# Oracle® Communications Convergent Charging Controller USSD Interactive Services Gateway Help





Oracle Communications Convergent Charging Controller USSD Interactive Services Gateway Help, Release 15.1

G14477-01

Copyright © 2025, Oracle and/or its affiliates.

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, software documentation, data (as defined in the Federal Acquisition Regulation), 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 embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. 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®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside 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, Epyc, and the AMD 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.

# Contents

Getting Started	
Common Buttons and Fields	1-1
Using the Find Screens	1-2
Accessing a find screen	1-2
Editing records	1-2
Searching the database	1-2
USSD Gateway Base Configuration Screens	
USSD Gateway Base Configuration Screen	2-1
Trigger Prefix	2-1
Fields - Trigger Prefix tab	2-1
Data entry - Trigger Prefix tab	2-2
Buttons and other fields	2-2
Find Screen - Trigger Prefix tab	2-2
Using the find screen - Trigger Prefix tab	2-3
Language	2-3
Fields - Language	2-3
Data entry - Language	2-4
Buttons and other fields	2-4
Find Screen - Language tab	2-5
Using the find screen - Language tab	2-5
Service Interface	2-5
Fields - Service IF tab	2-5
Data entry - Service IF tab	2-6
Buttons and other fields	2-6
Find Screen - Service IF tab	2-6
Using the find screen - Service IF tab	2-6
Operator	2-7
Fields - Operator tab	2-7
Data entry - Operator tab	2-7
Buttons and other fields	2-7
Find Screen - Operator tab	2-7



# 3 USSD Gateway Configuration Screen

LICCD Cataway Manu Configuration Caroon	
USSD Gateway Menu Configuration Screen	3-1
Gateway Configuration Screen	3-1
Important: reloading the configuration	3-1
Fields - Gateway Configuration Screen	3-1
Data entry - Gateway Configuration Screen	3-3
Buttons and other fields	3-3
Find Screen - Gateway Configuration tab	3-3
Using the find screen	3-4
USSD Gateway Service Configuration Screen	
USSD Gateway Service Configuration Screen	4-1
Service Trigger	4-1
Service Trigger fields	4-1
Data entry - Service Trigger tab	4-4
Buttons and other fields	4-4
Find Screen - Service Trigger tab	4-4
Using the find screen - Service Trigger tab	4-4
Menu and Status Screens	
USSD Gateway Menu Configuration Screen	
USSD Gateway Menu Configuration Screen Menu Wizard	5-2
USSD Gateway Menu Configuration Screen  Menu Wizard  Setting up menus	5-2 5-2
USSD Gateway Menu Configuration Screen  Menu Wizard  Setting up menus	5-3 5-3
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus	5-1 5-1 5-3 5-3
USSD Gateway Menu Configuration Screen  Menu Wizard  Setting up menus  Status Wizard  Setting up status menus	5-1 5-1 5-3 5-3
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab	5-1 5-3 5-3 5-3
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration	5-1 5-1 5-3 5-3
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab	5-1 5-3 5-3 5-4 5-4
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab  Buttons and other fields	5-1 5-3 5-3 5-4 5-4
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab Buttons and other fields Data entry - Menu Info tab	5-1 5-3 5-3 5-4 5-4 5-4
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab Buttons and other fields Data entry - Menu Info tab Find Screen - Menu Info tab Using the find screen - Menu Info tab	5-1 5-3 5-3 5-4 5-4 5-4 5-5
Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab Buttons and other fields Data entry - Menu Info tab Find Screen - Menu Info tab	5-1 5-3 5-3 5-4 5-4 5-4 5-5
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab Buttons and other fields Data entry - Menu Info tab Find Screen - Menu Info tab Using the find screen - Menu Info tab Status Info Configuration	5-1 5-3 5-3 5-4 5-4 5-4 5-5 5-5
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab Buttons and other fields Data entry - Menu Info tab Find Screen - Menu Info tab Using the find screen - Menu Info tab  Status Info Configuration Fields - Status Info tab	5-1 5-3 5-3 5-4 5-4 5-4 5-5 5-5
USSD Gateway Menu Configuration Screen  Menu Wizard Setting up menus  Status Wizard Setting up status menus  Menu Info Configuration Fields - Menu Info tab Buttons and other fields Data entry - Menu Info tab Find Screen - Menu Info tab Using the find screen - Menu Info tab  Status Info Configuration Fields - Status Info tab Data entry - Status Info tab	5-2 5-3 5-3 5-4 5-4 5-4 5-5 5-5 5-5



Menu Language Display	5-7
Fields - Menu Language tab	5-7
Buttons - Menu Language tab	5-7
Data entry - Menu Language tab	5-8
Buttons and other fields	5-8
Viewing menu text - Menu Language tab	5-8
Find Screen - Menu Language tab	5-8
Using the find screen - Menu Language tab	5-9
Status Language Display	5-9
Fields - Status Language tab	5-9
Buttons - Status Language tab	5-10
Data entry - Status Language tab	5-10
Buttons and other fields	5-10
Viewing status text - Status Language tab	5-10
Find Screen - Status Language tab	5-12
Using the find screen - Status Language tab	5-11
•	
USSD Gateway Subscribers Screens	6-1
Access Control Screen	6-1
Fields - Access Control screen	6-1
Buttons - Access Control screen	6-2
Buttons and other fields	6-2
Data entry - Access Control screen	6-2
Find Screen - Access Control tab	6-3
Using the find screen - Access Control screen	6-3
IMSI Tracing Screen	6-3
Fields - IMSI Tracing Screen	6-3
Buttons and other fields	6-4
Data entry - IMSI Tracing Screen	6-4
Find Screen - IMSI Tracing tab	6-4
Using the find screen - IMSI Tracing tab	6-4
CDR Viewer Screen	6-4
Fields - CDR Viewer Screen	6-5
Buttons and other fields	6-5
Extra information - CDR Viewer Screen	6-5
Trace - CDR Viewer Screen	6-5
UPC CDR Viewer Screen	6-5



6

1

# **Getting Started**

This chapter explains how to access the USSD Gateway and describes the contents of the main screens.

This chapter contains the following topics.

Common Buttons and Fields

Using the Find Screens

## Common Buttons and Fields

#### **On-screen buttons**

This application uses a set of buttons to start specific actions within each screen.

The table below describes the function of each button.

Button	Function
<u>F</u> ind	Opens the Find window, enabling you to find records that match the search criteria.
Save	Saves any changes to the record on the current screen to the database.
Clear	Clears all entries from the screen, enabling you to clear the screen before adding a new record.
Close	Closes the current screen and returns you to the previous screen in the screen hierarchy.
	<b>Note:</b> Any changes that have been made onscreen will not be saved (unless <b>Save</b> has been clicked previously).
Search	Appears on Find screens and allows you to search the database.
	This will trigger an Oracle Like% query that returns the first 100 records that begin with the selection criteria.
	For example, if you enter 123 in the Query field, the system will return records such as 123, 1234, 12345, etc.
Delete	Removes the selected record from the database.
Help	Opens context-sensitive Help containing information about the functionality available in the current screen.

#### **Common fields**

The following fields are displayed at the bottom of each screen.

Field	Description
Comment	For adding a comment for the record.
Term	The terminal that the session is using to log on.
Date	Date of last change to record.
User	User who last changed the record.

#### **Data entry**

Follow the steps below to enter a new Gateway configuration.

- 1. Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.
- 3. Result: The new Gateway configuration is saved.

# Using the Find Screens

The find screen enables you to find records that match the selection criteria. All find screens in the system contain the following areas:

- Buttons
- Query fields
- Display grid

## Accessing a find screen

To access the context sensitive find screen for a screen or tab, click Find.

#### Editing records

Follow the steps below to edit a record.

1. In the Find screen, select the row you want to edit.

Result: The associated screen is populated with this data, which you can edit.

- 2. On the editing screen, make the changes to the data.
- 3. Click Save.

Result: The edited screen is saved.

#### Searching the database

Follow these steps to search the database.

 Enter selection criteria in one or more query fields at the top of the screen and click Search.

If a field is left empty, the search retrieves all instances of that field.

**Result:** This triggers an Oracle Like% query that returns the first 100 records that begin with the selection criteria. These are displayed in the display table at the bottom of the screen.



**Example:** If you enter 123 in a query field, the system returns records such as 123, 1234, and 12345.

**Note:** These are the first 100 records entered in the database, and they display in no particular order. If you do not find the record you are searching for, you need to conduct a more specific search.

2. To display the record in the main screen, select the record line and click **Close**.



# **USSD Gateway Base Configuration Screens**

This chapter explains the contents of the Gateway Base Configuration Screens.

This chapter contains the following topics.

**USSD Gateway Base Configuration Screen** 

**Trigger Prefix** 

Language

Service Interface

Operator

# **USSD Gateway Base Configuration Screen**

Follow these steps to access the USSD Gateway Base Configuration Screens.

- 1. From the Service Management System screen, select the Services menu.
- Select USSD Gateway> Base Config, or use the Ctrl+P shortcut keys.

# **Trigger Prefix**

The **Trigger Prefix** configuration tab allows you to name Trigger Prefixes and set up the length of the SAN digit.

As part of the installation of USSD GW, a Trigger Prefix is created that represents "all triggers". It is used for the barring function. This entry has a trigger prefix of "#########".

## Fields - Trigger Prefix tab

Here is a description of the fields.

Field	Description
Name	Unique name of this Trigger Prefix. Required.
	Allowed values: Alphanumeric string up to 30 characters in length.
Prefix	The Prefix that prefixes the IMSI that can trigger a particular service interface. This prefix is used in the Service Configuration screen. Required.
	Allowed values: Alphanumeric string up to 10 characters in length.
SAN Digits	The number of digits that should be sent to the Service Interface as the Service Access Number for this session. Optional.
	Allowed values: 0 to 99.

Field	Description
Cdr Flag	Selecting this check box will enable EDR generation for this Trigger Prefix.
	Note: The global CDR Flag on the Gateway Configuration tab must also be checked before the USSD GW application on the SLC can begin to generate EDRs.
Performance Report Period	The interval (in seconds) after which the USSD GW application on the SLC will generate performance reports.
	<b>Allowed values:</b> An integer value that is a factor of 60 or 3600.
	<b>Note:</b> A value of zero means that no performance reports will be generated.
Comment	This field is used to add any comments required for this Trigger Prefix.
Last Change Data	Shows the following details of when this record was last modified:
	Term: For how long was the last change active.
	<ul><li>Date: Last modified/created date.</li><li>User: Login ID of the user.</li></ul>

**Note:** For example text for each field, refer to the Find screen in this topic.

# Data entry - Trigger Prefix tab

Follow the steps below to enter a new Trigger Prefix configuration.

- 1. Click **Clear** to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Buttons and other fields

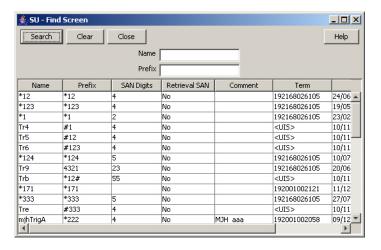
For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

## Find Screen - Trigger Prefix tab

Here is an example Find Screen for the **Trigger Prefix** tab.





#### Related topic

#### **Trigger Prefix**

# Using the find screen - Trigger Prefix tab

You can search on:

- Name
- Prefix

For more information about searching and editing records, see Using the Find Screens.

# Language

The **Language** configuration tab allows you to set up languages and give them specific values. The language value needs to correspond to the language values in the portal.

## Fields - Language

Here is a description of the fields.

Field	Description
Name	The language, such as English or French. Alphanumeric field up to 20 characters in length. This field is mandatory.
Value	A unique value that is viewed externally and sent to the gateway interface. Numeric field, valid values 0 – 19. This field is mandatory.



Field	Description
Date Format	The format for date variables when put into a message. This field is mandatory.
	Valid format tokens are shown below. You can separate tokens with spaces, commas, dashes, slashes, or backslashes.
	<ul> <li>%a – Three-character day of the week. For example, Mon, Tue, Wed, Thu, Fri.</li> <li>%A – Full name for the day of the week. For example, Monday.</li> <li>%b – Three-character month. For example, Jan.</li> <li>%B – Full name for the month. For example, January.</li> <li>%d – Two-digit day of the month. For example, 30.</li> <li>%y – Two-digit year. For example, 15 for 2015.</li> <li>%Y – Four-digit year. For example, 2015.</li> </ul>
	<ul> <li>%m – Two-digit month. For example, 01 for January.</li> <li>For example, to specify a date format like 04</li> <li>September 2015, set <b>Date Format</b> to %d %B %Y, or to specify a date format like 04-09-15, set <b>Date Format</b> to %d-%m-%y.</li> </ul>

#### Notes:

- For example text for each field, refer to the Find screen in this topic.
- If ACS is being used as a service interface, the language ID fields must match the SRF ID
  in the ACS configuration. This means that if the SRF ID of 1 corresponds to English in the
  ACS configuration, the language entry on this tab must match.

For example:

ACS configuration

English, MSG=2, SRF=1

**USSD** configuration

Name: English Value: 1 Date Format=%d %B %Y

#### Data entry - Language

Follow these steps to enter a new Language configuration.

- 1. Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Buttons and other fields

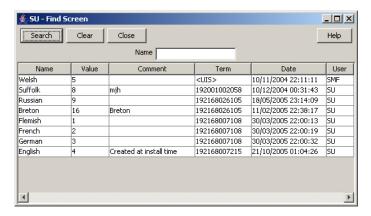
For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.



#### Find Screen - Language tab

Here is an example Find Screen for the **Language** tab.



#### Related topic

Language

#### Using the find screen - Language tab

You can search on:

Name

For more information about searching and editing records, see Using the Find Screens.

#### Service Interface

The **Service IF** tab allows you to name the different service interfaces.

Service interfaces can define their own set of menus and status displays using the same menu ids or status cause values as other service interfaces. For example: menu id 1 could result in the display "enter birthday" when sent by service interface 1 and could result in the display "password?" when sent by service interface 2.

You can partition your menus to a finer resolution (for example: "ACS-mini-News", "ACS-Weather" and so on). These are entered in the Service Interface tab. You must also configure an associated trigger prefix to uniquely identify the service (not just a service group) and both these entries must be referenced in the Service Triggers.

Two Service Interfaces are configured when USSD GW is installed:

- Gateway used by the gateway to retrieve displays for error or/and service ending conditions that are generated within the gateway itself and not a service interface
- All interfaces enables service interfaces to share their menus

#### Fields - Service IF tab

Here is a description of the fields.



Field	Description
Name	Unique name for this Service Interface. Required.
	Allowed values: Alphanumeric string, up to 20 characters in length.

Note: For example text for each field, refer to the Find screen in this topic.

#### Data entry - Service IF tab

Follow these steps to enter a new Service Interface configuration.

- Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

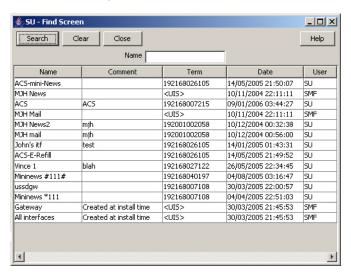
#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

#### Find Screen - Service IF tab

Here is an example Find Screen for the Service IF tab.



#### Related topic

Service Interface

#### Using the find screen - Service IF tab

You can search on:

Name

For more information about searching and editing records, see Using the Find Screens.



# Operator

The **Operator** tab allows you to set up different operators against different IMSI prefixes and using different IMSI to MSISDN mapping interfaces.

## Fields - Operator tab

Here is a description of the fields.

Field	Description
Name	Unique name of the operator. Required.
	Allowed values: Alphanumeric string, up to 20 characters in length.
IMSI Prefix	Unique IMSI Prefix. Must be 5 digits.
	<ul><li>3 digits for MCC - Mobile Country Code</li><li>2 digits for the MNC - Mobile Network Code</li></ul>
External ID	Unique External ID. Required.
	If a service is located on an external system this ID is used when internal TCAP messages are sent to the external system.
Trans IF	The SLEE ID of the interface which does the IMSI-MSISDN translation. Optional.
	For information about SLEE IDs, see SLEE Technical Guide.
Trans Timeout	Milliseconds ussdgw process will wait for a response to the IMSI to MSISDN translation request.
	Required if a Trans IF value is provided.
	Allowed values: 0 – 99
Home Op	If ticked, this operator is the home operator.

**Note:** For example text for each field, refer to the Find screen in this topic.

# Data entry - Operator tab

Follow these steps to enter a new Operator configuration.

- Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Buttons and other fields

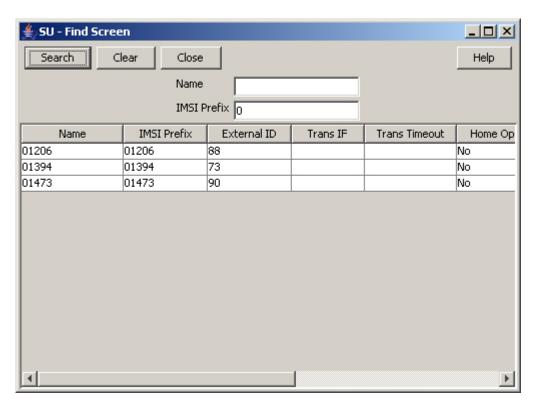
For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

## Find Screen - Operator tab

Here is an example Find Screen for the **Operator** tab.





#### Related topic

Operator

# Using the find screen - Operator tab

You can search on:

- Name
- IMSI Prefix

For more information about searching and editing records, see Using the Find Screens.



# **USSD Gateway Configuration Screen**

This chapter explains the contents of the USSD Gateway Configuration screen.

This chapter contains the following topics.

**USSD Gateway Menu Configuration Screen** 

**Gateway Configuration Screen** 

# **USSD Gateway Menu Configuration Screen**

Follow these steps to access the USSD Gateway Configuration Screen.

- 1. From the Service Management System screen, select the **Services** menu.
- Select USSD Gateway > Gateway Config, or use the Ctrl+Q shortcut keys.

# **Gateway Configuration Screen**

The USSD Gateway Configuration Screen allows you to:

- Change the default gateway interface configuration (Global GW config)
- Add new gateway interfaces

Setting up different gateway configurations enables you to configure different gateways to have different service triggers defined. This enables the treatment of service triggers to be handled differently by different gateways.

You do not have to set up different gateway configuration for each gateway.

#### Important: reloading the configuration

If the USSD Gateway Configuration Screen is updated, the SLEE must to be restarted for these changes to take effect.

For instructions about how to restart the SLEE, see SLEE Technical Guide.

#### Fields - Gateway Configuration Screen

Here is a description of the fields.

Field	Description
Name	Unique name of this gateway interface.
Language	Default language of the gateway interface when no usable user preference is available.
	This list is populated by the entries in the Language tab in the USSD Gateway Base Configuration Screen.

Field	Description
Characters	Maximum number of characters to send to handset. Required.  This is used to truncate the number of characters in the display sent to the end user to a particular number of digits.
	Allowed values: 90 to 185
Trans Opt	How the IMSI to MSISDN mapping should be performed.  Allowed values:
	<ul> <li>Gateway default. Use the routine specified in the Trans IF field on this screen.</li> <li>Operator specific. The translation interface specified in the Trans IF field of the operator's Operator record will be used to perform the translation.</li> </ul>
Trans IF	SLEE ID of interface that translates the IMSI to MSISDN.
	If an id is not specified this functionality will not be performed by the gateway.
	To allow the default mapping functionality to be performed, the SLEE ID of the default interface must be specified.
	Only available if Trans Opt is set to Gateway default.
Trans Timeout	Milliseconds gateway will wait for a response to the IMSI to MSISDN translation request. Required when Trans IF is set.
Inactivity Restart	If set to:
	<ul> <li>OFF, the inactive timer is disabled.</li> <li>Each User Activity, the inactive timer is reset whenever a message is received from the handset.</li> <li>TC-BEGIN Rec'd, the inactive timer is reset whenever a TC-BEGIN is received from a handset.</li> </ul>
Inactive Timer	Maximum seconds to wait between messages from the mobile network before:
	Returning a TC-END     Setting the session to RECONNECT state Optional.
	Allowed values:
	• 1 to 9999
	• 0 = disabled.



Field	Description
Reconnect Timer	Maximum seconds gateway will wait for the handset to send a message after the session has entered RECONNECT state.
	This timer is stopped if the user reconnects to the service before it expires.
	The gateway interface can determine if the user is reconnecting to the service if the handset returns the SAN of the currently active service.
	If the user reconnects, the reconnect timer will be stopped and the service session can return to its normal mode of operation. The inactive timer will be restarted.
	Required (must be 1 or above if inactive timer is not equal to 0.
	Allowed values:
	• 1 to 9999
	• 0 = disabled.
MAP1 Timer	Seconds gateway will wait when a MAP 1 user enters the RECONNECT state. This timer is stopped if the user reconnects to the service before it expires.
	A numeric field, valid values 0 to 9999 which represent time in seconds, optional field.
CDR Flag	If this check box is selected, CDRs will be generated.
Last Resort Text	This is the text the gateway will use if no other menus have been configured or defined. Alphanumeric field up to 185 characters in length.

**Note:** For example text for each field, refer to the Find screen in this topic.

## Data entry - Gateway Configuration Screen

Follow these steps to enter a new gateway configuration.

- 1. Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Buttons and other fields

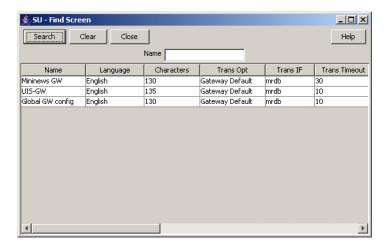
For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

## Find Screen - Gateway Configuration tab

Here is an example Find Screen for the Gateway Configuration tab.





#### Related topic

**Gateway Configuration Screen** 

# Using the find screen

You can search on:

Name

For more information about searching and editing records, see Using the Find Screens.



4

# **USSD Gateway Service Configuration Screen**

This chapter explains the contents of the USSD Gateway Service Configuration screen.

This chapter contains the following topics.

**USSD Gateway Service Configuration Screen** 

Service Trigger

# **USSD Gateway Service Configuration Screen**

Follow these steps to access the USSD Gateway Service Configuration Screen.

- 1. From the Service Management System screen, select the **Services** menu.
- Select USSD Gateway > Service Config, or use the Ctrl+R shortcut keys.

# Service Trigger

The **Service Trigger** tab on this screen allows you to set up service triggers. A service trigger is a combination of operator, trigger and gateway. The same trigger can be set against different operators or different gateways giving a different service.

#### Service Trigger fields

Here is a description of the fields on the **Service Trigger** tab.

Note: The combination of operator, trigger prefix and gateway must form a unique entry.

Field	Description
Operator	The operator this service trigger is set up for.
	This field is populated by the USSD Gateway Base Configuration Screen Operator tab.
Trigger	The trigger prefix
	This field is populated with the names of all the trigger prefixes created by the USSD Gateway Base Configuration Screen Trigger Prefix tab.
Gateway	The gateway this record belongs to. This field enables multi-Gateway configurations to be deployed across various SLCs. This type of configuration may result in different triggers being configured for the different gateway.
	This field is populated by the USSD Gateway Configuration Screen.

Field	Description
Replacement SAN	The code that will be sent in the called party number field of the InitialDP instead of the derived service access number from the trigger prefix. Optional.
	If specified, between 1 to 20 hexadecimal digits. These digits will be BCD encoded.
Proxy	Proxy SLEE ID.
	Optional. This field should only be populated if the destination service could require a service handover (possibly resulting in a voice call initiation) as this would require the proxy to perform the handover.
	Allowed values: Alphanumeric field up to 20 characters in length.
Dest App ID	SLEE ID for the destination application. If the application is on a remote machine, this should contain the address of the local TCRelay application.
	<b>Allowed values:</b> Numeric field up to 10 digits in length.
	For more information about SLEE IDs, see <i>SLEE</i> Technical Guide.
	Note: This field cannot be used with the Dest Service Key field.
Dest Service Key	Service key for the destination application. This service key is placed in the InitialDP used to trigger the application. Required if Dest Service Key is not set.
	Allowed values: Alphanumeric field up to 20 characters in length.
Cutoff Timer	The amount of time after a session is started before the USSD GW will end the session and send a message to the handset (corresponds to the status of "Session cut off timer expiry"). Required.
	This timer cannot be reset.
	Allowed values: Numeric field up to 9 digits in length.
SSF Timer	Time to wait for a response from the service interface or portal. Required.
	If no response is received within this period, the session is ended and USSD GW sends the handset a message ( corresponds to the status of "SSF timer expiry"). If a response is received before the timer expires, the timer is stopped.
	Allowed values: 1-999999999



Field	Description
Service IF	The service interface triggered by this service trigger.
	Dictates the menus that are required for the service.
	This field is populated by the Service Interface tab on the USSD Gateway Base Configuration Screen.
	<b>Example:</b> For triggers that initiate ACS-Weather control plans, this is must reference the entry in the <b>Service IF</b> tab that has the name of "ACS-Weather".
Send Flag	Whether '*' or '#' characters should be sent to the service interface for responses to PACUIs.
	If set to "Send '*' and '#'", the characters will be encoded as BCD 'c' and 'd' respectively. The terminating '#' character will never be used as a selection character.
	This field is populated at startup.
Barring	Contains the following text and database values:  "Barring Disabled" – value of 0  "Barring IMSI" – value of 1, and  "Barring MSISDN" – value of 2.
Fast Access	Indicates whether the "fast access" (also known as dial/type ahead) feature should be enabled for sessions which use this Service Trigger. Fast access causes excess characters to be stored in a buffer and be used as input to subsequent user input requests.
	This field is populated when USSD GW is installed. It contains the following options:
	Fast Access Disabled
	Always send max
	• With Separators
	Always send max and current buffer     With Separators and current buffer
Deny Access	Selecting this check box unconditionally bars all users from the service that meet the trigger criteria.
Prepaid	Enables service interfaces to determine whether the service uses prepaid checking or not.
	Allowed values:
	ticked = prepaid checking is required.
	clear = prepaid checking is not required.
Forbid Alarm	Specifies whether barred attempts should generate alarms.
	This box has two values:
	• Logged
	Not Logged

**Note:** For example text for each field, refer to the Find screen in this topic.



## Data entry - Service Trigger tab

Follow these steps to enter a new service configuration.

- Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

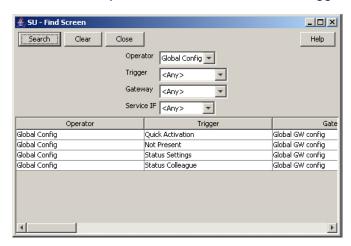
#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

#### Find Screen - Service Trigger tab

Here is an example Find Screen for the Service Trigger tab.



#### Related topic

Service Trigger

# Using the find screen - Service Trigger tab

You can search on:

- Operation
- Trigger
- Gateway
- Service IF

For more information about searching and editing records, see Using the Find Screens.



## Menu and Status Screens

This chapter explains the contents of the USSD Gateway Menu and Status screens.

This chapter contains the following topics.

**USSD Gateway Menu Configuration Screen** 

Menu Wizard

Status Wizard

Menu Info Configuration

**Status Info Configuration** 

Menu Language Display

Status Language Display

# **USSD Gateway Menu Configuration Screen**

Follow these steps to access the USSD Gateway Menu configuration screens.

- 1. From the Service Management System screen, select the **Services** menu.
- 2. Select USSD Gateway, then Menu and Status.
- 3. Select the screen you want to use.

#### Menu Wizard

The Menu Wizard allows you to set up menus easily, by allowing you to select and update the Service Interface and Menu Info Entry data, then enter the menu text for MAP 1 and MAP 2. If configuring menus for the User Selection node, you will also define a keyword for each branch.

#### Setting up menus

Follow these steps to set up a menu.

**Note:** You can select **Previous** to go back through the screens and change any values before saving.

1. Select Menu Wizard from the Menu and Status option.

Result: You see Step 1 of the Creating New Menu screens.

- 2. Select the **Language** from the drop down list.
- Select an existing Service Interface from the drop down list. You can click Edit if you need to change the details.

If you require a new Service interface, create a new one by clicking **New** to the right of the **Service** field.

Result: You see the Creating new Service Interface screen.

Fill in the fields, as described in Service Interface and click OK.

**Result:** The database is updated.

Select an existing Menu information entry from the drop down list. You can click Edit if you need to change the details.

If you require a new Menu information entry, create a new one by clicking **New** to the right of the **Menu** field.

Result: You see the Creating new Menu Info Entry screen.

Fill in the fields, as described in Menu Info Configuration and click **OK**.

**Result:** The database is updated, and the step 1 of 6 screen redisplays.

Click Next.

**Result:** You see the Step 2 screen. If this is for a new menu info entry, the screen is blank. Otherwise it will contain the existing menu text.

**Note:** In this example, the text contains variables (%%). Refer to the description of the MAP 1 and MAP 2 fields for the **Menu Language** tab. The menu text can also be edited using this tab. See Menu Language Display.

6. Type in the menu display text for MAP 1.

Tip: The percent symbol (%) is not valid. To include a % type \% where the % is required.

For example, If the text was defined as "Your usage is %%.%%\%", the result on the mobile would appear as "Your usage is 23.23%"

7. Click Next.

Result: You see the Step 3 screen.

Type in the menu display text for MAP 2.

**Tip:** The percent symbol (%) is not valid. To include a % type \% where the % is required.

For example, If the text was defined as "Your usage is %%.%%", the result on the mobile would appear as "Your usage is 23.23%"

Click Next.

**Result:** You see the following dialog box.



10. The UPC package must be loaded to create menus for the User Selection nodes. If the UPC package is loaded, you can enter Portal Selection data.

To continue, click Yes.

**Result:** You see the Step 4 screen.

**Note:** This branch-keyword mapping table is the same as the one accessed on the User Selection screen.

Otherwise, click No to go to the Final Step screen.

11. Select each Keyword cell and type in the selection data for MAP 1.



12. Click Next.

Result: You see the Step 5 screen.

- 13. Select each Keyword cell and type in the selection data for MAP 2.
- 14. Click Next.

**Result:** You see the Final Step screen.

15. To complete the menu creation, click Save.

#### Status Wizard

The Status Wizard allows you to set up status menus easily, by allowing you to select and update the Service Interface and Status Info Entry data, then enter the status text for a specific language.

#### Setting up status menus

Follow these steps to set up a status menu.

**Note:** You can click **Previous** to go back through the screens and change any values before saving.

1. Select Status Wizard from the Menu and Status option.

Result: You see the Creating New Status Menu - step 1 of 3 screen.

- 2. Select the Language from the drop down list.
- Select an existing Service Interface from the drop down list. You can click Edit if you need to change the details.

If you require a new Service interface, create a new one by clicking **New** to the right of the **Service** field.

**Result:** You see the Creating new Service Interface screen.

Fill in the fields, as described in Service Interface and click **OK**.

**Result:** The database is updated.

 Select an existing Status information entry from the drop down list. You can click Edit if you need to change the details.

If you require a new Status information entry, create a new one by clicking **New** to the right of the **Menu** field.

Result: You see the Creating new Status Info Entry screen.

Fill in the fields, as described in Status Info Configuration and click OK.

**Result:** The database is updated.

5. Fill in the fields with the required options from the drop-down boxes and click Next.

**Result:** You see the Step 2 of 3 screen. If this is for a new status, the screen is blank. Otherwise it will contain the existing status text.

**Note:** The status text can also be edited using the **Status Language** tab. See **Status Language** Display.

Type in the status text and click Next.

Result: You see the Step 3 of 3 screen.



7. To complete the status text creation, click **Save**.

# Menu Info Configuration

The **Menu Info** tab allows you to set up menus with names and values against service interfaces. The menu information is language independent. See Menu Language Display.

#### Fields - Menu Info tab

Here is a description of the fields.

Field	Description
Service IF	The list of service interfaces.
	Note: These are set up on the USSD Gateway Base Configuration Screen Service Interface tab.
Name	Name of the menu for that service interface. Alphanumeric field up to 40 characters in length, mandatory field.
Value	The announcement ID in the PA or PACUI received from slee_acs which will be translated into this message. This record must have an announcement with this id specified in an interaction node used in a control plan or it will not ever be used. For more information about how PAs and PACUIs are used in generating menus, see USSD GW Technical Guide.
	Numeric field up to 7 digits in length, mandatory value.
Selections	The number of selections that the menu will have. Numeric field, valid values are 0 to 20, mandatory field.
Duration	Specifies the length of time the display will be present to the user. Numeric field, valid values 1 to 99. Optional.

Note: For example text for each field, refer to the Find screen in this topic.

#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

# Data entry - Menu Info tab

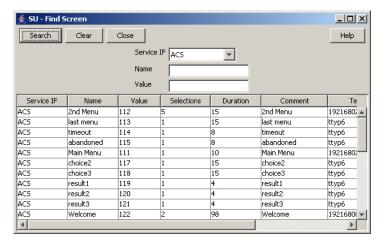
Follow these steps to enter a new menu Info.

- Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.



#### Find Screen - Menu Info tab

Here is an example Find Screen for the Menu Info tab.



#### Related topic

Menu Info Configuration

## Using the find screen - Menu Info tab

You can search on:

- Service IF
- Name
- Value

For more information about searching and editing records, see Using the Find Screens.

# Status Info Configuration

The **Status Info** tab allows you to map status values to more meaningful status messages. The majority of them are created at install time.

## Fields - Status Info tab

Here is a description of the fields.

Field	Description
Service IF	The service interface this status info entry will be used for.
	Note: These are set up on the USSD Base Configuration Screen Service Interface tab.
Name	Name of this status cause for the selected service interface. Required.
	Allowed values: Alphanumeric field up to 50 characters in length.



Field	Description
Value	The value that placed in the release cause field of the RELEASE INAP operation sent to the gateway. Required.
	<b>Allowed values:</b> Numeric field up to 7 digits in length.
	<b>Note:</b> If a status entry is for a service interface other than "Gateway", you can only enter values between 0 and 127 for this field. This is the range of value allowed for the release cause within an INAP RELEASE operation.

Note: For example text for each field, refer to the Find screen in this topic.

## Data entry - Status Info tab

Follow these steps to enter a new status info.

- 1. Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

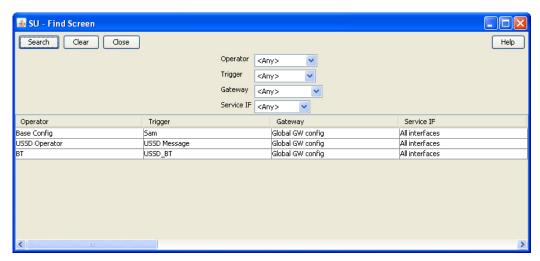
#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

#### Find Screen - Status Info tab

Here is an example Find Screen for the **Status Info** tab.



#### Related topic

Status Info Configuration



# Using the find screen - Status Info tab

You can search on:

- Service IF
- Name
- Value

For more information about searching and editing records, see Using the Find Screens.

# Menu Language Display

The **Menu Language** tab allows you to enter language specific text for a given menu. MAP 1 and MAP 2 text can be different.

## Fields - Menu Language tab

Here is a description of the fields.

Field	Description
Menu	The menu selected from the list provided when the button is selected. Text screens for MAP 1 and 2 - text to be sent to the mobile hand set.
	You cannot edit this field directly. See <b>Menu</b> button below.
Language	The list of available languages.
	Note: These are set up on the USSD Base Configuration Screen Language tab.
MAP 1 and MAP 2	There are separate fields for both MAP 1 and MAP 2.
	The fields represent the display screen of a mobile phone.
	The text may contain variable parts, which are assigned using the Variable Part Announcement Dialog (See the User Input node). Enter each variable part as a pair of percentage symbols (%%).
	<b>Note:</b> The MAP 1 and MAP 2 text may be different, but both must contain the same number of variables.
Characters	Displays the number of characters in the MAP 1 and MAP 2 display screens.

**Note:** For example text for each field, refer to the Find screen in this topic.

## Buttons - Menu Language tab

Here is a description of the buttons.



Button	Description
Menu	Clicking this button displays the Menu Selector screen, allowing you to search for and select a menu value, which will be entered into the Menu field.
View	Clicking this button displays the Text Display Viewer screen, which displays the text and the number of characters. See Viewing menu text - Menu Language tab.

#### Data entry - Menu Language tab

Follow these steps to enter a new menu language.

- Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

#### Viewing menu text - Menu Language tab

Follow these steps to view menu text.

On the Menu Language tab, click View.

Result: You see the Text Display Viewer.

If this is the first time you have used the text display viewer during the current session, the screen will display the text in the MAP 1 and MAP 2 text fields on the tab. If no menu has been selected, the field will be blank.

If you have already used the text display viewer, you will see the last menu text you viewed before.

Click Menu.

Result: You see the Info Selector, displaying the menus.

You can search for menus by entering search criteria in the box and clicking **Search**.

3. Select the required menu from the list.

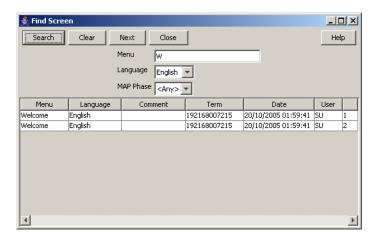
**Result:** The Menu text is displayed in the Text Display Viewer.

To close the text display viewer, in the Info Selector, click Close, then in the Text Display Viewer, click Close.

# Find Screen - Menu Language tab

Here is an example Find Screen for the **Menu Language** tab.





#### Related topic

Menu Language Display

## Using the find screen - Menu Language tab

You can search on:

- Menu
- Language
- MAP Phase

For more information about searching and editing records, see Using the Find Screens.

# Status Language Display

The **Status Language** tab allows you to set language specific status text for a given status.

# Fields - Status Language tab

Here is a description of the fields.

Field	Description
Status	Displays status info name once selected, created by the USSD Gateway Menu Configuration Screen Status Info Configuration tab.
	You cannot edit this field directly. See Buttons - Status Language tab for a description of the Status button.
Language	The list of available languages.
	<b>Note</b> : These are set up on the USSD Base Configuration Screen Language tab.
Text box	This represents the display screen of a mobile phone
Characters	Displays the number of characters in the message in the field above.

**Note:** For example text for each field, refer to the Find screen in this topic.

## Buttons - Status Language tab

Here is a description of the buttons.

Button	Description
Status	Clicking this button displays the Status Selector screen, allowing you to search for and select a value, which will be entered into the Status field.
View	Clicking this button displays the Text Display Viewer, which allows you to view the text of a status, its language and number of characters.  See Viewing status text - Status Language tab.

#### Data entry - Status Language tab

Follow these steps to enter a new status language.

- 1. Click **Clear** to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

## Viewing status text - Status Language tab

Follow these steps to view status text.

On the Status Language tab, click View.

**Result:** You see the Text Display Viewer.

If this is the first time you have used the text display viewer during the current session, the screen will display the text in the field in the tab. If no status has been selected, the field will be blank.

If you have already used the text display viewer, you will see the last text you viewed before.

2. Click Menu.

**Result:** You see the Info Selector, displaying the status info names.

You can search for status info names by entering search criteria in the box and clicking **Search**.

3. Select the required menu from the list.

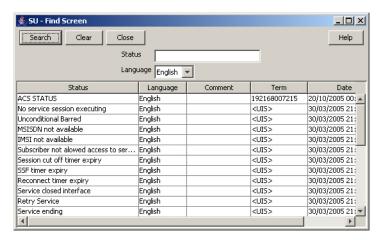
**Result:** The Status text is displayed in the Text Display Viewer.

 To close the text display viewer, in the Info Selector, click Close, then in the Text Display Viewer, click Close.



## Find Screen - Status Language tab

Here is an example Find Screen for the Status Language tab.



#### Related topic

Status Language Display

## Using the find screen - Status Language tab

You can search on:

- Status
- Language

For more information about searching and editing records, see Using the Find Screens.



6

## Subscribers Screens

This chapter explains the contents of the Subscribers screens.

This chapter contains the following topics.

**USSD Gateway Subscribers Screens** 

**Access Control Screen** 

**IMSI Tracing Screen** 

**CDR Viewer Screen** 

**UPC CDR Viewer Screen** 

# **USSD Gateway Subscribers Screens**

Follow these steps to access the USSD Gateway Subscribers configuration screens.

- 1. From the Service Management System screen, select the **Services** menu.
- 2. Select USSD Gateway, then Subscribers.
- 3. Select the screen you want to use.

#### **Access Control Screen**

The Access Control screen controls access to the services. Its use is dependent on whether barring is set up on each particular service trigger. Barring can be set to:

- Disabled, in which case this screen becomes irrelevant
- IMSI
- MSISDN

For a customer to have access to the service, if barring is set to:

- IMSI, it must be provided with sub\_type of IMSI\_allowed
- MSISDN, it must be provided with sub-type of MSISDN allowed.

For these customers then to be barred they must again be provisioned in this screen with IMSI\_barred or MSISDN\_barred.

#### Fields - Access Control screen

Here is a description of the fields.

Field	Description
	This field is populated with all of the <b>NAME</b> values from the UIS_SUB_TYPE table.
	Note: These values are created at installation time.

Field	Description
Trigger Prefix	Displays the trigger prefix. You cannot edit this field directly. See <b>Trigger Prefix</b> button.
Sub Start Num	Numeric field and is a mandatory field. The number of digits that must be entered in this field is dependent on the value selected in the <b>Sub Type</b> field.
	<ul> <li>IMSI_ALLOWED or IMSI_BARRED – length must be between 15 and 20 characters</li> <li>MSISDN_ALLOWED or MSISDN_BARRED – length must be between 10 and 15 characters</li> </ul>
Sub Stop Num	Same format as for <b>Sub Start Num</b> and must contain the same number of digits.
Sub Length	This field is automatically populated by the screen during a save operation. The user cannot modify this value. The field will contain the number of digits in the Sub Start/Stop number field.
CC Length	Numeric field used to indicate how many digits are used to represent the country code in the Start and Stop number fields, and is a mandatory field.

**Note:** For example text for each field, refer to the Find screen in this topic.

#### Buttons - Access Control screen

Here is a description of the buttons.

Button	Description
Trigger Prefix	Clicking this button displays the Trigger Selector screen, allowing you to search for and then select a value to set a trigger prefix for the access control entry. To select, click on the entry in the list and click <b>Close</b> .
	<b>Note:</b> These are set up on the USSD Base Configuration Screen Trigger Prefix tab.

#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

# Data entry - Access Control screen

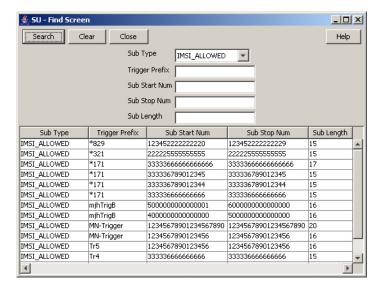
Follow these steps to enter a new access control.

- 1. Click Clear to clear the screen of previous data.
- 2. Enter new data and click Save.



#### Find Screen - Access Control tab

Here is an example Find Screen for the Access Control screen.



#### Related topic

**Access Control Screen** 

#### Using the find screen - Access Control screen

You can search on:

- Sub Type
- Trigger Prefix
- Sub Start Num
- Sub Stop Num
- · Sub Length

For more information about searching and editing records, see Using the Find Screens.

# **IMSI Tracing Screen**

The IMSI Tracing configuration screen is used to set up technical tracing on individual IMSIs.

#### Fields - IMSI Tracing Screen

Here is a description of the fields.

Field	Description
IMSI	The full IMSI number to be traced. Numeric field of between 15 and 20 digits, mandatory field.
File Name	Name and path of the logging file, may be up to 100 characters in length and is a required field. The file name must have a valid path name.



**Note:** For example text for each field, refer to the Find screen in this topic.

#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

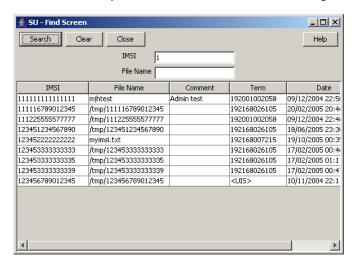
#### Data entry - IMSI Tracing Screen

Follow these steps to enter a new IMSI tracing.

- 1. Click **Clear** to clear the screen of previous data.
- 2. Enter new data and click Save.

#### Find Screen - IMSI Tracing tab

Here is an example Find Screen for the IMSI Tracing tab.



#### Related topic

**IMSI Tracing Screen** 

#### Using the find screen - IMSI Tracing tab

You can search on:

- IMSI
- File Name

For more information about searching and editing records, see Using the Find Screens.

#### **CDR Viewer Screen**

The CDR Viewer screen allows you to view EDRs.

**Note:** For the EDRs to be logged during calls, the **CDR Flag** check box must be ticked on the Gateway Configuration Screen. You must restart the SLEE after selecting this box.

If cross-linking is enabled, this viewer will search for any Gateway EDRs generated during the same session as the selected item in the UPC CDR Viewer screen.

#### Fields - CDR Viewer Screen

Here is a description of the fields that you can use to search on.

Field	Description
IMSI	Numeric field of between 15 and 20 digits
MSISDN	Numerical field of between 10 and 15 characters
SAN	Service Activation Number Numerical field up to 10 digits
Service IF	Numerical field
Operator	Numerical field
Fast Access	Y or N
Start Time	In the format 2003-04-09 16:31:02.0
Duration	Length of the call

**Note:** For example text for each field, refer to the Find screen in this topic.

#### Buttons and other fields

For information about the buttons and fields at the bottom of the screen, see Common Buttons and Fields.

Clicking Find displays the Find screen.

#### Extra information - CDR Viewer Screen

Select the entry you require extra information for. Highlight the line to bring up the extra information details:

- General
- Time outs
- Alarms

#### Trace - CDR Viewer Screen

Also brought up are the trace details for the call:

- Menu
- Status

## **UPC CDR Viewer Screen**

The UPC CDR Viewer screen enables you to search for and view EDRs created by the Send Buffer feature node.

If the UPC CDR Viewer is available, it can register as a listener to the CDR Viewer to allow cross-linking between the two.

