you can choose to report on in the Parameter column, see *Manage Sterling Connect:Direct Secure Plus nodes* in *Configuration Management*.

Sterling Connect:Direct Secure Plus Key Certificates Report

The Sterling Connect:Direct Secure Plus Certificates Report lists Sterling Connect:Direct Secure Plus key certificates (certs).

The following table describes the report columns:

Column	Description
Server Name	Name of the server.
Sterling Connect:Direct Secure Plus Key Certificate Name	Name of the key certificate.
Version	Version of key certificate.
Parameter	Parameters to include in the report. These include Data, Label Name, and Passphrase.
Value	The data contained in the certificate.

For more information about parameters you can choose to report on in the Parameter column, see *Manage Sterling Connect:Direct Secure Plus nodes* in *Configuration Management*.

Sterling Connect:Direct Secure Plus Trusted Certificates Report

The Sterling Connect:Direct Secure Plus Trusted Certificates Report lists available trusted certificates.

The following table describes the report columns:

Column	Description
Server Name	Name of the server.
Sterling Connect:Direct Secure Plus Trusted Certificate Name	Trusted certificate name.
Version	Version of trusted certificate.
Parameter	Trusted certificate parameter. Possible parameters include Data and Label. Data is the trusted certificate data itself. Label name is the name by which to identify the trusted certificate when it is imported.
Value	Parameter value.

Sterling Connect:Direct Secure Plus Cipher Suites Report

The Sterling Connect:Direct Secure Plus Cipher Suites Report lists the cipher suites associated with Sterling Connect:Direct Secure Plus nodes.

The following table describes the report columns:

Column	Description
Server Name	Name of the server.
Sterling Connect:Direct Secure Plus Cipher Suite Name	Name of the cipher suite.
Version	Cipher suite version.
Parameter	Cipher suite parameter. These include SSL (Secure Sockets Layer) and TLS (Transport Layer Security).
Value	The possible values for the two parameters are true or false.

User Proxies Report

The User Proxies Report lists the user proxies associated with selected servers.

The following table describes the report columns:

Column	Description
Server Name	Name of the selected server.
User Proxy Name	The name of the user proxy.
Version	Version of the user proxy.
Parameter	The user proxy parameters selected for this report.

Column	Description
Value	Parameter value.

For more information about parameters you can choose to report on in the Parameter column, see *Manage user proxies* in *Configuration Management*.

Configuration Versions Report

The Configuration Versions Report lists the number of versions and the oldest version that exist for configuration objects of selected Sterling Connect:Direct servers.

The following table describes the report columns:

Column	Description
Server Name	The name of the selected server.
Configuration Object Type	The type of configuration object.
Number of Versions	The number of versions that exist for the configuration object.
Oldest Version	The oldest version that exists for the configuration object.

Standard reports: monitoring

Sterling Control Center features reports that present details on the monitoring of Sterling Control Center managed servers.

Sterling Connect:Direct Process Statistics Details Report

The Sterling Connect:Direct Process Statistics Details report contains detailed statistics information about Processes occurring on managed Sterling Connect:Direct servers during a specified time period.

Important: When you are creating the Sterling Connect:Direct Process Statistics Details report, select **Date/Time** as the **Sort** option.

The following table describes the report columns:

Column	Description
Bytes Sent	The number of bytes sent by the sending node.
Date Time	Date and time that the statistics records were generated.
Record ID	Record identifier (also known as statistic ID). For a list of statistic IDs, see *Event type descriptions* in *System Administration*.
Server Name	Name of the managed server that generated the statistic record.
Remote Server	Name of other server involved in the Process.
Process Name	Sterling Connect:Direct Process name.
Process Number	Identification number assigned to the Process.

Column	Description
Return Code	Numeric code returned from a completed Process that indicates failure or success. The following are the standard return codes: • 0 indicates successful completion • 4 indicates a warning • 8 indicates an error • 16 indicates a catastrophic error
Message ID	Sterling Connect:Direct message identification number. See the appropriate product and platform documentation for a description of message IDs.
Message Text	Short message text associated with the message ID.
Destination File Name	Path and file name for the file received.

Sterling Connect:Direct Process Statistics Summary

The Sterling Connect:Direct Process Statistics Summary report contains summary statistics about Processes occurring on managed Sterling Connect:Direct servers during the specified time period.

Important: When you are creating the Sterling Connect:Direct Process Statistics Summary report, select **Date/Time** as the **Sort** option.

The following table describes the report columns:

Column	Description
Date Time	Date and time that the statistics record was generated.
Server Name	Name of the managed server that generated the status record.
Process Name	Sterling Connect:Direct Process name.
Process Number	Identification number assigned to each Process.
Submitter	User ID of the user who submitted the Process.
Return Code	Numeric code returned from a completed Process that indicates failure or success. The following are the standard return codes: 0 indicates successful completion 4 indicates a warning 8 indicates an error 16 indicates a catastrophic error
Msg ID	Sterling Control Center or Sterling Connect:Direct message identification number. See the appropriate product documentation for a description of message IDs.
Message Text	Short message text associated with the message ID.

Sterling Connect:Direct Statistics Log Report

The Database Sterling Connect:Direct Statistics Log Report allows you to compose a report of database statistical data based on the information that is important to you.

You choose the database fields to display and their sort order. You can also state filter criteria to limit the records to include in the report. Filter criteria include any of the database statistics fields except for CC Name.

Sterling Connect:Enterprise Batch Statistics Details Report

The Sterling Connect:Enterprise Batch Statistics Details Report contains detailed information about batches on managed Sterling Connect:Enterprise servers during the specified time period.

The following table describes the report columns:

Column	Description
Start Date Time	Date and time that start-of-batch transmission information is received by the Sterling Control Center engine.
End Date Time	Date and time that end-of-batch transmission information is received by the Sterling Control Center engine.
Server Name	The server involved in the batch transmission.
Message ID	Message ID resulting from the batch Process.
Status	Batch status.
Mailbox ID	Repository associated with the Sterling Connect:Enterprise batch
Batch ID	User-assigned description of a Sterling Connect:Enterprise batch.
Batch Number	System-assigned number for each batch in a Sterling Connect:Enterprise repository.
Size	Size of the batch file.
Flags	Sterling Connect:Enterprise batch status flag. See the appropriate Sterling Connect:Enterprise documentation for a list of batch status flags.
Function	Function performed on the batch. See the Sterling Connect:Enterprise documentation for a description of functions.

Sterling Connect:Enterprise Batch Statistics Summary Report

The Sterling Connect:Enterprise Batch Statistics Summary report contains summary information about batches on managed Sterling Connect:Enterprise servers during the specified time period.

The following table describes the report columns

Column	Description
Start Date Time	Date and time that start-of-batch transmission information is received by the Sterling Control Center engine.
End Date Time	Date and time that end-of-batch transmission information is received by the Sterling Control Center engine.
Server Name	The server involved in the batch transmission.
Message ID	Message ID resulting from the batch Process.
Status	Batch status.
Mailbox ID	Repository associated with the Sterling Connect:Enterprise batch.
Batch ID	User-assigned description of a Sterling Connect:Enterprise batch.
Function	Function performed on the batch. See the Sterling Connect:Enterprise documentation for a description of functions.

Column	Description
Batch Number	System-assigned number for each batch in a Sterling Connect:Enterprise repository.

Sterling Connect:Enterprise Statistics Log Report

The Sterling Connect:Enterprise Statistics Log Report allows you to compose a report of database statistical data based on the information that is important to you.

You choose the database fields to display and their sort order. You can also state filter criteria to limit the records to include in the report. Filter criteria include any of the database fields except for CC Name.

Sterling Connect:Express Process Statistics Details

The Sterling Connect:Express Process Statistics Details report contains detailed statistics information about processes occurring on managed Sterling Connect:Express servers during a specified time period.

The following table describes the report columns:

Column	Description
Date Time	Date and time that the statistics records were generated.
Server Name	Name of the managed server that generated the statistic record.
Remote Node	Name of other server involved in the Process.
Process Name	Sterling Connect:Express process name.
Process Number	Identification number assigned to the process.
Submitter	User ID of the user who submitted the process.
Return Code	Numeric code returned from a completed process that indicates failure or success. The following are the standard return codes: • 0 indicates successful completion • 4 indicates a warning • 8 indicates an error • 16 indicates a unrecoverable error
Message ID	Sterling Connect:Express message identification number. See the appropriate product and platform documentation for a description of message IDs.
Message Text	Short message text associated with the message ID.
Remote Node	Name of other server involved in the process.
Destination File Name	Path and file name for the file received.
Bytes Sent	The number of bytes sent by the sending node.

Sterling Connect:Express Process Statistics Summary

The Sterling Connect:Express Process Statistics Summary report contains summary statistics about processes occurring on managed Sterling Connect:Express servers during the specified time period.

The following table describes the report columns:

Column	Description
Date Time	Date and time that the statistics record was generated.
Server Name	Name of the managed server that generated the status record.
Process Name	Sterling Connect:Express process name.
Process Number	Identification number assigned to each process.
Submitter	User ID of the user who submitted the process.
Return Code	Numeric code returned from a completed process that indicates failure or success. The following are the standard return codes: • 0 indicates successful completion • 4 indicates a warning • 8 indicates an error • 16 indicates a unrecoverable error
Message ID	Sterling Control Center or Sterling Connect:Express message identification number. See the appropriate product documentation for a description of message IDs.
Message Text	Short message text associated with the message ID.

FTP File Transfer Report

The FTP File Transfer Report presents information on file transfer activity for FTP servers managed by Sterling Control Center.

The following table describes the columns included in this report:

Column	Description
Event Date/Time	Date and time of the transfer.
Process ID	Process identifier for the Process used to transfer the file.
Return Code	Return code returned for the file transfer.
Direction	Direction of the file transfer with respect to the FTP server.
File Size	Size of the file transferred, in bytes.
Submitter	User ID of the user who submitted the Process.
Source	Server from which the file was transferred (submitter for FTP PUTs).
Destination	Server to which the file was transferred (submitter for FTP GETs).

Sterling File Gateway Route Detail by Producer Report

The Sterling File Gateway Route Detail by Producer report presents detailed information on route activity by producer for Sterling File Gateway servers.

The fields that make up this report are described in the following table.

Field	Description
Producer	The name of the partner who created and sent the arrived file involved in the Sterling File Gateway file transfer.
Server	The name of the Sterling File Gateway server being monitored.
Arr File Name	The name of the arrived file involved in the Sterling File Gateway file transfer.

Field	Description
Status	The status of the arrived file involved in the Sterling File Gateway file transfer. • Arrived • Failed • Ignore
Consumer	The name of the partner who received the arrived file involved in the Sterling File Gateway file transfer.
Consumer File	The name of the file the consumer expects in their mailbox when delivery is completed.
File Size	Size of file transferred, in bytes.
Start Time	The date and time the file transfer started.
End Time	The date and time the file transfer ended.

Sterling File Gateway Route Detail by Consumer Report

The Sterling File Gateway Route Detail by Consumer report presents detailed information on route activity by consumer for Sterling File Gateway servers.

The fields that make up this report are described in the following table.

Field	Description
Consumer	Name of the partner who received the file involved in the File Gateway file transfer.
Consumer File	The name of the file the consumer expects in their mailbox when delivery is completed.
File Size	Size of file transferred, in bytes.
Status	The status of the arrived file involved in the File Gateway file transfer. • Arrived • Failed • Ignore
Producer	The name of the partner who created and sent the arrived file involved in the File Gateway file transfer.
Arr File Name	The name of the arrived file involved in the File Gateway file transfer.
Start Time	The date and time the file transfer started.
End Time	The date and time the file transfer ended.

Sterling B2B Integrator Business Process Details Report

The Sterling B2B Integrator Business Process Details Report presents detailed information on business process activity for Sterling Integrator servers.

The fields that make up this report are described in the following table.

Field	Description
Event Date/Time	Date and time that the event was generated.
Event Type	The type of event generated.
Node ID	The identifier for the node that generated the business process.

Field	Description
Node Name	The name of the node that generated the business process.
Process Name	The name of the process.
Process ID	The process identifier.
Event Return Code	The code returned by the process.
Message ID	The identifier for the message associated with the event.
Step Name	The step name associated with the event.
Step ID	The identifier for the step associated with the event.
Advanced Status	Service-specific details about any errors that occurred for a step in this instance. For list of advanced status messages, see the Sterling B2B Integrator product documentation.

Sterling B2B Integrator Business Process Summary Report

The Sterling B2B Integrator Business Process Summary Report presents summary information on business process activity for Sterling Integrator servers.

The fields that make up this report are described in the following table:

Field	Description
Event Date/Time	Date and time that the event was generated.
Event Type	The type of event generated.
Node ID	The identifier for the node that generated the business process.
Node Name	The name of the node that generated the business process.
Process ID	The Process identifier.
Process Name	The name of the Process.
Event Return Code	The code returned by the Process.
Message ID	The identifier for the message associated with the event.
Advanced Status	Service-specific details about any errors that occurred for a step in this instance. For list of advanced status messages, see the Sterling B2B Integrator product documentation.

Sterling B2B Integrator File Transfer Report

The Sterling B2B Integrator File Transfer Report presents summary information on communications activity for Sterling Integrator servers.

The fields that make up this report are described in the following table:

Field	Description
Event Date/Time	Date and time that the event was generated.
Adapter Name	Name of the Sterling B2B Integrator adapter that generated the event.
Process Name	The name of the process.
Process ID	The process identifier.

Field	Description
Return Code	The code returned by the process.
Message ID	The identifier for the message associated with the event.
Orig Node	The originating node for the process.
Remote Node	The receiving node for the process.
Direction	The direction of the transfer
File Size	The size of file transferred.
Submitter ID	The identifier for the process submitter.
Protocol	The protocol used for the transfer.
Secure Mode	A flag indicating whether the transfer was accomplished via a secure connection.

High Watermark Report

The High Watermark Report provides information to help manage Sterling Connect:Direct licenses or node usage, perform audits of usage, or meet other reporting needs.

Server licenses often stipulate a maximum number of simultaneous sessions that can run on a server. You can use the report to determine whether the number of sessions a Sterling Connect:Direct node is licensed for are ever reached and, if so, how often and for what periods. Do this by setting the report limit equal to the license limit.

The High Watermark Report can also be used to see how many times sessions would be queued if the number of concurrent sessions allowed were reduced. To do this, set the report session limit to a value lower than the license limit.

In some cases Sterling Connect:Direct licenses specify an overall limit on the number of simultaneous sessions, as opposed to a limit for each server. You can use the report in these cases as well, to see whether you are violating your license agreement. Or use the report to determine what would happen if the limit on simultaneous sessions were raised or reduced. The # Times sessions exceeded limit column tells how many processes would have been queued to run later if the session limit were enforced.

Note: The more times processes are queued instead of run immediately, the more times your processing window for file transfers may be missed.

The start time of the longest period over limit, in conjunction with the Last time max reached, can serve as an indicator of when the most Sterling Connect:Direct processing is occurring on your systems.

Max Concurrent Sessions indicates the maximum number of processes that ran at the same time. The # Times max reached column can indicate whether or not the maximum number of processes running at one time was an aberration or whether it happens frequently. By reducing the report limit, you can determine the typical number of processes running simultaneously by watching for an increase in the # Times max reached value.

You can restrict High Watermark Report output to a range of dates and times, to specific servers or server groups, and to a session limit. Default filter criteria preset

for this report include Limit, Max Process Duration, Data/Time, and Servers. You can change the presets at the time of creation. Servers is the only one required.

After you confirm your choices and run the report, a status window displays the time elapsed since the report was initiated, along with start date/time and end date/time criteria. A progress bar depicts report generation progress and shows the date of the last statistics record processed.

Note: High Watermark reports may require an extended time to run. Select **Background** to perform other Sterling Control Center tasks. You can stop the report by selecting **Stop**. When the report is complete, select **Show Report**.

The report includes detailed statistics for each selected server or server group as well as summary statistics across all selected servers.

The following table describes the columns of the High Watermark Report.

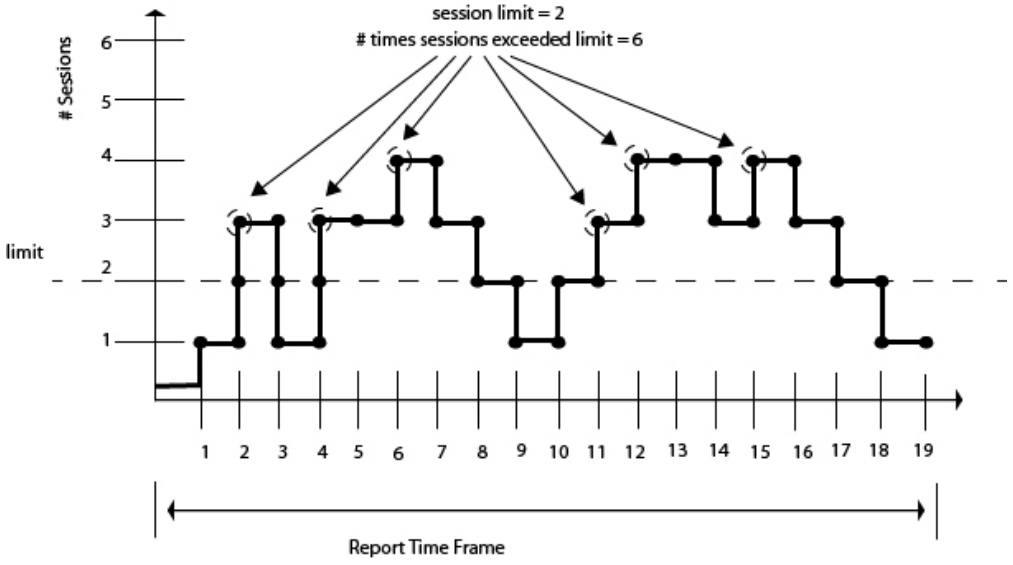
Column	Description
*	An asterisk next to a server ID indicates that a process on this server has exceeded the maximum duration.
Server Name	The server ID.
Max Concurrent Sessions	The peak number of sessions reached during the selected period.
# Times Max Reached	The number of occurrences within the selected period that Max Concurrent Sessions was reached.
Last Time Max Reached	The date and time of the last point when Max Concurrent Sessions was reached.
# Times Above Limit	The number of times the specified session limit was exceeded.
# Times Sessions Exceeded Limit	The number of sessions initiated while the session concurrency count was at or above the session limit.
Last Time Limit Exceeded	The date and time of the point when the limit was last exceeded (not the point when concurrent sessions returned below the threshold).
Start Time of Longest Period Over Limit	The date and time when the longest over limit period began.
Longest Period Over Limit	The amount of time in the longest over limit period.
% Time Over Limit	The percent of the total date/time range that the server or servers spent over the limit.
# Processes Exceeding Max Duration	How many processes have exceeded the maximum process duration.
Longest Process Exceeding Max Duration	The running time for the process that has furthest exceeded the maximum process duration.

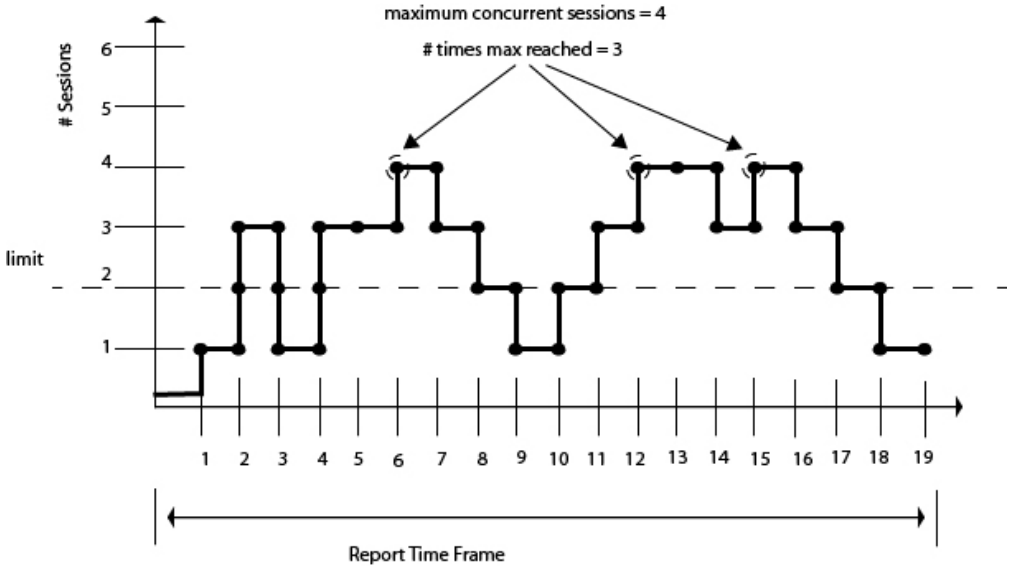
High Watermark Report considerations

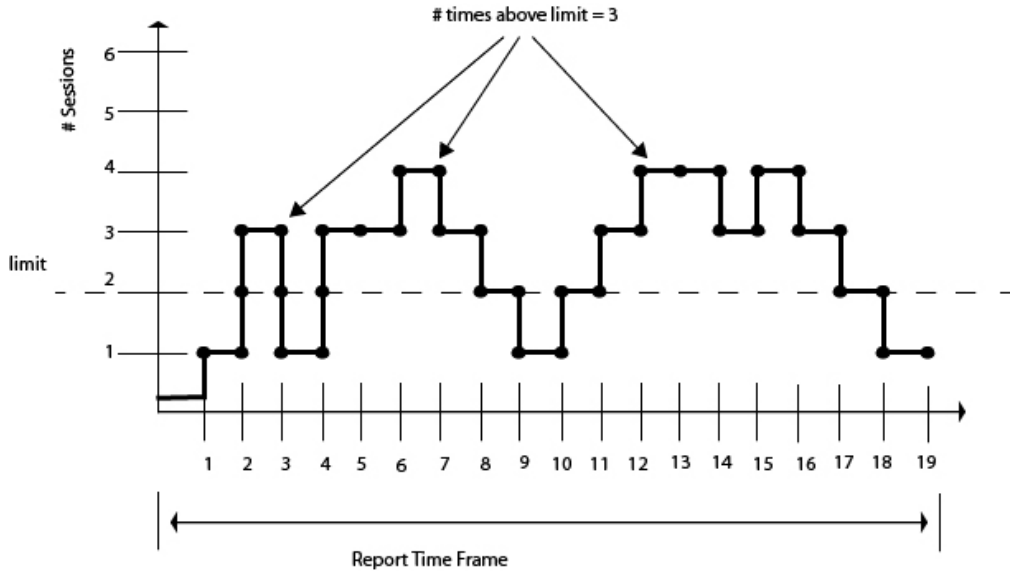
The following section is an explanation of the High Watermark Report.

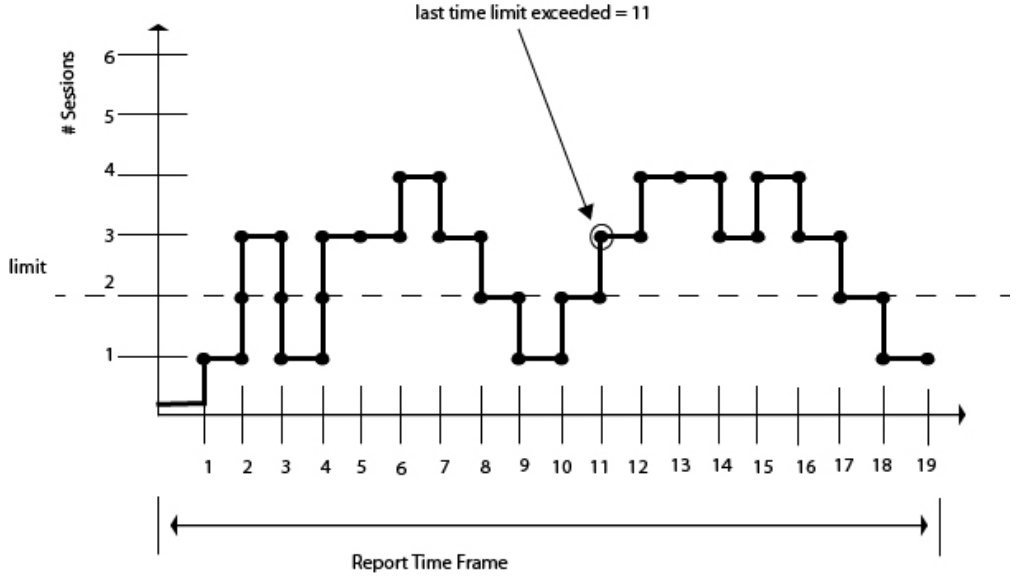
The statistics featured in the High Watermark Report may prove easier to understand by viewing a series of graphics that show sessions starting and ending over a time span. In the examples, the time span covers 19 generic units. The report is based on the following series of events, which occurred on a managed server.

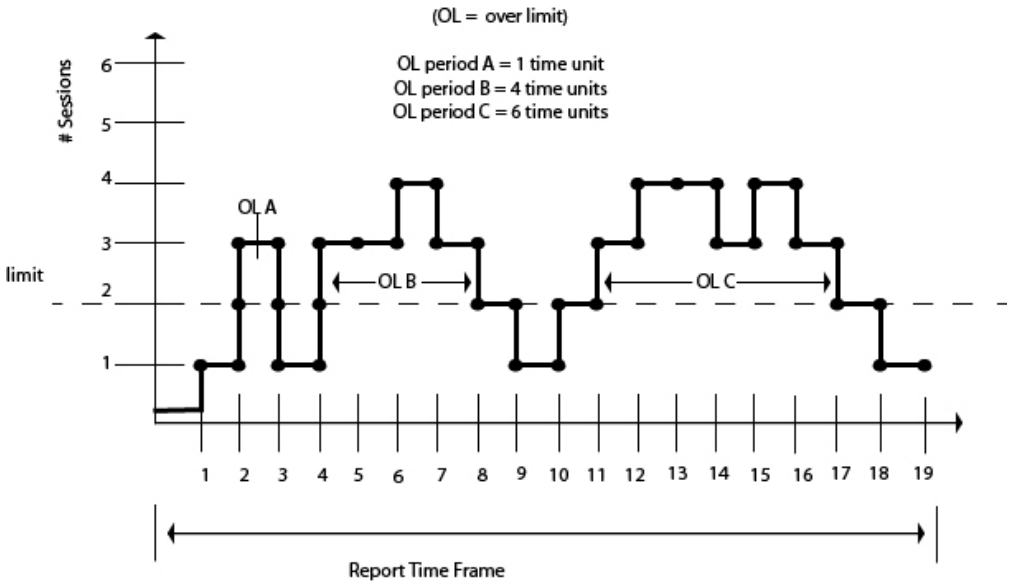
Time	Event	Time	Event
1	Process Start	9	Process End
2	Process Start	10	Process Start
2	Process Start	11	Process Start
3	Process End	12	Process Start
3	Process End	14	Process End
4	Process Start	15	Process Start
4	Process Start	16	Process End
6	Process Start	17	Process End
7	Process End	18	Process End
8	Process End		






times above limit = 3
Sessions
6
5
4
3
limit
2
1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Report Time Frame


last time limit exceeded = 11
Sessions
6
5
4
3
limit
2
1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Report Time Frame

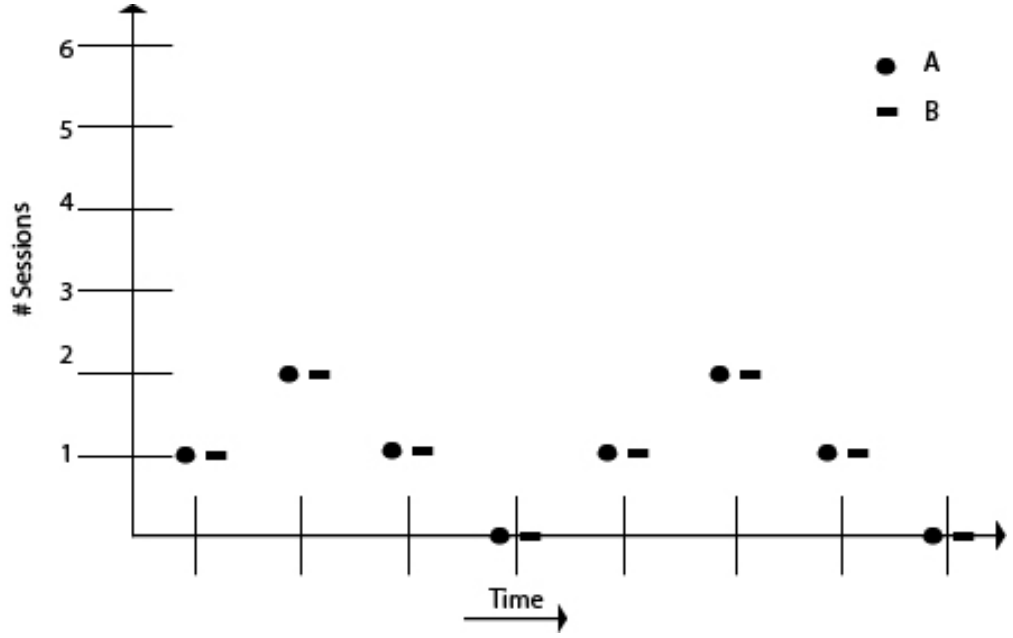


In the previous illustration:

- Start Time of Longest Period Over Limit = 11
- Longest Period Over Limit = 6 time units
- Percent Time Over Limit = (1+4+6 units) / 19 units = 57.89%

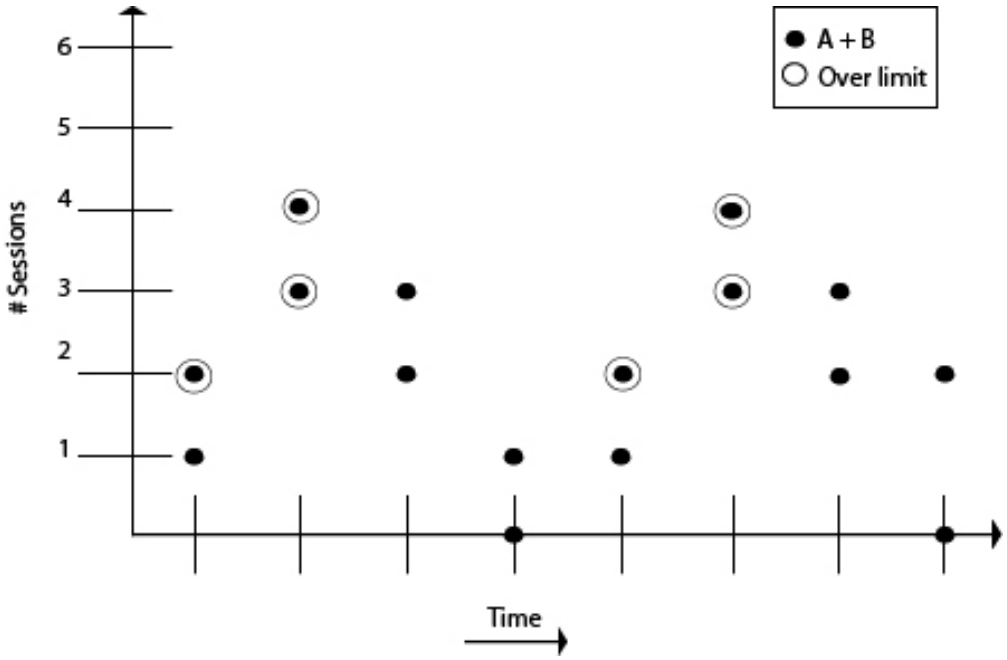
All Servers Statistics. On the High Watermark Report, the results detailed for All Servers may not make intuitive sense at first glance. The source of the confusion has to do with the nature of what is being quantified.

For example, take a High Watermark Report run against two nodes, A and B, each with a session limit of 1. If the two nodes behave identically, as in the following graphic, each will have a number of sessions over the limit equal to two.



However, the number of sessions in which the two combined are over the limit is six, as shown in the next graphic. Therefore, the report column # Times Sessions

Exceeded Limit will show a value of 6 for All Servers.



Keep in mind these information when using and interpreting the High Watermark Report.

- If the clocks are not accurate for all managed servers included in the report, the values for All Servers may not be accurate.
- For Sterling Connect:Direct for Microsoft Windows version 4.2, in the absence of the fix for SR1343840, whenever Processes are put on the wait, hold, or timer queues, they are treated as still running. This may affect the accuracy of the report. No fix is needed with later versions of Sterling Connect:Direct for Microsoft Windows.

During the report's specified time frame, if one or more Processes exceed the Max Process Duration value specified, the report's accuracy will be affected.

Sterling Connect:Direct File Agent Process Submission Report

The Sterling Connect:Direct File Agent Process Submission Report presents information on Processes submitted by file agents associated with a managed Sterling Connect:Direct server.

The fields that make up this report are described in the following table:

Field	Description
Date / Time	Date and time that the event was generated.
Server Name	ID of the server the file agent submitted the process to.
File Agent Name	The identifier of the file agent.
Process Name	The name of the submitted Process.
Process Number	Number of the submitted Process.
Return Code	The code returned by the Process.
Trigger File	The name of the file that triggered the Sterling Connect:Direct File Agent to submit a Process.

Field	Description
Rule Name	The name of the Sterling Connect:Direct File Agent rule that triggered the event.

Standard Reports: node discovery

Sterling Control Center features reports that give details on aspects of Sterling Control Center node discovery.

Potentially Inactive Netmap Entries Report

The Potentially Inactive Netmap Entries Report lists nodes identified during Node Discovery that were found in the network map file of an Explorer node but on which no statistics records were found.

Use this information to determine if you need to remove these node definitions from the network map of the corresponding Explorer node after validating that the connections to these nodes are no longer required.

The following table describes the report columns

Column	Description
Server	Name of the Sterling Connect:Direct server.
Potentially Inactive Netmap Entry for Node(s)	The network map entry that may be inactive.

Potentially Missing Netmap Entries Report

The Potentially Missing Netmap Entries report identifies the nodes that were found in the statistics records of the Explorer node but were not defined in the network map file.

Use this information to determine if you need to add these node definitions to the network map of the corresponding server.

The following table describes the report columns:

Column	Description
Server	Name of the Sterling Connect:Direct server.
Potentially Missing Netmap Entry for Node(s)	The nodes found in statistics records that were not defined in the network map.

Netmap Connections Summary Report

The Netmap Connections Summary Report contains a summary of all connection information collected during node discovery.

The following table describes the report columns

Column	Description
Server Name	Name of the Sterling Connect:Direct servers.
Netmap Entries	The number of network map entries defined.

Column	Description
Last Used Date/Time	The last time the server connected with another node.
API Address	The TCP/IP address and port used by Sterling Control Center to establish a session with the Sterling Connect:Direct server.
DTF Address	The TCP/IP address and port of the server that a remote Sterling Connect:Direct server uses to establish a connection.
Platform	The platform on which the server is running.
Number of Partner Nodes	The number of partner nodes defined in the network map and the statistics records of the server.
Explorer/Discovered	The type of node. E = nodes defined in the Explorer List and D = nodes located in the Discovery List.

Node Discovery Topology Report

The Node Discovery Topology report contains information about the partners associated with the specified Explorer node.

The following table describes the report columns

Column	Description
Explorer Node Name	The name of the server defined in the Explorer List.
API Address	The TCP/IP address and port used by Sterling Control Center to establish a session with the Sterling Connect:Direct server.
DTF Address	The TCP/IP address and port of the server that a remote Sterling Connect:Direct server uses to establish a connection.
Platform	The platform on which the server is running.
License Key Expiration Date	The date the license key expires for the node.
Last Explored Date Range	The date range used to search the last time that Node Discovery was run.
Last Explored Date/Time	The date and time that Node Discovery was last run.
# Partners	The number of partner nodes defined in the network map and found in statistics records for the server.
# Processes	The number of Processes found in the statistics records during Node Discovery.
Discovered Node Name	The name of a server found during Node Discovery.
Found in Netmap/Stats/Both	Identifies where the discovered node was found: either defined in the network map, in a statistics record, or identified in both the network map and a statistics record.
IP Address/APPL ID	The IP address or the APPL ID for SNA-enabled nodes.
Data Transfer Port	The port used for data transfer.
Platform	The platform on which the discovered node is running.
Last Used Date/Time	The time stamp of the communications between server pair under consideration.
# Explorer Partners	The number of Explorer nodes that this node communicates with.
# Processes	The number of Processes found in the statistics record for the server pair under consideration.

Standard Reports: system

Sterling Control Center features reports that detail aspects of overall system functioning.

Alerts Report

The Alerts Report contains information about alerts generated by Sterling Control Center on managed servers during a specified time period.

The report includes any comments that may have been entered for an alert. For more information about alert comments, see *Updating alerts* in *User*.

The following table describes the report columns:

Column	Description
Alert Date Time	Date and time that the alert was generated.
Severity	Alert severity level. (0–3)
Server Name	Name of the managed server on which the alert was generated.
Proc/Batch Name	Process name or Batch ID that generated the alert.
Proc Number	Process or batch number that generated the alert.
Rule Name	Rule that triggered the alert.
User Data 1–4	User-definable metadata fields. See *Metadata rules overview* in *System Administration*.
Handled Time	Time that the alert was handled.
Alert Handled	A flag indicating whether the alert was handled (Y/N).
Handled By	User ID of the Sterling Control Center user who handled the alert.
Comments	User comments supplied when the alert was handled.

Audit Log Report

The Audit Log Report lists changes that have been made to the configuration of one or more Sterling Connect:Direct servers managed by Sterling Control Center.

The following table describes the report columns.

Column	Description
Date Time	Date and time of the change.
User	User ID of the user who made the change.
Server	The server the change affected.
Object ID	The identifier of the object that was changed.
Object Type	The type of object changed.
Property	The specific property of the object that was changed.
Type	Type of property change: Added, Modified, or Deleted.
Value Before	The value of the property before the change.
Value After	The value of the property after the change.

Server Status Report

The Server Status report contains system status information about selected managed servers.

The following table describes the report columns:

Column	Description
Server Name	Name of the managed server.
Alerts	Number of active high, medium, and low severity alerts on the server.
Server Version	Version of the server.
License Expire Date	Date that the managed server's software license expires.
License Type	Type of product license on the server.
License Notification	How many days before a server license expiration date that Sterling Control Center begins generating license expiration events.
Sessions/ Accounts	Number of concurrent sessions or accounts permitted by the server license.
Max Processes Permitted/Time Max Reached	Maximum number of concurrent sessions that have occurred on the server / Number of times the maximum number of concurrent sessions was reached.
Processes Exec	Number of executing Processes on the server. This is shown for Sterling Connect:Direct servers only.
Processes Non-Exec	Number of non-executing Processes on the server. This is shown for Sterling Connect:Direct servers only.

Server Inventory Report

The Server Inventory Report prints an inventory of the servers monitored and managed by Sterling Control Center.

Following is a description of the columns that make up the report.

Column	Description
Server Name	The name of the server.
Server Type	Type of server (Sterling Connect:Direct, Sterling Connect:Enterprise, Sterling B2B Integrator, File Transfer Protocol).
Description	Server description.
Server Version	Server platform.
Current Status	The current status of the server.
Monitor	This server is monitored by Sterling Control Center. X indicates Yes, blank indicates No.
Configure	This server is configurable by Sterling Control Center. X indicates Yes, blank indicates No.
License Push	This server supports license push by Sterling Control Center. X indicates Yes, blank indicates No.
Sterling Connect:Direct Secure Plus	This server supports Sterling Connect:Direct Secure Plus. X indicates Yes, blank indicates No.
License Expiration	Expiration date for this server's current license.

Column	Description
License Type	Type of current license.
License PSP	Software product ID, to uniquely identifies a specific licensed copy of software.

Service Level Criteria Summary Report

The SLC Summary Report lists details regarding each Sterling Control Center SLC.

The following table describes SLC Summary Report columns:

Column	Description
SLC Type	Standard, Wildcard, or Workflow
ID	The name of the SLC.
Enabled	Whether or not the SLC is enabled.
Monitoring Window	The SLC's monitoring window parameters.
Matching Properties	The matching criteria for items being monitored.
Cal. Sched.	The calendar schedule used in setting up the SLC.
Enabled	Whether or not the calendar schedule is enabled.
Dur Schedule	Duration schedule.
Milestone ID	Identifier of the workflow SLC milestone.

Database Events Report

The Database Events Report allows you to compose a report of database event data based on the information that is important to you.

You choose the database fields to display and their sort order. You can also state filter criteria to limit the records to include in the report. Filter criteria include any of the database fields except for CC Name.

Monthly File Transfer Activity Report

The Monthly File Transfer Activity Report lists details regarding monthly file transfer activity on selected servers.

Following are the columns that make up the Monthly File Transfer Activity Report.

Column	Description
Server Name	Name of server.
Date	Date of file transfer.
Files Sent	Number of files sent.
Files Received	Number of files received.
File Bytes	Number of bytes in files involved in the transfer.
Transmitted Bytes	Number of bytes transmitted in the transfer.

Users and Roles Summary Report

The Users and Roles Summary report is a three-part report.

The Users and Roles Summary report lists the following information:

- All Sterling Control Center users and their associated roles
- All Sterling Control Center roles and the users assigned to them
- All Sterling Control Center roles and their associated permissions

The following table describes the report columns:

Column	Description
Part 1	
User ID	Sterling Control Center user.
User Role	Role assigned to the user.
Description	Description text provided for the user ID.
Last Login Time	Date and time that the user last logged into Sterling Control Center.
Host	The host through which the user last logged in.
IP Address	The IP address of the computer on which user last logged in.
Domain	The domain of the computer on which user logged in.
Active	Whether the user was active when the report was run (Y/N).
Part 2	
User Role	Roles defined in Sterling Control Center.
Assigned User IDs	User IDs assigned to the role.
Part 3	
User Role	Roles defined in Sterling Control Center.
Role Authority	Server groups and permissions assigned to the role.

Chapter 3. Displaying the Audit Log

You can display the Audit Log to see changes made to IBM Sterling Connect:Direct server configuration objects.

About this task

To display the audit log:

Procedure

Select **Tools** > **Audit Log**. The Audit Log window displays all objects that have changed. The listing includes the properties of the object that have changed and when, as well as the values before and after the change. You can filter this list or save it to disk.

Chapter 4. Sample Reports in Crystal Reports Format

Sterling Control Center provides the several sample reports in Crystal Reports format.

Note: IBM does not provide assistance for implementing report solutions in all environments using all possible third-party tools, including Crystal Reports Viewer. The sample reports provided in the Sterling Control Center package are designed to act as a starting point for designing your own reports using the tools of your choice.

Configuring ODBC DSN for the sample Crystal reports

To use the sample Crystal Reports, you must configure an ODBC DSN as described here.

About this task

To perform this procedure, you must already have installed Sterling Control Center with a database.

To configure your computer before using the sample Sterling Control Center reports:

Procedure

1. Download and install the ODBC driver for your database type.
2. After the driver is installed, select **Start** > **Control Panel** > **Administrative Tools** > **Data Sources (ODBC)** to display the ODBC Data Source Administrator window.
3. Select the **System DSN** tab.
4. Click **Add**.
5. Select the appropriate driver from the driver list and click **Finish**.
6. Type the following information and click **OK**.

Results

Field	Description
Data Source Name	`IBMSterling` Type the name in the exact case shown above. Do not type a space between IBM and Sterling.
Host/Server Name (or IP)	IP address of the Sterling Control Center database (production or staging).
Database name	Name of the Sterling Control Center database (production or staging).
User	User name to access the Sterling Control Center database (production or staging).
Password	Password to access the Sterling Control Center database (production or staging).
Port	Port number to access the Sterling Control Center database (production or staging).

Note: The configuration parameters may vary depending on the database type.

Using a later version of Crystal reports for sample reports

Sterling Control Center reports are created using Crystal Reports version 9.0. If you use a later version of Crystal Reports to generate Sterling Control Center reports, perform the following procedure to convert the sample reports.

About this task

Note: The following procedure is not a substitute for the actual product documentation for Crystal Reports.

This procedure assumes that you have already connected to the database.

To convert the sample reports using a version of Crystal Reports later than 9.0:

Procedure

1. Open a report.
2. Select **Database**.
3. Select **Show SQL Query**.
4. Click **OK** on the Enter Parameter Values window.
5. Click **OK** on the **Verify Database** message.
6. Click **OK** on the database is up to date message.
7. Click **Reset**, then click **OK** on the Show SQL Query window.
8. Save the report under a new name. Use this report in the future. The report is saved in the later version of Crystal Reports.
9. Repeat this procedure for each report.

Running the Sterling Control Center Sample Reports

Follow this procedure to run sample reports.

About this task

To run the sample reports included with Sterling Control Center:

Procedure

1. Copy the SampleReports folder from the Sterling Control Center DVD or the Sterling Control Center folder downloaded from the IBM website to the desired directory on your desktop.
2. Start Crystal Reports.
3. Select **File** > **Log On/Off Server**. The Data Explorer window is displayed.
4. Expand the **ODBC** folder.
5. Select the **IBMSterling** ODBC DSN and click **Log On**.

   Note: Log on to the IBMSterling ODBC DSN each time you start Crystal Reports before you run a report.
6. Open a sample report from the SampleReports directory and run it.
7. Select the report criteria and click **OK**. The report is displayed on your monitor.

Troubleshooting Sterling Control Center Sample Reports

When running the Sterling Control Center sample reports, you may receive a database ODBC error.

About this task

If you receive such a message, follow this procedure.:

Procedure

1. Select **Database** > **Show SQL Query** from the Crystal Reports menu bar.
2. Select the **Show SQL Query** tab.
3. Click **Reset**.
4. Generate the report again.

Sample reports

Crystal Reports creates several reports for Sterling Control Center.

All Crystal Reports sample reports must be printed on 14-inch wide paper.

Sterling Connect:Direct Events Report

The Sterling Connect:Direct Events Report contains information about events occurring on managed servers during the specified time period.

The file name for this report is CD_Select_Events.rpt.

The following table lists selection criteria for this report:

Criteria	Description
Event Type	Sterling Control Center event to show on the report. For a description about event types, see *System Administration*. To include an event, select the event from the list box and click **Add**. You can select multiple events for the report.
Start Date	Start date of the data range.
End Date	End date of the data range.
Start Time	Start time of the data range. The default is 00:00:00 (midnight).
End Time	End time of the data range. The default is 23:59:59.

The following table describes the report columns:

Column	Description
Date/Time	Date and time that the event was generated.
Node ID	Server alias.
Event Type	Type of event. For a description about event types, see *System Administration*.
Alert	Indicates if an alert was triggered. The values are: • Blank=No alert • 0-3=Alert severity

Column	Description
Alert Deleted By	Sterling Control Center user name of the person who removed the alert.
Rule ID	Name of the rule triggered by the event.
Action ID	Name of the action called by the rule.
Msg ID	Server or Sterling Control Center message ID issued with the event.
Msg Short Text	Message short text for the message ID.

Sterling Connect:Direct Exception Trends Report

The Sterling Connect:Direct Exception Trends report lists exception counts by category (such as failed Process steps or Copy steps) during a specified time period. You can specify the report by month, week, day, or hour. This report is in date/time order.

The file name for this report is CD_Exception_Trends_By_Period.rpt.

The following table lists selection criteria for this report:

Criteria	Description
Period	Time period that the data is summarized by: monthly, weekly, daily, and hourly.
Start Date	Start date of the data range.
End Date	End date of the data range.
Start Time	Start time of the data range. The default is 00:00:00 (midnight).
End Time	End time of the data range. The default is 23:59:59.

The following table describes the report columns:

Column	Description
Processes Total	Total number of Processes (failed and successful) for the specified time period.
Processes Failed	Number of Processes for the specified time period that completed with completion code greater than 0.
Processes % Failed	Percentage of Processes for the specified time period that completed with completion code greater than 0.
Copy Steps Total	Total number of Copy steps (failed and successful) for the specified time period.
Copy Steps Failed	Number of Copy steps for the specified time period that completed with completion code greater than 0.
Copy Steps % Failed	Percentage of Copy steps for the specified time period that completed with completion code greater than 0.
Run Tasks Total	Total number of Run Task steps (failed and successful) for the specified time period.
Run Tasks Failed	Number of Run Task steps for the specified time period that completed with completion code greater than 0.
Run Tasks % Failed	Percentage of Run Task steps for the specified time period that completed with completion code greater than 0.
Run Jobs Total	Total number of Run Job steps (failed and successful) for the specified time period.

Column	Description
Run Jobs Failed	Number of Run Job steps for the specified time period that completed with completion code greater than 0.
Run Jobs % Failed	Percentage of Run Job steps for the specified time period that completed with completion code greater than 0.
Submit Steps Total	Total number of Submit steps (failed and successful) for the specified time period.
Submit Steps Failed	Number of Submit steps for the specified time period that completed with completion code greater than 0.
Submit Steps % Failed	Percentage of Submit steps for the specified time period that completed with completion code greater than 0.

Sterling Connect:Direct Exception Trends Chart

The Sterling Connect:Direct Exception Trends Chart is nearly identical to the Sterling Connect:Direct Exception Trends Report.

The only difference is that this report displays the following graphs on the first page:

- Daily total Copy steps (successful and failed)
- Daily percentage of failed Copy steps

The file name for this report is CD_Charts_Bar_Copy and PctFail_ByDay.rpt.

The selection criteria and report columns for this report are the same as the Sterling Connect:Direct Exception Trends report.

Sterling Connect:Direct Usage Report

The Sterling Connect:Direct Usage Report details Process activity during a specified time period.

You can select to show all Sterling Connect:Direct activity or exception processing only. This report is in date/time order.

The last page of the report summarizes totals and average run time for Processes, Copy steps, Run Jobs, Run Tasks, and Submit steps, and file transfer information for the report.

The file name for this report is CD_Usage_and_Exceptions.rpt.

The following table lists selection criteria for this report:

Criteria	Description
Exceptions Only (Y/N)	Indicates if the report shows all Sterling Connect:Direct activity or exception processing only.
Start Date	Start date of the data range.
End Date	End date of the data range.
Start Time	Start time of the data range. The default is 00:00:00 (midnight).
End Time	End time of the data range. The default is 23:59:59.

The following table describes the report columns:

Column	Description
Log Date Time	Date and time that the statistics record was written to the log file. Format yyyy/mm/dd hh:mm:ss.msmsms.
Rec Type	Type of statistics record generated. See the Event Type Descriptions topic in the Help for a list of record IDs.
PNODE	Primary node name.
Dir	Data transfer or command direction. ==> indicates from the PNODE to the SNODE. <== indicates from the SNODE to the PNODE.
SNODE	Secondary node name.
Proc Name	Sterling Connect:Direct Process name.
Proc Nbr	Sterling Connect:Direct Process number.
Step Name	Process step.
Duration	Amount of time the step took. Format hh:mm:ss.
CC	Condition code associated with step termination. Typical codes are: 0=Successful execution. 4=A warning level error was encountered. The statement probably finished normally, but you should verify the execution results. 8=An error occurred during execution. 16=A catastrophic error occurred during execution.
Msg ID	Server or Sterling Control Center message ID issued with the event.
File Name	Name of the transferred file. Depending on the step, this can be either the source or destination file name.
The following columns are displayed on the summary page.	
Total	Total number (successful and failed) of Processes, Copy steps, Run Job Steps, Run Task steps, and Submit steps for the specified time period.
Successful	Number of Processes, Copy steps, Run Job Steps, Run Task steps, and Submit steps that completed with a condition code of 0 for the specified time period.
Failed	Number of Processes, Copy steps, Run Job Steps that completed with a condition code greater than 0 for the specified time period.
% Failed	Percent of Processes, Copy steps, Run Job Steps that completed with a condition code greater than 0 for the specified time period.
Average Time	Average time for a Process, Copy step, Run Job Step, Run Task step, and Submit step for the specified time period. This average includes all successful and failed Processes and steps.
Bytes Sent	Total number of bytes read from source files for the specified time period for all Copy Steps.
Bytes Received	Total number of bytes received by destination files for the specified time period for all Copy Steps.
Avg Send Rate (Bytes/Sec)	Average send rate in bytes/second for all Copy Steps.
Avg Receive Rate (Bytes/Sec)	Average receive rate in bytes/second for all Copy Steps.

Sterling Connect:Direct Usage Report Chart

The Sterling Connect:Direct Usage Report Chart is nearly identical to the Sterling Connect:Direct Usage Report.

The only difference is that the last page of this report displays two pie charts categorizing usage by step type and failed step type.

You can select to show all Sterling Connect:Direct activity or exception processing only. This report is in date/time order.

The next-to-last page of the report summarizes totals and average run time for Processes, Copy steps, Run Jobs, Run Tasks, and Submit steps, and file transfer information for the report.

The file name for this report is CD_Charts_Pie _Usage_and_Exceptions.rpt.

The selection criteria and report columns for this report are the same as for the Sterling Connect:Direct Usage Report.

Sterling Connect:Direct Usage by Server Pair Report

The Sterling Connect:Direct Usage by Server Pair Report summarizes by PNODE-SNODE the type of activity occurring during a specified time period.

This report is in alphabetic PNODE-SNODE pair order.

You can select to show all Sterling Connect:Direct activity or exception processing only.

You can see the detail for any summary item by double-clicking the item.

The file name for this report is CD_Usage_By_ServerPair_and_Exceptions.rpt.

The following table lists selection criteria for this report:

Criteria	Description
Exceptions Only (Y/N)	Indicates if the report shows all Sterling Connect:Direct activity or exception processing only.
Start Date	Start date of the data range.
End Date	End date of the data range.
Start Time	Start time of the data range. The default is 00:00:00 (midnight).
End Time	End time of the data range. The default is 23:59:59.

The following table describes the report columns:

Column	Description
Total	Total number (successful and failed) of Processes, Copy steps, Run Job steps, Run Task steps, and Submit steps for the indicated PNODE-SNODE combination during the specified time period.
Failed	Number of Processes, Copy steps, Run Job steps, Run Task steps, and Submit steps that completed with a condition code greater than 0 for the indicated PNODE-SNODE combination during the specified time period.

Column	Description
% Failed	Percentage of Processes, Copy steps, Run Job steps, Run Task steps, and Submit steps that completed with a condition code greater than 0 for the indicated PNODE-SNODE combination during the specified time period.
Average Time	Average time for a Process, Copy step, Run Job step, Run Task step, and Submit step for the indicated PNODE-SNODE combination during the specified time period.
Bytes Sent	Total number of bytes read from source files for all Copy Steps on the indicated PNODE-SNODE combination.
Bytes Received	Total number of bytes received by destination files for all Copy Steps on the indicated PNODE-SNODE combination.
Avg Send Rate (Bytes/Sec)	Average send rate in bytes/second for all Copy Steps on the indicated PNODE-SNODE combination.
Avg Receive Rate (Bytes/Sec)	Average receive rate in bytes/second for all Copy Steps on the indicated PNODE-SNODE combination.
The following columns are displayed on the summary page.	
Successful	Number of Processes, Copy steps, Run Job Steps, Run Task steps, and Submit steps that completed with a condition code of 0 for the specified time period. This information is not displayed on the exceptions only report.
Failed	Number of Processes, Copy steps, Run Job Steps that completed with a condition code greater than 0 for the specified time period.
Total	Total number (successful and failed) of Processes, Copy steps, Run Job Steps, Run Task steps, and Submit steps for the specified time period. This information is not displayed on the exceptions only report.
Average Time	Average time for a Process, Copy step, Run Job Step, Run Task step, and Submit step for the specified time period. This average includes all successful and failed Processes and steps. This information is not displayed on the exceptions only report.
Bytes Sent	Total number of bytes read from source files for the specified time period for all Processes and Copy Steps. This information is not displayed on the exceptions only report.
Bytes Received	Total number of bytes received by destination files for the specified time period for all Processes and Copy Steps. This information is not displayed on the exceptions only report.
Avg Send Rate (Bytes/Sec)	Average send rate in bytes/second for all Processes and Copy Steps. This information is not displayed on the exceptions only report.
Avg Receive Rate (Bytes/Sec)	Average receive rate in bytes/second for all Processes and Copy Steps. This information is not displayed on the exceptions only report.

Sterling Connect:Direct Usage by Server Pair Report Chart

The Sterling Connect:Direct Usage by Server Pair Report Chart is nearly identical to the Sterling Connect:Direct Usage by Server Pair Report.

The only difference is that this report displays the following three usage graphs for each server pair:

- Daily Process and Copy steps
- Daily failed Process and Copy steps
- Daily Copy bytes sent and received

You can select to show all Sterling Connect:Direct activity or exception processing only. This report is in alphabetic PNODE-SNODE pair order.

The last page of the report summarizes totals and average run time for Processes, Copy steps, Run Jobs, Run Tasks, and Submit steps, and file transfer information for the report.

The file name for this report is CD_Charts_Line _ServerPair_ByDay.rpt.

The selection criteria and report columns for this report are the same as the Sterling Connect:Direct Usage by Server Pair Report.

Sterling Connect:Direct Usage by Server Pair Detail/Summary Report

The Sterling Connect:Direct Usage by Server Pair Detail/Summary Report shows Process activity occurring during a specified time period by PNODE-SNODE.

This report is in alphabetic PNODE-SNODE pair order.

You can specify this report to show detail and summary information or summary information only. You can also select to show all Sterling Connect:Direct activity or exception processing only.

The last page of the report displays summary report data.

The file name for this report is CD_Usage_By_ServerPair_and_Exceptions_Summary_Detail.rpt.

The following table lists selection criteria for this report:

Criteria	Description
Exceptions Only (Y/N)	Indicates if the report shows all Sterling Connect:Direct activity or exception processing only.
Summary_Detail (S/D)	Indicates if the report shows detail and summary information or only summary information.
Start Date	Start date of the data range.
End Date	End date of the data range.
Start Time	Start time of the data range. The default is 00:00:00 (midnight).
End Time	End time of the data range. The default is 23:59:59.

The following table describes the report columns:

Column	Description
The following information is shown only on the detail report.	
Log Date Time	Date and time that the statistics record was written to the log file. Format yyyy/mm/dd hh:mm:ss.msmsms.
Dir	Data transfer or command direction. ==> indicates from the PNODE to the SNODE. <== indicates from the SNODE to the PNODE.

Column	Description
Rec Type	Type of statistics record generated. See the documentation for the appropriate Sterling Connect:Direct platform for a list of record IDs.
Proc Name	Sterling Connect:Direct Process name.
Proc Nbr	Sterling Connect:Direct Process number.
Step Name	Process step.
Duration	Amount of time the step took. Format hh:mm:ss.
CC	Condition code associated with step termination. Typical codes are: 0=Successful execution. 4=A warning level error was encountered. The statement probably finished normally, but you should verify the execution results. 8=An error occurred during execution. 16=A catastrophic error occurred during execution. This report only shows condition codes greater than 0.
Msg ID	Server or Sterling Control Center message ID issued with the event.
File Name	Name of the transferred file. Depending on the step, this can be either the source or destination file name.
The following columns are displayed on the summary report and the last page of the detail report.	
Successful	Number of Processes, Copy steps, Run Job Steps, Run Task steps, and Submit steps that completed with a condition code of 0 for the specified time period. This information is not displayed on the exceptions only report.
Failed	Number of Processes, Copy steps, Run Job Steps that completed with a condition code greater than 0 for the specified time period.
Total	Total number (successful and failed) of Processes, Copy steps, Run Job Steps, Run Task steps, and Submit steps for the specified time period. This information is not displayed on the exceptions only report.
Average Time	Average time for a Process, Copy step, Run Job Step, Run Task step, and Submit step for the specified time period. This average includes all successful and failed Processes and steps. This information is not displayed on the exceptions only report.
Bytes Sent	Total number of bytes read from source files for the specified time period for all Processes and Copy Steps. This information is not displayed on the exceptions only report.
Bytes Received	Total number of bytes received by destination files for the specified time period for all Processes and Copy Steps. This information is not displayed on the exceptions only report.
Avg Send Rate (Bytes/Sec)	Average send rate in bytes/second for all Processes and Copy Steps. This information is not displayed on the exceptions only report.
Avg Receive Rate (Bytes/Sec)	Average receive rate in bytes/second for all Processes and Copy Steps. This information is not displayed on the exceptions only report.

Chapter 5. Data for third-party reporting tools

Data for third-party reporting tools is contained in Sterling Control Center tables. The following tables are discussed here:

Note: Some fields use a Java epoch timestamp as a unique value. This timestamp is the number of milliseconds that have elapsed since January 1, 1970.

Events table (EVENTS)

Sterling Control Center reports contain a variety of data fields from the Events table.

Element	Type	Description
ACTION_ID	varchar	Name of an action called by a rule.
ACTIONS_COMPLETED	bigint	Indicates if the Sterling Control Center actions are completed. The values are: Null=Actions not completed Timestamp=Actions completed This element is used for restarts.
ALERT	char	Indicates if an alert was triggered. The values are: Null=No alert 0-3=Alert severity
ALERT_DELETED	char	Indicates if the alert was deleted. The values are: Null=Alert not deleted Y=Alert deleted
ALERT_DELETED_BY	varchar	Sterling Control Center user name of the person who removed the alert. If the alert was deleted by a rule, this field will contain "unknown."
ALERT_DESC	varchar	Comments entered by the user when the alert was deleted.
ALERT_UPD_TIME	bigint	Time that the alert was updated, in Java epoch timestamp format (that is, the number of milliseconds that have elapsed since January 1, 1970).
DATE_TIME	varchar	Date and time that the event was generated. Format yyyy/mm/dd hh:mm:ss.msmsms.
DEST_FILE	varchar	Destination file name in a copy operation.
EMAIL_FLAG	bigint	This field is used by Sterling Control Center for recover purposes. When a rule matches an event, the associated action is executed. If the action includes sending an e-mail, this flag updates after the e-mail is sent. Reporting on this field is not recommended. The values are: 0=No e-mail sent >0=E-mail sent The value is set to zero if nothing was done, but is set to the Timestamp if something was done.

Element	Type	Description
EVENT_ID	bigint	ID number assigned by the system to each event.
EVENT_TYPE	bigint	Code indicating the type of event.
FILE_SIZE	bigint	Size of the file transferred by the Sterling Connect:Direct Process or Sterling Connect:Enterprise batch.
FROM_NODE	varchar	Server that sent the file. P=Pnode was sending server. S=Snode was sending server.
MSG_ID	varchar	Server or Sterling Control Center message ID issued with the event.
NODE_ID	varchar	Server name of alias.
NODE_TYPE	varchar	Code indicating the type of server. The server types are: 0=Sterling Control Center 1=Sterling Connect:Direct 2=Sterling Connect:Enterprise 3=Sterling B2B Integrator 4=FTP Server 5=Sterling Connect:Express 6=QuickFile
ORIG_NODE	varchar	The server that initiated the Process.
PART_KEY	date	The date the event was generated. The format is yyyy-mm-dd.
PERCENT_COMPLETE	bigint	Percentage of a Sterling Connect:Direct Copy Process that is complete.
PROC_ID	varchar	Sterling Connect:Direct Process or Sterling Connect:Enterprise batch number.
PROC_NAME	varchar	Sterling Connect:Direct Process name or Sterling Connect:Enterprise batch name.
REMOTE_NODE	varchar	Name of the remote server involved in the Process or file transfer.
RET_CODE	varchar	Specifies a numeric code returned from a completed Process or file transfer that indicates failure or success. The standard return codes are: 0=Successful completion 4=Warning 8=Error 16=Catastrophic error
RULE_ID	varchar	Name of the rule triggered by the event.
RULE_INSTANCE_ID	bigint	Unique identifier for rule matching instances
SEQ_NUM	bigint	A number used to uniquely identify events generated at the same time.
SHORT_MSG	varchar	Message text associated with the Message ID.

Element	Type	Description
SLC_FLAG	bigint	Internally used by Sterling Control Center for recovery purposes. When an event is generated, it is sent to the SLC subsystem. This flag indicates whether or not the event has been sent to that subsystem. Reporting on this field is not recommended. The values are: 0=Event was not sent >0=Event was sent
SLC_ID	text	System-assigned name for each SLC window.
SLC_INSTANCE_ID	bigint	Unique identifier for each SLC window.
SLC_SOURCE_1	text	Internal field used for SLC recovery.
SLC_SOURCE_2	text	Internal field used for SLC recovery.
SLC_SRC_EVENT_ID	bigint	EVENT_ID of the event that triggered the SLC.
SOURCE_FILE	varchar	Source file name in a copy.
STEP_NAME	varchar	Name of the Sterling Connect:Direct Process step.
SUBMITTER	varchar	User ID of the Process submitter.
TRAP_FLAG	bigint	Internally used by Sterling Control Center for recovery purposes. When a rule matches an event, the associated action is executed. If the action includes sending an SNMP trap, this flag updates after the SNMP trap is sent. Reporting on this field is not recommended. The values are: 0=No trap generated >0=Trap generated The value is set to zero if nothing was done, but is set to the Timestamp if something was done.
USER_DATA_1	varchar	User metadata field 1.
USER_DATA_2	varchar	User metadata field 2.
USER_DATA_3	varchar	User metadata field 3.
USER_DATA_4	varchar	User metadata field 4.
SERVER_DATA_1	varchar	Server metadata field 1.
SERVER_DATA_2	varchar	Server metadata field 2.
SERVER_DATA_3	varchar	Server metadata field 3.
SERVER_DATA_4	varchar	Server metadata field 4.
SERVER_DATA_5	varchar	Server metadata field 5.
SERVER_DATA_6	varchar	Server metadata field 6.
SERVER_DATA_7	varchar	Server metadata field 7.
SERVER_DATA_8	varchar	Server metadata field 8.
SERVER_DATA_9	varchar	Server metadata field 9.
SERVER_DATA_10	varchar	Server metadata field 10.

Element	Type	Description
USER_OP_FLAG	bigint	Internally used by Sterling Control Center for recovery purposes. When a rule matches an event, the associated action is executed. If the action includes invoking an OS command script, this flag is updated after invoking the OS command script. Reporting on this field is not recommended. The values are: 0=No OS command invoked >0=OS command invoked The value is set to zero if nothing was done, but is set to the Timestamp if something was done.
XML_STRING	text	An XML representation of the event.

Events extension table (EVENTS_EXT)

The Events Extension (EVENTS_EXT) database table is used when an event triggers one or more Data Visibility Group (DVG) rules. For each DVG rule an event triggers, a supplemental entry, or row, is inserted into the EVENTS_EXT table and the EVENT_ID value is used to join the information in the two tables.

The following table describes the data fields available from the EVENTS_EXT table for Sterling Control Center reports.

Element	Type	Description
ACTION_ID	varchar	Name of an action called by a rule.
ACTIONS_COMPLETED	bigint	Indicates if the Sterling Control Center actions are completed. The values are: Null=Actions not completed Timestamp=Actions completed This element is used for restarts.
ALERT	char	Indicates if an alert was triggered. The values are: Null=No alert 0-3=Alert severity
ALERT_DELETED	char	Indicates if the alert was deleted. The values are: Null=Alert not deleted Y=Alert deleted
ALERT_DELETED_BY	varchar	Sterling Control Center user name of the person who removed the alert. If the alert was deleted by a rule, this field will contain “unknown.”
ALERT_UPD_TIME	bigint	Time that the alert was updated, in Java epoch timestamp format (that is, the number of milliseconds that have elapsed since January 1, 1970).
DATE_TIME	varchar	Date and time that the event was generated. Format yyyy/mm/dd hh:mm:ss.msmsms.
DVG	varchar	Data visibility group for this event.

Element	Type	Description
EMAIL_FLAG	bigint	This field is used by Sterling Control Center for recovery purposes. When a rule matches an event, the associated action is executed. If the action includes sending an e-mail, this flag updates after the e-mail is sent. Reporting on this field is not recommended. The values are: 0=No e-mail sent >0=E-mail sent The value is set to zero if nothing was done, but is set to the Timestamp if something was done.
EVENT_ID	bigint	ID number assigned by the system to each event. The EVENT_ID value can be used to find additional information associated with this event in the Events database table.
PART_KEY	date	The date the event was generated. The format is yyyy-mm-dd.
RULE_ID	varchar	Name of the rule triggered by the event.
RULE_INSTANCE_ID	bigint	Unique identifier for rule matching instances
TRAP_FLAG	bigint	Internally used by Sterling Control Center for recovery purposes. When a rule matches an event, the associated action is executed. If the action includes sending an SNMP trap, this flag updates after the SNMP trap is sent. Reporting on this field is not recommended. The values are: 0=No trap generated >0=Trap generated The value is set to zero if nothing was done, but is set to the Timestamp if something was done.
USER_OP_FLAG	bigint	Internally used by Sterling Control Center for recovery purposes. When a rule matches an event, the associated action is executed. If the action includes invoking an OS command script, this flag is updated after invoking the OS command script. Reporting on this field is not recommended. The values are: 0=No OS command invoked >0=OS command invoked The value is set to zero if nothing was done, but is set to the Timestamp if something was done.

Event comments table (EVENT_COMMENTS)

The Event comments table stores comment information on alerts when those alerts are deleted. In earlier versions of Sterling Control Center these comments were part of the Events table.

The following table describes the data fields in the Event comments table for Sterling Control Center reports:

Element	Type	Description
DATE_TIME	varchar	The event date and time.
EVENT_COMMENT	text	Textual comment describing the event's deletion.
EVENT_ID	bigint	The identifier for the specific event.

Element	Type	Description
PART_KEY	date	The date the event was generated. The format is yyyy-mm-dd.
USER_ID	varchar	The identifier of the Sterling Control Center user entering the comment and deleting the event.

Sterling Connect:Direct statistics table (V_CD_STATS_LOG)

The following table describes the data fields available from the Sterling Connect:Direct Virtual Statistics (V_CD_STATS_LOG) table for Sterling Control Center reports:

Element	Type	Description
ALIAS_MEMBER_NAME	varchar	PDS alias member name.
BYTES_READ	bigint	Number of bytes read from the source file.
BYTES_RECEIVED	bigint	Number of bytes received by the destination file.
BYTES_SENT	bigint	Number of bytes sent to the destination file.
BYTES_WRITTEN	bigint	Number of bytes written to the destination file.
CB_ENC_ALG	varchar	Specifies the name of the encryption algorithm.
CC_NAME	varchar	Not completed.
CERT_ISSUER	text	Issuer value from certificate used.
CERT_SUBJECT	text	Subject name value from certificate used.
CHECK_POINT	varchar	Indicates whether Checkpoint is activated for this Process. Y=Checkpoint is activated N=Checkpoint is not activated
CIPHER_SUITE	text	Name of cipher suite used.
CLASS	varchar	Determines the server-to-server session on which a Process can be executed.
COND_CODE	varchar	Return code that is associated with step termination. Typical codes are: 0=Successful execution. 4=A warning level error was encountered. The statement probably finished normally, but verify the execution results. 8=An error occurred during execution. 16=A unrecoverable error occurred during execution. **Note:** This column is not populated in this table since it is duplicated in the Events table.
DATE_TIME	varchar	Date and time that the event was generated in UTC. The format is yyyy/mm/dd hh:mm:ss.msmsms.
DEBUG	varchar	For Sterling Connect:Direct for z/OS®, the DEBUG setting within the Process.

Element	Type	Description
DEST_DISP_1	varchar	What to do with the destination file after a copy is complete. The values are: NEW=Creates a file on the destination node. RPL=Creates a file on the destination node or, if the file exists, replaces the named file on the destination node. MOD=Appends data to the end of an existing file for which you have exclusive rights.
DEST_DISP_2	varchar	Disposition of the destination file after a normal Process step termination. The values are: C=catalog K=Keep
DEST_DISP_3	varchar	Disposition of the destination file after an abnormal Process step termination. C=catalog D=Delete K=Keep
DEST_FILE	varchar	Destination file name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
EVENT_ID	bigint	ID number that is assigned by the system to each event.
EXEC_PRIORITY	varchar	Priority under which the operating system thread that executes Sterling Connect:Direct runs. Applies to Microsoft Windows only.
EXT_COMPRESSION	varchar	Extended compression option. Y=Extended compression is activated N=Extended compression is not activated
FEED_BACK	varchar	Feedback code for the module. The value depends on the module that creates it. Your IBM Support representative might ask for this value.
FROM_NODE	varchar	Node that sent the file. The values are: S=SNODE P=PNODE **Note:** This column is not populated in this table since it is duplicated in the Events table.
FUNCTION_INFO	varchar	Specifies the function that is performed.

Element	Type	Description
HOLD	varchar	Hold status of a Process. The Hold statuses are: No=The Process is not placed in the Hold queue. It is run as soon as resources are available. Yes=The Process is held in the Hold queue in Held Initially (HI) status until it is explicitly released. Call=The Process is held until the SNODE, as specified in the Process SNODE parameter, connects to the PNODE. The Process is then released for execution. The Process is also released when another Process on the PNODE connects to the SNODE.
LINK_FAIL	varchar	Indicated whether a link failure occurred during transmission. • Link fail occurred • Link fail did not occur
LOCAL_COND_CODE	varchar	Condition (return) code that is produced by the local server. See COND_CODE description for typical return codes.
LOCAL_MSG_ID	varchar	Specifies the message ID produced by the local server.
LOCAL_NODE	varchar	Server that processed the file. S=SNODE P=PNODE
LOG_DATE_TIME	varchar	Date and time that the statistics record is written to the log file. Format yyyy/mm/dd hh:mm:ss.msmsms.
MEMBER_NAME	varchar	Name of the member copied.
MERGE_EA	varchar	Specifies the merged data encryption algorithm resulting from the merger of the PNODE and SNODE encryption algorithms.
MERGE_SIGN	varchar	Specifies the merged results from the digital signature settings for the PNODE and SNODE. If digital signature is enabled for either the PNODE or the SNODE, then digital signatures are used for the session. If digital signatures are not enabled for both the PNODE and SNODE, digital signatures are not used.
MSG_ID	varchar	Server or Sterling Control Center message ID issued with the event. **Note:** This column is not populated in this table since it is duplicated in the Events table.
MSG_SHORT_TXT	varchar	Message short text. **Note:** This column is not populated in this table since it is duplicated in the Events table.
NODE_ID	varchar	Server alias. **Note:** This column is not populated in this table since it is duplicated in the Events table.
NODE_NAME	varchar	Name of the Sterling Connect:Direct server.
NODE_TYPE	varchar	Code indicating the type of server. **Note:** This column is not populated in this table since it is duplicated in the Events table.
OTHER_COND_CODE	varchar	Condition (return) code that is produced by the other (remote) server. See COND_CODE description for typical return codes.
OTHER_MSG_ID	varchar	Specifies the message ID produced by the other (remote) server.
PART_KEY	date	The date the statistics record is written to the log file. The format is yyyy-mm-dd.

Element	Type	Description
PNODE	varchar	Primary node name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
PNODE_ACCT_INFO	varchar	PNODE accounting information.
PNODE_ENC_ALG_LIST	varchar	Data encryption algorithm that is used on the PNODE.
PNODE_ENC_DATA	varchar	PNODE encryption data.
PNODE_PLEX_CLASS	varchar	PLEXCLASS of the PNODE.
PNODE_SIGN	varchar	Specifies whether signatures are enabled for the PNODE.
PREV_SIGN_VERIFIED	varchar	Specifies whether the previous encryption key is used for verifying the digital signature.
PRIORITY	varchar	Specifies the priority that is assigned to the Process. The lower the number the higher the priority.
PROC_NAME	varchar	Sterling Connect:Direct Process name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
PROC_NUMBER	varchar	Sterling Connect:Direct Process number. **Note:** This column is not populated in this table since it is duplicated in the Events table.
QUEUE	varchar	Specifies the queue that contains the Process. The queues are: Execution=Processes currently runing. Hold=Processes that are either held by the user or operator or held because of execution errors. Timer=Processes that are scheduled to be run later, or Processes in time retry because of session errors. Wait=Processes that are eligible for execution and are awaiting selection.
RECORD_CATEGORY	varchar	Specifies whether the record is related to an event or to a Process. The values are: CAEV=The record is related to a Sterling Connect:Direct event, such as a Sterling Connect:Direct shutdown. CAPR=The record is related to a Sterling Connect:Direct Process.
RECORD_ID	varchar	Type of statistics record generated. See the Event Type Descriptions Help topic for a list of record IDs.
RECORDS_READ	bigint	Specifies the number of records that are read from the source file.
RECORDS_WRITTEN	bigint	Specifies the number of records that are written to the destination file.
RESTART	varchar	Indicates whether Restart is activated for the Process. Y=Restart is activated N=Restart is not activated

Element	Type	Description
RETAIN	varchar	Indicates whether Sterling Connect:Direct retains a copy of a Process after it runs. The Retain options are: Initial=Specifies to retain the Process in the Hold queue for execution every time that Sterling Connect:Direct initializes. No=Specifies not to retain the Process after it is run. Yes=Specifies to retain the Process in the Hold queue after it is run. You can release the Process for execution later or delete it.
RU_SIZE	varchar	Specifies the size of buffers that are received by the destination file.
RUS_RECEIVED	bigint	Specifies the number of buffers that are received by the destination file.
RUS_SENT	bigint	Specifies the number of buffers that are sent to the destination file.
SCH_DATE_TIME	varchar	Specifies the date and time that a Process is scheduled to run. Format yyyy/mm/dd hh:mm:ss.msmsms.
SECURE_ENABLED	varchar	Indicates that Sterling Connect:Direct Secure Plus is activated for the Process.
SECURE_PROTOCOL	text	Name of protocol that is used for secure connection.
SEQ_NUM	bigint	System-assigned sequence number. **Note:** This column is not populated in this table since it is duplicated in the Events table.
SERVER_NAME	varchar	Sterling Connect:Direct/Plex server name.
SNODE	varchar	Secondary node name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
SNODE_ACCT_INFO	varchar	Specifies SNODE accounting information.
SNODE_ENC_ALG_LIST	varchar	Data encryption algorithm that is used on the SNODE.
SNODE_ENC_DATA	varchar	SNODE encryption data.
SNODE_PLEX_CLASS	varchar	PLEXCLASS of the SNODE.
SNODE_SIGN	varchar	Specifies whether digital signatures are enabled for the SNODE.
SOURCE_MEMBER_NAME	varchar	Source file member name.
SRC_DISP_1	varchar	Specifies access to the source file during a copy operation. The source disposition values are: SHR=The file can be opened by another Process for read-only access while it is being copied. OLD=The file cannot be opened by another Process during the transfer.
SRC_DISP_2	varchar	Disposition of the source file after a successful Process step termination.
SRC_DISP_3	varchar	Disposition of the source file after an abnormal Process step termination.
SRC_FILE	varchar	Source file name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
START_TIME	varchar	Process start time.

Element	Type	Description
STATUS	varchar	Specifies the Process status. The statuses are: Execution (EX)=The Process is running. Pending Execution (PE)=The Process is selected for execution and startup is in progress. Waiting Connection (WC)=The Process is ready to run, but all available connections to the SNODE are in use. Waiting Start Time (WS)=The Process is waiting in the Timer queue because it is submitted with a start time or date that has not expired. When the start time is reached, the Process is placed into the Wait queue for scheduling for execution. Held Suspension (HS)=The operator issued a delete Process request with Hold set to Yes. Timer Retry (RE)=A Process error occurred and the Process is moved to the Timer queue in RE status with short-term and long-term wait times beginning. Held for Call (HC)=The Process is submitted with the Hold parameter that is set to Call. A session started from either node moves the Process to the Wait queue in WC status. The Process is placed in the Execution queue when it is selected for execution. Held Due to Error (HE)=A session error or other abnormal condition occurred. Held Initially (HI)=The Process is submitted with the Hold option that is set to Yes. Held By Operator (HO)=A change Process request with Hold set to Yes was issued. Held By Retain (HR)=The Process was submitted with retain after execution set to Yes or Initial.
STD_COMPRESSION	varchar	Standard compression option. Y=Standard compression is activated N=Standard compression is not activated
STEP_NAME	varchar	Process step name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
STOP_TIME	varchar	Process stop time.
SUB_DATE_TIME	varchar	Date and time that the Process was submitted. Format yyyy/mm/dd hh:mm:ss.msmsms.
SUBMIT_NODE	varchar	Server where the submit operation was performed.
SUBMITER	varchar	User ID that submitted the Process. **Note:** This column is not populated in this table since it is duplicated in the Events table.
SUBMITTER_NODE	varchar	Server that submitted the Process.
SUR_SIGN_VERIFIED	varchar	Specifies whether the current encryption key was used for verifying the digital signature.

Element	Type	Description
SYS_OPTS	varchar	Specifies the platform-specific system operations.
TARGET_MEMBER_NAME	varchar	Destination target member name.
TRANSLATION	varchar	Specifies whether the data was translated. Y=Data was translated N=Data was not translated
USER_DATA_1	varchar	Metadata field 1. **Note:** This column is not populated in this table since it is duplicated in the Events table.
USER_DATA_2	varchar	Metadata field 2. **Note:** This column is not populated in this table since it is duplicated in the Events table.
USER_DATA_3	varchar	Metadata field 3. **Note:** This column is not populated in this table since it is duplicated in the Events table.
USER_DATA_4	varchar	Metadata field 4. **Note:** This column is not populated in this table since it is duplicated in the Events table.

Sterling Connect:Direct statistics table By record ID

The following table shows the columns filled in for each Record ID in the Virtual Sterling Connect:Direct Statistics Table (V_CD_STATS_LOG). These record IDs are for Sterling Connect:Direct for z/OS only.

Record ID	SI	CH	QE	SB	PI	ZI	CI	CT	PT	ZT	MC
ALIAS_MEMBER_NAME											X
BYTES_READ								X			
BYTES_SENT								X			
CERT_ISSUER				X				X			
CERT_SUBJECT				X				X			
CHECK_POINT								X			
CIPHER_SUITE				X				X			
COND_CODE	X	X		X	X	X	X	X	X	X	
DEST_DISP_1								X			
DEST_DISP_2								X			
DEST_DISP_3								X			
DEST_FILE								X			
EVENT_ID	X	X	X	X	X	X	X	X	X	X	
FEED_BACK								X			
FROM_NODE							X	X			
LOCAL_NODE								X			X
LOG_DATE_TIME	X	X	X	X	X	X	X	X	X	X	
MEMBER_NAME							X	X			X
MSG_ID	X	X						X	X	X	

Record ID	SI	CH	QE	SB	PI	ZI	CI	CT	PT	ZT	MC
MSG_SHORT_TXT	X	X						X	X	X	
NODE_ID	X	X	X	X	X	X	X	X	X	X	
NODE_NAME	X	X	X	X	X	X	X	X	X	X	
NODE_TYPE	X	X	X	X	X	X	X	X	X	X	
OTHER_COND_CODE								X			
OTHER_MSG_ID								X			
PNODE			X	X	X	X	X	X	X	X	
PNODE_ACCT_INFO								X			
PNODE_ENC_ALG_LIST				X							
PNODE_PLEX_CLASS								X			
PNODE_SIGN				X							
PRIORITY		X									
PROC_NAME		X	X	X	X	X	X	X	X	X	
PROC_NUMBER		X	X	X	X	X	X	X	X	X	
QUEUE			X								
RECORD_ID	X	X	X	X	X	X	X	X	X	X	X
RECORDS_READ								X			
RESTART								X			
RETAIN			X	X	X	X	X	X	X	X	
RU_SIZE								X			
RUS_RECEIVED								X			
RUS_SENT								X			
SCH_DATE_TIME					X				X		
SECURE_ENABLED				X				X			
SECURE_PROTOCOL				X				X			
SEQ_NUM	X	X	X	X	X	X	X	X	X	X	
SERVER_NAME			X	X	X	X	X	X			X
SNODE			X	X	X	X	X	X	X	X	
SNODE_ACCT_INFO								X			
SNODE_ENC_ALG_LIST				X							
SNODE_PLEX_CLASS								X			
SNODE_SIGN				X							
SOURCE_MEMBER_NAME											X
SRC_DISP_1								X			
SRC_DISP_2								X			
SRC_DISP_3								X			
SRC_FILE							X	X			
START_TIME		X	X	X	X	X	X	X	X	X	
STATUS			X								
STD_COMPRESSION								X			
STEP_NAME				X			X	X			

Record ID	SI	CH	QE	SB	PI	ZI	CI	CT	PT	ZT	MC
STOP_TIME								X	X		
SUB_DATE_TIME					X	X			X	X	
SUBMIT_NODE	X	X		X	X	X	X	X	X	X	
SUBMITER	X	X		X	X	X	X	X	X	X	
TARGET_MEMBER_NAME							X	X			X
USER_DATA_1	X	X	X	X	X	X	X	X	X	X	X
USER_DATA_2	X	X	X	X	X	X	X	X	X	X	X
USER_DATA_3	X	X	X	X	X	X	X	X	X	X	X
USER_DATA_4	X	X	X	X	X	X	X	X	X	X	X

Sterling Connect:Enterprise statistics table (V_CE_STATS_LOG)

The following table describes the data fields available from the Sterling Connect:Enterprise Virtual Statistics (V_CE_STATS_LOG) table for Sterling Control Center reports:

Element	Type	Description
APPL_AGENT_TYPE	varchar	Specifies one of the following application agent types: • Console • End Of Batch • Logging • Scheduler • Wake Up Terminate
BATCH_ID	varchar	User-assigned description of a Sterling Connect:Enterprise batch. **Note:** This column is not populated in this table since it is duplicated in the Events table.
BATCH_NUMBER	varchar	System-assigned number for each batch in a Sterling Connect:Enterprise repository. **Note:** This column is not populated in this table since it is duplicated in the Events table.
BYTES_READ	bigint	Number of bytes read from the source file.
BYTES_WRITTEN	bigint	Number of bytes written to the destination file.
CC_NAME	varchar	Not filled in.
DEST_FILE	varchar	Destination file name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
EVENT_ID	bigint	ID number assigned by the system to each event.
JOB_ID	varchar	Batch job identifier.
JOB_NAME	varchar	Name of the job that added the batch.
LINE_NAME	varchar	Line accessed during Auto and Remote Connects.
LIST_NAME	varchar	Sterling Connect:Enterprise Auto Connect List Name. The Auto Connect List defines the remote sites that the Sterling Connect:Enterprise server automatically connects to and transmits batches to.
LOG_DATE_TIME	varchar	Date and time that the statistics record was written to the log file. Format yyyy/mm/dd hh:mm:ss.msmsms.

Element	Type	Description
MAILBOX_FLAGS	varchar	Sterling Connect:Enterprise batch status flag. See the appropriate Sterling Connect:Enterprise documentation for a list of batch status flags.
MAILBOX_ID	varchar	Specifies the repository associated with the Sterling Connect:Enterprise batch
MSG_ID	varchar	Server or Sterling Control Center message ID issued with the event. **Note:** This column is not populated in this table since it is duplicated in the Events table.
MSG_SHORT_TXT	varchar	Message short text. **Note:** This column is not populated in this table since it is duplicated in the Events table.
NODE_ID	varchar	Server alias. **Note:** This column is not populated in this table since it is duplicated in the Events table.
NODE_NAME	varchar	Name of the Sterling Connect:Direct server.
NODE_TYPE	varchar	Code indicating the type of server. **Note:** This column is not populated in this table since it is duplicated in the Events table.
OID	varchar	Object identifier that identifies the Sterling Connect:Enterprise SNMP trap received by the engine.
PROTOCOL	varchar	Protocol used for the file transfer.
RECIP_MAILBOX_ID	varchar	Sterling Connect:Enterprise Mailbox ID of the repository that received the batch.
RECORD_CATEGORY	varchar	One of the following connection types: AC=Auto Connect RC=Remote Connect
RECORD_ID	varchar	Type of statistics record generated. See the Event Type Descriptions Help topic for a list of record IDs.
REL_SELECT_STMT	varchar	Position of the Sterling Connect:Enterprise SELECT statement that executed the rule which caused an SNMP trap to be generated.
REMOTE_NAME	varchar	Name of the remote server involved in the file transfer.
RULE_MEMBER_NAME	varchar	Data set member name that contains the application agent rules.
RULE_NAME	varchar	Name of the Sterling Connect:Enterprise application agent rule.
SEQ_NUM	bigint	System-assigned sequence number. **Note:** This column is not populated in this table since it is duplicated in the Events table.
SESSION_ID	varchar	System-assigned ID identifying a connection between a Sterling Connect:Enterprise host and a remote site.
SRC_FILE	varchar	Source file name. **Note:** This column is not populated in this table since it is duplicated in the Events table.
START_TIME	varchar	Time that start-of-batch transmission information is received by the Sterling Control Center engine.
STATUS	varchar	FTP session status (active or inactive). **Note:** This column is not populated in this table since it is duplicated in the Events table.
STOP_TIME	varchar	Time that end-of-batch transmission information is received by the Sterling Control Center engine.

Element	Type	Description
TIME_UP	varchar	Length of time that the Sterling Connect:Enterprise server has been running.
USER_DATA_1	varchar	Metadata field 1. **Note:** This column is not populated in this table since it is duplicated in the Events table.
USER_DATA_2	varchar	Metadata field 2. **Note:** This column is not populated in this table since it is duplicated in the Events table.
USER_DATA_3	varchar	Metadata field 3. **Note:** This column is not populated in this table since it is duplicated in the Events table.
USER_DATA_4	varchar	Metadata field 4. **Note:** This column is not populated in this table since it is duplicated in the Events table.
WKFLOW_ID	varchar	Sterling B2B Integrator ID, if Sterling B2B Integrator requested a file transfer from a Sterling Connect:Enterprise for UNIX server.
WRKFLOW_URL	varchar	Sterling B2B Integrator URL, if Sterling B2B Integrator requested a file transfer from a Sterling Connect:Enterprise for UNIX server.

Sterling Connect:Express virtual statistics table (V_CX_STATS_LOG)

The following table describes the data fields available from the Sterling Connect:Express Virtual Statistics (V_CX_STATS_LOG) table for Sterling Control Center reports:

Element	Type	Description
BEG_XFER_DATE	varchar	Beginning of transfer date time. The format is yyyy/mm/ddhh:mm:ss
CC_NAME	varchar	Not filled in.
CX_EVENT_TYPE	varchar	Event type. Values may be: • ConnectionError • ConnectionShutdownStarted • ConnectionStarted • NodeCommand • NodeError • NodeLicense • NodeStarted • NodeStatus • NodeShutdown • ProcessEnded • ProcessStarted • ProcessStepEnd • ProcessStepProgress • ProcessStepStart • TimerEvent
CX_RET_CODE	varchar	Return code.

Element	Type	Description
DATE_TIME	varchar	Date and time that the event was generated in UTC. The format is yyyy/mm/dd hh:mm:ss.msmsms.
DEST_FILE	varchar	Destination file name in a copy operation.
END_XFER_DATE	varchar	End of transfer date/time. The format is yyyy/mm/ddhh:mm:ss
EVENT_ID	bigint	ID number assigned by the system to each event.
EVENT_TYPE	bigint	Code indicating the type of event.
FILE_BYTES	bigint	File bytes transferred.
FILE_LABEL	varchar	File label (PeSIT pi37).
FILE_NAME	varchar	Name of file transferred.
FILE_RECEIVER	varchar	Receiver of the file.
FILE_SENDER	varchar	Sender of the file.
FILE_SIZE	bigint	Size of file transferred.
FROM_NODE	varchar	Server that sent the file. P=Pnode was sending server. S=Snode was sending server.
LINK_TYPE	varchar	Type of link. The values are: • T=TCPIP • S=SNA
LOCAL_FILE_NAME	varchar	Local file name.
LOCAL_NODE_NAME	varchar	Local node name.
MSG_ID	varchar	Server message ID issued with the event.
NET_RET_CODE	varchar	Network return code.
NETWORK_BYTES	bigint	Network bytes transferred
NODE_ID	varchar	Server name alias.
NODE_NAME	varchar	Server name.
NODE_TYPE	varchar	Code indicating the type of server. The server types are: • 0=Sterling Control Center • 1=Sterling Connect:Direct • 2=Sterling Connect:Enterprise • 3=Sterling B2B Integrator • 4=FTP Server • 5=Sterling Connect:Express • 6=QuickFile
OPERATING_SYSTEM	varchar	Operating system.
ORIG_NODE	varchar	The server that initiated the Process.
OTHER_NODE_NAME	varchar	Other node name.
PROC_ID	varchar	Process/Request number.

Element	Type	Description
PROC_NAME	varchar	Sterling Connect:Express Process name.
PROC_ORIGINATOR	varchar	Process Originator. The values are: • I=Local node is the originator. • E=Remote node is the originator.
PROT_RET_CODE	varchar	Protocol return code
RECORD_DATE	varchar	Record date. The format is yyyy/mm/dd hh:mm:ss.msmsms.
RECORDS	bigint	Number of records transferred
REMOTE_NODE	varchar	Name of the remote server involved in the file transfer.
REQUEST_NUMBER	varchar	Request number.
RET_CODE	varchar	The system return code derived from the CX_RET_CODE, PROT_RET_CODE, and SYS_RET_CODE. If any of these elements are set, RET_CODE will be set.
SEQ_NUM	bigint	A number used to uniquely identify events generated at the same time.
SHORT_MSG	varchar	Message text associated with the Message ID.
SOURCE_FILE	varchar	Source file name in a copy.
SUBMITTER	varchar	User ID of the process submitter.
SYS_RET_CODE	varchar	System return code.
TRANSFER_DIR	varchar	Transfer direction. Values are: • T=Transmit • R=Receive. If the value is R, the local node is receiving.
TYPE_REQUEST	varchar	Request type. Values are: • N=Normal request submitted from pnode to snode to send or receive a file. • H=Hold request prepared by the snode for future transmission. • I=Inquiry submitted by the pnode for reception of a file that has been made available by a corresponding Hold request on the snode. • M=Message • E= End to end response
USER_DATA_1	varchar	User metadata field 1.
USER_DATA_2	varchar	User metadata field 2.
USER_DATA_3	varchar	User metadata field 3.
USER_DATA_4	varchar	User metadata field 4.
USER_DATA_RCVD	varchar	User data received (PeSIT pi99), associated to file.

Element	Type	Description
USER_DATA_SENT	varchar	User data sent (PeSIT pi99), associated to file.
UTCOFFSET	bigint	UTC offset when event transpired.
XFER_DEST	varchar	Transfer destination
XFER_ID	varchar	Transfer identifier
XFER_ORIGIN	varchar	Transfer origin
XFER_PROTOCOL	varchar	File transfer protocol. Values are: • A=PeSIT E "PROF=ANY" • E=PeSIT Type E • D=PeSIT Type D • F=FTP • O=Odette • A=Compatible with PeSIT

QuickFile statistics table (QF_STATS_LOG)

The following table describes the data fields available from the QuickFile statistics table (QF_STATS_LOG) for Sterling Control Center reports:

Element	Type	Description
EVENT_ID	bigint	ID number assigned by the system to each event.
FILE_NAME	varchar	The name of the file uploaded or downloaded associated with the statistic.
LOG_DATE_TIME	varchar	Date and time the statistics record was generated. The format is yyyy/mmdd hh:mm:ss.msmsms
OPERATION	varchar	The operation value associated with the statistic. Possible values include, but are not limited to: Logout, Policy updated, AFT Enabled, Downloaded, Sent
PART_KEY	date	The date in the statistics record was generated. The format is yyyy-mm-dd
PKG_FILE_COUNT	bigint	Total number of files in the package uploaded. Value set to -1 when event has no value for this field.
PKG_ID	varchar	The package identifier.
PKG_SUBJECT	varchar	The package subject value.
PKG_TOT_SIZE	bigint	Total size of all files in the package uploaded. Value set to -1 when event has no value for this field.
QF_EVENT_TYPE	varchar	Event type associated with the statistic.
RECP_USER_EMAIL	varchar	Recipient user email address.
RECP_USER_FNAME	varchar	Recipient user full name.

Element	Type	Description
RECP_USER_ID	varchar	Recipient user ID.
RECP_USER_REG	varchar	Recipient user registered. Value, when set, will be "true" or "false".
SERVER_NAME	varchar	Server name reported by QuickFile server.
SERVER_OS	varchar	Operation system value reported by QuickFile server.
SERVER_VERSION	varchar	Version value reported by QuickFile server.
STATUS_CODE	varchar	Status code for the operation performed.
USER_EMAIL	varchar	User email address.
USER_FNAME	varchar	User full name.
USER_ID	varchar	User ID.
USER_REG	varchar	User registered. Value, when set, will be "true" or "false".
UTC_OFFSET	bigint	The delta, in seconds, from Universal Coordinated time for the recorded LOG_DATE_TIME value.
FILE_SIZE	bigint	Size of file. Value set to -1 when event has no value for this field.

QuickFile virtual statistics table (V_QF_STATS_LOG)

The following table describes the data fields available from the QuickFile Virtual Statistics (V_QF_STATS_LOG) table for Sterling Control Center reports:

Element	Type	Description
CC_NAME	varchar	Not filled in.
EVENT_ID	bigint	ID number assigned by the system to each event.
DATE_TIME	varchar	Date and time that the event was generated in UTC. The format is yyyy/mm/dd hh:mm:ss.msmsms.
DEST_FILE	varchar	Destination file name in a copy operation.
EVENT_TYPE	bigint	Code indicating the type of event.
FILE_NAME	varchar	The name of the file uploaded or downloaded associated with the statistic.
FROM_NODE	varchar	Server that sent the file.
LOG_DATE_TIME	varchar	Date and time the statistics record was generated. The format is yyyy/mmdd hh:mm:ss.msmsms
MSG_ID	varchar	Server message ID issued with the event.
NODE_ID	varchar	Server name alias.

Element	Type	Description
NODE_TYPE	varchar	Code indicating the type of server. The server types are: 0=Sterling Control Center 1=Sterling Connect:Direct 2=Sterling Connect:Enterprise 3=Sterling B2B Integrator 4=FTP Server 5=Sterling Connect:Express 6=QuickFile
OPERATION	varchar	The operation value associated with the statistic. Possible values include, but are not limited to: Logout, Policy updated, AFT Enabled, Downloaded, Sent
ORIG_NODE	varchar	The server that initiated the Process.
PKG_FILE_COUNT	bigint	Total number of files in the package uploaded. Value set to -1 when event has no value for this field.
PKG_ID	varchar	The package identifier.
PKG_SUBJECT	varchar	The package subject value.
PKG_TOT_SIZE	bigint	Total size of all files in the package uploaded. Value set to -1 when event has no value for this field.
PROC_NAME	varchar	QuickFile Process name.
QF_EVENT_TYPE	varchar	Event type associated with the statistic.
RECP_USER_EMAIL	varchar	Recipient user email address.
RECP_USER_FNAME	varchar	Recipient user full name.
RECP_USER_REG	varchar	Recipient user registered. Value, when set, will be "true" or "false".
REMOTE_NODE	varchar	Name of the remote server involved in the file transfer.
RET_CODE	varchar	Specifies a numeric code returned from a completed Process or file transfer that indicates failure or success. The standard return codes are: 0=Successful completion 4=Warning 8=Error 16=Catastrophic error
SERVER_NAME	varchar	Server name reported by QuickFile server.
SERVER_OS	varchar	Operation system value reported by QuickFile server.
SERVER_VERSION	varchar	Version value reported by QuickFile server.
SEQ_NUM	bigint	A number used to uniquely identify events generated at the same time.

Element	Type	Description
SHORT_MSG	varchar	Message text associated with the Message ID.
SOURCE_FILE	varchar	Source file name in a copy.
STATUS_CODE	varchar	Status code for the operation performed.
SUBMITTER	varchar	User ID of the process submitter.
USER_DATA_1	varchar	User metadata field 1.
USER_DATA_2	varchar	User metadata field 2.
USER_DATA_3	varchar	User metadata field 3.
USER_DATA_4	varchar	User metadata field 4.
USER_EMAIL	varchar	User email address.
USER_FNAME	varchar	User full name.
USER_ID	varchar	User ID.
USER_REG	varchar	User registered. Value, when set, will be "true" or "false".
UTC_OFFSET	bigint	The delta, in seconds, from Universal Coordinated time for the recorded LOG_DATE_TIME value.
FILE_SIZE	bigint	Size of file. Value set to -1 when event has no value for this field.

Event type table (EVENT_TYPE)

The Event Type table contains a listing of Sterling Control Center event types and descriptions.

Element	Type	Description
EVENT_TYPE	bigint	Code indicating the type of event.

Element	Type	Description
EVENT_TYPE_DESCR	varchar	Description of the event type codes. The codes and descriptions are: 1=Process Step Started 2=Process Step Ended 3=Process Started 4=Process Ended 5=Server Status 6=SLC Notification 7=Server Shutdown Started (for future use) 8=Server Shutdown (for future use) 9=Process Status 10=Server license 11=Server Error 12=Server Command 13=Connection Started 14=Connection Shutdown Started (for future use) 15=Sterling Control Center Status (for future use) 16=Process Queue 17=Process Interrupted 66=Suppressed SLC Notification

Node type table (NODE_TYPE)

The Node Type table contains a listing of node (server) types monitored by Sterling Control Center.

Element	Type	Description
NODE_TYPE	bigint	Code indicating the type of event.
NODE_TYPE_DESCR	varchar	Code indicating the type of server. The server types are: 0=Sterling Control Center 1=Sterling Connect:Direct 2=Sterling Connect:Enterprise 3=Sterling B2B Integrator 4=FTP Server 5=Sterling Connect:Express 6=QuickFile

Node discovery pair connections table (PAIR_CONN)

The following table describes the data fields available from the Node Discovery Pair Connections Table for Sterling Control Center reports.

Element	Type	Description
DISCOVERED_ID	bigint	Reference to Discovery Node table.
DISCOVERY_START_TM	varchar	Discovery start date range value.
DISCOVERY_STOP_TM	varchar	Discovery end date range value.
EXPLORER_ID	bigint	Reference to Discovery Node table.
FROM_NETMAP	smallint	1=Found in Netmap 0=Not found in Netmap
FROM_STATS	smallint	1=Found in statistics 0=Not found in statistics
LAST_CONN_D2E	varchar	Last connection time found from Discovered to Explorer node.
LAST_CONN_E2D	varchar	Last connection time found from Explorer to Discovered node.
TIMES_CONN_D2E	bigint	Number of connections initiated by Discovered node to Explorer node.
TIMES_CONN_E2D	bigint	Number of connections initiated by Explorer node to Discovered node.

Discovery node table (DISCOVERY_NODE)

The following table describes the data fields in the Discovery Node Table.

Element	Type	Description
ANOS400	smallint	0=Node is not i5/OS. 1=Node is i5/OS.
API_PORT	varchar	API port value.
COMMENTS	text	User description for node.
CONNECTION_TIMEOUT	bigint	Internal field used for Node Discovery.
DB_LIBRARY	varchar	Sterling Connect:Direct for i5/OS™ database library name.
DISCOVERED_TIME	varchar	Time node was discovered.
DISCOVERY_START_TM	varchar	Discovery start date range value.
DISCOVERY_STOP_TM	varchar	Discovery end date range value.
DTF_ADDRESS	varchar	Server host address.
DTF_PORT	varchar	Server port value.
ENABLED	smallint	0=Disabled 1=Enabled
FROM_NETMAP	smallint	0=Not found in Netmap. 1=Found in Netmap.

Element	Type	Description
FROM_STATS	smallint	0=Not found in statistics. 1=Found in statistics.
HOST_NAME	varchar	Host name for server.
ID	bigint	For internal use.
IGNORED	smallint	For discovered nodes: 1=Found in Mylist. 0=Found in Discovered list.
LAST_DSCVRY_ATTEMPT	varchar	Time of last discovery attempt.
LST_SCCSSFL_DSCVRY	varchar	Time of last successful discovery attempt.
MESSAGE_KEY	varchar	Message.
MESSAGE_PARAMETERS	text	Values used to construct message text.
MESSAGE_PRIORITY	bigint	Priority of message
NET_MAP_ENTRIES	bigint	Number of Netmap entries found.
NODE_NAME	varchar	Name of server.
OPERATING_SYSTEM	varchar	Server operating system.
PARTNERS	bigint	Number of partner nodes found.
PASSWORD	text	Password for API connection.
PROCESSES	bigint	Number of Processes found to have run during Discovery.
PROTOCOL	varchar	Internal field for Node Discovery.
RETURN_CODE	bigint	Return code for Discovery.
SERVER_LICENSE	text	Server license text.
SERVICE_ID	varchar	Node or alias name.
SOURCE_PORT	varchar	Source port range to use for API connection.
SRVR_LCNS_EXPRTN_D	varchar	Server license expiration date.
TYPE	varchar	Type of node. E=Explorer node D=Discovered node
USER_ID	varchar	User ID for API connection.

Metadata labels table (META_DATA_LABELS)

The following table describes the data fields available from the META_DATA_LABELS database table for reports. It holds the user-provided labels for the metadata fields.

There are four rows in this table, one for each of the four metadata fields.

Element	Type	Description
USER_DATA_TITLE	varchar	Name of the metadata field.
USER_DATA_FIELD	varchar	User-provided label for the metadata field. The default is User Data x, where x ranges from one to four, or SERVER_DATA_x where x ranges from one to ten.

Default table contents are as follows:

USER_DATA_TITLE	USER_DATA_FIELD
userData1Title	User Data 1
userData2Title	User Data 2
userData3Title	User Data 3
userData4Title	User Data 4
serverMetaData1Title	Server Data 1
serverMetaData2Title	Server Data 2
serverMetaData3Title	Server Data 3
serverMetaData4Title	Server Data 4
serverMetaData5Title	Server Data 5
serverMetaData6Title	Server Data 6
serverMetaData7Title	Server Data 7
serverMetaData8Title	Server Data 8
serverMetaData9Title	Server Data 9
serverMetaData10Title	Server Data 10

Sterling Control Center internal tables

The following tables are used internally by Sterling Control Center. They are not available for third-party reporting.

- DURATION_MONITORS (No longer used)
- TIME_MONITORS
- LICENSES
- CCC_INFO
- CONFIG_JOBS
- CONFIG_OBJECTS
- CONFIG_SERVER_IDS
- CONFIG_VERSIONS
- AUDIT_LOG
- FILE_COUNTS

Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing

IBM Corporation

North Castle Drive

Armonk, NY 10504-1785

U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing

Legal and Intellectual Property Law

IBM Japan Ltd.

19-21, Nihonbashi-Hakozakicho, Chuo-ku

Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:
INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be

incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation

J46A/G4

555 Bailey Avenue

San Jose, CA 95141-1003

U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© IBM 2012. Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. 2012.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, the IBM logo, and ibm.com® are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at http://www.ibm.com/legal/copytrade.shtml.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency which is now part of the Office of Government Commerce.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Linear Tape-Open, LTO, the LTO Logo, Ultrium and the Ultrium Logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Connect Control Center®, Connect:Direct®, Connect:Enterprise, Gentran®, Gentran®:Basic®, Gentran:Control®, Gentran:Director®, Gentran:Plus®, Gentran:Realtime®, Gentran:Server®, Gentran:Viewpoint®, Sterling Commerce™, Sterling Information Broker®, and Sterling Integrator® are trademarks or registered trademarks of Sterling Commerce®, Inc., an IBM Company.

Other company, product, and service names may be trademarks or service marks of others.

Index

Q

R

S

T

U

V

W

X

Product Number: 5725-D02

Printed in USA