Oracle® Communications Order and Service Management
Reporting Interface Guide

Release 7.4.1

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Oracle Communications Order and Service Management Reporting Interface Guide, Release 7.4.1

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Preface

This guide describes how to install and use Oracle Communications Order and Service Management (OSM) Reporting Interface to generate reports from order data.

Audience

Before reading this guide, you should have a basic understanding of OSM concepts. See *OSM Concepts* for more information.

If you are installing the Reporting Interface, you should be familiar with Windows, UNIX, and Oracle database management.

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1

About the OSM Reporting Interface

Use the Oracle Communications Order and Service Management (OSM) Reporting Interface to generate reports about orders, tasks, and notifications.

The OSM Reporting Interface provides a standard interface to OSM data that can be accessed using many third-party report generation applications. You can also use Ant to run reports and output data to comma-separated values (CSV) and XML files.

The Reporting Interface augments the reports that are available through the OSM web client.

About the OSM Reports

Using the reporting interface, you can generate the following reports:

- **Orders Report**: This report gives you an overview of pending and completed orders. You can filter the query to limit the number of responses. By specifying an OSM view (query task) mnemonic, you can display additional order information. See "About the Orders Report" for more information.

- **Order History Report**: This report returns order change information for a specified time interval. See "About the Order History Report" for more information.

- **Pending Order At Task Report**: This report gives you an overview of the pending orders and their related tasks information. See "About the Pending Order At Tasks Report" for more information.

- **Processes Report**: This report shows all completed and pending processes, including main processes, creation processes, and processes invoked by sub-processing. See "About the Processes Report" for more information.

- **Tasks Report**: This report creates a list of pending and completed tasks (excluding sub-process tasks). See "About the Tasks Report" for more information.

- **Notifications Report**: This report contains a list of order and non-order based notifications. See "About the Notifications Report" for more information.

How OSM Reports are Implemented

Reports are implemented in two ways:

- As Oracle database stored procedures.

- As Oracle database views.

You use a third-party reporting application to access the procedures and views, configure parameters, and output results. You can also run reports using Ant to export report data to CSV or XML files.

The following reports are implemented as Oracle database stored procedures:

- Orders (OMS_REPORT_ORDERS)

- Order History (OMS_REPORT_ORDERS_HISTORY)
- Pending Order At Task (OMS_REPORT_PENDING_AT_TASKS)

The following reports are implemented as Oracle database views:

- Processes
- Tasks
- Notifications

About the Orders Report

This report gives you an overview of pending and completed orders. You can filter the query to limit the number of responses. By specifying an OSM view (query task) mnemonic, you can display additional order information for those records that contain it.

When you run the Orders report:

- One row represents one order.
- When displaying order data, if there are multiple data items for the data, all instances are displayed.
- When viewing order-specific data, the mnemonic is used as the column name. The order of the columns is based on the view node position.
- The report shows both pending and completed orders. You can use the order completion date to distinguish pending orders and completed orders. A pending order does not have a value in these columns:
  - **completion date**
  - **time**

Calculating Duration in the Orders Report

In the Orders report, duration for completed orders is calculated as follows:

```
completion_date - order_start_date
```

> **Note:**
>
> **order_start_date** is when the order was started, **not** when the order was created.

In the case of pending orders, the duration is calculated as follows:

```
sysdate - order_start_date
```

Orders Report Contents

The Orders report displays the following data:

- Order ID

- Reference number
- Order type description and mnemonic
- Order source description and mnemonic
- Process description and mnemonic

  This is the current process of an order. (This data is empty for completed orders.)
- Process status description and mnemonic (last process status)
- Order creation date and time
- Order start date and time
- Expected duration of the order in days
- Actual duration of the order in days
- Expected order completion date
- Completion date of the order

  This data is empty for pending orders
- Namespace description and mnemonic
- Version
- Order-specific data (specified by a view/query task)

About the Order History Report

This report returns order delta information for a specified time interval.

Order delta information is given on an order-by-order basis. For each order, the last known delta for each node in the view for the specified time interval is shown.

About the Pending Order At Tasks Report

This report gives you an overview of the pending orders and information about their tasks.

When you run the Orders at Tasks report:

- If an order includes multiple rows, each row represents an instance of the order. If there are multiple data items for the data, all instances are displayed.

  Subprocess tasks are not included in the report.
- When viewing order-specific data, the mnemonic is used as the column name. The order of the columns is based on the view node position.
- The actual duration is calculated as follows:

  ```
  sysdate - order_start_date
  ```

Order at Tasks Report Contents

The Order at Tasks report displays the following data:

- Order ID

- Reference number

- Process description and mnemonic

- Order type description and mnemonic

- Order source description and mnemonic

- Task description and mnemonic

- Task type

- State description and mnemonic

- Process status description and mnemonic

- User name

- Order creation date and time

- Order start date and time

- Task start date and time

- Expected duration of the order in days

- Expected task duration in days

- Actual duration of the order in days

- Actual task duration in days

- Expected order completion date

- Expected task completion date

- Namespace description and mnemonic

- Version

- Order history sequence ID

- Order-specific data

- Workgroups

About the Processes Report

This report shows all completed and pending processes. It includes processes invoked by subprocessing, main processes, and creation processes.

For pending processes, the completion date and time fields are left blank.

Processes Report Contents

The Processes report displays the following data:

- Order sequence ID

- Order state

  Shows the current state the order is in, such as Suspended, Completed, or In Progress.

- Execution mode

- Process description and mnemonic

- process_originator_description and mnemonic

  A description of the process that took place before the current process.

- relationship_to_originator

  The report returns a blank to indicate a normal completion and **E** for a process exception.

- Order type description and mnemonic

- Order source description and mnemonic

- Start date and time

  The date and time when the order enters the process.

- Start position

  This is the first task that an order undergoes after it enters the current process. This is a process position mnemonic. It might not be the first task of the process if there is a process exception.

- Completion date and time

  The date and time at which time the order exits the process.

- Last position

  This is a position mnemonic to indicate the current pending position for a pending process or last position for a completed process.

- Current position

  This is a position mnemonic to indicate the current pending position of a pending process and is empty for completed processes.

- Completion reason

  The report returns a blank to indicate a normal completion and **E** for a process exception.

- Expected duration of the process, in days

- Actual duration

  The real length of time to complete the process.

- Process status description and mnemonic

- Namespace description and mnemonic

- Version

About the Tasks Report

This report creates a list of pending and completed tasks (excluding subprocess tasks).

This report is grouped by order ID and sorted by start date.

Tasks Report Contents

The Tasks report displays the following data:

- Order sequence ID

- Process (invoking task) description and mnemonic

  Indicates in which process the current task is operating.

- Task description and mnemonic

- Task type and mnemonic

- Start date and time

  The time and date that the order enters the task.

- Task expected completion date and time

- Task completion date and time

  This value is empty for pending tasks at the current state.

- Expected duration in days

- Actual task duration in days

- User name

- State description and mnemonic

- Status description and mnemonic

- Namespace description and mnemonic

- Version

About the Notifications Report

This report contains a list of order and non-order based notifications.

For non-order based notifications, the order sequence ID, order type description, order type mnemonic, order source description, and order source mnemonic fields are left blank.

When a notification is sent to multiple users, the report returns multiple rows. Each row corresponds to one user. Only one user acknowledges the notification.

Notifications Report Contents

The Notifications report displays the following data:

- Notification description and mnemonic

- Order ID

- Order type description and mnemonic

- Order source description and mnemonic

- User name

- Date and time sent

- Date and time acknowledged

  This is empty if a notification is not acknowledged by the current user.

- Namespace description and mnemonic

- Version

About the OSM SDK

> **Note:**
>
> In this book, "traditional OSM" refers to the traditional way of installing and maintaining an OSM environment and "OSM cloud native" refers to OSM deployed in a cloud native environment.

A number of directories within the SDK are referenced in procedures throughout this guide. For traditional OSM, if you selected **Custom** installation, then you can choose both the **SDK** and the **Samples** to be installed optionally. You can find the SDK inside the *OSM_Home* directory, where OSM is installed.

> **Note:**
>
> You can install only the SDK on a Windows, UNIX, or Oracle Linux machine by running the OSM Installer again and choosing **Custom**.

For OSM cloud native, the SDK is a separate artifact that is available in the download pack.

2

Setting Up the Reporting Interface Environment

This chapter describes how to configure the Oracle Communications Order and Service Management (OSM) Reporting Interface.

For more information about the OSM Reporting Interface, see "About the OSM Reporting Interface".

Overview

To configure the OSM Reporting Interface:

- Install required supporting software, such third-party reporting application.
- Connect the third-party reporting application to the OSM Oracle database.

> **Note:**
>
> To configure a third-party reporting application, you need to have familiarity with database configuration. You need to know information such as the database schema names and passwords, and the OSM Reporting Interface views and procedures.

Prerequisites for Configuring the Reporting Interface

Before installing and configuring the OSM Reporting Interface, perform the following tasks on the target system in the order listed:

- Install the OSM application.
- Install a third-party reporting application.

Configuring the Reporting Interface Environment

Configure your third-party reporting application. This task may include creating users and creating database connections, assigning stored procedures, and defining parameters. Specifics depend on which reporting application you use.

Creating Users

Some reporting applications require you to create user accounts for each individual who needs to access the Reporting Interface. How you assign privileges to an individual account depends on the duties the individual performs and the policies of your organization.

Refer to the documentation of the your reporting application for instructions on creating users in that application.

Creating Database Connections

After you create users, you may have to configure your reporting application with the appropriate database connections to the OSM database.

About Stored Procedures

Stored procedures give you access to the following reports:

- Orders (through the OMS_REPORT_ORDERS stored procedure)
- Order History (through the OMS_REPORT_ORDERS_HISTORY stored procedure)
- Pending Order At Task (through the OMS_REPORT_PENDING_AT_TASKS stored procedure)

You may have to assign these stored procedures to individual users or groups of users. Refer to the documentation of your reporting application for instructions on how to use the provided stored procedures.

About Views

Oracle views allow you to create the Processes, Tasks, and Notifications reports.

You may have to configure the views through your reporting application, providing information such as a link to the Oracle client, and specifying the views used for OSM reporting. Views include:

- OMS_REPORT_NOTIFICATIONS
- OMS_REPORT_PROCESSES
- OMS_REPORT_TASKS

You may want to specify a parameter range for some of the table columns. For example, you may configure the **Start Date** parameter so that the column displays only the work that is scheduled to begin the day after the reporting date. Refer to the documentation of the your reporting application for instructions on specifying parameters for views.

3
Generating OSM Reports

This chapter describes how to generate reports by using the Oracle Communications Order and Service Management (OSM) Reporting Interface.

Guidelines for Running Reports

Note these guidelines for running reports:

- Columns that report on process duration times are structured to display in days. If the actual duration of a task is sufficiently short (seconds or minutes), the duration time may be reported incorrectly by misplacing the decimal point, which makes the duration appear longer than it really is.

- For the Orders report and the Pending Order At Tasks report, you must create a reporting view if you want the report to return order data. The number of nodes in this view is limited by the size of the database variable that contains the data (32760 bytes). Various factors can play a role in how quickly the view exceeds this limit, including the number of elements and structures in the view, having multiple instances of elements or structure in the view, or having elements and structures with long mnemonics. Given these factors, the view should not contain a large number of value nodes. For example, you might test between 6 to 90 value nodes. You can also split the reporting views into smaller chunks and collate the data at a later time. This applies to nodes with or without data.

> **Note:**
>
> Pending Order At Task reports support multi-instance nodes. Cardinality determines the number of nodes contained in it. For example, if the reporting view has two nodes with cardinality 1 then this will be equal to one multi instance node with cardinality 2.

- To reduce the impact of reporting on system performance, use filters to limit the scope of the report. For example, configure your report to return orders in a reduced, specific date range, or related to a specific cartridge. See "Using Report Parameters to Filter Results " for more information.

Generating Reports from Stored Procedures

You can generate the following reports:

- Orders (OMS_REPORT_ORDERS)
- Order History (OMS_REPORT_ORDERS_HISTORY)
- Pending Order At Task (OMS_REPORT_PENDING_AT_TASKS)

Refer to the documentation of the your reporting application for instructions on generating reports from stored procedures. Typically, you will need to choose a report,

a stored procedure, a database connection, and the configuration of any parameters to customize the report output.

Using Report Parameters to Filter Results

When generating reports from stored procedures, you can filter results by providing values for the following parameters:

- Use the **a_view_mnemonic** parameter to generate reports based on OSM views. See "Generating Reports Based on OSM Views" for more information.

- Use the **a_fixed_header_filter** parameter to generate reports based on order data. See "Generating Reports Based on Header Fields" for more information.

- Use the **a_order_data_filter** parameter to generate reports based on data values. See "Generating Reports Based on Order Data" for more information.

- Use the **a_history_start_time** and **a_history_end_time** parameters to generate reports based on their start and end times. Use this parameter only for the Order History report. See "Generating Order History Reports Based on Date" for more information.

Generating Reports Based on OSM Views

The **a_view_mnemonic** parameter is an OSM view (query task) mnemonic that contains a list of nodes that the report returns. Only value nodes are included in the report.

When you use the **a_view_mnemonic** parameter, the search is performed on all cartridges unless you use the **a_fixed_header_filter** parameter to restrict the search to certain cartridges. See "Generating Reports Based on Header Fields" for more information.

> **✎ Note:**
>
> If different cartridges have identical views, both with the same mnemonic, the views are amalgamated and subsequently the fields appear duplicated in the report.

Generating Reports Based on Header Fields

The **a_fixed_header_filter** parameter is a filter condition that you can apply to the search using the fixed header fields, such as order ID, task, and process status. See Table 3-1 for more information.

You can restrict the report to return data from a specific cartridge. If the cartridge contains the view, the corresponding values are returned, otherwise the report returns empty values. All order data is returned if the cartridge value is null.

You can combine fields using logical operators OR and AND, and use parenthesis to group information. You can also apply relational operators such as =, !=, <, <=, > and >= . However, the following fields can use only = and !=:

- Process

- Order type

- Order source

- Process status

- Cartridge

You can also query on the following columns using *between* as an operator to specify a range of values:

- Order ID

- Order creation date

- Order start date

- Expected order completion date

- Order completion date

Examples

Completed orders only:

```
completion_date &lt; sysdate
```

Orders completed in the last 30 days:

```
completion_date between sysdate-30 and sysdate
```

Pending orders:

```
completion_date > sysdate
```

Orders that were created between specified dates:

```
order_creation_date between to_date(2008.11.01:00:00:00) and
to_date(2008.11.30:23:59:59)
```

Orders created in the last week:

```
completion_date between sysdate -7 and sysdate
```

Orders from multiple specified cartridges:

```
Cartridge=(dsl, *) OR cartridge=(default, 1.0) OR cartridge=(default, 2.0)
```

Table 3-1   Filter Values for the a_fixed_header_filter Parameter

Field Name	Description	Orders/Order History Reports	Pending Order At Tasks Report
order_id	The order sequence ID number.	Y	Y
ref_num	The reference number.	Y	Y
process	The process mnemonic.	Y	Y
order_type	The order type mnemonic.	Y	Y
order_source	The order source mnemonic.	Y	Y
task	The task mnemonic.	N	Y
state	The state mnemonic.	N	Y

Table 3-1   (Cont.) Filter Values for the a_fixed_header_filter Parameter

Field Name	Description	Orders/Order History Reports	Pending Order At Tasks Report
process_status	The process status mnemonic. Note: If N/A appears in the process_status, there is no process status for the order.	Y	Y
user	The user name.	N	Y
order_creation_date	Order creation date. The format can be either sysdate, sysdate - *offset* or to_date.(2011.12.12.11:22:33). The keyword sysdate represents the current date or time. When you specify a fixed date, the input should follow the format as follows: yyyy.mm.dd.hi24:mi:ss, in which yyyy = the year (4 digits), mm = the month (01, 02…12), dd = the day of the month (01, 02…31), hi24 = the hour (in 24 hour format—00, 02…23), mi = the minute (00, 01, 02, 59), ss = the second (00, 01, 02 … 59).	Y	Y
order_start_date	Order start time: when an order enters the main process. The format can be either sysdate, sysdate - *offset* or to_date (2011.12.12.11:22:33).	Y	Y
task_start_date	Task start date. The format can be either sysdate, sysdate - *offset* or to_date (2011.12.12.11:22:33).	N	Y
expected_ completion_date	Expected order completion date. The format can be either sysdate, sysdate +/- *offset* or to_date(2011.12.12.11:22:33).	Y	Y
completion_date	Actual date when the order is completed in the system. The format can be either sysdate, sysdate - *offset* or to_date(2011.12.12.11:22:33).	Y	N
task_expected_ completion_date	Expected task completion date. The format can be either sysdate, sysdate +/- *offset* or to_date (2011.12.12.11:22:33).	N	Y
cartridge	Cartridge = (namespace_mnemonic, version). For example, cartridge = (default, 1.0). If it is not version aware, specify * as the value, example, cartridge = (default, *).	Y	Y

Generating Reports Based on Order Data

The **a_order_data_filter** parameter is a filter condition that you can apply to the search using one or more order data elements that match specific values. This enables orders to be matched based on their contents. You can combine these elements using the same logical and relational operators as **a_fixed_header_filter**.

When using **a_order_data_filter**, you must provide the full mnemonic path of the node to which you are referring.

In the following example, **textfield1** is a node in the **group1** group:

```
/group1/textfield1=some text
```

Multi-instance nodes can also be specified using the following notation:

```
/group1/multiinstancenode[2]
/multiinstancegroup[3]/textfield2
```

In this example, the number in the square brackets indicates the instance number to which you are referring. Instances are counted in the same order as they are added to the order (on screen from left to right and from top to bottom).

> **Note:**
>
> The following conditions apply when filtering order data:
>
> - Text values cannot contain apostrophes or quotation marks
>
> - Dates must follow the format *yyyy.mm.dd.hh.mi.ss*
>
> - Phone numbers cannot contain parenthesis or dashes (if stored using the Phone data type). For example, use 5556744004 instead of (555)674-4004.

Generating Order History Reports Based on Date

The **a_history_start_time** and **a_history_end_time** parameters specify a time interval that you can apply to the search to return order data history for the time specified. These parameters are applicable only to the Order History Report. You can specify either a start time or an end time, or both.

The date format is dependent upon the third-party reporting application you are using.

Generating Reports from Views

You generate the following reports from views:

- Processes Report
- Tasks Report
- Notifications Report

Managing Performance When Generating Reports from Views

To reduce the impact of reporting on system performance, use filters to limit the scope of the report.

Filter Condition Examples for Processes Report

Use these filter conditions for the Processes report.

- Pending processes:

  ```
  completion_time is NULL
  ```

- Completed processes:

  ```
  completion_time is not NULL
  ```

- Processes that were completed between certain dates:

```
completion_time between
to_date('2011.11.01.00:00:00','yyyy.mm.dd.hh24:mi:ss') and
to_date('2011.11.30.23:59:59','yyyy.mm.dd.hh24:mi:ss')
```

Filter Conditions Examples for Tasks Report

Use these filter conditions for the Tasks report.

- Pending tasks:

  ```
  timestamp_out is NULL
  ```

- Completed tasks:

  ```
  timestamp_out is not NULL
  ```

- Tasks that were completed between certain dates:

  ```
  timestamp_out between to_date('2011.11.01.00:00:00','yyyy.mm.dd.hh24:mi:ss')
  and to_date '2011.11.30.23:59:59','yyyy.mm.dd.hh24:mi:ss')
  ```

Filter Conditions Examples for Notifications Report

Use these filter conditions for the Notifications report.

- Notifications that were sent between certain dates:

  ```
  datetime_sent between
  to_date('2011.11.01.00:00:00','yyyy.mm.dd.hh24:mi:ss') and
  to_date('2011.11.30.23:59:59','yyyy.mm.dd.hh24:mi:ss')
  ```

- Notifications that were acknowledged between certain dates:

  ```
  datetime_acknowledged between
  to_date('2011.11.01.00:00:00','yyyy.mm.dd.hh24:mi:ss') and
  to_date('2011.11.30.23:59:59','yyyy.mm.dd.hh24:mi:ss')
  ```

Generating Reports from the Command Line

The command-line utility is implemented as an Ant task that calls a reporting procedure or accesses a view, and then exports the resulting data to a comma-separated values (CSV) file. The data can also be saved directly as an XML file.

To assist you in configuring the Ant build file, use the **provReport.xml** file in the **SDK/Reporting/ant** directory.

To generate reports from the command line:

1. Edit the **provReport.xml** file in the **SDK/Reporting/ant** directory using the parameters described in Table 3-2.

> **✎ Note:**
>
> Normal XML character restrictions apply to the contents of the **provReport.xml** file. For example, rather than using
>
> ```
> completion_date < sysdate
> ```
>
> to indicate completed orders, in the XML file this would be written
>
> ```
> completion_date &lt; sysdate
> ```
>
> to conform with XML formatting rules.

Table 3-2   Reporting Interface Ant Command-Line Parameters

Parameter	Description	Usage
report	The legal name of the report. Options are: • Orders • Pending_At_Tasks • Orders_History • Tasks • Notifications • Processes For example: `report="PROCESSES"` Names are not case sensitive.	Mandatory
view	The mnemonic for the OSM view (query task) that is the basis for the order data returned. For example: `view="Amend_A_Task"`	Optional, applicable only to reports implemented as stored procedures: • Orders • Pending_At_Tasks • Orders_History
destfile	The destination file for the output data. For example: `destfile="/myosm73/SDK/Reporting/processesfile"` If a full path is not provided, the report is created in **SDK/Reporting/ant**.	Mandatory
outputtype	The format of the output. Valid values are CSV or XML. For example: `outputtype="CSV"`	Mandatory
whereclause	Provides the option of adding a where clause to the search in reports implemented as database views. Follows standard SQL; however, omit the initial **where**. For example: `whereclause="process_mnemonic = 'BillingSI'"`	Optional, applicable only to reports implemented as database views: • Tasks • Notifications • Processes

Table 3-2 (Cont.) Reporting Interface Ant Command-Line Parameters

Parameter	Description	Usage

database	The database connection, specified by:
	• datasource—a standard Oracle URL, for example:
	
	`jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL`
	`=tcp)(PORT=1521)(HOST=localhost))`
	`(CONNECT_DATA=(SID=orcl)))`
	• user—the Reporting Interface schema user name
	• password—the Reporting Interface schema user name password. You must use **SDK/Reporting/ant/ EncryptPasswords.sh** in step 2 to encrypt the password.
	For example:
	
	`database`
	`datasource="jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=`
	`(PROTOCOL=tcp)(PORT=1521)(HOST=localhost))(CONNECT_`
	`DATA=(SID=oracle11)))" user="ordermgmtb1148_reports"`
	`password="password"`
		Mandatory

reportfilter	• fixedheader—filters order data based on fixed headers
	See "Generating Reports Based on Header Fields" for more information.
	• orderdata—filters order data based on specific values of data elements
	See "Generating Reports Based on Order Data" for more information.
	• starttime—the start time for the Order History Report
	See "Generating Order History Reports Based on Date" for more information.
	• endtime—the end time for the Order History Report
	See "Generating Order History Reports Based on Date" for more information.
	For example:
	
	`reportfilter fixedHeader="datetime_sent between to_`
	`date('2011.11.01.00:00:00','yyyy.mm.dd.hh24:mi:ss')`
	`and to_`
	`date('2011.11.30.23:59:59','yyyy.mm.dd.hh24:mi:ss')"`
	`orderdata="" starttime="" endtime=""`
		Optional
		Date format must be:
		yyyy.mm.dd.hh:mi:ss
		hh uses a 24 hour clock

2. Type the following command to encrypt the OSM Reporting Interface schema password:

   `EncryptPasswords.sh`

   The **Enter user name for database connection** prompt appears.

3. Enter the user name for the OSM Reporting Interface schema.

   The **Enter password for database connection** prompt appears.

4. Enter the password for the OSM Reporting Interface schema.

> **Note:**
>
> The prompt does not display any characters as you type.

The **Enter Path to ant xml file** prompt appears.

5. Enter the full path including the provReport.xml file. For example:

```
/myosm73folder/SDK/Reporting/ant/provReport.xml
```

6. At the command line, go to directory **SDK/reporting/ant** and type the following command:

```
ant -f provReport.xml
```

The system displays a successful build message and generates the specified report in the **SDK/reporting/ant** directory.

Error Messages

Table 3-3 describes some of the errors you may receive when running reports.

Table 3-3   Report Error Message

Error Message	Description
SQL error ORA-01789 query block has incorrect number of result columns.	The views have different node structures.
SQL error ORA-01790 expression must have same data type as corresponding expression:	The view has the same node type and structure but in a different position.
SQL error ORA-20901 cannot find view:	View mnemonic supplied cannot be found in any cartridge.
SQL error ORA-20902 errors in executing the reports, please check your search condition.	Search conditions are not valid.
SQL error ORA-20903 cannot find metadata condition supplied:	Search condition contains metadata, for example, **process = customer_contact**, however process **customer_contact** cannot be found in metadata.
SQL error ORA-20904 search condition contains syntax errors:	The search condition supplied is not valid, for example, it is missing a closing bracket.