Oracle® Communications Offline Mediation Controller

Syslog Collection Cartridge Pack User Guide

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Oracle Communications Offline Mediation Controller Syslog Collection Cartridge Pack User Guide, Release 6.0

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Preface

This document contains guidelines for installing and setting up Oracle Communications Offline Mediation Controller Syslog Collection Cartridge Pack.

Audience

This document is intended for solution designers who configure Offline Mediation Controller cartridges.

Downloading Oracle Communications Documentation

Product documentation is located on Oracle Help Center:

http://docs.oracle.com

Additional Oracle Communications documentation is available from the Oracle software delivery Web site:

https://edelivery.oracle.com

Related Documents

For more information, see the following documents:

- *Offline Mediation Controller Cartridge Development Kit Developer's Guide*: For information about how to develop a cartridge.
- *Offline Mediation Controller Cartridge Development Kit NPL Reference Guide*: For information about how to use the Node Programming Language for developing or extending a cartridge.
- *Offline Mediation Controller System Administrator's Guide*: For administrating Oracle Communications Offline Mediation Controller.

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About this Guide

This chapter contains an overview about Oracle Communications Offline Mediation Controller cartridges.

The scope of this guide includes Offline Mediation Controller as it pertains to the use of this cartridge pack. It is not intended to be a complete Offline Mediation Controller reference guide.

About the Cartridges

Offline Mediation Controller cartridge packs are discrete software components that are developed for the Offline Mediation Controller product. An Offline Mediation Controller cartridge pack offers specific domain behavior on top of the core Offline Mediation Controller software.

An Offline Mediation Controller cartridge pack is not a standalone component; it operates in conjunction with the Offline Mediation Controller core product. Offline Mediation Controller cartridge packs offer the following benefits:

- **Reduced time to market**: Time to market of new services is reduced through simplified development, implementation, and extension of cartridges on customer sites.
- **Extendable**: Cartridges can be extended to include additional services and components that deliver business value, without requiring changes to the original cartridge.
- **Simplified effort**: The effort and technical knowledge that is required to perform customizations is reduced.
- **Ease of installation**: Cartridges can be installed into an Offline Mediation Controller environment without interfering with the existing install base.

> **Note:** Cartridges are designed for a specific technology, software load, and service.

For more information on creating and extending a cartridge, refer to the following documents:

- *Offline Mediation Controller Cartridge Development Kit Developer's Guide*: For information on how to develop a cartridge.
- *Offline Mediation Controller Cartridge Development Kit NPL Reference Guide*: For information on how to use the Node Programming Language for developing or extending a cartridge.

Cartridge Pack Content

An Offline Mediation Controller cartridge contains the following:

- **JAR file**: Contains the cartridge software.
- **Cartridge Pack User Guide**: Contains a description of cartridge pack functionality and installation and configuration instructions.

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Cartridge Pack Overview

This chapter contains an overview of Oracle Communications Offline Mediation Controller Syslog Collection Cartridge Pack (CC), which collects syslog files from multiple devices.

New Features

This section lists new features.

Version 6.0.0

This cartridge pack now works with Oracle Communications Offline Mediation Controller 6.0.

Alarms

All Offline Mediation Controller alarms are listed in the **alarms.txt** file located in the *OMC_Home* directory (*OMC_Home* is the directory in which you installed Offline Mediation Controller.) No new alarms are introduced in this cartridge pack.

Behaviors

The following are known behaviors for this cartridge pack:

1. In the event of an FTP session failure, the CC will attempt to re-establish the session every 5 seconds, instead of the configured FTP Interval value on the FTP Settings tab. The CC will continue to attempt a re-connection until it successfully transfers the file. The CC will generate a log message for each unsuccessful FTP attempt. If there is a problem with the network or the FTP server, you may want to stop the CC, fix the problem, and then restart the CC.
2. When provisioning the local directory where the CC is to collect files, if the specified directory does not exist, the CC will raise a critical alarm and will not start.
3. When configuring the prefix and suffix values for the CC, non-alphanumeric characters, such as "." and "_" are supported but the "#" and "/" characters are **not** supported. Using these unsupported characters can result in the use of unexpected values when the data files are being renamed.

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Installing the Cartridge Pack

This chapter contains information on the requirements for installing and setting up Oracle Communications Offline Mediation Controller Syslog Collection Cartridge Pack.

Pre-Installation Tasks

Complete the following pre-installation tasks before installing the cartridge pack:

1. Ensure Offline Mediation Controller 6.0 is installed.
2. Stop the Node Manager, Admin Server, and Admin Client.
3. Delete any existing Syslog Collection cartridge .jar files from the *OMC_Home*/**cartridges** directory, where *OMC_Home* is the directory in which Offline Mediation Controller is installed.

Installation Instructions

In a Solaris or Linux environment, you must install the cartridge pack on every UNIX server running the Node Manager or Admin Server.

Installing on a Solaris or Linux Workstation

To install the cartridge pack on a Solaris or Linux workstation:

1. Download the **syslog_r6_0_0.jar** to the *OMC_Home*/**cartridges** directory.
2. Restart the Node Manager, Admin Server, and GUI client.

Post Installation Instructions

After the Cartridge Pack has been installed, restart the node manager, admin server, and admin client.

Testing the Cartridge Pack Installation

Verify that the Cartridge Pack has been properly installed by viewing Version Info from the Help menu in the admin client. The Cartridge Pack name and version information should appear, along with the information about the admin client, admin server, and node manager.

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Syslog Collection Cartridge

This chapter contains information for creating and configuring the Oracle Communications Offline Mediation Controller Syslog Collection cartridge (CC) to collect syslog files from multiple devices.

Creating the Syslog CC

To create the Syslog CC, complete the following steps:

1. In the Offline Mediation Controller Administration window, go to the Nodes on Mediation Host panel and click **New**.

   The Create a Node window appears.

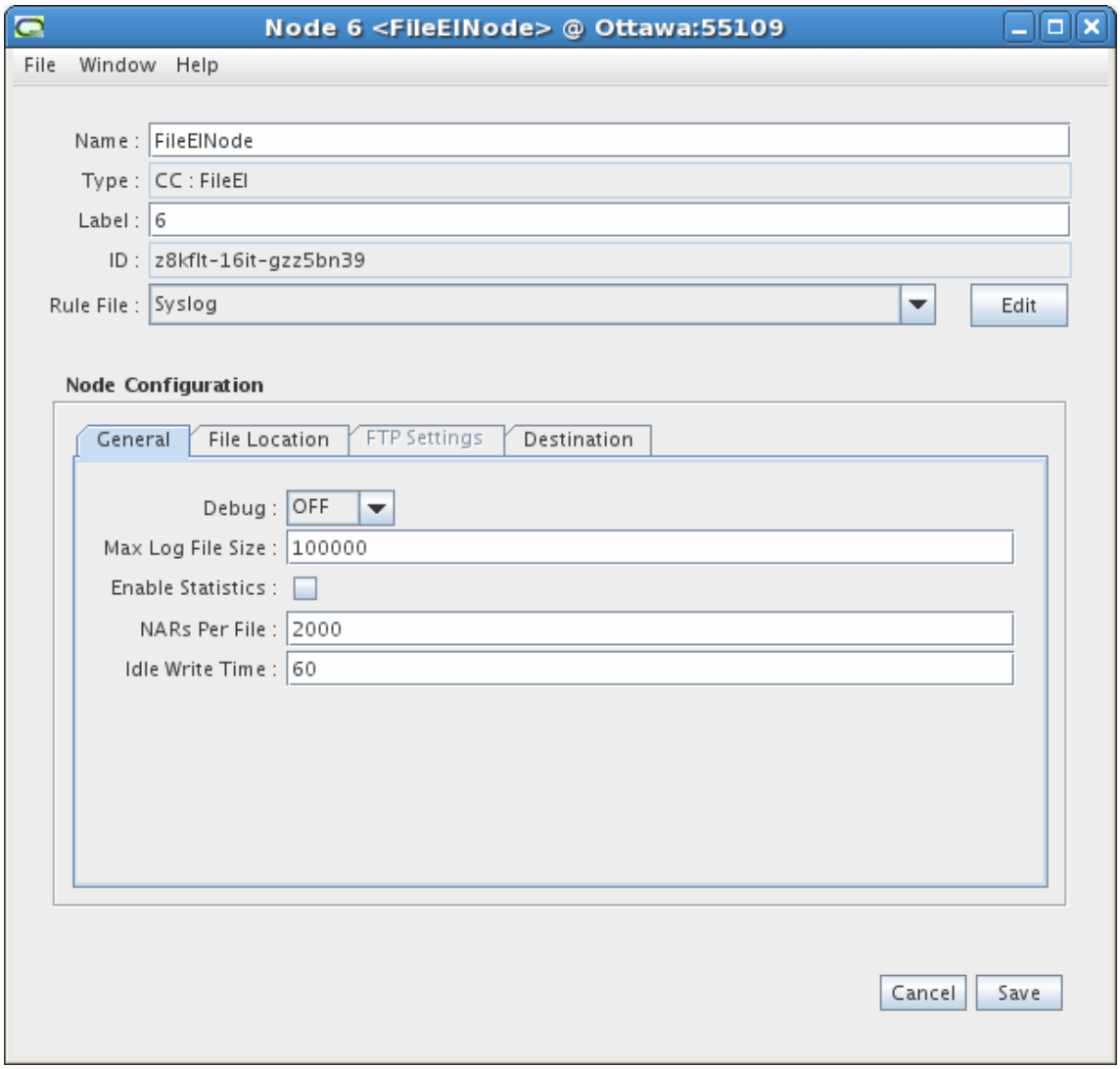
2. Select the **Voice over IP (VoIP)** service solution and click **Next**.
3. Select **Collection Cartridge (CC)** and click **Next**.
4. Select **Syslog Collection Cartridge** and click **Finish**.

   The node configuration window appears. To configure the Syslog CC node, see "Configuring the Syslog CC".

Configuring the Syslog CC

To configure the Syslog CC, complete the following steps:

1. In the node configuration window, enter a name for the node and accept the default rule file.
2. On the **General** tab, accept the default settings.



3. On the **File Location** tab, follow these guidelines to configure the settings:

   a. Select a method for obtaining files:

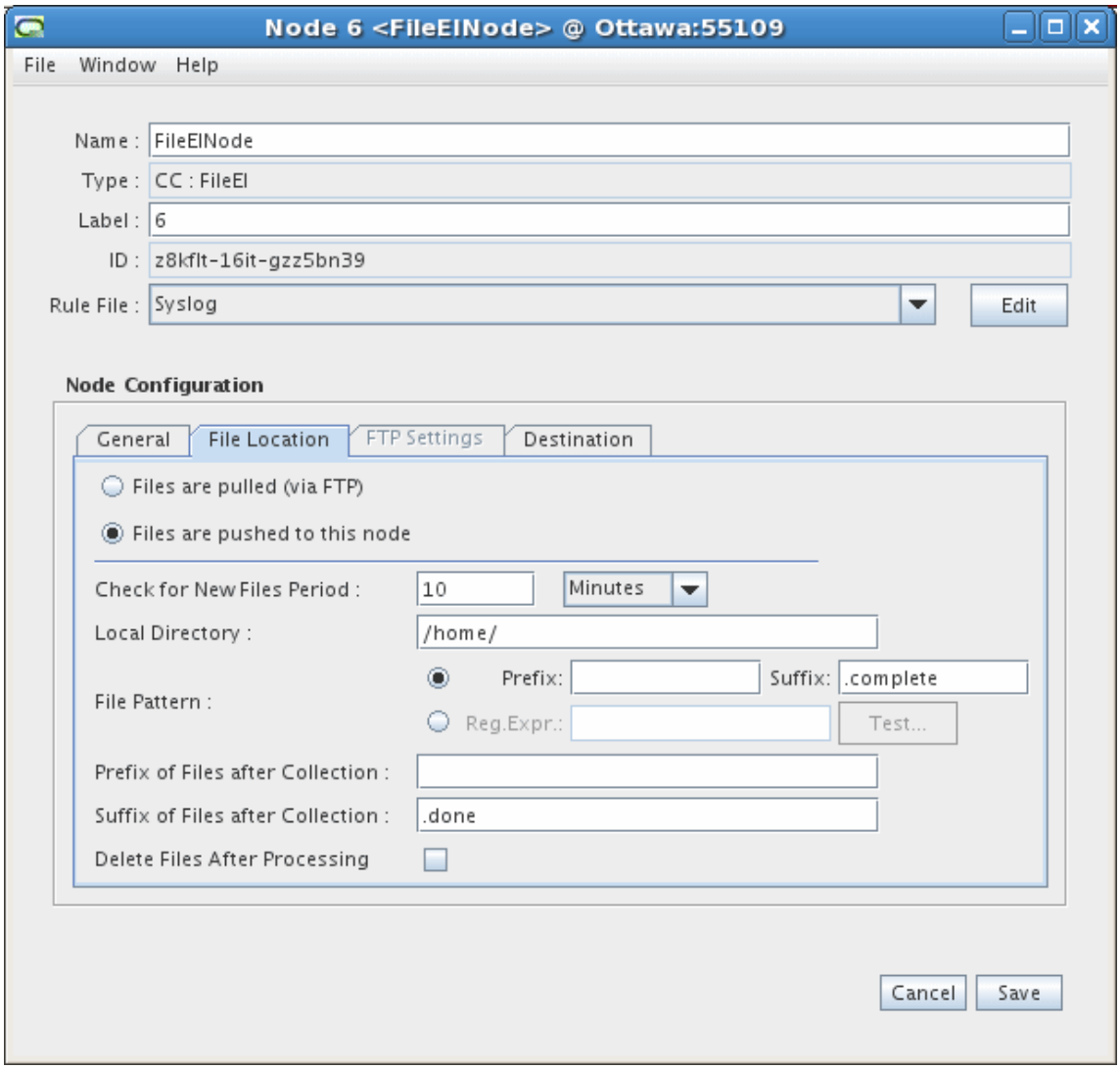
      If you select **Files are pushed to this node**, you must set the **Check for new files period** - enter a value in the field and then select seconds or minutes from the drop-down list. This is the amount of time the node waits before checking the input directory for new files. If you have a high data traffic rate, Oracle recommends lowering the time period setting to allow records to be processed more frequently. For this option, you must also set the **Suffix of files to collect** field - accept the default suffix or enter a different suffix so that the CC knows which files to process.

      If you select **Files are pulled (via FTP)**, the CC will pull files from an FTP server. You can configure the FTP information on the **FTP Settings** tab, as explained in the next step.

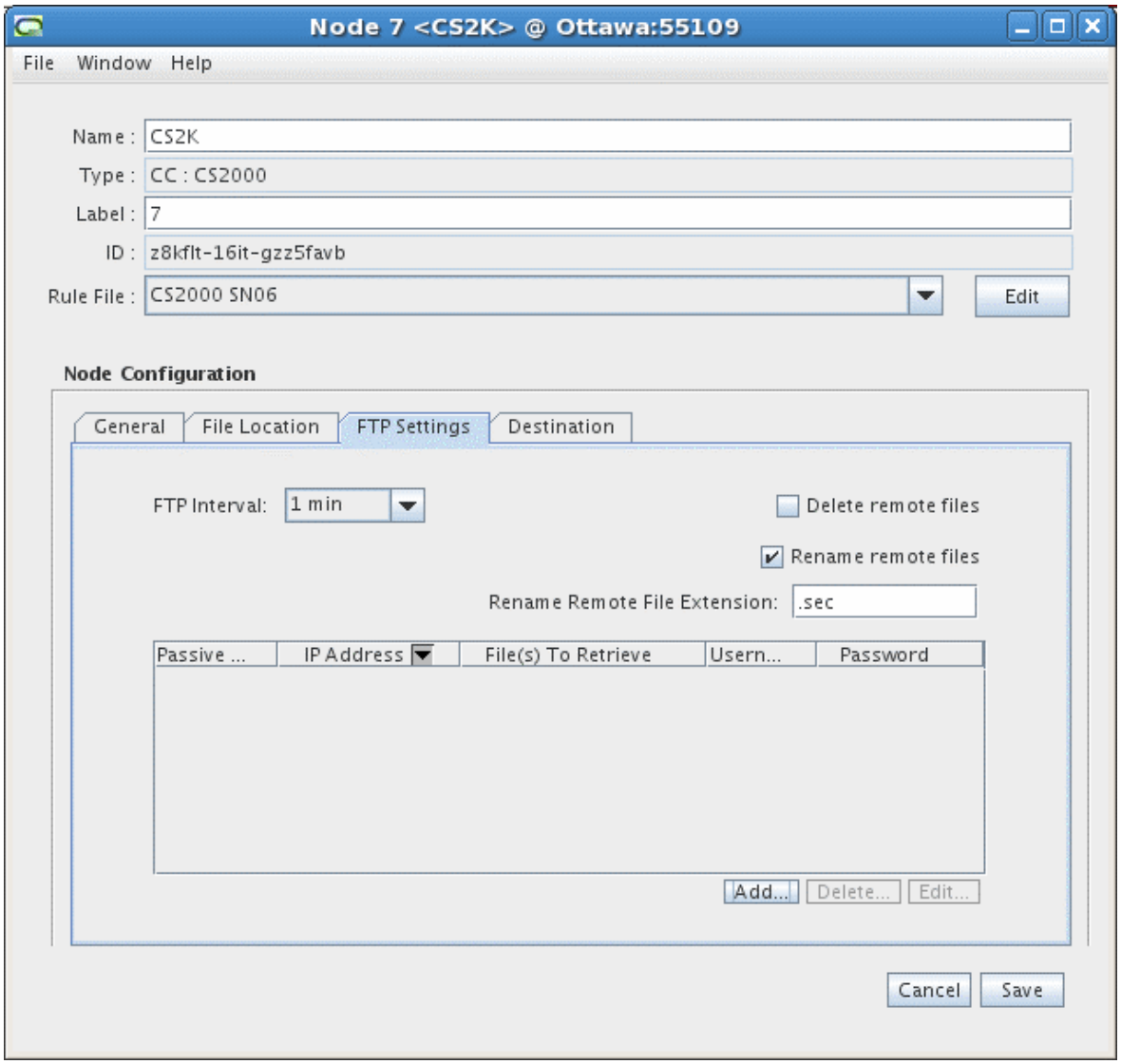
   b. Configure the fields:

      In the **Local Directory** field, enter the input directory where the node checks for files. In the **Prefix of files after collection** field, enter a prefix the CC appends to all files after processing. In the **Suffix of files after collection** field, accept the default or enter a suffix the CC appends to all files after processing.

Select the **Delete files after processing checkbox** if you want the CC to delete files after it processes them.



When you select the **Files are pulled (via FTP)** option, the **FTP Settings** tab becomes active.



4. Follow these guidelines to configure the **FTP Settings** tab:

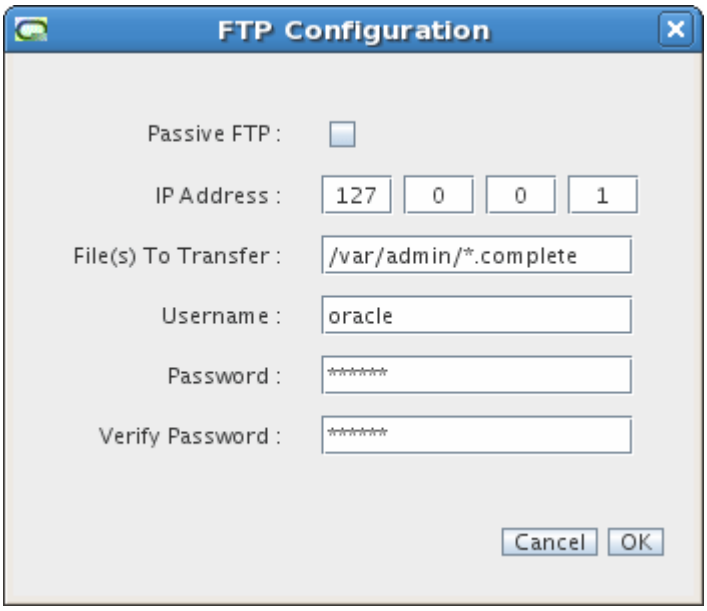
   a. Set the **FTP Interval** - select a value from the drop-down list to configure how often the node will pull files from the FTP server. If you have a high data traffic rate, Oracle recommends lowering the time period setting to allow records to be processed more frequently.

   b. Set the checkbox options to **Delete remote files** or **Rename remote files** on the FTP server. If you select the rename option, the CC will rename the remote files with an **.ftp** extension.

   Note: If you run the CC with the **Rename remote files** option activated, and then decide to deactivate this option, ensure you stop the CC, go to the remote directory on the FTP server, remove all the data files that were previously renamed, then restart the CC.

   c. Click the **Add** button to add an FTP server configuration.

   The **FTP Configuration** window appears.



d. Configure the fields in the **FTP Configuration** window as follows:

FTP Type - select the FTP method you wish to use: regular, secure FTP (SFTP) or passive

IP Address - enter the IP address of the FTP server

File(s) To Transfer - enter the directory path on the FTP server where the log files reside that you want to transfer. Enter an asterisk (*) after the directory path to pull all files from that directory, or if you know the file type, enter the directory path and file type with an asterisk. For example, **/var/admin/*.complete**

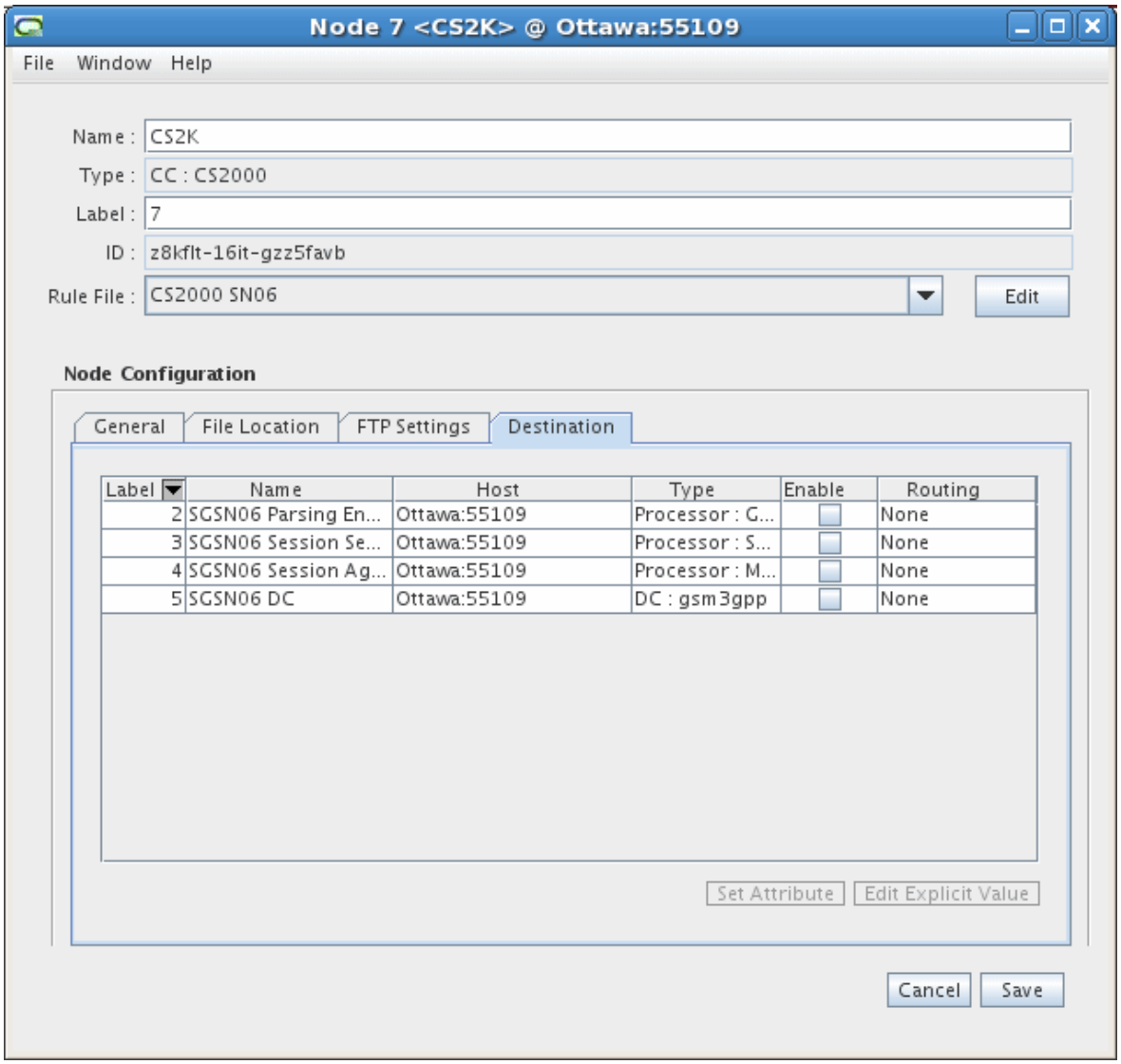
Username - enter the user name for the FTP server

Password - enter the password for the FTP server

Verify Password - enter the password again to verify its accuracy

e. You can **Delete** or **Edit** existing FTP configurations by using the corresponding buttons on the **FTP Settings** tab.

You do not need to configure any values on the **Destinations** tab.



5. Click the **Save** button.

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Configuration Guidelines

This chapter contains information on the requirements for creating and configuring the Oracle Communications Offline Mediation Controller Syslog Collection Cartridge Pack.

Syslog Configuration On Solaris 8, 9, and 10

The file /etc/syslog.conf contains information used by **syslogd**, the syslog daemon process, to forward a system message to appropriate log files and/or users. The syntax is explained below.

The configuration entry is composed of two tab-separated fields:

Syntax: <*selector*> <*action*>

Example 1:

```
mail.alert          /var/adm/messages
```

Example 2:

```
mail.alert          @10.13.3.28
```

Syslog Rotation On Solaris 8

The shell script **newsyslog** rotates the log file that is run by the cron job. This script is provided by Sun as part of the Solaris package. You can either edit this file or create your own script and add it to the cron tab. The file location is: **/usr/lib/newsyslog**.

Here is a sample **newsyslog** shell script:

```
#! /bin/sh
LOG=TestLog
EXT=complete
cd /var/adm
if test -s $LOG
then
        test -f $LOG"_2."$EXT && mv $LOG"_2."$EXT $LOG"_3."$EXT
        test -f $LOG"_1."$EXT && mv $LOG"_1."$EXT $LOG"_2."$EXT
        test -f $LOG"_0."$EXT && mv $LOG"_0."$EXT $LOG"_1."$EXT
        test -f $LOG && mv $LOG   $LOG"_0."$EXT
        cp /dev/null $LOG
        chmod 644    $LOG
fi
```

Syslog Rotation On Solaris 9

The **logadm** is a general log rotation tool that is run by the cron job. You need to specify the configuration options for the **logadm** in the **/etc/logadm.conf** file. Then you can configure the cron job to run the rotation tool every hour, or for another specified time period.

The syntax is: <*log name*> <*options*>

For example: /var/adm/messages -C 10 -t '/var/adm/messages_$N.complete'

The necessary rotation options for a log file are as follows:

- **-s** size: use **b** for bytes, **k** for kilobytes, **m** for megabytes, or **g** for gigabytes
- **-C** count
- **-t** template: specify the template to use when renaming log files:
  - $file - The full path name of the file to be rotated.
  - $n - The version number, 0 is most recent, 1 is next most recent, and so on.
  - $N - The same as $n, but starts at 1 instead of zero.

There are additional options but the above options are the only necessary ones for this cartridge pack.

If you are using the default configuration for the **logadm**, you need to configure the cron job as follows:

```
0 * * * *    /usr/sbin/logadm
```

If you are using your own configuration for the **logadm**, you need to configure the cron job as follows:

```
0 * * * *    /usr/sbin/logadm -f <config file name>
```

Using the example: **/var/adm/messages -C 10 -t '/var/adm/messages_$N.complete'**, the log file will be rotated and renamed every hour as follows:

```
/var/adm/messages_1.complete, /var/adm/messages_2.complete, /var/adm/messages_
3.complete
```

.....up to

```
/var/adm/messages_10.complete
```

Syslog Rotation On AIX 5.3

The **file /etc/syslog.conf** contains information used by syslogd and the syslog daemon process, to forward a system message to appropriate log files or users or both. Since AIX has no logrotate daemon running, you must adapt syslogd to do the syslog rotation. The format would be

Syntax: <*selector*> <*action*> <*rotate_info*>

Example 1:

```
mail.debug /var/log/mail rotate size 100k files 4  # 4 files, 100kB each
```

Example 2:

```
user.debug /var/log/user rotate files 12 time 1h # 12 files, hourly rotate
```

Rotation can be based on size or time or both.

Size: This keyword specifies that rotation is based on size. It is followed by a number and either a k (kilobytes) or m (megabytes).

Time: This keyword specifies that rotation is based on time. It is followed by a number and either a h(hour) or d(day) or w(week) or m(month) or y(year).

6

NAR Attributes and Error Scenarios

This chapter contains information on the Network Accounting Record (NAR) attributes, as well as potential error scenarios for the Oracle Communications Offline Mediation Controller Syslog Collection Cartridge Pack.

Table 6–1 details the Network Accounting Record (NAR) attributes, as well as potential error scenarios.

Table 6–1 Network Accounting Record Attributes and Potential Errors

NAR ID	Type	Value
facility	string	This field can be blank or contain any of the following values: user, kern, mail, daemon, auth, lpr or news.
messageId	string	This field can be blank or contain a numeric value.
filename	string	Input file name.
processName	string	This field can be blank or contain a string value such as sendmail or mountd.
processId	string	This field can be blank or contain a numeric value.
message	string	Syslog message.
date	string	The date as a string value in the format: "MMM d HH:mm:ss" For example: Dec 2 16:40:50
level	string	This field can be blank or contain any of the following values: emerg, alert, crit, err, warning, notice, info, debug, none.
host	string	This field can be an IP address or host name.
nar_errorFlag	integer	A flag that indicates whether any problems were detected while parsing the CDR ("0" means that no problems were detected and "1" means that a problem was detected).

The following are potential error situations where the node will skip the record and create a log:

1. If **date** field is not in the format "MMM d HH:mm:ss".
2. If the **processId** is not a valid numeric value.
3. If there are any missing fields in the input data, such as **date**, **host** or **message**, for example.

The node will create a log as follows:

Invalid Data, File data not as expected, Invalid syslog record in `<file name>' file: '<syslog record >' This record cannot be processed

For example:

Invalid Data, File data not as expected, Invalid syslog record in 'message3.complete' file: '09 26 05:26:36 servcomnetdb25 mountd[5436]: [ID 882487 daemon.error] unable to create nfsauth service' This record cannot be processed

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Uninstalling the Cartridge Pack

This chapter contains information on the requirements for uninstalling Oracle Communications Offline Mediation Controller Syslog Collection cartridge pack.

Uninstalling the Cartridge Pack from a Solaris or Linux Workstation

To uninstall the Syslog Collection cartridge pack from a Solaris or Linux workstation:

1. Go to the *OMC_Home*/**cartridges** directory, where *OMC_Home* is the directory in which Offline Mediation Controller is installed.
2. Run the following command, which removes the cartridge pack:

```
rm syslog_r6_0_0.jar
```