

Oracle
Subscriber Data Management
Export Utility External Setup and Execution Guide
E69171-01 Revision 1

November 2015

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Chapter 1

Introduction

Topics:

- [*Documentation Admonishments.....4*](#)
- [*My Oracle Support \(MOS\).....4*](#)
- [*Emergency Response.....5*](#)
- [*Locate Product Documentation on the Oracle Help Center Site.....5*](#)





This document describes the setup and execution procedures of the SDM Subscriber Profile Export Utility.

The SDM Subscriber Profile Export Utility can be setup and executed from any machine which can connect through a high speed IP network to the SDM node and has the Java runtime environment.

Documentation Admonishments

Admonishments are icons and text throughout this manual that alert the reader to assure personal safety, to minimize possible service interruptions, and to warn of the potential for equipment damage.

Table 1: Admonishments

Icon	Description
 DANGER	Danger: (This icon and text indicate the possibility of <i>personal injury</i> .)
 WARNING	Warning: (This icon and text indicate the possibility of <i>equipment damage</i> .)
 CAUTION	Caution: (This icon and text indicate the possibility of <i>service interruption</i> .)
 TOPPLE	Topple: (This icon and text indicate the possibility of <i>personal injury and equipment damage</i> .)

My Oracle Support (MOS)

MOS (<https://support.oracle.com>) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select **2** for New Service Request
2. Select **3** for Hardware, Networking and Solaris Operating System Support
3. Select one of the following options:
 - For Technical issues such as creating a new Service Request (SR), Select **1**
 - For Non-technical issues such as registration or assistance with MOS, Select **2**

You will be connected to a live agent who can assist you with MOS registration and opening a support ticket.

MOS is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity / traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, <http://docs.oracle.com>. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at <http://www.adobe.com>.

1. Access the Oracle Help Center site at <http://docs.oracle.com>.
2. Click **Industries**.
3. Under the Oracle Communications subheading, click the **Oracle Communications documentation** link.
The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
4. Click on your Product and then the Release Number.
A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.

Chapter 2

Setup

Topics:

- [Introduction.....7](#)

Introduction

The SDM Subscriber Profile Export Utility is composed of the following file:

- the *dbexport.jar* java archive file

Setting up the SDM Subscriber Profile Export Utility consists of copying the *dbexport.jar* file on your local machine from where it will then be executable. To do so, you need to retrieve the *dbexport.jar* file from the `/blue/lib/dbexport` directory on one of the System Controller blade and copy it on your local machine by using a SCP connection application to transfer files. For example, you can use the WinSCP application or a Linux SCP connection.

Chapter 3

Execution

Topics:

- [Execution.....9](#)

Execution

Once the SDM Subscriber Profile Export Utility has been set up on your local machine and the dbexport.jar file has been copied onto your local machine, the SDM Subscriber Profile Export Utility can be executed.



CAUTION

Caution: Executing the SDM Subscriber Profile Export Utility **MUST** not be performed during high traffic periods, as it could affect general performance of the system. It is imperative that you only execute the SDM Subscriber Profile Export Utility during maintenance periods.

Requirements: The local machine on which the dbexport.jar file was copied must have the Java Runtime Environment properly installed and configured. This is freely available from <http://www.java.com>.

Opening the SDM Subscriber Profile Export Utility

1. Locate the dbexport.jar file on the local machine and double click on it to open it.
2. The SDM Subscriber Profile Export Utility is displayed through a Java interface, as shown in the figure below.

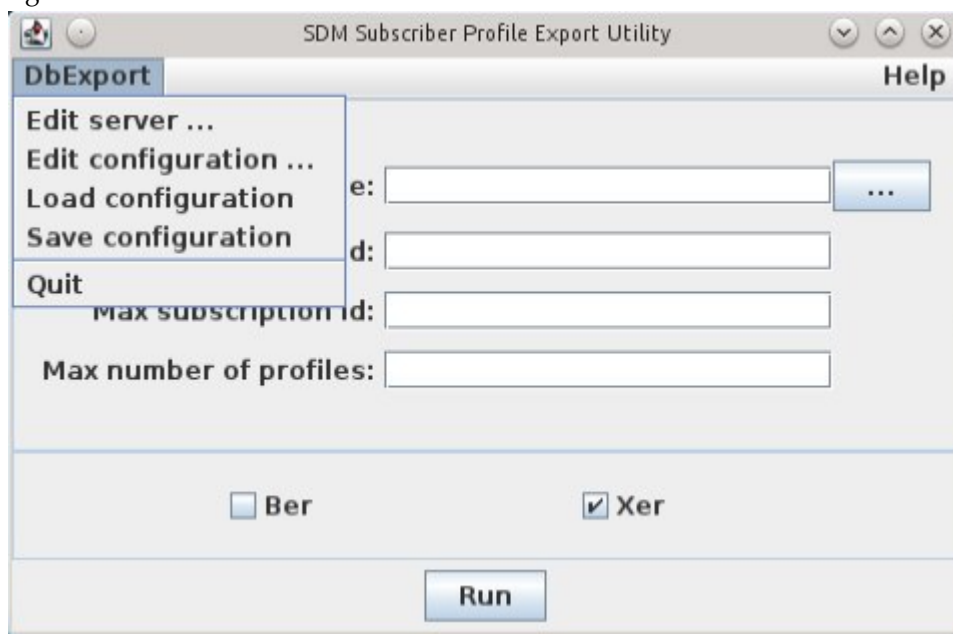


Figure 1: The SDM Subscriber Profile Export Utility Java Interface

Editing the Server

Before completing this procedure, all previous steps in the execution process must be completed.

1. Prior to executing the SDM Subscriber Profile Export Utility, you must inform the tool of the necessary information to communicate with the SDM Node from which you wish the data to be exported from. To do so, follow these instructions:
 1. Select **DbExport** (located at the top left of the SDM Subscriber Profile Export Utility Java interface). Scroll down and select **Edit Server....**
 2. Enter the VIP of the SDM node from which data will be exported. For security purposes, enter your user name and password.
 3. Select **OK**.
2. By default, the SDM Subscriber Profile Export Utility is configured to export the SubscriptionID information of the provisioned subscriber profiles within the SubscriptionID range only or limit specified when executing the SDM Subscriber Profile Export Utility. If only the SubscriptionID information to be exported, then skip the next steps and proceed to [Executing the SDM Subscriber Profile Export Utility](#) and the steps beyond.

Editing the SDM Subscriber Profile Export Utility Configuration

Before completing this procedure, all previous steps in the execution process must be completed.

Editing the SDM Subscriber Profile Export Utility Configuration allows the user to specify what kind of information the SDM Subscriber Profile Export Utility tool will export for each subscriber profile specified during the execution. In addition to the default configuration other configuration settings for the SDM Subscriber Profile Export Utility may be defined and saved in files on the local machine. This allows the user to store files on their local machine with different configuration settings. Before executing the SDM Subscriber Profile Export Utility, one of these configuration files can be loaded.

Specify the export information using the following steps:

1. Edit the Configuration by clicking on **DbExport** (located at the top left of the SDM Subscriber Profile Export Utility java interface). Scroll down and select **Edit Configuration....**

The Edit Configuration window is displayed:

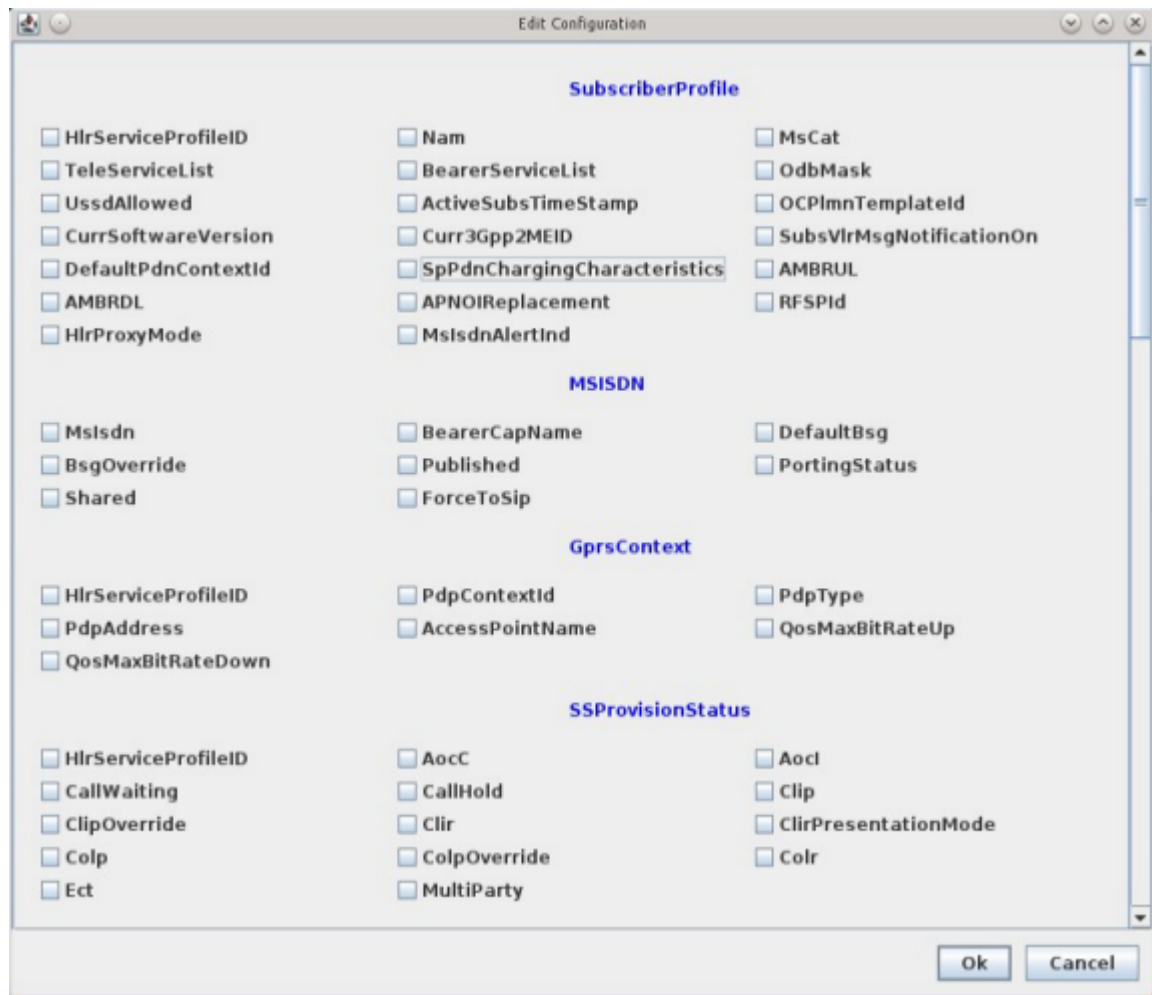


Figure 2: Edit Configuration Window

2. Select the box next to each type of information you wish the SDM Subscriber Profile Export Utility to export. To export all the information displayed, select all the boxes.
3. Select **OK**.
4. You can then execute the SDM Subscriber Profile Export Utility (refer to [Executing the SDM Subscriber Profile Export Utility](#)) with those configuration settings. To save these configuration settings in a file for future use, follow these steps:
 - a. Save the Configuration by clicking on **DbExport** (located at the top left of the SDM Subscriber Profile Export Utility java interface). Scroll down and select **Save Configuration....**
 - b. Select the directory and create the file in which these configuration settings are going to be stored.
 - c. Select **Save**.

To edit the configuration settings and define a different configuration, follow the instructions in [Editing the SDM Subscriber Profile Export Utility Configuration](#).

Loading the SDM Subscriber Profile Export Utility Configuration

Before completing this procedure, all previous steps in the execution process must be completed.

The default configuration is always used when opening a new session of the SDM Subscriber Profile Export Utility. To execute the SDM Subscriber Profile Export Utility with saved configuration settings, follow these instructions prior to running the tool:

1. Load the configuration by selecting **DbExport** (located at the top left of the SDM Export Utility java interface). Scroll down and select **Load Configuration....**
2. Locate the file containing the required configuration settings.
3. Select **Open**.

Executing the SDM Subscriber Profile Export Utility

Before completing this procedure, all previous steps in the execution process must be completed.

1. Follow the steps below and enter the information requested by the SDM Subscriber Profile Export Utility, depicted in the figure below.

Figure 3: SDM Subscriber Profile Export Utility Java Interface

Steps to execute the SDM Subscriber Profile Export Utility:

- **Output File Name:** This is a mandatory field that can be provisioned by clicking on the “...” box. Select a directory on the local machine where the file is to be created. This is the file where the export data will be written, without extension, by the SDM Subscriber Profile Export Utility. The extension will be added depending on the format of export (.ber and/or .xml). An existing file will be overwritten.
- By default, the following parameters are provisioned in the SDM Subscriber Profile Export Utility:

- Min subscription id:0, Max subscription id:0 and Max number of profiles:0

This ensures all the subscriber profiles defined in the ngHLR's database are exported.

- It is possible to limit the number of subscriber profiles exported to a range of IMSIs by specifying the following parameters:
 - **Min subscription id⁽¹⁾**: This represents the smallest SubscriptionID that will be included in the export. This field either takes the value 0 (default value which means that there is no minimum) or a SubscriptionID in a string format.
 - **Max subscription id⁽¹⁾⁽²⁾**: This represents the largest SubscriptionID value to be included in the export. This field either takes the value 0 (default value which means that there is no maximum) or a SubscriptionID in a string format.
 - **Max number of profiles⁽²⁾**: This represents the maximum number of profiles to export. This field either takes the value 0 (default value which means that there is no limit) or an integer from 1 to 231-1 (2147483647). If you wish to export data for a range of SubscriptionIDs, this field does not need to be specified and should remain with the default value.

⁽¹⁾ These fields can be left with the default value 0 if you wish to export the profiles in the ngHLR's database up to a certain limit, which you define in the Max number of profiles.

⁽²⁾ If both a *Max subscription id* and a *Max number of profiles* are specified, the export tool stops at the first of the two limits reached.

Example: For a system with the following Subscription IDs provisioned: sub1, sub2, sub3, sub4, sub10, sub11, sub15, sub20, sub100, sub101, sub150, sub200.

If you set the *Min subscription id* to 'sub1' and the *Max subscription id* to 'sub2', the tool will export the information for the subscribers with the following Subscription IDs: sub1, sub10, sub11, sub15, sub100, sub 101, sub150 and sub2.

- The SDM Subscriber Profile Export Utility allows the export of subscriber data into files of different formats. The result is a single file (per selected format) containing all the selected subscriber records from a specific ngHLR. The data for each subscriber is grouped together into a single record in the file. The application supports the binary and XML export formats. It is mandatory to provision at least one format.

One or both of the following fields can be selected:

- **Ber**

Export the data in binary format, encoded with BER. Encoded following the Binary Encoding Rule (BER) defined by the ASN.1 specification

- **Xer**

Export the data in xml format. Encoded following the XML Encoding Rule (XER) defined by the ASN.1 specification.

For more information about the SDM Subscriber Profile Export Utility, select the **Help** tab located at the top right of the window.

2. Once the required information has been entered, select **Run**.

Example of the output file generated by the SDM Subscriber Profile Export Utility tool:

Export file:

```

OutputFile>
- <header>
  <version>3</version>
  <startTime>20100413214624Z</startTime>
</header>
- <subscribers>
- <Subscriber>
  <subscriptionID>sub1</subscriptionID> </Subscriber>
</Subscriber>
- <Subscriber>
  <subscriptionID>sub100</subscriptionID>
</Subscriber>
- <Subscriber>
  <subscriptionID>sub0</subscriptionID>
</Subscriber>
- <Subscriber>
  <subscriptionID>sub10</subscriptionID>
</Subscriber>
- <Subscriber>
  <subscriptionID>hlrsb</subscriptionID>
- <profile>
- <SubscriberProfile>
  <hlrServiceProfileId>1</hlrServiceProfileId>
- <teleServiceList>
  <ts10 />
  </teleServiceList>
- <ussdAllowed>
  <true />
  </ussdAllowed>
  <ocplmnTemplateId>0</ocplmnTemplateId>
  </SubscriberProfile>
  </profile>
- <msIsdn>
- <MsIsdn>
  <msIsdn>15149352700</msIsdn>
  </MsIsdn>
  </msIsdn>
  </Subscriber>
  </subscribers>
- <footer>
- <status>
  <fileStatusOk />
  </status>
  <endTime>20100413214625Z</endTime>
  </footer>
</OutputFile>

```

Quitting the SDM Subscriber Profile Export Utility tool

Before completing this procedure, all previous steps in the execution process must be completed.

To exit the SDM Subscriber Profile Export Utility tool:

1. Select **DbExport** (located at the top left of the SDM Subscriber Profile Export Utility Java interface, scroll down and select **Quit**).