



Billing File Guide for Cisco Unified Communications Domain Manager 8.1.4

First Published: 30 April, 2014

Last Modified: 30 October, 2014

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Preface

This guide aims to outline the mechanism for generating a service inventory that can be used for the purpose of billing a customer for access granted by CUCDM to UC features.

This document is aimed at system developers, engineers and administrators

This system supports various deployments/solutions including HCS and Large Enterprise (LE). This document describes the product in general and is not specific to a particular deployment/solution. Information may vary slightly depending on the installation environment.

Typographic Conventions

The following typographic conventions are used in this document:

Item	Character format	Example
Buttons	Bold	Click the Enter button.
Checkboxes	<i>italic</i>	Select the <i>Country</i> checkbox.
Dialog boxes menu items, tab names, radio buttons	<i>italic</i>	Select the <i>Configuration</i> option, or select the <i>Parameters</i> tab.



CHAPTER 1

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A provider administrator or above can initiate the generation of a service inventory report from the Cisco Unified Communications Domain Manager (CUCDM). The report will be pushed to the specified destination via secure file transfer protocol (SFTP).

The web service request can be sent to CUCDM 8.1 via the 8.0 or the 8.1 web service endpoint.

In CUCDM 8.1.4 the version 8.0 web service (WS) endpoint will support the following SI file formats:

- 8.6.2.1: HCS 8.6.2 service inventory common file format.

This file format supports both a snapshot of the service inventory at the time that the report is generated as well as MACD data from the requested date up until the time that the report is run.

In CUCDM 8.1.4 the version 8.1 WS endpoint supports the following SI file formats:

- 9.2.1.1: HCS 9.2.1 service inventory common file format.

The SI file format for 9.2.1.1 is the same as the file format for 9.0.1.1 but also includes changes for the Connected/Not Connected for locations feature, as well as the Actual Device/Configuration Profile for devices feature.

- 9.0.1.1: HCS 9.0.1 service inventory common file format.

This file format is the same as the HCS 8.6.2 file format, except that the version information has been changed to 9.0.1.

- 8.6.2.1: HCS 8.6.2 service inventory common file format (as described above)

To obtain the file format specifications referenced above, contact your sales agent.

In CUCDM 8.1.4 the format of all the above-mentioned reports has changed depending on whether the report is generated for a specific provider or for all providers on the system:

- Specific provider format:

<providerName> in the web service request is set to a specific provider. The format of the report is the same as for CUCDM 7.4.0 and CUCDM 8.0.

- All providers format:

<providerName> in the web service request is set to "ALL_SERVICE_PROVIDERS". The following additions are included to the CUCDM 7.4.0 and CUCDM 8.0 report formats:

1. All provider data is reported in separate |PROV|-|PEND| blocks for each provider within the SI section of the report.
2. providerName is added to the end of customer and reseller MACD rows.
3. A new MACD entry is added for adding and deleting providers from CUCDM, reporting the effective date, the MACD code (Add or Delete) and the provider name.
 - FORMAT:
`[MACD]<macdEffectiveDT>|PROV|<macdCode>|<providerName>|`
 - EXAMPLES:
`[MACD]20110423163455GMT|PROV|A|Verizon|`
`[MACD]20110423163455GMT|PROV|D|Verizon|`
4. The STAT section that provides counters for various entities provides values for entities across all providers reported on.

The following table summarizes the different file formats that are available:

System		Request parameters		Summary	
CUCDM Version	WS Interface	<version>	<providerName>	File format	File contents
8.1.4	v8_1	8.6.2.1	ALL_SERVICE_PROVIDERS	8.6.2.1	All providers format
			Specific provider	8.6.2.1	Single provider format
		9.0.1.1	ALL_SERVICE_PROVIDERS	9.0.1.1	All providers format
			Specific provider	9.0.1.1	Specific provider format
		9.2.1.1	ALL_SERVICE_PROVIDERS	9.2.1.1	All providers format
			Specific provider	9.2.1.1	Specific provider format
	v8_0	8.6.2.1	ALL_SERVICE_PROVIDERS	8.6.2.1	All providers format
			Specific provider	8.6.2.1	Specific provider format

With all options the data is collected from the Cisco Unified Communications Domain Manager (CUCDM) database.

The Billing Module

The only way to access the billing module is via a web service operation *createServiceInventory*.

No installation is required apart from upgrading to a version of the system which supports this feature.

Web Service Request Schema for *CreateServiceInventory*

The web service *createServiceInventory* web service request is defined using the following schema. For further further information please refer to the VOSS web service API reference guide as well as the CUCDM web service guide:

```
<xsd:complexType name="createServiceInventoryRequestType">
  <xsd:complexContent>
    <xsd:extension base="ws:providerRequest">
      <xsd:sequence>
        <xsd:element name="reportParameters" type="tns:createServiceInventoryRequestDataType"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>

<xsd:complexType name="createServiceInventoryRequestDataType">
  <xsd:sequence>
    <xsd:element name="administratorEmail" type="api:emailAddressType" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>The Email address of an administrator to be informed in case of error.
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="ftpHost" type="xsd:string"/>
    <xsd:element name="ftpPort" type="xsd:string"/>
    <xsd:element name="filename" type="xsd:string"/>
    <xsd:element name="ftpUsername" type="xsd:string" minOccurs="0"/>
    <xsd:element name="ftpPassword" type="xsd:string" minOccurs="0"/>
    <xsd:element name="ftpDestinationFolder" type="xsd:string"/>
    <xsd:element name="endDateTime" type="xsd:dateTime">
      <xsd:annotation>
        <xsd:documentation>
          The dateTime is specified in the following form "YYYY-MM-DDThh:mm:ssZ" where:
          YYYY indicates the year
          MM indicates the month
          DD indicates the day
          T indicates the start of the required time section
          hh indicates the hour
          mm indicates the minute
          ss indicates the second
          Z this is literal and indicates UTC
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="duration" type="xsd:duration">
      <xsd:annotation>
        <xsd:documentation>
          The time interval is specified in the following form "PnYnMnDTnHnMnS" where:
          P indicates the period (required),
          nY indicates the number of years,
          nM indicates the number of months,
          nD indicates the number of days
          T indicates the start of a time section (required if you are going to specify hours, minutes,
          or seconds),
          nH indicates the number of hours,
          nM indicates the number of minutes,
          nS indicates the number of seconds
        </xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="version" type="api:serviceInventoryReportVersionType"/>
  </xsd:sequence>
</xsd:complexType>
```

Example 1.

An example request file is shown below:

```
<soapenv:Body>
<ucf:createServiceInventoryRequest>
  <requestData>
    <requestUser>glen</requestUser>
  </requestData>
  <providerName>HCS_Provider</providerName>
  <reportParameters>
    <!--Optional:-->
    <administratorEmail>abc@xyz.com</administratorEmail>
    <ftpHost>172.29.89.44</ftpHost>
    <ftpPort>21</ftpPort>
    <filename>Test_Report_5</filename>
    <ftpUsername>cucdm</ftpUsername>
    <ftpPassword>password</ftpPassword>
    <ftpDestinationFolder>test</ftpDestinationFolder>
    <endTime>2011-06-26T13:45:00Z</endTime>
    <duration>PT24H</duration>
    <version>8.6.2.1</version>
  </reportParameters>
</ucf:createServiceInventoryRequest>
</soapenv:Body>
```

Note

- Both the web service user and the *requestUser* must have rights on the *providerName*.
 - The *duration* and *endTime* parameters are not used in data option 1 (i.e. only snapshot data) but are still required.
 - The *version* and *providerName* parameters must respectively be set to a valid version string (8.6.2.1 or higher) and provider or "ALL_SERVICE_PROVIDERS" or a specific provider. Refer to the table in the overview above for further details.
-

Report Process

The web service call (*createServiceInventory*) will result in the following actions in the billing file process:

- Data fetching

Database config is read from *iptcore.conf*.

- File generation

Files are generated to a temporary location on disk.

- File compression

Files are zipped in ".gz" format.

Original files are removed after a successful compression.

- FTP

The module assumes a secure FTP server.

Local files are removed after a successful transmission.

If a file of the same name exists on the destination server, transmission will fail.

An attempt will be made to transmit failed files the next time the FTP function runs.