Oracle® Communications Offline Mediation Controller

Offline Mediation Designer Help

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Oracle Communications Offline Mediation Controller Offline Mediation Designer Help, Release 15.1

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Contents

Preface

Oracle Communications Offline Mediation Designer Help is designed to assist you with performing tasks in the Offline Mediation Designer user interface.

Audience

This guide is intended for all Offline Mediation Designer users and system administrators.

See the documentation for those products for additional installation and configuration instructions.

Documentation Accessibility

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Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1

Getting Started with Offline Mediation Designer UI

You can use Oracle Communications Offline Mediation Designer UI to create node chains and administer the Offline Mediation Controller system.

Topics in this document:

Overview of Offline Mediation Designer UI

Offline Mediation Designer UI is a new interface introduced on top of Offline Mediation Controller, designed to facilitate the creation, design, and management of nodes, node chains, and node managers within mediation processes.

About the Offline Mediation Designer User Interface

The Offline Mediation Designer user interface works in a web browser. When using Offline Mediation Designer:

- Do not open multiple instances of Offline Mediation Designer UI in different browser windows or tabs of the same browser.
- Ensure that cookies are enabled in your browser.

About the Node Manager Page

The Node Manager page provides a list of all the Node Managers in the mediation system. By opening a Node Manager, you can monitor node chain statuses, manage node properties, and start or stop nodes as needed.

About the Ask Oracle Page

The Ask Oracle page is the new home experience for Redwood applications. It is the entry point for using Offline Mediation Designer UI features.

The following are the elements on the page:

- **Search Bar:** Located at the top of the page. You can use this to enter keywords to find features or pages.

- **User Menu:** Located in the top right corner displaying your initials. Clicking it shows your user name, product version, copyright information, and a Help link that opens this documentation.
- **Suggestions:** Positioned below the search bar. Shows options based on your search terms. When no search is entered, it displays default suggestions such as **Manage Node Managers**, **Add Node Manager**, **Import Node Managers**, and **Export Node Managers**.
- **Product Map:** Located in the main content area as an alternative view to the Suggestions panel. It provides a visual layout of all available application features. The Suggestions panel is shown by default.

Using Keyboard Shortcuts

You can use the keyboard shortcuts shown in Table 1-1 for many actions in Offline Mediation Designer.

Table 1-1 Offline Mediation Designer Keyboard Shortcuts

Action	Shortcut
Move focus to the next field or element from top to bottom and left to right.	**Tab**
Move focus to the previous field or element, from bottom to top and right to left.	**Shift + Tab**
Invoke the focused menu's action.	**Enter** or **Spacebar**
Exit a window.	**Escape**
Enters Actionable mode. This enables keyboard action on elements inside the item, including navigating between focusable elements inside the item. It can also be used to exit actionable mode if already in actionable mode.	**F2**
In a table, move to the next row. In a drop-down list, move to the next item in the list. In a node-chain, move to the below node.	**Down Arrow**
In a list, move to the previous row. In a drop-down list, move to the previous item in the list. In a node-chain, move to the above node.	**Up Arrow**
In a list, move to the previous row. In a drop-down list, move to the previous item in the list. In a node-chain, move to the below node.	**Left Arrow**
In a list, move to the previous row. In a drop-down list, move to the previous item in the list. In a node-chain, move to the next node.	**Right Arrow**
Pan up or down	**PageUp** or **PageDown**
Pan left or right	**Shift + PageUp** or **PageDown**
Select and deselect the current item while maintaining previously selected items.	**Ctrl + Space**

Table 1-1 (Cont.) Offline Mediation Designer Keyboard Shortcuts

Action	Shortcut
Select multiple nodes in a node chain diagram.	**Ctrl + <mouse click node you want to select>**
Launch the context menu of an item.	**Shift + F10**
In a node-chain diagram, extend the selection.	**Shift + Arrow**
Move focus and multi-select a node or a link.	**Shift + <node or link navigation shortcut>**
Move focus to a node or a link but do not select.	**Ctrl + <node or link navigation shortcut>**
Open/Close an active container node.	**Ctrl + Shift + Space**
Move focus and selection to nearest node down in the container hierarchy.	**[**
Move focus and selection to nearest node up in the container hierarchy.	**]**
Zoom in one level.	**+**
Zoom out one level.	**-**
Zoom to fit.	**0**
Zoom and centers the focused node or link.	**Ctrl + Alt + 0**

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Managing Node Managers

You can create and edit Node Managers in Oracle Communications Offline Mediation Designer.

To manage node managers, see the following topics:

Viewing a Node Manager

To view a Node Manager:

1. To view the list of Node Managers in your system, go to the Node Manager home page and click **Manage Node Managers**.
2. To filter the list of Node Managers, enter all or part of the Node Manager's Name, Host, or Port in the search box at the top of the page.
3. Click the Node Manager’s name.

   The Node Manager page opens.
4. You can view all the nodes and node chains in a Node Manager in the following layouts:
   - **Grid Layout**: Displays nodes in a structured grid format.
   - **Compact Layout**: Displays a more condensed view of nodes.
   - **Cluster Node Layout**: Displays nodes by cluster.

The Node Manager page gives you a visual representation of all the nodes and node chains that are present in the Node Manager. You can drag and drop the nodes within the window to rearrange the layout for better visualization. These changes are saved only in your browser. So, if the same diagram is opened in a different browser or system, the changes will not be visible.

> **Note:**
>
> This drag-and-drop functionality only affects the view of the node chain. It does not change the actual node routing configuration or the underlying connections between nodes.

Creating Node Managers

To create a Node Manager:

1. From the Node Managers page, click **Add Node Manager**.

   The **Add Node Manager** dialog box appears. See "Add Node Manager Dialog Box" for details.
2. In the **Name** field, enter a unique name for your Node Manager.
3. In the **IP Address** field, enter the IP address or the hostname for the Node Manager.
4. In the **Port** field, enter the port number the Node Manager should listen on.
5. Click **Submit**.

The Node Manager is created and you can start adding nodes and node chains to it.

Renaming Node Managers

To rename a Node Manager:

1. From the Node Managers page, find the Node Manager you want to rename.
2. Click the menu icon at the end of the row:

3. From the menu, select **Rename**.

   The **Rename node manager** dialog box appears.
4. Enter a new name.
5. Click **Rename**.

Removing Node Managers

To remove a Node Manager:

1. From the Node Managers page, find the Node Manager you want to remove.
2. Click the following menu icon at the end of the row:

3. From the menu, select **Remove**.

   The **Remove node manager** dialog box appears.
4. Click **Remove** to confirm that you want to delete the Node Manager.

Exporting One Node Manager's Configuration Details

To export configuration details for a specific Node Manager:

1. From the Node Managers page, find the Node Manager configuration you want to export.
2. Click the following menu icon at the end of the row:

3. From the menu, select **Export Configuration.**

   If successful, an **Export Complete** message appears at the top of the page.

4. Click the **Download node manager** *filename***.zip** link at the bottom of the message.

   The file is downloaded to your local system.

The downloaded file includes an XML file containing the Node Manager's configuration details and an NMX file containing the Node Manager's customization details.

Exporting Configuration Details for Multiple Node Managers

To export configuration details for multiple Node Managers into one Zip file:

1. From the Node Managers page, click the **More Actions** button on the top right.
2. From the list, select **Export Node Manager**.

   The **Export configuration** dialog box appears. See "Export Configuration Dialog Box " for details.

3. Select the check box next to each Node Manager you want to export.

   > **Tip:**
   >
   > Select the check box at the top of the table to select all Node Managers.

4. Click **Export**.

   If successful, an **Export Complete** message appears at the top of the page.

5. Click the **Download node manager** *filename***.zip** link at the bottom of the message.

   The file is downloaded to your local system.

The downloaded file includes an XML file containing the Node Manager's configuration details and an NMX file containing the Node Manager's customization details.

Importing Configuration Details for Node Managers

To import configurations for multiple Node Managers:

1. From the Node Managers page, click the **More Actions** button on the top right.
2. From the list, select **Import Configuration**.

   The Import configuration dialog box appears.

3. Under "What to Import", select the check box for **Import Customization** if you are importing **.nmx** files and/or select the check box for **Import Configuration** if you are importing **.xml** files.

   If you select either check box, a corresponding drag and drop area appears.

4. Drag and drop the appropriate **.nmx** or **.xml** configuration files into their respective areas, or click **Upload File** to select them manually.
5. Click **Import** at the bottom right of the dialog box.

Node Managers Page Reference

View detailed descriptions about the fields and options in the following dialog boxes:

- Add Node Manager Dialog Box
- Export Configuration Dialog Box
- Import Configuration Dialog Box

Add Node Manager Dialog Box

Use the Add Node Manager dialog box to create a Node Manager in your system.

Table 2-1 describes the fields in the Add Node Manager dialog box.

Table 2-1 Add Node Manager

Field	Description
Name	Enter the name of the Node Manager.
IP Address	Enter the IP address for the Node Manager.
Port	Enter the port number for the Node Manager.
Submit	Click to add the Node Manager to Offline Mediation Designer.

Export Configuration Dialog Box

Use the Export Configuration dialog box to export the configuration of one or more Node Managers.

Table 2-2 describes the fields in the Export Configuration dialog box.

Table 2-2 Export Configuration Dialog Box

Field	Description
Select Node Managers to Export	A list displaying all Node Managers in the system, including: • **Name:** The name of the Node Manager. • **IP Address:** The IP address assigned to the Node Manager. • **Port:** The port number associated with the Node Manager.
Export	Click to export the configuration files of the Node Managers that you selected.

Import Configuration Dialog Box

Use the Import Configuration dialog box to import the configuration of one or more Node Managers.

Table 2-3 describes the fields in the Import Configuration dialog box.

Table 2-3 Import Configuration Dialog Box

Fields	Description
Import customization	Select to import an NMX file containing Node Manager customization details. After you select the check box, a **Drag and Drop** area appears.
Import configuration	Select to import an XML file containing Node Manager configuration details. After you select the check box, a **Drag and Drop** area appears.
Drag and Drop	Click the area to browse to the file to import. Alternatively, drag and drop the file to the **Drag and Drop** area.
Upload file	Click to upload the file to Offline Mediation Designer.
Import	Click to import the file into your Node Managers.

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Managing Nodes

You can use Oracle Communications Offline Mediation Designer to add or update nodes in your Node Manager.

To add and update nodes, see the following topics:

- Adding Your First Node
- Adding Additional Nodes
- Duplicating Nodes
- Editing Nodes
- Configuring Node Type Settings

Adding Your First Node

After you create a Node Manager, you can add your first node.

To add your first node:

1. From the **Node Managers** page, click the name of the Node Manager you want to add a node to.
2. Click **Add Node**.

   The **Add node** dialog box appears.
3. Select the **Name and Type** tab and enter the following details:
   - **Node Type**: Select the type of node that you want to add.
   - **Node Name**: Enter a unique name for the node.
   - **Edit Rules**: Click to open a text editor where you can enter your NPL rules. Compile and save your NPL rules.
4. Fill out the settings for your node type. See "Configuring Node Type Settings" for more information.
5. Click **Add** at the bottom right of the dialog box.

Adding Additional Nodes

To add a node to an existing node chain:

1. From the **Node Managers** page, click the name of the Node Manager you want to add a node to.
2. Find the node that you want to add a new node to and click menu icon at the end of the node:

3. From the menu, click **Add**.

The **Add node** dialog box appears.

4. Select the **Name and Type** tab and enter the following details:
   - **Node Type**: Select the type of node that you want to add.
   - **Node Name**: Enter a unique name of the node.
   - **Edit Rules**: Click to upload a rule file. See “Creating and Editing Rules” for details.
5. Fill out the settings for your node type. See "Configuring Node Type Settings" for more information.
6. Click **Add** at the bottom right of the dialog box.

Duplicating Nodes

To duplicate an existing node:

1. From the **Node Managers** page, click the name of the appropriate Node Manager.
2. In the node you want to duplicate, click the following icon:

3. From the menu, click **Duplicate**.

   The **Duplicate node** dialog box appears.
4. Enter a new name for the node.
5. Optionally, edit the rules for the node.
6. Optionally, edit the settings for your node type. See "Configuring Node Type Settings" for more information.
7. Click **Duplicate** at the bottom right of the dialog box.

Editing Nodes

To edit an existing node:

1. From the **Node Managers** page, click the name of the appropriate Node Manager.
2. In the node you want to edit, click the following icon:

3. From the menu, click **Edit**.

   The **Edit node** dialog box appears.
4. Optionally, edit the node type, name, or rules.
5. Optionally, edit the settings for your node type. See "Configuring Node Type Settings" for more information.
6. Click **Update** at the bottom right of the dialog box.

Configuring Node Type Settings

The basic and advanced settings for your node vary based on the node type you select. The following sections specify how to configure the node types that Offline Mediation Designer supports by default:

- Configuring RADIUS CC Settings
- Configuring GTP Data Collection CC Settings
- Configuring GTP Prime Collection CC Settings
- Configuring Diameter CC Settings
- Configuring 3GPP Session Sequencing EP Node
- Configuring Hot Billing Duplicate CDR Removal EP Node
- Configuring Nortel Prepaid in SCP CC Settings
- Configuring GTP Prime Collection (SGSN06) CC Settings
- Configuring Duplicate Check EP Settings
- Configuring Record Filter EP Settings
- Configuring Flexible Routing Settings
- Configuring Zero Rating EP Settings
- Configuring Content Based Billing Routing Settings
- Configuring 3GPP 32.015 Parsing Enhancers EP Settings
- Configuring Subscriber State Management EP Settings
- Configuring Record Enhancement Charging EP Settings
- Configuring Diameter Parser Settings
- Configuring Session Sequencing EP Settings
- Configuring AVP Mapper EP Settings
- Configuring 3GPP 32.298 Parsing Enhancer (SGSN06) EP Settings
- Configuring Session Aggregation AP Settings
- Configuring Record Grouping AP Settings
- Configuring Partial CDR Completion Cartridge AP Settings
- Configuring Session Aggregation for IMS AP Settings
- Configuring ASCII Delimited DC Settings
- Configuring XML DC Settings
- Configuring 3GPP 32.015 ASN.1 DC Settings
- Configuring RADIUS DC Settings
- Configuring 3GPP IMS ASN.1 DC Settings
- Configuring OCECE DC Settings
- Configuring 3GPP 32.298 ASN.1 DC Settings
- Configuring MCS 5200 CC Settings
- Configuring ASCII CC Settings

- Configuring IPDR CC Settings
- Configuring Network Accounting Record DC Node
- Configuring ASN1 File CC Settings
- Configuring AQ Job CC Settings
- Configuring Oracle CDR Format File CC Settings
- Configuring Record Processing EP Cartridge Settings
- Configuring Record Enhancement (Local File) EP Settings
- Configuring Record Enhancement (Remote File) EP Settings
- Configuring Record Enhancement (LDAP) EP Settings
- Configuring IPDRv2 DC Settings
- Configuring Suspense DC Settings
- Configuring RADIUS Wireless for DC Settings
- Configuring JDBC DC Node
- Configuring Network Account Record CC Settings
- Configuring XML Distribution Cartridge Settings
- Configuring ASCII Distribution Cartridge Settings
- Configuring Multithreaded Programmable Aggregation Processor Cartridge Settings
- Configuring Recycle EP Cartridge Settings
- Configuring Sequencing EP Cartridge

Configuring RADIUS CC Settings

Table 3-1 describes the basic settings for a RADIUS CC node.

Table 3-1 Basic Settings Tab

Field	Description
RADIUS Request Port	Enter the port number on which RADIUS server is listening for requests.
Idle Record Write Time	Enter the duration, in seconds, the CC node waits before writing an idle record.
Add Client	Click to add a RADIUS client. Afterward, the RADIUS client drawer opens.
IP Address	Enter the IPv4 address for the client.
Secret	Enter the shared secret key used to encrypt communication between the RADIUS client and the node.
Submit	Click to add the RADIUS client configuration to the node.
	Click to edit the RADIUS client's configuration.

Table 3-1 (Cont.) Basic Settings Tab

Field	Description
	Client to delete the RADIUS client from the node.

Table 3-2 describes the advanced settings for a RADIUS CC node.

Table 3-2 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for the RADIUS CC node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size (in bytes) for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring GTP Data Collection CC Settings

Table 3-3 describes the basic settings for a GTP Data Collection CC node.

Table 3-3 Basic Settings Tab

Field	Description
Receive Port	Enter the UDP port number on which the GTP Data Collection node listens for incoming GTP messages from the network element, such as SGSN or GGSN. This port must be configured to match the port used by the sending network element.
Send Port	Enter the port number the CC node uses to send GTP request to the GSNs.
Request Timer	Enter the duration, in seconds, the node waits for a response to a GTP request message before retransmitting the request or considering the connection failed.
Response Timer	Enter the duration, in seconds, the node waits to receive a response to a GTP request. If a response is not received within this time, an error may be logged.

Table 3-4 describes the basic settings for a GTP Data Collection CC node.

Table 3-4 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for the RADIUS CC node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size (in bytes) for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring GTP Prime Collection CC Settings

Table 3-5 describes the basic settings for a GTP Prime Collection CC node.

Table 3-5 Basic Settings Tab

Field	Description
Port	Enter the port number used to communicate with a database or device. The number must be a positive integer.
Max Packet Size	Enter the maximum size for the UDP packet that the CC node accepts.
Pending Buffer Size	Enter the maximum size of the buffer used to store pending or incomplete data packets.
Enable GSN Monitoring	Select to enable GSN monitoring for this node.
Send Port	(Only appears when **Enable GSN Monitoring** is selected) Enter the port number the CC node uses to send GTP requests to the GSNs.
Add	(Only appears when **Enable GSN Monitoring** is selected) Click to add a GSN device.
Delete	(Only appears when **Enable GSN Monitoring** is selected) Click to delete an existing GSN device.
IP Address	(Only appears when **Enable GSN Monitoring** is selected) Enter the IP address of the GSN device.
Port	(Only appears when **Enable GSN Monitoring** is selected) Enter the GSN port number that sends data to the CC node.
Request Interval (sec)	(Only appears when **Enable GSN Monitoring** is selected) Enter the duration, in seconds, between GTP requests.
Response Timer	(Only appears when **Enable GSN Monitoring** is selected) Enter the duration, in seconds, that the CC node waits for a response from the GSN, before re-sending the original request.

Table 3-5 (Cont.) Basic Settings Tab

Field	Description
Use Node Alive Request	(Only appears when **Enable GSN Monitoring** is selected) Select to enable the GTP Prime CC node to send a node alive request to the GSN if it has not received any CDRs in a specific interval. You configure this interval in the **Request Interval** field. If the CC node receives a response from the GSN before the interval expires, it does not generate a warning alarm. (This means that the GSN is functioning correctly and has no CDRs for this specific interval). If the CC node does not receive a response from the GSN before the interval expires, it generates a warning alarm. The CC node clears this warning alarm when it receives CDRs from the GSN or when the GSN responds to the node alive request.
Submit	(Only appears when **Enable GSN Monitoring** is selected) Click to add the GSN monitor to the node.
CGF IP Address	Enter the Charging Gateway Function (CGF) IP address for sending a GTP request.

Table 3-6 describes the advanced settings for a GTP Prime Collection CC node.

Table 3-6 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for the GTP Prime Collection node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring Diameter CC Settings

Table 3-7 describes the basic settings for a Diameter CC node.

Table 3-7 Basic Settings Tab

Field	Description
Receive Port	Enter the port number that the node monitors for incoming Diameter connections.

Table 3-7 (Cont.) Basic Settings Tab

Field	Description
Request Timer	Enter the duration, in seconds, the node waits for Diameter records to be transferred during an established connection before disconnecting from the remote device.
Origin host	Enter the AVP Code 282 to identify the endpoint where the Diameter message originated.
Origin Realm	Enter the AVP Code 296 to identify the realm of the endpoint where the Diameter message originated.
Host IP Address	Enter the AVP Code 257 to specify the IP address of the Diameter node generating the message.
Vendor ID	Enter the AVP Code 266 to specify the IANA-assigned SMI Network Management Private Enterprise Code Vendor ID of the Diameter node generating the message.
Product Name	Enter the vendor assigned name for the product.
Acct Interim Interval	Enter the interval time, in seconds, the client uses when generating accounting records.

Table 3-8 describes the advanced settings for a Diameter CC node.

Table 3-8 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for the RADIUS CC node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size (in bytes) for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring 3GPP Session Sequencing EP Node

Table 3-9 describes the basic settings for a 3GPP Session Sequencing EP node.

Table 3-9 Basic Settings Tab

Field	Description
Expiry Interval (minutes)	Enter the time the node waits before the sequence records output is sent to the next node in the chain.
Session Storage Limiting	Select to enable session storage limiting.

Table 3-9 (Cont.) Basic Settings Tab

Field	Description
Limit	(Only appears when **Session Storable Limiting** is selected) Enter the maximum number of out-of-sequence partial records in a session to store before flushing the session.
Log Duplicate Entries	Select to create a log entry for each duplicate record.
Missing Record Monitoring	Select to enable the node to generate alarms or logs for any missing records it detects.
Missing Record Alarm or Log Severity	(Only appears when **Missing Record Monitoring** is selected) Select the log level to record: **Informational**, **Warning**, **Minor**, **Major**, or **Critical**.
Retain Recent Records	Select to retain recent records.
Buffer Size	(Only appears when **Retain Recent Records** is selected) Enter the buffer size required to retain recent records.

Table 3-10 describes the advanced settings for a 3GPP Session Sequencing EP node.

Table 3-10 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the duration in days, hours, or minutes.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Hot Billing Duplicate CDR Removal EP Node

Table 3-11 describes the basic settings for a Hot Billing Duplicate CDR Removal EP node.

Table 3-11 Basic Settings Tab

Field	Description
Flush Time	Enter the seconds before an aggregated NAR is flushed.
Compression Threshold	Enter the number of state keys to allow before compressing the duplicate key table.
Set Flush Time From	Select when to set or reset the flush time for a given duplicate key table entry. Options include **first record** and **last record.**
Log Duplicate Entries	Select to create a log entry for each duplicate record.

Table 3-12 describes the advanced settings for a Hot Billing Duplicate CDR Removal EP node.

Table 3-12 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the duration in days, hours, or Minutes.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Nortel Prepaid in SCP CC Settings

Table 3-13 describes the basic settings for a Nortel Prepaid in SCP CC node.

Table 3-13 Basic Settings Tab

Field	Description
Directory Path	Enter the directory path where the CDRs are located.
Local Filesystem	Select this option to access input files stored directly on the local machine using the specified directory path.
File Parse Delay	(Only appears when **Local Filesystem** is selected) Enter the duration to wait before processing a new file.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the unit of measurement, in seconds, minutes, or hours, for the File Parse Delay.
Local File Suffix	(Only appears when **Local Filesystem** is selected) Enter the file extension that allows the node to identify and process data files in the directory.
Remote Filesystem (FTP)	Select to access input files stored on a remote FTP server using the specified directory path.
Add Host	(Only appears when **Remote Filesystem (FTP)** is selected) Click to add a remote FTP host server.
Remote Host Access	(Only appears when **Remote Filesystem (FTP)** is selected) Select the FTP connection type: **Secure (SFTP)**, **Regular**, or **Passive**.
Username	(Only appears when **Remote Filesystem (FTP)** is selected) Enter the user name for the FTP server.
Password	(Only appears when **Remote Filesystem (FTP)** is selected) Enter the password for the FTP server.
Host	(Only appears when **Remote Filesystem (FTP)** is selected) Enter the FTP server hostname or IP address. **Note:** Enter a valid IPv4 address in the 255.255.255.255 notation.
File(s) to Transfer	(Only appears when **Remote Filesystem (FTP)** is selected) Enter the absolute path of the directory from where files should be retrieved. Use an asterisk (*) for a wild card character.
Submit	(Only appears when **Remote Filesystem (FTP)** is selected) Click to add the remote FTP host.
FTP Interval	(Only appears when **Remote Filesystem (FTP)** is selected) Enter how frequently to check for new files.
FTP Interval Unit	(Only appears when **Remote Filesystem (FTP)** is selected) Select the unit for the FTP interval: **Minutes** or **Hours**.
Delete Remote Files	(Only appears when **Remote Filesystem (FTP)** is selected) Select to remove files from the FTP server after transfer.

Table 3-14 describes the advanced settings for a Nortel Prepaid in SCP CC node.

Table 3-14 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. Once the limit is reached, a new file is created.

Table 3-14 (Cont.) Advanced Settings Tab

Field	Description
Write Output After Idle Period	Enter the duration, in seconds, the cartridge waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Enable this option to collect processing statistics for the Nortel collection cartridge. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size (in bytes) for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring GTP Prime Collection (SGSN06) CC Settings

Table 3-15 describes the advanced settings for a GTP Prime Collection (SGSN06) CC node.

Table 3-15 Basic Settings Tab

Field	Description
Port	Enter the port number used to communicate with a database or device.
Max Packet Size	Enter the maximum size for the UDP packet that the CC node accepts.
Pending Buffer Size	Enter the maximum size of the buffer used to store pending or incomplete data packets.
Enable GSN Monitoring	Select to enable GSN monitoring for this node.
Send Port	(Only appears when **Enable GSN Monitoring** is selected) Enter the port number the CC node uses to send GTP request to the GSNs.
Add	(Only appears when **Enable GSN Monitoring** is selected) Click to add a new GSN device.
Delete	(Only appears when **Enable GSN Monitoring** is selected) Click to delete an existing GSN device.
IP Address	(Only appears when you click **Add**) Enter the IP address of the GSN device.
Port	(Only appears when you click **Add**) Enter the GSN Port number that sends data to the CC node.
Request Interval (sec)	(Only appears when you click **Add**) Enter the duration, in seconds, between GTP requests.
Response Timer	(Only appears when you click **Add**) Enter the duration, in seconds, that the CC node waits for a response from the GSN before re-sending the original request.

Table 3-15 (Cont.) Basic Settings Tab

Field	Description
Use Node Alive Request	(Only appears when you click **Add**) Select to enable the GTP Prime CC node to send a node alive request to the GSN if it has not received any Call Detail Records (CDRs) in a specific interval. You configure this interval in the Request Interval field. If the CC node receives a response from the GSN before the interval expires, it will not generate a warning alarm. (This means that the GSN is functioning correctly and does not have any CDRs for this specific interval). If the CC node does not receive a response from the GSN before the interval expires, it will generate a warning alarm. The CC node will clear this warning alarm when it receives CDRs from the GSN or when the GSN responds to the node alive request.
Submit	Click to add the GSN monitor to the node.
CGF IP Address	Enter the Charging Gateway Function (CGF) IP Address for sending GTP requests.

Table 3-16 describes the advanced settings for a GTP Prime Collection (SGSN06) CC node.

Table 3-16 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. Once the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring Duplicate Check EP Settings

Table 3-17 describes the basic settings for a Duplicate Check EP node.

Table 3-17 Basic Settings Tab

Field	Description
Number of Duplicate Records Per File	Enter the number of record processing threads. The minimum value is 1 and the maximum value is 2147483647.
Use Scratch Directory	Select to use the node's scratch directory as the storage location.
Storage Directory	(Only appears when **Use Scratch Directory** is not selected) Enter the directory in which to store duplicate CDRs.

Table 3-17 (Cont.) Basic Settings Tab

Field	Description
Partition Size	Select the time interval, **HOURLY** or **DAILY**, for creating a partition based on the CDR time stamp. These partitions store duplicate check keys used to identify duplicate records.
Retention Limit	Enter how long partitions and duplicate check files are retained before being deleted.
Number of Partitions in Memory	Enter the maximum number of latest partitions to be stored in memory. When the limit is reached, the oldest partition is removed from memory.
Duplicate Records Storage Directory	The directory where rejected duplicate records are written.
Duplicate Records Push Time Unit	Select the time unit**, Day, Hour, Min, Sec**, or **NONE**, for pushing/ archiving duplicate records from the storage directory.
Duplicate Records Push Time Period	Enter the time period for pushing the duplicate records to the storage directory. For example, if the time unit is **Day** and the time period is **7**, duplicate records are pushed to the storage directory every 7 days.
Number of Duplicate Records Per File	Enter the maximum number of records stored per duplicate file (set to 2000 by default). The minimum value is 1 and the maximum value is 10000.

Table 3-18 describes the advanced settings for a Duplicate Check EP node.

Table 3-18 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.

Table 3-18 (Cont.) Advanced Settings Tab

Field	Description
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Record Filter EP Settings

Table 3-19 describes the basic settings for a Record Filter EP node.

Table 3-19 Basic Settings Tab

Field	Description
API NI Filter Value	Enter the Access Point Name (APN) Network Identifier (NI) to filter records, allowing processing of records associated with a specific network. Click the plus icon after entering the value: 
APN OI Filter Value	Enter the Access Point Name (APN) Operator Identifier (OI) to filter records, selecting records related to a specific operator's network. Click the plus icon after entering the value: 
Service Center Filter Value	Enter the Service Center (SC) address to filter records, processing records only if they went through a specific service center. Click the plus icon after entering the value: 
Record Type	Select the checkboxes in this section to filter records based on the following options: • **G_CDR** • **S_CDR** • **M_CDR** • **SMO_CDR** • **SMT_CDR**
Optional Fields	Select the checkboxes in this section to filter records based on the following options: • **Node ID** • **Served MSISDN** • **MS Network Capability** • **Routing Area** • **Location Area Code** • **Cell Identity** • **APN Selection Mode** • **Record Extension** • **Local Sequence Number** • **Change Of location** • **Destination Number** • **Diagnostics**

Table 3-20 describes the advanced settings for a Record Filter EP node.

Table 3-20 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, Offline Mediation Designer creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the cartridge waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such a as stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Flexible Routing Settings

Table 3-21 describes the advanced settings for a Flexible Routing EP node.

Table 3-21 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Zero Rating EP Settings

Table 3-22 describes the advanced settings for a Zero Rating EP node.

Table 3-22 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.

Table 3-22 (Cont.) Advanced Settings Tab

Field	Description
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Content Based Billing Routing Settings

Table 3-23 describes the advanced settings for a Content Based Billing Routing EP node.

Table 3-23 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.

Table 3-23 (Cont.) Advanced Settings Tab

Field	Description
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring 3GPP 32.015 Parsing Enhancers EP Settings

Table 3-24 describes the advanced settings for a 3GPP 32.015 Parsing Enhancers EP node.

Table 3-24 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.

Table 3-24 (Cont.) Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Subscriber State Management EP Settings

Table 3-25 describes the basic settings for a Subscriber State Management EP node.

Table 3-25 Basic Settings Tab

Field	Description
Lookup File	Enter the path to the lookup file. This file contains data used to enrich or transform subscriber state information.
Lookup Table Name	Enter the name of the specific table or data structure within the lookup file to use for the lookup operation. This allows you to select a particular dataset within a larger lookup file.
Continue on invalid file format	Select to continue processing even if the lookup file has an invalid format. If this option is not selected, processing will halt if an invalid file format is encountered.

Table 3-26 describes the advanced settings for a Subscriber State Management EP node.

Table 3-26 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Record Enhancement Charging EP Settings

Table 3-27 describes the advanced settings for a Record Enhancement Charging EP node.

Table 3-27 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.

Table 3-27 (Cont.) Advanced Settings Tab

Field	Description
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Diameter Parser Settings

Table 3-28 describes the advanced settings for a Diameter Parser EP node.

Table 3-28 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.

Table 3-28 (Cont.) Advanced Settings Tab

Field	Description
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Session Sequencing EP Settings

Table 3-29 describes the basic settings for a Session Sequencing EP node.

Table 3-29 Basic Settings Tab

Field	Description
Expiry Interval (minutes)	Enter the duration, in minutes, that the node will hold on to out-of-sequence records before either sequencing them or flushing them.
Log Duplicate Entries	Select to log duplicate record entries.
Missing Record Monitoring	Select to monitor for missing records.
Missing Record Alarm or Log Severity	(Only appears when **Missing Record Monitoring** is selected) Select the severity level to assign to missing record events: **Informational (Log only)**, **Warning**, **Minor**, **Major**, **Critical**.

Table 3-30 describes the advanced settings for a Session Sequencing EP node.

Table 3-30 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring AVP Mapper EP Settings

Table 3-31 describes the advanced settings for a AVP Mapper EP node.

Table 3-31 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.

Table 3-31 (Cont.) Advanced Settings Tab

Field	Description
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring 3GPP 32.298 Parsing Enhancer (SGSN06) EP Settings

Table 3-32 describes the advanced settings for a 3GPP 32.298 Parsing Enhancer (SGSN06) EP node.

Table 3-32 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.

Table 3-32 (Cont.) Advanced Settings Tab

Field	Description
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the duration, Days, Hours or Minutes, for the "Interval" field.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Session Aggregation AP Settings

Table 3-33 describes the basic settings for a Session Aggregation AP node.

Table 3-33 Basic Settings Tab

Field	Description
Time Based Session Segmentation	Select to enable time-based segmentation. Sessions are segmented or aggregated based on the length of time they last.
Segmentation by 1st CDR arrival time	(Only appears when **Time Based Session Segmentation** is selected) Select to segment CDRs by first arrival time.
Flush Time	(Only appears when **Time Based Session Segmentation** is selected) Enter the seconds before an aggregated NAR is flushed.
Compression Threshold	(Only appears when **Time Based Session Segmentation** is selected) Enter the minimum size that an aggregated segment must reach before compression is applied. This value must be between 1 and 300,000,000.
Volume Based Segmentation	Select to enable volume-based segmentation. Sessions are segmented or aggregated based on the amount of data transmitted.
Volume Field	(Only appears when **Volume Based Session Segmentation** is selected) Enter the CDR field name to aggregate based on volume.

Table 3-33 (Cont.) Basic Settings Tab

Field	Description
Max Volume	(Only appears when **Volume Based Session Segmentation** is selected) Enter the maximum volume that a segment can reach before it is flushed.
Max volume unit	(Only appears when **Volume Based Session Segmentation** is selected) Select the units for the maximum volume: **KB**, **MB**, **GB**, or **TB**.
Compression Threshold	(Only appears when **Volume Based Session Segmentation** is selected) Enter the minimum size that an aggregated segment must reach before compression is applied. This value must be between 1 and 300,000,000.
Both (Time Based on Volume Based Session Segmentation)	Select to enable both time-based and volume-based segmentation. Sessions are segmented based on both the length of time they last, and the amount of data transmitted.
Segmentation by 1st CDR arrival time	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Select to segment CDRs by first arrival time.
Flush Time	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the seconds before an aggregated NAR is flushed.
Volume Field	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the CDR field name to aggregate based on volume.
Max Volume	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the maximum volume.
Max volume unit	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Select the units for the maximum volume: KB, MB, GB, or TB.
Compression Threshold	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the minimum size (in the unit specified in "Max volume limit") that an aggregated segment must reach before compression is applied. This value must be between 1 and 300,000,000.
Schedule Daily CDR Flush	Select to flush CDRs daily.
Daily Flush at Time	(Only appears when **Schedule Daily CDR Flush** is selected) Enter the time of day when the daily CDR flush should occur in the format *HH:MM*.

Table 3-34 describes the advanced settings for a Session Aggregation AP node.

Table 3-34 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Record Grouping AP Settings

Table 3-35 describes the basic settings for a Record Grouping AP node.

Table 3-35 Basic Settings Tab

Field	Description
Flush Time	Enter the duration, in seconds, before an aggregated NAR is flushed.
Compression Threshold	Enter the number of state keys to allow before compressing the duplicate key table.
Set Flush Time From	Select when to set or reset the flush time for a given duplicate key table entry. Possible options are **First Record** and **Last Record**.

Table 3-35 (Cont.) Basic Settings Tab

Field	Description
MCC and MNC (IMSI)	Enter the Mobile Country Code (MCC) and Mobile Network Code (MNC) digits of the International Mobile Subscriber Identity (IMSI) (5 or 6 digits).

Table 3-36 describes the advanced settings for a Record Grouping AP node.

Table 3-36 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Partial CDR Completion Cartridge AP Settings

Table 3-37 describes the basic settings for a Partial CDR Completion Cartridge node.

Table 3-37 Basic Settings Tab

Field	Description
Time Based Session Segmentation	Select to enable time-based segmentation. Sessions are segmented or aggregated based on the length of time they last.
Segmentation by 1st CDR arrival time	(Only appears when **Time Based Session Segmentation** is selected) Select to segment CDRs by first arrival time.

Table 3-37 (Cont.) Basic Settings Tab

Field	Description
Flush Time	(Only appears when **Time Based Session Segmentation** is selected) Enter the seconds before an aggregated NAR is flushed.
Compression Threshold	(Only appears when **Time Based Session Segmentation** is selected) Enter the number of state keys to allow before compressing the duplicate key table. Must be specified in the range of 1 to 30000000.
Volume Based Segmentation	Select to enable volume-based segmentation. Sessions are segmented or aggregated based on the amount of data transmitted.
Volume Field	(Only appears when **Volume Based Session Segmentation** is selected) Enter the CDR field name to aggregate based on volume.
Max Volume	(Only appears when **Volume Based Session Segmentation** is selected) Enter the maximum volume that a segment can reach before it is flushed.
Max volume unit	(Only appears when **Volume Based Session Segmentation** is selected) Select the units for the maximum volume: KB, MB, GB, or TB.
Compression Threshold	(Only appears when **Volume Based Session Segmentation** is selected) Fixed at 1000.
Both (Time Based on Volume Based Session Segmentation)	Select to enable both time-based and volume-based segmentation. Sessions are segmented based on both the length of time they last, and the amount of data transmitted.
Segmentation by 1st CDR arrival time	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Select to segment CDRs by first arrival time.
Flush Time	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the seconds before an aggregated NAR is flushed.
Volume Field	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the CDR field name to aggregate based on volume.
Max Volume	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the maximum volume that a segment can reach before it is flushed.
Max volume unit	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Select the units for the maximum volume: KB, MB, GB, or TB.
Compression Threshold	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the minimum size that an aggregated segment must reach before compression is applied. This value must be between 1 and 300,000,000. Must be specified in the range of 1 to 30000000.
Schedule Daily CDR Flush	Select to flush CDRs daily.

Table 3-37 (Cont.) Basic Settings Tab

Field	Description
Daily Flush at Time	(Only appears when **Schedule Daily CDR Flush** is selected) Enter the time of day when the daily CDR flush should occur in the format *HH:MM*.

Table 3-38 describes the advanced settings for a Partial CDR Completion Cartridge node.

Table 3-38 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Session Aggregation for IMS AP Settings

Table 3-39 describes the basic settings for a Session Aggregation for IMS EP node.

Table 3-39 Basic Settings Tab

Field	Description
Flush Time	Enter the interval, in seconds, at which the node sends aggregated NARs to the next node in the chain. **Note**: The recommended configuration for the Flush Time is twice the configured Expiry Interval on the Session Sequencing EP. In addition, the Flush Time value should be higher than the configured Interim Accounting value on the CSCF to avoid premature generation of CDRs.

Table 3-39 (Cont.) Basic Settings Tab

Field	Description
Compression Threshold	Enter the number of stale records the node allows before compressing the aggregation table.
Flush Time	Enter the time, in minutes, the node waits before generating a partial CDR.

Table 3-40 described the basic setting for a Session Aggregation for IMS EP node.

Table 3-40 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring ASCII Delimited DC Settings

Table 3-41 describes the basic settings for an ASCII Delimited DC node.

Table 3-41 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are Secure (SFTP) or Regular.

Table 3-41 (Cont.) Basic Settings Tab

Field	Description
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is **21**.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-42 describes the advanced settings for an ASCII Delimited DC node.

Table 3-42 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive File	(Only appears when **Enable Output File Archive/Delete** is selected) Select to archive the output files.
Archive Directory path	(Only appears when **Archive File** is selected) Enter the directory to which the output files should be moved after the retention period.
Retention Period (in Days)	(Only appears when **Archive File** is selected) Enter the number of days to retain output files before moving them to archive directory.
Delete Files	(Only appears when **Enable Output File Archive/Delete** is selected) Select to delete the output files.
Retention Period (in Days)	(Only appears when **Delete Files** is selected) Enter the number of days to retain output files before deleting them.
Output Directory Path	Enter the directory in which to store output files.

Table 3-42 (Cont.) Advanced Settings Tab

Field	Description
File Name	Enter the name to prepend to the output file.
Current File Extension	Enter the file name extension for files that have not been processed yet.
Processed File Extension	Enter the file name extension for processed files.
Time Period to Push Output	Enter how long to wait before pushing output files.
Time Unit	Select the push output time unit: **Days**, **Hours**, **Minutes**, **Seconds**, or **None**.
Max Records per Output File	Enter the maximum number of records in each output file. The minimum value is 1 and the maximum value is 200000.
Field Delimiter	Enter the characters for delimiting field names.
Field Container	Enter the characters for wrapping each field. (Empty for none).
Include Header in Output	Select to include the header in the output file.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring XML DC Settings

Table 3-43 describes the basic settings for an XML DC node.

Table 3-43 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are **Secure (SFTP)** or **Regular**.

Table 3-43 (Cont.) Basic Settings Tab

Field	Description
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is 21.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval. (Minutes, Hours).
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-44 describes the advanced settings for an XML DC node.

Table 3-44 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive File	(Only appears when **Enable Output File Archive/Delete** is selected) Select to archive the output files.
Archive Directory path	(Only appears when **Archive File** is selected) Enter the directory to which the output files should be moved after the retention period.
Retention Period (in Days)	(Only appears when **Archive File** is selected) Enter the number of days to retain output files before moving them to archive directory.
Delete Files	(Only appears when **Enable Output File Archive/Delete** is selected) Select to delete the output files.
Retention Period (in Days)	(Only appears when **Delete Files** is selected) Enter the number of days to retain output files before deleting them.
Output Directory Path	Enter the directory in which to store output files.

Table 3-44 (Cont.) Advanced Settings Tab

Field	Description
File Name	Enter the name to prepend to the output file.
Current File Extension	Enter the file name extension for files that have not been processed yet.
Processed File Extension	Enter the file name extension for processed files.
Time Period to Push Output	Enter the time period before pushing output files.
Time Unit	Select the unit of time in days, hours, minutes, or seconds.
Max Records per Output File	Enter the maximum number of records in each output file. The minimum value is 1 and the maximum value is 200000.
Field Delimiter	Enter the characters for delimiting field names.
Field Container	Enter the characters for wrapping each field. (Empty for none).
Include Header in Output	Select to include the header in the output file.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring 3GPP 32.015 ASN.1 DC Settings

Table 3-45 describes the basic settings for a 3GPP 32.015 Parsing Enhancers EP node.

Table 3-45 Basic Settings Tab

Field	Description
Output Directory Path	Enter the directory in which to store output files.
File Name	Enter the base name for the output files. The node appends a sequence number and file extension to this name.
Current File Extension	Enter the file name extension to use while the output file is still being written.
Processed File Extension	Enter the file extension for completed output files.

Table 3-45 (Cont.) Basic Settings Tab

Field	Description
Time Period to Push Output	Enter the time period after which the output file should be closed and finalized, even if the "Max Records per Output File" limit has not been reached.
Time Unit	Select the push output unit: **Minutes**, **Hours**, or **Days**.
Encoding Option	Select an encoding method for the ASN.1 data. Options are **Definite** and **Indefinite**.
Send Output Using FTP	Select to send the output from this node to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select the remote host type: **Secure (SFTP)** or **Regular**.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter the path to the directory on the remote FTP server where the output files should be stored.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter the user name to use for authenticating with the remote FTP server.
Password	(Only appears when **Send Output Using FTP** is selected) Enter the password for the FTP server.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name or IP address of the remote FTP server.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the port number to use for connecting to the remote FTP server. The default FTP port is **21**.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the unit for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the file extension that should be given to the transferred output files on the remote FTP server.

Table 3-46 describes the advanced settings for a 3GPP 32.015 Parsing Enhancers EP node.

Table 3-46 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.

Table 3-46 (Cont.) Advanced Settings Tab

Field	Description
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring RADIUS DC Settings

Table 3-47 describes the basic settings for a RADIUS DC node.

Table 3-47 Basic Settings Tab

Field	Description
RADIUS Response Port	Enter the UDP port number on which the RADIUS DC node listens for responses from the RADIUS server. The default port is 1814. Note that the default port for RADIUS accounting is 1813.
Shared Secret	Enter the secret key that is shared between the RADIUS client and the RADIUS server. This secret is used to encrypt passwords and ensure secure communication between the client and server. This key should be known by both the RADIUS client and server.
Retransmit Interval	Enter the time interval (in seconds) after which the RADIUS client retransmits a request if it does not receive a response from the server. The default value is 5 seconds.
Expiration Time	Enter the duration (in seconds) after which a RADIUS request is considered to have timed out if no response is received. The default value is 60 seconds.
RADIUS Server	Enter the IP address or host name of the RADIUS server.
RADIUS Request Port	Enter the UDP port number on which the RADIUS server is listening for authentication requests. The default port is 1813.

Table 3-48 describes the advanced settings for a RADIUS DC node.

Table 3-48 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the limit is reached, a new file is created.

Table 3-48 (Cont.) Advanced Settings Tab

Field	Description
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for the RADIUS CC node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size (in bytes) for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring 3GPP IMS ASN.1 DC Settings

Table 3-49 describes the basic settings for a 3GPP IMS ASN.1 DC node.

Table 3-49 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are **Secure (SFTP)** or **Regular**.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is **21**.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-50 describes the advanced settings for a 3GPP IMS ASN.1 DC node.

Table 3-50 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring OCECE DC Settings

Table 3-51 describes the basic settings for an OCECE DC node.

Table 3-51 Basic Settings Tab

Field	Description
Duplicate request directory	Enter a valid duplicate request file directory.
Success response directory	Enter a valid success response file directory.
Suspense directory	Enter a valid suspense file directory.
No-response directory	Enter a valid no-response file directory
Delayed response directory	Enter a valid delayed response file directory.
Duplicate response directory	Enter a valid duplicate response file directory.

Table 3-52 describes the advanced settings for an OCECE DC node.

Table 3-52 Advanced Settings Tab

Field	Description
Batch Size	Enter the number of records that will be submitted by Offline Mediation Controller to ECE before waiting for responses. Larger batch sizes may help improve throughput. and may require the **Waiting time per batch** to be increased to permit all responses to be received from ECE before submitting the next batch.
Max records per suspense/ success file	Enter the maximum number of records per file that should be written in the *OMC_home***/ocomc/suspense** or the *OMC_home***/ocomc/success** directory. The minimum value is 1 and the maximum value is 50000.
Waiting time per batch	Enter the duration, in milliseconds, the node waits for the batch to be processed. The minimum value is 1 and the maximum value is 1800000.
Timeout for Archiving NAR files	Enter the frequency at which partially filled no-response, duplicate, and bad NAR records should be closed and moved to their corresponding destination locations. This permits partially filled files of failed NARs to be closed and moved (the max file size is controlled by the **OCECESuspenseBatchSize** configuration or, by default, will be 10000 records).
Response Timeout	Enter the frequency with which the node should check for requests that have not received a response from ECE. The records are stored in memory until there is a response. Any record that has been waiting for a response for more than the "Response Timeout" will be written to the no-response NAR file. Note that as this parameter controls both the timeout and the frequency with which this check is executed, a no-response would be detected at latest two times the value of this timeout.
Request Throttling	Select in cases where the ECE server may not be responding as quickly as normal; it can be helpful to pause submission of more work for a short time. When enabled, the number of outstanding requests will be checked after each batch. If the number of outstanding requests is larger than the 'High-Water Mark', processing of the record stream will be halted until the number of outstanding requests drops below the 'Low-Water Mark'.
Output bad records as NAR	Select to generate a NAR for the bad records.
Log success records	Select to enable writing the records successfully processed by the ECE to a file in the *OMC_home***/ocomc/success** directory. When enabled, the OCECE DC node logs successfully processed ECE records to the success file. This feature is particularly useful when the advice of charge notification in ECE is configured to include events such as in-session notifications on the usage response message (PIGGYBACK). For more details on configuring advice of charge notifications, consult the ECE documentation.
Submission-throttling milliseconds	Enter the amount of time (in milliseconds) that the OCECE DC Node will pause before submitting new requests to ECE. Whilst **Request Throttling** controls submission at a batch level, the micro-throttling feature permits throttling of submission within a batch of records as a flow-control mechanism. If, at any time, the number of outstanding requests (those sent to the ECE server but for which responses have not been received) exceeds the **Max outstanding requests before throttling** configuration, the ECE DC Node will add this pause before submitting new requests to ECE.

Table 3-52 (Cont.) Advanced Settings Tab

Field	Description
Max outstanding requests before throttling	Enter the maximum number of outstanding requests that will be permitted before the ECE DC Node begins pausing the submission of requests to ECE. See "Submission-throttling milliseconds," which defines how long each pause will be. Once the number of outstanding requests drops below this threshold, records will be submitted normally.
Max MSCC batch size	Enter the number of input records in each batch that are for the same user identity. In cases where there are multiple input records in each batch that are for the same user identity, grouping those records into a single request for the ECE server permits them to be processed together. This can optimize throughput when a large proportion of records are for a small number of distinct user identities. Typical values would be in the range of 1 to 10. There is generally little additional benefit from using larger batch sizes (and none when all user identities are distinct).
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off.**
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when Input Stream Monitoring is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring 3GPP 32.298 ASN.1 DC Settings

Table 3-53 describes the basic settings for a 3GPP 32.298 ASN.1 DC node.

Table 3-53 Basic Settings Tab

Field	Description
Output Directory Path	Enter the directory in which to store output files.
File Name	Enter the base name for the output files. The node appends a sequence number and file extension to this name.
Current File Extension	Enter the file name extension for output files that are still being written.
Processed File Extension	Enter the file extension for completed output files.

Table 3-53 (Cont.) Basic Settings Tab

Field	Description
Time Period to Push Output	Enter the time period after which the output file should be closed and finalized, even if the "Max Records per Output File" limit has not been reached.
Time Unit	Select the push output unit: **Minutes**, **Hours**, **Days**.
Encoding Option	Select an encoding method for the ASN.1 data. Options are **Definite** and **Indefinite**.
Send Output Using FTP	Select to specify whether the output from this node should be sent to a remote system using FTP. After you select this checkbox, additional configuration options for the FTP opens.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select to access input files stored on a remote FTP server.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter the path to the directory on the remote FTP server where the output files should be stored.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter the user name for authentication with the remote FTP server.
Password	(Only appears when **Send Output Using FTP** is selected) Enter the password for the FTP server.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name or IP address for the remote FTP server.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the port number to use for connecting to the remote FTP server. The default FTP port is 21.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the FTP interval unit: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-54 describes the advanced settings for a 3GPP 32.298 ASN.1 DC node.

Table 3-54 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR output files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive Files	(Appears only when **Enable Output File Archive/Delete** is selected) Select to archive all NAR output files after the retention period.

Table 3-54 (Cont.) Advanced Settings Tab

Field	Description
Archive Directory Path	(Appears only when **Archive Files** is selected) Enter the directory in which to archive files.
Retention Period (in Days)	(Appears only when **Archive Files** is selected) Enter the number of days to retain output files until they are archived.
Delete Files	(Appears only when **Enable Output File Archive/Delete** is selected) Select to delete output files after the retention period.
Retention Period (in Days)	(Appears only when **Delete Files** is selected) Enter the number of days to retain output files until they are deleted.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to enable monitoring of the input stream to detect potential issues such as stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval duration: **Days**, **Hours** or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring MCS 5200 CC Settings

Table 3-55 describes the basic settings for an MCS 5200 CC node.

Table 3-55 Basic Settings Tab

Field	Description
Directory Path	Enter the path to the directory where the input files are located. This should be the directory that the MCS 5200 CC node monitors for new files.
Local Filesystem	Select to specify that the input files are located on the local file system of the machine running the MCS 5200 CC node.
Frequency to Check for New Files	(Only appears when **Local Filesystem** is selected) Enter the frequency at which this node checks the specified directory for new files to process.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the frequency unit: **Seconds** or **Minutes**.
Data Suffix	(Only appears when **Local Filesystem** is selected) Enter the file extension that helps the node recognize which files in the directory are data files that it should process.

Table 3-55 (Cont.) Basic Settings Tab

Field	Description
Remote Filesystem (FTP)	Select this option to indicate that the input files are located on a remote file system and are accessed using FTP. If selected, the following additional configuration options are required.
Add Host	(Only appears when **Remote Filesystem (FTP)** is selected) Click to add a host to the remote filesystem.
Remote Host Access	(Only appears when **Remote Filesystem (FTP)** is selected) Select the FTP connection type: **Secure SFTP**, **Regular**, or **Passive**.
Username	Enter the user name for authentication with the remote FTP server.
Password	Enter the password for the FTP server.
Host	Enter the host name or IP address of the remote FTP server.
File(s) to Transfer	Enter the absolute path of the directory from where the files should be retrieved by the node.
Submit	Click to add a host to the remote file system.
Delete Remote Files	Select to delete remote files after they have been successfully transferred and processed.
Rename Remote Files	Select to rename remote files after they have been successfully transferred and processed.
FTP Interval	Enter how frequently to check for new files.
FTP Interval Unit	Select the FTP interval unit: **Minutes** or **Hours**.

Table 3-56 describes the advanced settings for an MCS 5200 CC node.

Table 3-56 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. Once the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring ASCII CC Settings

Table 3-57 describes the basic settings for an ASCII CC node.

Table 3-57 Basic Settings Tab

Field	Description
Directory Path	Enter the path to the directory where the input files are located. This should be the directory that the MCS 5200 CC node monitors for new files.
Local Filesystem	Select to specify that the input files are located on the local file system of the machine running the MCS 5200 CC node.
Frequency to Check for New Files	(Only appears when **Local Filesystem** is selected) Enter the frequency at which this node checks the specified directory for new files to process.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the frequency unit: **Seconds** or **Minutes**.
Data Suffix	(Only appears when **Local Filesystem** is selected) Enter the file extension that helps the node recognize which files in the directory are data files that it should process.
Remote Filesystem (FTP)	Select this option to indicate that the input files are located on a remote file system and are accessed using FTP. If selected, the following additional configuration options are required.
Add Host	(Only appears when **Remote Filesystem (FTP)** is selected) Click to add a host to the remote filesystem.
Remote Host Access	(Only appears when **Remote Filesystem (FTP)** is selected) Select the FTP connection type: **Secure SFTP**, **Regular**, or **Passive**.
Username	Enter the user name for authentication with the remote FTP server.
Password	Enter the password for the FTP server.
Host	Enter the host name or IP address of the remote FTP server.
File(s) to Transfer	Enter the absolute path of the directory from where the files should be retrieved by the node.
Submit	Click to add a host to the remote file system.
Delete Remote Files	Select to delete remote files after they have been successfully transferred and processed.
Rename Remote Files	Select to rename remote files after they have been successfully transferred and processed.
FTP Interval	Enter how frequently to check for new files.
FTP Interval Unit	Select the FTP interval unit: **Minutes** or **Hours**.

Table 3-58 describes the advanced settings for an ASCII CC node.

Table 3-58 Advanced Settings Tab

Field	Description
Reject Duplicate File Names	Select to reject duplicate files from the node.
Expiry Time to Reject Duplicate File Names	(Only appears when **Reject Duplicate File Names** is selected) Enter the duration, in minutes, to reject duplicate file names.
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.

Table 3-58 (Cont.) Advanced Settings Tab

Field	Description
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Process Files Sequentially by Name	Select to process the files sequentially.
Use Multiple Threads	(Only appears when **Process Files Sequentially by Name** is not selected) Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring IPDR CC Settings

Table 3-59 describes the basic settings for an IPDR CC node.

Table 3-59 Basic Settings Tab

Field	Description
Directory Path	Enter the path to the directory where the input files are located. This should be the directory that the MCS 5200 CC node monitors for new files.
Local Filesystem	Select to specify that the input files are located on the local file system of the machine running the MCS 5200 CC node.
Frequency to Check for New Files	(Only appears when **Local Filesystem** is selected) Enter the frequency at which this node checks the specified directory for new files to process.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the frequency unit: **Seconds** or **Minutes**.
Data Suffix	(Only appears when **Local Filesystem** is selected) Enter the file extension that helps the node recognize which files in the directory are data files that it should process.
Remote Filesystem (FTP)	Select this option to indicate that the input files are located on a remote file system and are accessed using FTP. If selected, the following additional configuration options are required.

Table 3-59 (Cont.) Basic Settings Tab

Field	Description
Add Host	(Only appears when **Remote Filesystem (FTP)** is selected) Click to add a host to the remote filesystem.
Remote Host Access	(Only appears when **Remote Filesystem (FTP)** is selected) Select the FTP connection type: **Secure SFTP**, **Regular**, or **Passive**.
Username	Enter the user name for authentication with the remote FTP server.
Password	Enter the password for the FTP server.
Host	Enter the host name or IP address of the remote FTP server.
File(s) to Transfer	Enter the absolute path of the directory from where the files should be retrieved by the node.
Submit	Click to add a host to the remote file system.
Delete Remote Files	Select to delete remote files after they have been successfully transferred and processed.
Rename Remote Files	Select to rename remote files after they have been successfully transferred and processed.
FTP Interval	Enter how frequently to check for new files.
FTP Interval Unit	Select the FTP interval unit: **Minutes** or **Hours**.

Table 3-60 describes the advanced settings for an IPDR CC node.

Table 3-60 Advanced Settings Tab

Field	Description
Max NARs per Output File	Enter the maximum number of records to add to an output file. Once the limit is reached, a new file is created.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size (in bytes) for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring Network Accounting Record DC Node

Table 3-61 describes the basic settings for a Network Accounting Record DC node.

Table 3-61 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.

Table 3-61 (Cont.) Basic Settings Tab

Field	Description
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are **Secure (SFTP)** or **Regular**.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is 21.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-62 describes the advanced settings for a Network Accounting Record DC node.

Table 3-62 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive File	(Only appears when **Enable Output File Archive/Delete** is selected) Select to archive the output files.
Archive Directory path	(Only appears when **Archive File** is selected) Enter the directory to which the output files should be moved after the retention period.
Retention Period (in Days)	(Only appears when **Archive File** is selected) Enter the number of days to retain output files before moving them to archive directory.
Delete Files	(Only appears when **Enable Output File Archive/Delete** is selected) Select to delete the output files.

Table 3-62 (Cont.) Advanced Settings Tab

Field	Description
Retention Period (in Days)	(Only appears when **Delete Files** is selected) Enter the number of days to retain output files before deleting them.
Output Directory Path	Enter the directory in which to store output files.
File Name	Enter the name to prepend to the output file.
Current File Extension	Enter the file name extension for files that have not been processed yet.
Processed File Extension	Enter the file name extension for processed files.
Time Period to Push Output	Enter the time period before pushing output files.
Time Unit	Select the unit of time in days, hours, minutes, or seconds.
Max Records per Output File	Enter the maximum number of records in each output file. The minimum value is 1 and the maximum value is 200000.
Field Delimiter	Enter the characters for delimiting field names.
Field Container	Enter the characters for wrapping each field. (Empty for none).
Include Header in Output	Select to include the header in the output file.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring ASN1 File CC Settings

Table 3-63 describes the basic settings for an ASN1 File CC node.

Table 3-63 Basic Settings Tab

Field	Description
Directory Path	Enter the path to the directory where the input files are located. This should be the directory that this node monitors for new files.
Local Filesystem	Select to specify that the input files are located on the local file system.

Table 3-63 (Cont.) Basic Settings Tab

Field	Description
Frequency to Check for New Files	(Only appears when **Local Filesystem** is selected) Enter the frequency at which this node checks the specified directory for new files.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the unit: **Seconds**, **Minutes**, or **Hours**.
Pattern For Matching Input Files	(Only appears when **Local Filesystem** is selected) Specifies the method used to match input files in the directory. Options are **Use Prefix and Suffix** and **Use Regular Expression.**
Prefix and Suffix	(Only appears when **Use Prefix and Suffix** is selected) Enter the file name prefix and suffix of the input files to process.
Regular Expression	(Only appears when **Use Regular Expression** is selected) Enter the regular expression that will be used to match the names of input files in the specified directory.
Remote Filesystem	Select to indicate that the input files are located on a remote file system and are accessed using FTP.
Add Host	(Only appears when **Remote Filesystem** is selected) Click to add a host to the remote filesystem.
Remote Host Access	(Only appears when **Remote Filesystem** is selected) Select the FTP connection type (Secure SFTP, Regular FTP, or Passive FTP).
Username	(Only appears when **Remote Filesystem** is selected) Enter the user name to use for authenticating with the remote FTP server.
Password	(Only appears when **Remote Filesystem** is selected) Enter the password for the FTP server.
Host	(Only appears when **Remote Filesystem** is selected) Enter the host name or IP address of the remote FTP server.
Directory Path	(Only appears when **Remote Filesystem** is selected) Enter the port number to use for connecting to the remote FTP server. The default FTP port is 21.
Pattern For Matching Input Files	(Only appears when **Remote Filesystem** is selected) Specifies the method used to match input files in the directory. Options are **Use Prefix and Suffix** and **Use Regular Expression**.
Prefix and Suffix	(Only appears when **Use Prefix and Suffix** is selected) Enter the file name prefix and suffix of the input files to process.
Submit	Click to add a remote file system.
FTP Interval	Enter the interval of time between attempts to transfer files to the remote FTP server.
FTP Interval Unit	Select the duration (Minutes or Hours) for the FTP Interval field.
Interrupt Timer Delay	Enter the delay time to implement with interrupts and timers.
Interrupt Timer Delay Unit	Select the duration (Minutes or Hours) for the **Interrupt Timer Delay** field.
Delete Remote Files	Select this option to specify whether the remote files should be deleted after they have been successfully transferred and processed.

Table 3-63 (Cont.) Basic Settings Tab

Field	Description
Rename Remote Files	Select this option to specify whether the remote files should be renamed after they have been successfully transferred and processed.

Table 3-64 describes the advanced settings for an ASN1 File CC node.

Table 3-64 Advanced Settings Tab

Field	Description
Reject Duplicate File Names	Select to reject duplicate files from the node.
Expiry Time to Reject Duplicate File Names	(Only appears when **Reject Duplicate File Names** is selected) Enter the duration, in minutes, to reject duplicate file names.
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup Files	Select to back up all files after they have been processed.
Backup Directory Path	(Only appears when **Backup Files** is selected) Enter the path to the backup directory.
Prefix	(Only appears when **Backup Files** is selected) Enter the prefix to add to file names after the file has been processed.
Suffix	(Only appears when **Backup Files** is selected) Enter the suffix to add to file names after the file has been processed.
Delete Files	Select to delete all files after they have been processed.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Process Files Sequentially by Name	Select to process the files sequentially.
Use Multiple Threads	(Only appears when **Process Files Sequentially by Name** is not selected) Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring AQ Job CC Settings

Table 3-65 describes the basic settings for an AQ Job CC node.

Table 3-65 Basic Settings Tab

Field	Description
Batch Size	Enter the maximum number of records to process in a single batch. The default is **500**.
User	Enter the user name for connecting to the Oracle database.
Password	Enter the password for connecting to the Oracle database.
Host	Enter the host name or IP address of the Oracle database server.
Port	Enter the port number used to connect to the Oracle database. The default port is **1521**.
SID	Enter the Oracle System Identifier (SID) for the database instance.
Service Name	Enter the Oracle service name of the database.
Queue	Enter the queue name from which this node dequeues messages.
Event	Enter the event name that triggers the recycle process.
Thread sleep time in seconds	Enter the duration, in seconds, that the thread will sleep.
Enable Polling	Select to poll the Oracle AQ queue.
File Parse Delay	(Only appears when **Enable Polling** is selected) Enter how often to poll the queue for files.
Polling interval unit	(Only appears when **Enable Polling** is selected) Select the delay unit: **Day**, **Hour**, or **Minute**.

Table 3-66 describes the advanced settings for an AQ Job CC node.

Table 3-66 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Enable this option to collect processing statistics for the Record Filter EP node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Number of Threads	Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring Oracle CDR Format File CC Settings

Table 3-67 describes the basic settings for an Oracle CDR Format File CC Settings.

Table 3-67 Basic Settings Tab

Field	Description
Directory Path	Enter the path to the directory where the input files are located. This should be the directory that this node monitors for new files.
Local Filesystem	Select to specify that the input files are located on the local file system.
Frequency to Check for New Files	(Only appears when **Local Filesystem** is selected) Enter the frequency at which this node checks the specified directory for new files.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the unit: **Seconds**, **Minutes**, and **Hours**.
Pattern For Matching Input Files	(Only appears when **Local Filesystem** is selected) Specifies the method used to match input files in the directory. Options are **Use Prefix and Suffix** and **Use Regular Expression.**
Prefix and Suffix	(Only appears when **Use Prefix and Suffix** is selected) Enter the file name prefix and suffix of the input files to process.
Regular Expression	(Only appears when **Use Regular Expression** is selected) Enter the regular expression that will be used to match the names of input files in the specified directory.
Remote Filesystem	Select to indicate that the input files are located on a remote file system and are accessed using FTP.
Add Host	(Only appears when **Remote Filesystem** is selected) Click to add a host to the remote filesystem.
Remote Host Access	(Only appears when **Remote Filesystem** is selected) Select the FTP connection type: **Secure SFTP**, **Regular FTP**, or **Passive FTP**.
Username	(Only appears when **Remote Filesystem** is selected) Enter the user name to use for authenticating with the remote FTP server.
Password	(Only appears when **Remote Filesystem** is selected) Enter the password for the FTP server.
Host	(Only appears when **Remote Filesystem** is selected) Enter the host name or IP address of the remote FTP server.
Directory Path	Enter the port number to use for connecting to the remote FTP server. The default FTP port is 21.
Submit	Click to add a remote file system.
FTP Interval	Enter the interval of time between attempts to transfer files to the remote FTP server.
FTP Interval Unit	Select the duration (Minutes or Hours) for the FTP Interval field.
Interrupt Timer Delay	Enter the delay time to implement with interrupts and timers.
Interrupt Timer Delay Unit	Select the duration (Minutes or Hours) for the **Interrupt Timer Delay** field.
Delete Remote Files	Select this option to specify whether the remote files should be deleted after they have been successfully transferred and processed.

Table 3-67 (Cont.) Basic Settings Tab

Field	Description
Rename Remote Files	Select this option to specify whether the remote files should be renamed after they have been successfully transferred and processed.

Table 3-68 describes the advanced settings for an Oracle CDR Format File CC Settings.

Table 3-68 Advanced Settings Tab

Field	Description
Reject Duplicate File Names	Select to reject duplicate files from the node.
Expiry Time to Reject Duplicate File Names	(Only appears when **Reject Duplicate File Names** is selected) Enter the duration, in minutes, to reject duplicate file names.
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup Files	Select to back up all files after they have been processed.
Backup Directory Path	(Only appears when **Backup Files** is selected) Enter the path to the backup directory.
Prefix	(Only appears when **Backup Files** is selected) Enter the prefix to add to file names after the file has been processed.
Suffix	(Only appears when **Backup Files** is selected) Enter the suffix to add to file names after the file has been processed.
Delete Files	Select to delete all files after they have been processed.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Schema File	Select the schema file that is used to parse the Oracle CDR format data files. The Oracle CDR Format CC node uses the schema information in a schema file to parse the CDR files conforming to the Oracle CDR format into NARs. You can configure a custom schema file to accommodate the custom data.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Process Files Sequentially by Name	Select to process the files sequentially.
Use Multiple Threads	(Only appears when **Process Files Sequentially by Name** is not selected) Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.

Table 3-68 (Cont.) Advanced Settings Tab

Field	Description
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring Record Processing EP Cartridge Settings

Table 3-69 describes the advanced settings for a Record Processing EP type nodes.

Table 3-69 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Max NARs per Output File	Enter the maximum number of NARs in each output file. The minimum value is 1 and the maximum value is 10000.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, the node creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring Record Enhancement (Local File) EP Settings

Table 3-70 describes the basic settings for a Record Enhancement (Local File) EP node type.

Table 3-70 Basic Settings Tab

Field	Description
Lookup File	Enter the file path to the lookup file. This file contains data used to enrich or transform subscriber state information.
Lookup Table Name	Enter the name of the specific table or data structure within the lookup file to be used for the lookup operation. This allows you to select a particular dataset within a larger lookup file.
Continue on invalid file format	Select to instruct the system to continue processing even if the lookup file has an invalid format. If this option is not selected, processing will halt if an invalid file format is encountered.

Table 3-71 describes the advanced settings for a Record Enhancement (Local File) EP node type.

Table 3-71 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Max NARs per Output File	Enter the maximum number of NARs in each output file. The minimum value is 1 and the maximum value is 10000.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, the node creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.

Table 3-71 (Cont.) Advanced Settings Tab

Field	Description
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring Record Enhancement (Remote File) EP Settings

Table 3-72 describes the basic settings for a Record Enhancement (Remote File) EP node.

Table 3-72 Basic Settings Tab

Field	Description
Lookup File	Enter the path to the lookup file on the remote server used to enhance the records. This file contains the data used to enrich the incoming records with additional information.
Lookup Table Name	Enter the name of the lookup table within the lookup file. This table contains the specific data that will be used to enhance the records.
Continue on invalid file format	Select to instruct the system to continue processing even if the lookup file has an invalid format. If this option is not selected, processing will halt if an invalid file format is encountered.
IP Address	Enter the IP address of the FTP server.
Username	Enter the user name used to access the FTP server.
Password	Enter the password used to access the FTP server.
Remote File	Enter the file location of the FTP server.
FTP Interval	Enter the remote file location of the FTP server.
Get Error File	Select this option to enable storing error files.
Error Directory	Enter the absolute path to the directory where you want to store error files.

Table 3-73 describes the advanced settings for a Record Enhancement (Remote File) EP node.

Table 3-73 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Max NARs per Output File	Enter the maximum number of NARs in each output file. The minimum value is 1 and the maximum value is 10000.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to add statistics to the log file.

Table 3-73 (Cont.) Advanced Settings Tab

Field	Description
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, the node creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring Record Enhancement (LDAP) EP Settings

Table 3-74 describes the basic settings for a Record Enhancement (LDAP) EP node.

Table 3-74 Basic Settings Tab

Field	Description
Lookup File	Enter the path to the lookup file used to store the data retrieved from the LDAP server. The default value is *UDC_home*/**datafiles**/*nodeID*/**LDAP.lookup**.
Lookup Table Name	Specifies the name of the lookup table within the lookup file. The default value is LDAP.
Continue on invalid file format	Select to instruct the system to continue processing even if the lookup file has an invalid format. If this option is not selected, processing will halt if an invalid file format is encountered.
Host Name	Enter the host name or IP address of the LDAP server.
Port Number	Enter the port number for connecting to the LDAP server. The default port is **389**.
User Name	Enter the user name for authentication with the LDAP server.
Password	Enter the password for authentication with the LDAP server.
Directory Path	Enter the base distinguished name (DN) for the LDAP search. This is the starting point in the LDAP directory tree for the search.
Update Frequency	Enter the interval (in seconds) at which the node retrieves data from the LDAP server. The default value is 60 minutes.

Table 3-74 (Cont.) Basic Settings Tab

Field	Description
Search Filter	Enter the LDAP search filter used to retrieve specific entries from the LDAP server.
Key Attribute Id	Enter the attribute in the LDAP entry to use as the key for the lookup. The default is **uid**.
Key Value Separator	Enter the character used to separate the key (the Key Attribute Id) from its corresponding value in the lookup data.
Sub Value Separator	Enter the character used to separate multiple values associated with the same key in the lookup data.

Table 3-75 describes the advanced settings for a Record Enhancement (LDAP) EP node.

Table 3-75 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring IPDRv2 DC Settings

Table 3-76 describes the basic settings for an IPDRv2 DC node.

Table 3-76 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are Secure (SFTP) or Regular.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is 21.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval. (Minutes, Hours).
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-77 describes the basic settings for an IPDRv2 DC node.

Table 3-77 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to enable backup of NAR files.
File Retention Period	(Appears only when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output file.
Archive File	Select to archive files.
Archive Directory Path	Enter the directory to which the output files should be moved after the Retention Period.
Retention Period	Enter the time period for which the files will be retained in the output folder during the Retention Period. (In Days)
Delete Files	Select to delete files.
Retention Period	Enter the time for which the files will be retained in the output folder during the Retention Period. (In Days)
Output Directory Path	Enter the directory in which to store output files.

Table 3-77 (Cont.) Advanced Settings Tab

Field	Description
File Name	Enter the output file name.
Current File Extension	Enter the extension for current file.
Processed File Extension	Enter the extension for processed file.
Time Period to Push Output	Enter the time to push output files.
Time Unit	Select the unit of time: **Days**, **Hours**, **Minutes**, or **Seconds**.
Max Records per Output File	Enter the max number of records per output file. The minimum value is 1 and the maximum value is 200000.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	Select the interval unit: **Minutes**, **Hours**, or **Days**.
Optimize Reading and Writing of Files	Select the checkbox to Optimize Reading and Writing of Files.
Read Timer	Enter the number of seconds between checking for incoming data. The minimum value is 1 and the maximum value is 200000.

Configuring Suspense DC Settings

Table 3-78 describes the basic settings for a Suspense DC node.

Table 3-78 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are **Secure (SFTP)** or **Regular**.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is 21.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.

Table 3-78 (Cont.) Basic Settings Tab

Field	Description
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-79 describes the advanced settings for a Suspense DC node.

Table 3-79 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive File	(Only appears when **Enable Output File Archive/Delete** is selected) Select to archive the output files.
Archive Directory Path	(Only appears when **Archive File** is selected) Enter the directory to which the output files should be moved after the retention period.
Retention Period (in Days)	(Only appears when **Archive File** is selected) Enter the number of days to retain output files before moving them to archive directory.
Delete Files	(Only appears when **Enable Output File Archive/Delete** is selected) Select to delete the output files.
Retention Period (in Days)	(Only appears when **Delete Files** is selected) Enter the number of days to retain output files before deleting them.
Output Directory Path	Enter the directory in which to store output files.
File Name	Enter the name to prepend to the output file.
Current File Extension	Enter the file name extension for files that have not been processed yet.
Completed File Extension	Enter the file name extension for processed files.
Time Period to Push Output	Enter the time period before pushing output files.
Time Unit	Select the unit of time in days, hours, minutes, or seconds.
Max Records per Output File	Enter the maximum number of records in each output file. The minimum value is 1 and the maximum value is 200000.
Output the tags even if the string field has no value?	Select to output the tags associated with a field, even if the string field itself is empty.
Replace empty string field with	Enter the value that should be replaced in the output if a string field in the input record is empty.

Configuring RADIUS Wireless for DC Settings

Table 3-80 describes the basic settings for a RADIUS Wireless for DC nodes.

Table 3-80 Basic Settings Tab

Field	Description
RADIUS Response Port	Enter the port number that listens for incoming RADIUS response packets.
Shared Secret	Enter the shared secret between the RADIUS Client and Server.
Retransmit Interval	Enter the number of seconds between retransmit attempts.
Expiration Time	Enter the number of seconds after which the request expires.
RADIUS Server	Enter the IP address of the RADIUS server.
RADIUS Request Port	Enter the port number on which the RADIUS server is listening for requests.

Table 3-81 describes the advanced settings for a RADIUS Wireless for DC nodes.

Table 3-81 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the time intervals to allow input stream monitoring: **Minutes**, **Hours**, or **Days**.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring JDBC DC Node

Table 3-82 describes the basic settings for a JDBC DC node.

Table 3-82 Basic Settings Tab

Field	Description
Batch Size	Enter the maximum batch size that this node accepts.
User	Enter the user name for connecting to the database.
Password	Enter the password for the database user.
Host	Enter the host name or IP address of the host where the Oracle database server is running.

Table 3-82 (Cont.) Basic Settings Tab

Field	Description
Port	Enter the port number used to communicate with a database or device. The number must be a positive integer.
SID	Enter the database instance identifier.
Service Name	Enter the database service name.
Output Bad Records as NAR	Select to output bad records as NAR.

Table 3-83 describes the basic settings for a JDBC DC node.

Table 3-83 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit for input stream monitoring: **Minutes**, **Hours**, or **Days**.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring Network Account Record CC Settings

Table 3-84 describes the basic settings for a Network Account Record CC node.

Table 3-84 Basic Settings Tab

Field	Description
Local Filesystem	Select to specify that the input files are located on the local file system of the machine running the MCS 5200 CC node.
File Parse Delay	(Only appears when **Local Filesystem** is selected) Enter the time to wait for new files to process.
Time Unit	(Only appears when **Local Filesystem** is selected) Select the frequency unit: **Seconds**, **Minutes**, or **Hours**.

Table 3-84 (Cont.) Basic Settings Tab

Field	Description
Directory Path	(Only appears when **Local Filesystem** is selected) Enter the local directory containing the files to process.
Local File Suffix	(Only appears when **Local Filesystem** is selected) Enter the file extension that helps the node recognize which files in the directory are data files that it should process.
Remote Filesystem (FTP)	Select this option to indicate that the input files are located on a remote file system and are accessed using FTP. If selected, the following additional configuration options are required.
Add Host	(Only appears when **Remote Filesystem (FTP)** is selected) Click to add a host to the remote filesystem.
Remote Host Access	(Only appears when **Remote Filesystem (FTP)** is selected) Select the FTP connection type: **Secure SFTP**, **Regular**, or **Passive**.
Username	(Only appears when **Remote Filesystem (FTP)** Enter the user name for authentication with the remote FTP server.
Password	(Only appears when **Remote Filesystem (FTP)** Enter the password for the FTP server.
Host	(Only appears when **Remote Filesystem (FTP)** Enter the host name or IP address of the remote FTP server.
File(s) to Transfer	(Only appears when **Remote Filesystem (FTP)** Enter the absolute path of the directory from where the files should be retrieved by the node.
Submit	(Only appears when **Remote Filesystem (FTP)** Click to add a host to the remote file system.
FTP Interval	(Only appears when **Remote Filesystem (FTP)** Enter how frequently to check for new files.
FTP Interval Unit	(Only appears when **Remote Filesystem (FTP)** Select the FTP interval unit: **Minutes** or **Hours**.

Table 3-85 describes the advanced settings for a Network Account Record CC node.

Table 3-85 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup Files	Select to back up all files after they have been processed.
Backup Directory Path	(Only appears when **Backup Files** is selected) Enter the path to the backup directory.
Prefix	(Only appears when **Backup Files** is selected) Enter the prefix to add to file names after the file has been processed.
Suffix	(Only appears when **Backup Files** is selected) Enter the suffix to add to file names after the file has been processed.

Table 3-85 (Cont.) Advanced Settings Tab

Field	Description
Delete Files	Select to delete all files after they have been processed.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Process Files Sequentially by Name	Select to process the files sequentially.
Use Multiple Threads	(Only appears when **Process Files Sequentially by Name** is not selected) Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.

Configuring XML Distribution Cartridge Settings

Table 3-86 describes the basic settings for an XML Distribution Cartridge node.

Table 3-86 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are **Secure (SFTP)** or **Regular**.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.

Table 3-86 (Cont.) Basic Settings Tab

Field	Description
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is 21.
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-87 describes the advanced settings for an XML Distribution Cartridge node.

Table 3-87 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive File	(Only appears when **Enable Output File Archive/Delete** is selected) Select to archive the output files.
Archive Directory path	(Only appears when **Archive File** is selected) Enter the directory to which the output files should be moved after the retention period.
Retention Period (in Days)	(Only appears when **Archive File** is selected) Enter the number of days to retain output files before moving them to archive directory.
Delete Files	(Only appears when **Enable Output File Archive/Delete** is selected) Select to delete the output files.
Retention Period (in Days)	(Only appears when **Delete Files** is selected) Enter the number of days to retain output files before deleting them.
Output Directory Path	Enter the directory in which to store output files.
File Name	Enter the name to prepend to the output file.
Current File Extension	Enter the file name extension for files that have not been processed yet.
Processed File Extension	Enter the file name extension for processed files.
Time Period to Push Output	Enter the time period before pushing output files.
Time Unit	Select the unit of time in days, hours, minutes, or seconds.
Max Records per Output File	Enter the maximum number of records in each output file. The minimum value is 1 and the maximum value is 200000.
Field Delimiter	Enter the characters for delimiting field names.
Field Container	Enter the characters for wrapping each field. (Empty for none).

Table 3-87 (Cont.) Advanced Settings Tab

Field	Description
Include Header in Output	Select to include the header in the output file.
Enable Statistics	Select to add statistics to the log file.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring ASCII Distribution Cartridge Settings

Table 3-88 describes the basic settings for an ASCII Distribution Cartridge node.

Table 3-88 Basic Settings Tab

Field	Description
Send Output Using FTP	Select to send the output to a remote system using FTP.
Remote Host Access	(Only appears when **Send Output Using FTP** is selected) Select your remote host access. The two options available are **Secure (SFTP)** or **Regular**.
Remote Directory Path	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP directory path.
User ID	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP login name.
Password	(Only appears when **Send Output Using FTP** is selected) Enter your remote FTP password.
Host	(Only appears when **Send Output Using FTP** is selected) Enter the host name of your remote FTP host.
Port	(Only appears when **Send Output Using FTP** is selected) Enter the remote FTP port number. The standard port is 21.

Table 3-88 (Cont.) Basic Settings Tab

Field	Description
FTP Interval	(Only appears when **Send Output Using FTP** is selected) Enter how frequently to check for new files.
Interval Unit	(Only appears when **Send Output Using FTP** is selected) Select the units for the FTP interval: **Minutes** or **Hours**.
Transferred File Extension	(Only appears when **Send Output Using FTP** is selected) Enter the extension to append to the transfer file.

Table 3-89 describes the advanced settings for an ASCII Distribution Cartridge node.

Table 3-89 Advanced Settings Tab

Field	Description
File-level Transactions – Input Records Succeed or Fail Together	Select to treat the entire input file as a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the maximum number of days to retain backup NAR files.
Enable Output File Archive/ Delete	Select to archive or delete the output files.
Archive File	(Only appears when **Enable Output File Archive/Delete** is selected) Select to archive the output files.
Archive Directory path	(Only appears when **Archive File** is selected) Enter the directory to which the output files should be moved after the retention period.
Retention Period (in Days)	(Only appears when **Archive File** is selected) Enter the number of days to retain output files before moving them to archive directory.
Delete Files	(Only appears when **Enable Output File Archive/Delete** is selected) Select to delete the output files.
Retention Period (in Days)	(Only appears when **Delete Files** is selected) Enter the number of days to retain output files before deleting them.
Output Directory Path	Enter the directory to store output files.
File Name	Enter the name to prepend to the output file.
Current File Extension	Enter the file name extension for files that have not been processed yet.
Processed File Extension	Enter the file name extension for processed files.
Time Period to Push Output	Enter the time period before pushing output files.
Time Unit	Select the unit of time in days, hours, minutes, or seconds.
Max Records per Output File	Enter the maximum number of records in each output file. The minimum value is 1 and the maximum value is 200000.
Field Delimiter	Enter the characters for delimiting field names.
Field Container	Enter the characters for wrapping each field. (Empty for none).
Include Header in Output	Select to include the header in the output file.
Enable Statistics	Select to add statistics to the log file.

Table 3-89 (Cont.) Advanced Settings Tab

Field	Description
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum number of entries to add to a log file. After the maximum is reached, Offline Mediation Designer creates a new log file.
Input Stream Monitoring	Select to monitor the input stream.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the minimum silent input time interval to wait before raising an alarm.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the units for the input stream interval.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to spawn for processing records.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to optimize the reading and writing of files.
Read Timer	Enter the number of seconds between checking for incoming data. (Min=1, Max=3600)

Configuring Multithreaded Programmable Aggregation Processor Cartridge Settings

Table 3-90 describes the basic settings for a Multithreaded Programmable Aggregation Processor Cartridge nodes.

Table 3-90 Basic Settings Tab

Field	Description
Time Based Session Segmentation	Select to enable time-based segmentation.
Segmentation by 1st CDR arrival time	(Only appears when **Time Based Session Segmentation** is selected) Select to segment CDRs by first arrival time.
Flush Time	(Only appears when **Time Based Session Segmentation** is selected) Enter the seconds before an aggregated NAR is flushed.
Compression Threshold	(Only appears when **Time Based Session Segmentation** is selected) Enter the minimum size that an aggregated segment must reach before compression is applied. This value must be between 1 and 300,000,000.
Volume Based Segmentation	Select to enable Volume Based Segmentation.
Volume Field	(Only appears when **Volume Based Session Segmentation** is selected) Enter the CDR field name to aggregate based on volume.

Table 3-90 (Cont.) Basic Settings Tab

Field	Description
Max Volume	(Only appears when **Volume Based Session Segmentation** is selected) Enter the maximum volume that a segment can reach before it is flushed.
Max volume unit	(Only appears when **Volume Based Session Segmentation** is selected) Select the units for the maximum volume: **KB**, **MB**, **GB**, or **TB**.
Compression Threshold	(Only appears when **Volume Based Session Segmentation** is selected) Enter the minimum size that an aggregated segment must reach before compression is applied. Fixed at 1000.
Both (Time Based on Volume Based Session Segmentation)	Select to enable both time-based and volume-based segmentation.
Segmentation by 1st CDR arrival time	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Select to segment CDRs by first arrival time.
Flush Time	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the seconds before an aggregated NAR is flushed.
Volume Field	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the CDR field name to aggregate based on volume.
Max Volume	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the maximum volume.
Max volume unit	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Select the units for the maximum volume: **KB**, **MB**, **GB**, or **TB**.
Compression Threshold	(Only appears when **Both (Time Based on Volume Based Session Segmentation)** is selected) Enter the minimum size that an aggregated segment must reach before compression is applied. Must be specified in the range of 1 to 30000000.
Schedule Daily CDR Flush	Select to flush CDRs daily.
Daily Flush at Time	(Only appears when **Schedule Daily CDR Flush** is selected) Enter the time of day when the daily CDR flush should occur in the format *HH:MM*.

Table 3-91 describes the advanced settings for a Multithreaded Programmable Aggregation Processor Cartridge nodes.

Table 3-91 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.

Table 3-91 (Cont.) Advanced Settings Tab

Field	Description
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Recycle EP Cartridge Settings

Table 3-92 describes the basic settings for a Recycle EP Cartridge node.

Table 3-92 Basic Settings Tab

Field	Description
Batch Size	Enter the number of records per transaction.
User	Enter the user name for connecting to the database.
Password	Enter the password for the database user.
Host	Enter the host name or IP address of the host where the Oracle database server is running.
Port	Enter the port number on which the listener is running.
SID	Enter the database instance identifier.
Service Name	Enter the database service name.
Category	Enter the group name to which the category belongs to. The value should match PIPELINE_CATEGORY in suspended record.
SQL Header File	Enter the absolute path to the file containing the SQL statement for retrieving the header information.
SQL Detail File	Enter the absolute path to the file containing the SQL statement for retrieving the detailed information.

Table 3-93 describes the advanced settings for a Recycle EP Cartridge node.

Table 3-93 Advanced Settings Tab

Field	Description
File-level Transactions - Input Records Succeed or Fail Together	Select to process the entire input file in a single transaction. If any record within the file fails processing, the entire file is rejected.
Backup NAR Files	Select to enable a back up of all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the number of days to retain processed or backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. This is useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Use Multiple Threads	Select to process records using multiple threads.
Number of Threads	(Only appears when **Use Multiple Threads** is selected) Enter the number of threads to use for processing. The minimum value is 1 and the maximum value is 2147483647.
Produce Output Files in the Order they are Read and Processed	(Only appears when **Use Multiple Threads** is selected) Select to ensure that the output files are produced in the same order as the input files are read and processed.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

Configuring Sequencing EP Cartridge

Table 3-94 describes the basic settings for a Sequencing EP Cartridge node.

Table 3-94 Basic Settings Tab

Field	Description
Expiry Interval (minutes)	Enter the minutes to wait for out of sequence records. (1 to 1440)
Log Duplicate Entries	Select to log duplicate entries.
Missing Record Monitoring	Select to enable missing record monitoring.

Table 3-94 (Cont.) Basic Settings Tab

Field	Description
Missing Record Alarm or Log Severity	(Only appears when **Missing Record Monitoring** is selected) Select the severity of the alarm or choose for logging: **Informational**, **Warning**, **Minor**, **Major**, or **Critical**.

Table 3-95 describes the advanced settings for a Sequencing EP Cartridge node.

Table 3-95 Advanced Settings Tab

Field	Description
Backup NAR Files	Select to back up all NAR files.
File Retention Period	(Only appears when **Backup NAR Files** is selected) Enter the length of time, in days, to retain processed NAR files and backup NAR files. Files older than this period are automatically deleted.
Max NARs per Output File	Enter the maximum number of records to add to an output file. After the maximum is reached, the node creates a new output file.
Write Output After Idle Period	Enter the duration, in seconds, the node waits before writing an idle record. The minimum value is 1 and the maximum value is 3600.
Enable Statistics	Select to collect processing statistics for this node. The statistics are useful for monitoring performance and troubleshooting.
Logging Level	Select whether to create a log file. The possible values are **On** or **Off**.
Max Log File Size	Enter the maximum size, in bytes, for the log file. When the log file reaches this limit, the node closes the current log file and opens a new one to prevent excessive disk usage.
Input Stream Monitoring	Select to monitor the input stream for potential issues such as a stalled data flow.
Interval	(Only appears when **Input Stream Monitoring** is selected) Enter the interval at which the input stream is checked for activity.
Interval Unit	(Only appears when **Input Stream Monitoring** is selected) Select the interval unit: **Days**, **Hours**, or **Minutes**.
Optimize Reading and Writing of Files	Select to enable multithreading.
Read Timer	Enter the duration, in seconds, between checking for incoming data.

4

Managing Node Chains

You can use Oracle Communications Offline Mediation Designer to configure and manage nodes and node chains within your mediation system.

To manage node chains, see the following topics:

- Deleting Nodes from a Node Chain
- Exporting Node Chains
- Importing Node Chains
- About Testing Node Chains
- Setting the Node Chain Diagram Properties
- Node Chain Page Reference

Deleting Nodes from a Node Manager

To delete a node:

1. Access the page for the appropriate Node Manager. See "Viewing a Node Manager".
2. Navigate to the Node Manager that you want to delete nodes from.
3. On the node that you want to delete, click the menu icon:

4. From the list, click **Delete**.

   The Delete Node dialog box appears.
5. Click **Remove**.

Exporting Node Chains

To export a node chain configuration:

1. Access the page for the appropriate Node Manager. See "Viewing a Node Manager".
2. Select the node chain that you want to export.
3. From the **Actions** menu, select **Export Node Chain**.
4. If successful, the Export Complete message appears at the top of the page.
5. Click the **Download node manager** *exportZipfilename* link.

   The file is downloaded to a local directory.

The downloaded file includes an XML file containing the node chain's configuration details and an NMX file containing the node chain's customization details.

Importing Node Chains

To import a node chain:

1. Access the page for the appropriate Node Manager. See "Viewing a Node Manager".
2. From the **Actions** menu, select **Import Node Chain**.

   The Import configuration dialog box appears.
3. Select one or both of the following:
   - **Import customization** to import the node chain customization details.
   - **Import configuration** to import the node chain configuration details.

   A **Drag and Drop** area appears for each selection.
4. Drag and drop your **NMX** customization and **XML** configuration files into the Drag and Drop areas.
5. Click **Upload file**.

   The **Map node managers** area appears.
6. To restart the Administration Server after the import completes, select **Restart Administration Server**.
7. To generate new node IDs for each node in the chain, select **Generate new IDS for Nodes**.
8. Click **Import**.

About Testing Node Chains

Using the **Test Node Chain** page, you can simulate the flow of data through a node chain to ensure that each node processes data as expected. This allows for thorough validation of your mediation logic. You can test an entire node chain, or isolate individual cartridges by disconnecting them from other nodes in the Node Manager for focused debugging. This helps confirm that each component is working correctly in isolation and as part of the larger system.

About the Test Node Chain Page

The **Test Node Chain** page offers a comprehensive interface for validating and debugging node chains. Following are the key elements and functions of the Test Node Chain page:

- **Node chain diagram**: A diagram showing the nodes in the chain. The node chain diagram updates in real-time during testing.
- **Input Tab**: Displayed only if an input file is loaded. This tab shows the details of the test file, allowing you to review the data being used for testing, and includes a "Records" section displaying the contents of the file.

> **Note:**
>
> The **Input** tab is not displayed if a node does not require any input data, or if the input data is in binary format.

- **Rules Tab**: Allows users to define or modify the Node Processing Language (NPL) of a node before starting a test. It provides a text editor where you can view and modify the NPL of a node. These rules define how the data is transformed and processed by the node chain.

  > **Note:**
  >
  > You cannot edit the rules of a node while a test is running.

- **Output Tab**: Displays processed results after the test is executed. This tab will show the output or processed data after the test has been run. This data can then be compared against expected values to ensure that the mediation logic is functioning correctly. The output can be in text, binary or Network Accounting Record (NAR) format. If it is NAR, users can filter the leaf data for more focused analysis.

  > **Note:**
  >
  > The **Output** tab only displays the output of nodes that are configured to produce it. It is also not displayed if the output is in binary. For the Output tab to show the processed information, you must select the relevant Output node after the records are processed.

- **Activity Tab**: Becomes active during testing, providing real-time updates and logs.

Testing a Node Chain

> **Note:**
>
> Before testing a node chain, you must have the required input and lookup files ready. Additionally, you should also ensure that the necessary directories for input and output data are properly configured within your environment to avoid any runtime exceptions.

To test a node chain:

1. Access the page for the appropriate Node Manager. See "Viewing a Node Manager".
2. On the specific node that you want to start the test from, click the menu icon:

3. From the list, click **Test Node Chain Starting Here**.

   The **Load test input** dialog box appears.

> **Note:**
>
> Some nodes do not require input data to be loaded. For these nodes, the **Load Input** dialog box will not appear, and you can proceed directly to the Test Node Chain page.

4. Drag and drop a file containing a few call detail records (CDRs) to the **Drag and Drop** area.
5. Click **Load Input**.

   The sample file is loaded, and the Test Node Chain window appears below the node chain diagram.
6. Click the **Run Test** icon above the node chain diagram to start the test:

> **Note:**
>
> To edit a node chain or access certain features like **Import Node Configuration** you must stop the test using the **Stop Test** button at the top of the node chain diagram. Leaving the page while a test is running will prevent editing and access to these features.

Setting the Node Chain Diagram Properties

You can customize how you view the node chain diagram by editing the node chain diagram properties.

To edit the node chain diagram properties:

1. From the **Node Managers** page, click the **Edit Diagram Properties** icon:

   

   The Node chain diagram properties dialog box appears.
2. From the **Route Style** list, select **Curved**, **Orthogonal**, **Straight**, or **Smooth Curved**.
3. Select **Display tooltip when hovering over links** to see a description of the route from one node to another.
4. Select **Snap to grid when moving nodes** to align nodes neatly on the page.
5. Select **Highlight node and links when hovering over links** to emphasize the nodes connected by the link.
6. Click **Save** after making your changes.

For more information, see “Node Chain Diagram Properties Dialog Box”.

Node Chain Page Reference

View detailed descriptions about the fields and options in the following dialog boxes:

Node Chain Diagram Properties Dialog Box

Use the Node Chain Diagram Properties dialog box to configure a node chain.

Table 4-1 describes the fields in the Node Chain Diagram Properties dialog box.

Table 4-1 Node Chain Diagram Properties Dialog Box

Fields	Description
Route Style	Contains a list of options for viewing the node route: • Curved • Orthogonal • Straight • Smooth Curved
Display tooltip when hovering over links	This option lets you display the names of the connected nodes when hovering over a node route.
Snap to grid when moving nodes	This option lets you snap a node to a grid when moving it from one place to another.
Highlight node and links when hovering over links	This option lets you highlight the connected nodes and its link when hovering over a node route.

Load Test Input Dialog Box

Use the Load Test Input dialog box to import the file containing call data records to test a node chain.

Table 4-2 describes the fields in the Load Test Input dialog box.

Table 4-2 Load Test Input Dialog Box

Fields	Description
Drag and Drop	Click the area to browse to the file containing call data records. Alternatively, drag and drop the file to the **Drag and Drop** area.
Load Input	Click to load the file containing CDRs that can be used to test a node chain.

Import Node Chain Dialog Box

Use the Import Configuration dialog box to import the configuration of one or more node chains.

Table 4-3 describes the fields in the Import Node Chain dialog box.

Table 4-3 Import Node Chain Dialog Box

Fields	Description
Import customization	Select to import an NMX file containing node chain customization details. After you select the check box, a **Drag and Drop** area appears.
Import configuration	Select to import an XML file containing node chain configuration details. After you select the check box, a **Drag and Drop** area appears.
Drag and Drop	Click the area to browse to the file to import. Alternatively, drag and drop the file to the **Drag and Drop** area.
Upload file	Click to upload the file to Offline Mediation Designer.
Import	Click to import the file into your Node Manager.

5

Managing Node Routing

You create and edit node chains in Oracle Communications Offline Mediation Designer from the Node Chain diagram.

To manage node routing, see the following topics:

- Connecting Nodes in a Chain
- Modifying Routes Between Nodes
- Deleting Routes Between Nodes
- Node Routing Page Reference

Connecting Nodes in a Chain

You establish connections between nodes in a node chain to define the flow of data. These connections are called **routes**, and they can be one of four types: Multicast, Round Robin, Directed, and Modulus. See "Edit Routing Dialog Box" for more information on the different available route types.

You can connect nodes that reside within the same Node Manager (called local nodes) or nodes that reside in different Node Managers (called remote nodes).

> **Note:**
>
> You cannot connect from a Distribution Cartridge (DC) to any other nodes. You can only connect to a DC.

Connecting to Local Nodes

To connect to local nodes:

1. Access the page for the Node Manager that contains your node chain. See "Viewing a Node Manager".
2. Hover over the node you want to create a connection from and click the menu icon:

3. From the menu, select **Connect to Node**.

   The **Connect node** dialog box appears. See "Connect Node Dialog Box" for details.
4. From the **Destination Node** list, select the name of the node you want to connect to.

> **Note:**
>
> The list contains all nodes in the Node Manager that you can connect to. If there are no nodes available, a **No destination nodes are available** message appears.

5. From the **Routing Type** list, select the routing type: **Multicast**, **Round Robin**, **Directed**, or **Modulus**.
6. Click **Connect** to connect to the selected node.

Connecting to Remote Nodes

To connect to remote nodes:

1. Access the page for the Node Manager that contains your node chain. See "Viewing a Node Manager".
2. Hover over the node you want to create a connection from and click the menu icon:

3. From the menu, select **Connect to Remote Node**.

   The **Connect to Remote Node** dialog box appears. See "Connect To Remote Node Dialog Box" for details.
4. From the **Node Manager** list, select the name of the target Node Manager.
5. From the **Destination Node** list, select the name of the node you want to connect to. Alternatively, you can select the destination node from the diagram.
6. From the **Routing Type** list, select the routing type: **Multicast**, **Round Robin**, **Directed**, or **Modulus**.
7. Click **Connect** to connect to the selected remote node.

Modifying Routes Between Nodes

You can modify the routing rules that govern the flow of data between connected nodes.

To modify routes between nodes:

1. Access the page for the Node Manager that contains your node chain. See Viewing a Node Manager.
2. Hover over the route you want to modify and click the connection icon:

   

3. From the menu, select **Edit route**.

   The **Edit routing** dialog box appears. See "Edit Routing Dialog Box" for details.
4. Select a new routing type or change the route's details.
5. Click **Save** to save the changes.

Deleting Routes Between Nodes

You can delete existing routes between nodes to change the flow of data within a node chain.

To delete routes between nodes:

1. Access the page for the Node Manager that contains your node chain. See "Viewing a Node Manager".
2. Hover over the route you want to delete and click the connection icon:

3. From the menu, select **Delete route**.

   The **Delete Route** dialog box appears.
4. Click **Remove** to confirm that you want to delete the node route.

Node Routing Page Reference

View detailed descriptions about the fields and options in the following dialog boxes:

- Edit Routing Dialog Box
- Connect Node Dialog Box
- Connect To Remote Node Dialog Box

Edit Routing Dialog Box

Use the Edit Routing dialog box to define specific routing rules for data flowing between two connected nodes.

Table 5-1 describes the fields in the Edit Routing dialog box.

Table 5-1 Edit Routing Dialog Box

Field	Description
Routing Type	Select the routing type: • **Multicast:** allows you to branch a node chain, such as from a source node to two destination nodes. All NAR files are routed in parallel to both destination nodes. • **Round Robin:** allows you to branch a node chain to multiple instances of the same processing node type, such as from one CC node to three instances of an EP node, to improve performance. NAR files are routed by rotating through the different destination nodes. • **Directed:** allows you to branch a node chain from a source node to one or more different destination nodes. NAR files are routed to the destination node based on an attribute value in the file. • **Modulus:** allows you to branch a node chain to multiple instances of the same processing node, such as from one CC node to three instances of an EP node, to improve performance. NAR files are routed to a destination node based on an attribute value in the file, such as starting time. The values in the routing field are generated from the NPL of the start node.

Table 5-1 (Cont.) Edit Routing Dialog Box

Field	Description
Routing Field	(Only appears for **Directed** and **Modulus** routing) Select the field to use for routing.
Operator	(Only appears for **Directed** routing) Select the operator to use for the routing condition: • Equals • Not Equals • Less Than • Greater Than • In Between • List Equals • List Not Equals • Subset Of • Not Subset Of
Add Value	(Only appears for **Directed** routing) Click to add a value for routing operation.
Value	(Only appears for **Directed** routing) Enter the specific value that, when matched triggers this routing rule and then click the check mark at the end of the row.
Save	Click to save the changes made to the routing rules.

Connect Node Dialog Box

Use the Connect Node dialog box to specify how to connect to a node in the same Node Manager.

Table 5-2 describes the fields in the Connect Node dialog box.

Table 5-2 Connect Node Dialog Box

Field	Description
Destination Node	Select the node that you want to connect to.
Routing Type	Select the routing type to use: • Multicast • Round Robin • Directed • Modulus See "Edit Routing Dialog Box" for more details.
Connect	Click to establish the connection between the originating node and the target node.

Connect To Remote Node Dialog Box

Use the Connect to Remote Node dialog box to specify how to connect to a node in a different Node Manager.

Table 5-3 describes the fields in the Connect To Remote Node dialog box.

Table 5-3 Connect To Remote Node Dialog Box

Field	Description
Node Manager	Select the Node Manager in the environment that you want to connect to.
Destination Node	Select the node that you want to connect to here or use the Select Node diagram below.
Routing Type	Select the routing type to use: • Multicast • Round Robin • Directed • Modulus See "Edit Routing Dialog Box" for more details.
Select Node	Displays all nodes in the Node Manager. You can select the destination node from the diagram.
Connect	Click to establish the connection between the originating node and the remote target node.