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## Using OCH Online User's manual

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## Preface

This manual describes functionality and features of the new OCH Online.

## Terminology and Abbreviations

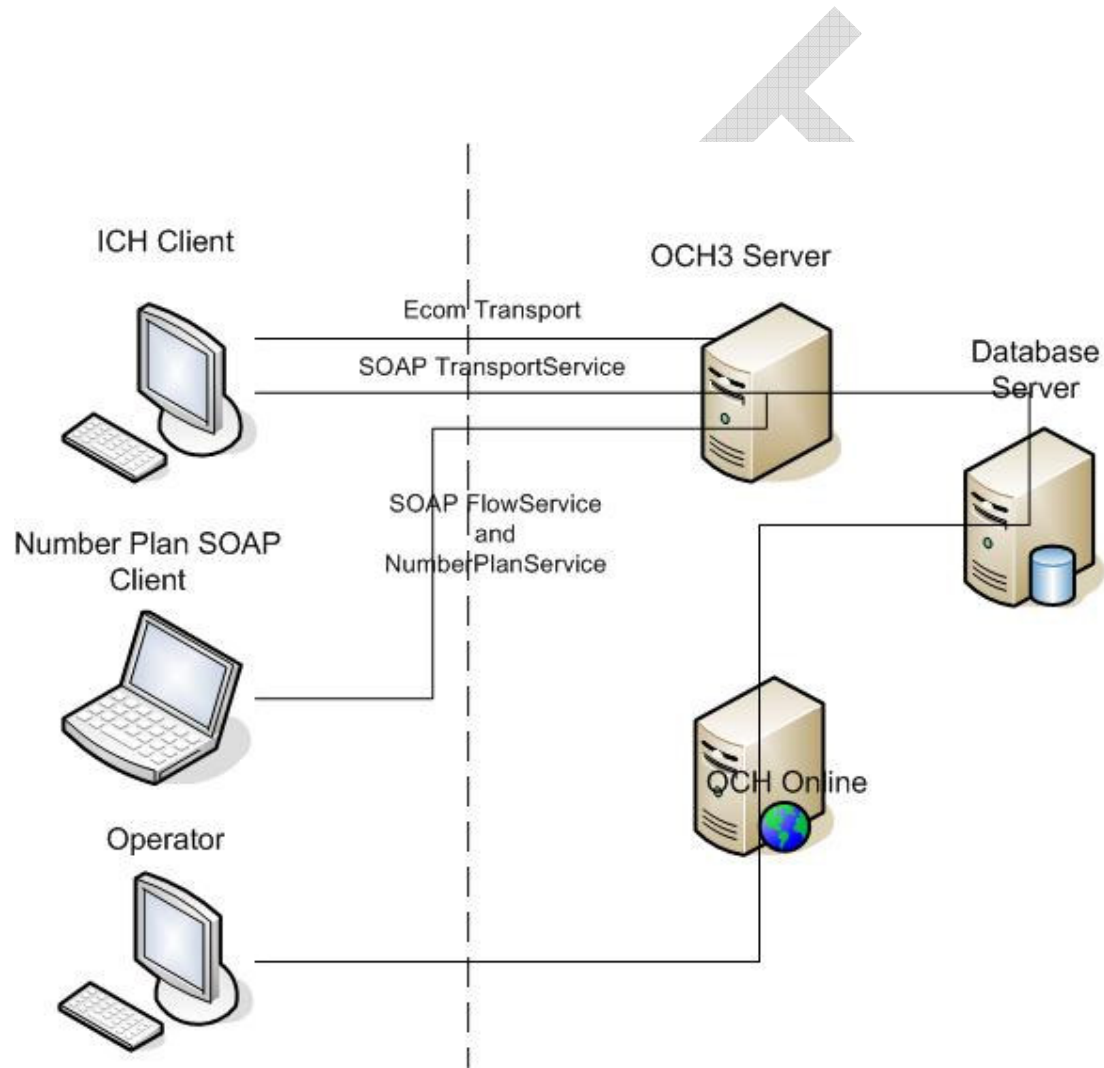
Term	Definition
ICH	Internal Clearing House
OCH	Operators Clearing House
GUI	Graphical User Interface
URL	Uniform Resource Locator

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# 1 Overview

This diagram shows the setup with the OCH3 Server and the database.

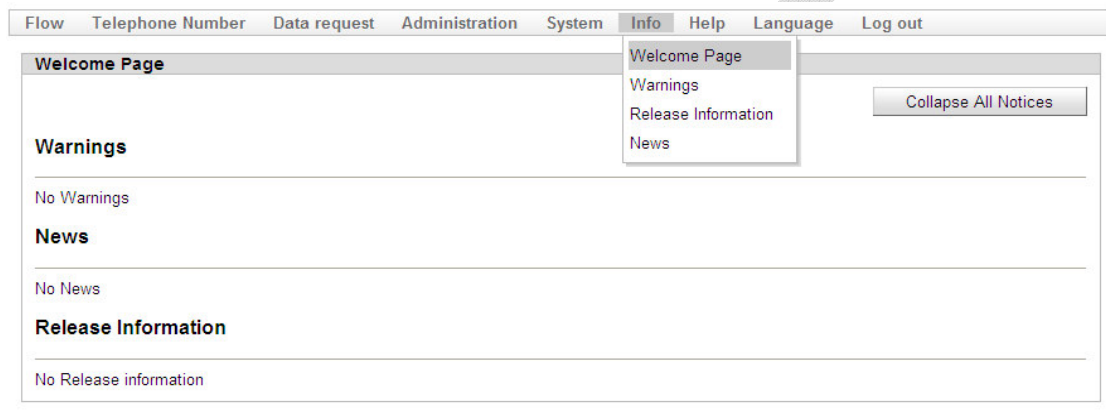
The diagram shows the web server which holds OCH Online placed in a setup with the OCH3 Server and the Database Server, which holds the National Number Plan. Both Servers accesses the same database on the Database Server.



## 2 The OCH Online web GUI

### 2.1 GUI layout

The OCH Online web GUI allows the user to search and view ongoing transactions, orders and history on given telephone from the National Number Plan database, Order dumps and reports, view reports, administrate Notices, Users and Operators etc... This will all be described further in this document. The GUI consists of a number of tabbed pages, as shown in the figure below.



Most of the tabbed pages contain a list of menu items (in the form of link fields) and an area where the currently relevant dialog fields and buttons are displayed.

**Note:** Mandatory fields are marked by a blue validation ball next to the field. A grey ball means that the field hasn't been filled out yet, while a green ball indicates that the field has been filled out correct (in some cases initially with a default value to show the required format for the entry). A grey ball marks optional fields.

## 2.2 Login

When entering the URL `http://<IP address>:<Port Number>/och-online/` the user is directed to the Login page shown below.

Entering the correct user name and password directs the user to the page shown in chapter 2.1 GUI layout.

### Welcome to the OCH Online System

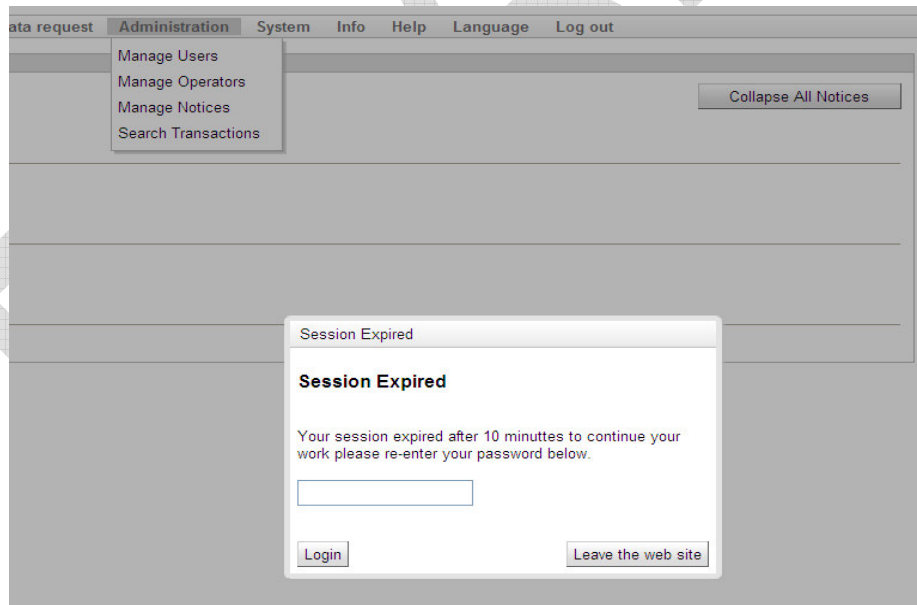


Username

Password

The user session is configured

to timeout at a predefined amount of time. At timeout this dialogue box is shown:



ata request Administration System Info Help Language Log out

Manage Users  
Manage Operators  
Manage Notices  
Search Transactions

**Session Expired**

Your session expired after 10 minutes to continue your work please re-enter your password below.

### 2.3 Access rights

The site shows a various group of tabs and menus depending on the access rights the user has been granted. The matrix on the next page shows available menus for each access right:

MENU ITEM/ ROLE	Service Center	Operator Admin	Operator User	Passive admin	Passive user	Logical admin	SOAP_TRANSPO RT	SOAP_NUMBER PLAN	SOAP_FLOW	Site area
Search telephone number	x	x	x	x	x	x				FLOW
Search originating order number	x	x	x	x	x	x				
Search OCH order number	x	x	x	x	x	x				
Search transactions by date/state	x	x								TRANSACTIONS
Search transactions by ID	x	x								
Show telephone number history	x	x	x	x	x	x				TELEPHONE NUMBER
Show telephone current status	x	x	x	x	x	x				
Order dump	x	x		x						DATA REQUEST
Order reports	x	x	x			x				
View reports	x	x	x			x				
Show operator information	x	x	x	x	x	x				
Manage online users	x									USER
Manage OCH operator	x									
Show system load	x	x	x	x	x	x				SYSTEM
Operational status	x	x	x	x	x	x				
Send command to server	x									
Login					x					AUTHENTICATION
SOAP access ICH							x			
SOAP access NUMBERPLAN								x		
SOAP access Flow									x	

How to grant rights to a user will be described in chapter 3.4.

**Note:** The 'Passive user' access right must be granted for the user to be able to log in to OCH Online.



## 3 The Graphical User Interface

### Contents

This chapter provides an overview of what you can access on the individual GUI tab page (that is, what each tab contains).

- "3.1 Flow tab"
- "3.2 Telephone Number tab"
- "3.3 Date request tab"
- "3.4 Administration tab"
- "3.5 System tab"
- "3.6 Info tab"
- "3.7 Help tab"
- "3.8 Language tab"

### 3.1 Flow tab

#### Contents

The Flow tab is where you search order information from the National Number Plan database for a given Telephone number , OCH Order Number or Originating Order Number.

The following menu items are available on from Flow tab:

- **Search By Telephone Number** which is used to acquire order information for a given telephone number.
- **Search By OCH Order Number** which is used to acquire order information for a given OCH Order Number.
- **Search By Originating Order Number** which is used to acquire order information for a given Originating Order Number.

The screenshot on the next page is an example of a Search By OCH Order Number:

Flow Telephone Number Data request Administration System Info Help Language Log out

---

**Search By OCH Order Number**

**Search By OCH Order Number**

Och Order Number

**OCH Order**

Search Time	Och Order Number	Originating Order Number	Telephone Number	Past Point Of No Return
7 May 2010 15:52:22	<a href="#">200012406866</a>	01015000000000000241	34000000	Yes

Special Sorting

**Transactions**

Transaction Type	Unique Id	Parent ID	From	To	Timestamp
<a href="#">NP Range Update</a>	576487179		Telenor-1	OCH	2 Mar 2010 13
<a href="#">NP OCH Response</a>	576487180	576487179	OCH	Telenor-1	2 Mar 2010 13
<a href="#">NP Range Update</a>	576487181	576487179	OCH	Debitel	2 Mar 2010 13

The Transactions table shows which transactions the order contains. To see information about each transaction the user must click on the containing link in the "Transaction Type" column. This gives a list of Parameters In Transaction:

Flow Telephone Number Data request Administration System Info Help Language Log out

**Parameters In Transaction**

**Parameters In Transaction**

**Och Order Number [200012406963](#)**

[Header]

TransactionGroup	NumberPortability
Priority	P2
SenderID	00000
SentDate	20100427
SentTime	1604

[Message]

TransactionType	002
TelephoneNumber	32000000
OCHOrderNumber	200012406963
UniqueID	576548034
OriginatingOrderNumber	01015000000000000361

[Trailer]

MessageCount	1
--------------	---

**Note:** Each link throughout the entire OCH Online web GUI directs the user to another page.

### 3.2 Telephone Number tab

#### Contents

The Telephone Number tab is where you search order history and current status information from the National Number Plan database for a given series of telephone numbers.

The following menu items are available from the Telephone Number tab:

- **History** which is used to acquire portability and range history information for a given series of telephone numbers.
- **Current Status** which is used to acquire current portability and range information for a given series of telephone numbers.

This is an example of a History search:

Flow Telephone Number Data request Administration System Info Help Language Log out

---

**History**

Phone Number Start   Search Results  
Phone Number End   Ranges Returned 1  
Portabilities Returned 2

**Portabilites**

Navigate << < Page 1 > >>

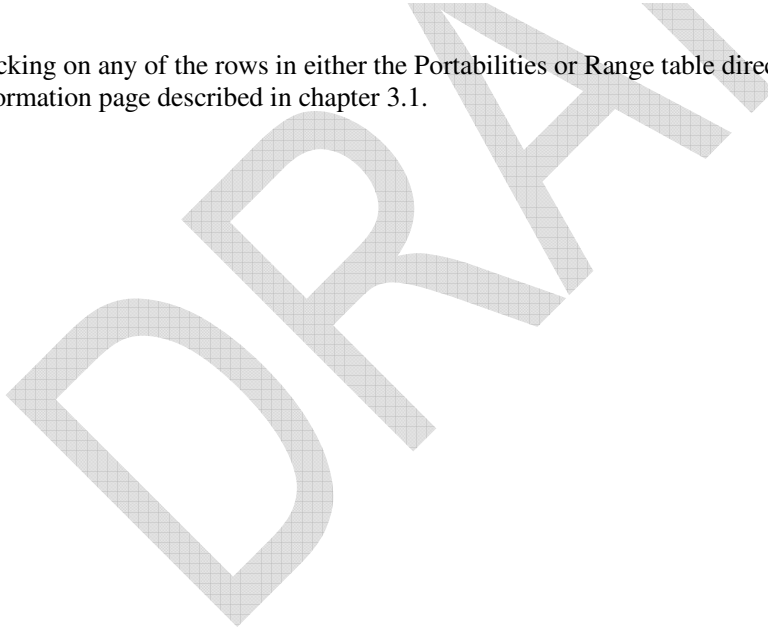
Series	Start Date	End Date	Service Operator	Network Operator	LUBO	Number Typ
32000000-32000000	28 Apr 2010 10:07:00	28 Apr 2010 10:07:00	TDC 01011	TDC 01011	TDC 01011	FIXED
32000000-32000009	28 Apr 2010 10:07:00	28 Apr 2010 10:20:20	TDC 01011	TDC 01011	TDC 01011	FIXED

**Ranges**

Navigate << < Page 1 > >>

Range	Start Date	End Date	Range Holder Id	Service Operator	Network Operator	LUBO
32000000-32000999	27 Apr 2010 16:36:06	27 Apr 2010 16:40:53	Telenor-1 01015	Telenor-1 01015	Telenor-1 01015	Telenor-1 01015

Clicking on any of the rows in either the Portabilites or Range table directs the user to the OCH Order information page described in chapter 3.1.



### 3.3 Data request tab

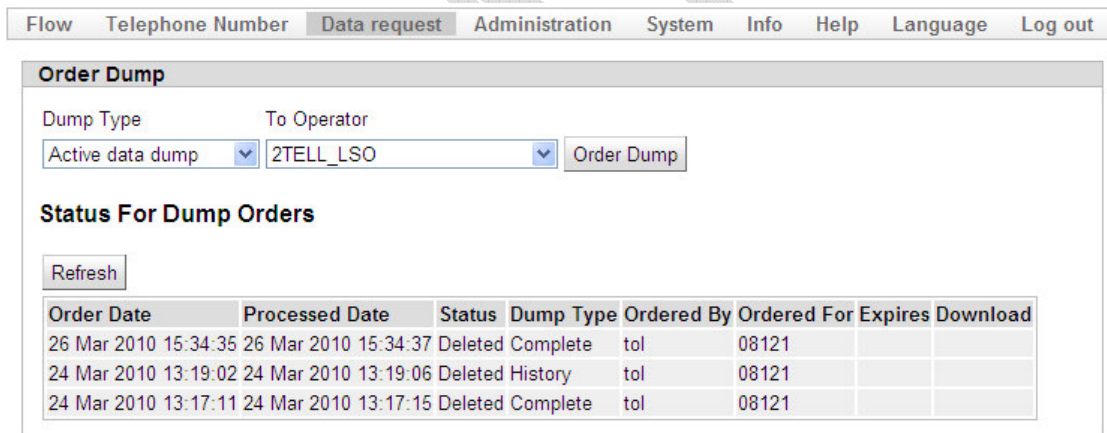
#### Contents

The Data request tab is where you can request dump-, report and operator information from OCH.

The following menu items are available from the Data request tab:

- **Order Dump** which is used to order a Number Plan dump for active- history- or complete data for a given operator.
- **Report Description** is a list of descriptions for each report that can be acquired from the Order Report menu.
- **Order Report** which is used to acquire a type of report for a given operator within a given time frame.
- **View Reports** which is used to view ordered reports for a given operator.
- **Show Operator Information** is a list of data for each operator registered with OCH. .

This is an example of the Order Dump page:



Flow Telephone Number **Data request** Administration System Info Help Language Log out

**Order Dump**

Dump Type To Operator  
Active data dump 2TELL\_LSO Order Dump

**Status For Dump Orders**

Refresh

Order Date	Processed Date	Status	Dump Type	Ordered By	Ordered For	Expires	Download
26 Mar 2010 15:34:35	26 Mar 2010 15:34:37	Deleted	Complete	tol	08121		
24 Mar 2010 13:19:02	24 Mar 2010 13:19:06	Deleted	History	tol	08121		
24 Mar 2010 13:17:11	24 Mar 2010 13:17:15	Deleted	Complete	tol	08121		

This is a subset of the Report Description:

Flow Telephone Number **Data request** Administration System Info Help Language Log out

**Report Descriptions**

**Report-1**  
How many telephone numbers have been ported from my database for how many days. One Number Day is defined as one telephone number operator ported for one day.

**Report-2**  
How many operator porting flows have been completed successfully with me as donor.

**Report-3**  
How many operator porting flows have been completed successfully with me as donor, grouped by weeknumber.

**Report-5**  
How many attempts to operator porting from my database have I rejected, grouped by weeknumber.

**Report-6**  
How many attempts to operator porting from my database have been cancelled, grouped by weeknumber.

This is an example of the Order Report page:

Flow Telephone Number **Data request** Administration System Info Help Language Log out

**Order Report**

Operator: 2TELL\_LSO | Report Name: Report-1 | Report Type: FIXED | Show Report Description

Start Date: 1 Apr 2010 12:00:00 | End Date: 7 May 2010 12:00:00 | Order Report

**Status For Report Orders**

Refresh

Report Name	Report Type	Start Date	End Date	Order Date	Processed Date	Status	Ordered By	Ordered F
Report-1	FIXED	01-04-2010	07-05-2010	7 May 2010 15:57:40		Init	tol	08121

This is an example of the View Report page:

Flow Telephone Number **Data request** Administration System Info Help Language Log out

**View Reports**

2TELL\_LSO Refresh

Name	Action	Type	Query Start Date	Query End Date	Ordered By	Ordered For	Generated
Report-1	View Download	FIXED	1 Apr 2010 00:00:00	7 May 2010 00:00:00	tol	08121	7 May 2010 15:57:40

The user can choose to either view or download the ordered report(s) for a given operator. When the 'View' button is clicked the report is shown in a new browser window. When the 'Download' button is clicked a 'File Download' dialogue box pops up which gives the user the possibility of opening or saving the report in a .txt format.

This is an example of the Show Operator Information page:

Flow Telephone Number **Data request** Administration System Info Help Language Log out

**Show Operator Information**

Operator Name	CPS	Active	Contact person	Email
2TELL_LSO	08121	N	Lars Nyman	<a href="mailto:ln@2tell.dk">ln@2tell.dk</a>
2fast_LSO	08067	N	Thomas Byrdal	<a href="mailto:tb@2fast.dk">tb@2fast.dk</a>
A+Telekom_LSO-	08018	N	Mikkel Sylvest	<a href="mailto:np@aplus.dk">np@aplus.dk</a>
ACN-Europe_LSO	08036	N	Nils Oudejans	<a href="mailto:noudeja@acneuro.com">noudeja@acneuro.com</a>
ATZtel_LSO	08099	N	Kristian Jansby	<a href="mailto:kj@atztel.dk">kj@atztel.dk</a>
Altibox_LSO	08080	N	Lars Peter Christiansen	<a href="mailto:portering@altibox.dk">portering@altibox.dk</a>
Aplus-Telecom	01020	N	Mikkel Sylvest	<a href="mailto:np@aplus.dk">np@aplus.dk</a>
Arto.dk_LSO	08057	N	Morten Borg	<a href="mailto:morten@borg.net">morten@borg.net</a>
Barablu	01091	N	Prathepan Sara	<a href="mailto:prathepan@barablu.com">prathepan@barablu.com</a>
Belle_Balance_SO	00209	N	Kenneth Christiansen	<a href="mailto:kch@bellebalance.com">kch@bellebalance.com</a>
BillingCom_LSO	08062	N	Allan Baadsgaard	<a href="mailto:aba@companymobile.dk">aba@companymobile.dk</a>
Bolignet-Aarhus_LSO	08042	N	Morten Doktor	<a href="mailto:info@bolignet-aarhus.dk">info@bolignet-aarhus.dk</a>
CIM_Mobility	09014	N	Allan Kobs Krøyer	<a href="mailto:ak@cim.as">ak@cim.as</a>
COLT-Telecom	01071	N		<a href="mailto:customerservice@colt-telecom.d">customerservice@colt-telecom.d</a>
Callme08013_LSO	08013	N	Karina Hald	<a href="mailto:kah@debitel.dk">kah@debitel.dk</a>
Callme08068_LSO	08068	N	Karina Hald	<a href="mailto:kah@debitel.dk">kah@debitel.dk</a>
Callme08075_LSO	08075	N	Karina Hald	<a href="mailto:kah@debitel.dk">kah@debitel.dk</a>

**Note:** Clicking on the email link for an operator starts up the local email client and makes it possible to send a mail to the specified email address.



### 3.4 Administration tab

#### Contents

The Administration tab is where the user can manage users, operators and notices and search specific transactions.

The following menu items are available from the Administration tab:

- **Manage Users** which is used to create and update users for a given operator.
- **Manage Operators** which is used to create and update operators.
- **Manage Notices** which is used to create and edit notices to be displayed on the OCH Online web site as information to the user from the administration.
- **Search Transactions** which is used to search transactions in a certain state within a specified time frame or by id.

#### Manage Users

This is an example of how to create a user:

The screenshot shows a web application interface with a navigation bar at the top containing 'Flow', 'Telephone Number', 'Data request', 'Administration', 'System', 'Info', 'Help', 'Language', and 'Log out'. The 'Administration' tab is selected. On the left, there is a 'Manage Users' sidebar with a 'Choose Operator' dropdown set to '2TELL\_LSO' and a table with columns 'User' and 'Operator' containing '2tell' and '2TELL\_LSO'. The main content area displays a 'Create New User' dialog box. The dialog has the following fields: 'Operator' (dropdown menu with '2TELL\_LSO' selected), 'User Name' (text input), 'Password' (text input), and 'Active' (checkbox checked). Below these fields are two lists: 'Assigned Roles' containing 'PASSIVE\_USER' and 'Available Roles' containing 'OPERATOR\_ADMIN', 'OPERATOR\_USER', 'PASSIVE\_ADMIN', 'SERVICE\_CENTER', 'SOAP\_FLOW', 'SOAP\_NUMBER\_PLAN', and 'SOAP\_TRANSPORT'. Between the lists are '>>' and '<<' buttons. At the bottom of the dialog are 'Create user', 'Cancel', and 'Delete' buttons.

**Note:** The dialogue boxes Edit and Create User are similar except for button titles.



This is also the dialogue where the access rights (roles) are managed. To the right of the screen the available roles are shown and the arrows in the middle are used to assign roles to and from the user. A matrix which shows the menu items available for each role is described in chapter 2.3.

**Note:** The roles SOAP\_FLOW, SOAP\_NUMBER\_PLAN and SOAP\_TRANSPORT are not used for OCH Online users. They are created for users who must access the OCH SOAP Interface. More about this in the OCH SOAP description.

## Manage Operators

This is an example of the create user dialogue box:

The screenshot shows a 'Create operator' dialog box with the following fields and controls:

- Name:** Text input field.
- Contact person:** Text input field.
- Email:** Text input field.
- Force Close Email:** Text input field.
- Force Close Email CC:** Text input field.
- Telephone Number:** Text input field.
- Mobile Number:** Text input field.
- Fax Number:** Text input field.
- User Admin Name:** Text input field.
- User Admin Telephone:** Text input field.
- User Admin E-Mail:** Text input field.
- CPS:** Text input field.
- Created:** Text input field.
- Status:** Dropdown menu (Active).
- Contract Number:** Text input field.
- Hidden:** Dropdown menu (No).
- Block Initial:** Dropdown menu (No).
- Activation Date:** Text input field.
- Close Date:** Text input field.
- Transport Type:** Dropdown menu (message store, soap v1, none).
- Delivery Points:** List box with 'Remove' and 'Add' buttons.
- Buttons:** 'Create operator' and 'Cancel'.

In this dialogue box a 'Service Center' user can create an operator with contact data, Delivery Points for message store files and Transport type (message store, soap v1 or none) etc...

**Note:** The dialogue boxes Edit and Create Operator are similar except for button titles.

## Manage Notices

To create a notice click on the 'Create Notice' button and to edit a notice click on a row in one of the three tables - Release Information, News and Warnings.

This is an example of a 'News' notice in an Edit box:

The screenshot displays the 'Manage Notices' interface. A central 'Edit Notice' dialog box is open, showing the following details:

- Start Date: 23 Feb 2010 12:00:00
- End Date: 25 Feb 2010 12:00:00
- Type: News
- Title: N1
- Notice content: News 1

The background interface includes three tables:

- Release Information:** Contains one row with Title 'Test 01032010'.
- News:** Contains three rows with Titles 'N1', 'N2', and 'N3'.
- Warnings:** Contains one row with Title 'W1'.

Each table has a 'Navigate' button with a double-left arrow. The 'Edit Notice' dialog box has buttons for 'Submit', 'Cancel', 'Delete', and 'Deactivate' at the bottom.

**Note:** The dialogue boxes Edit and Create Notice are similar except for titles.

## Search Transactions

To search transactions a start and end date must be provided along with transaction state type.

It is also possible to search for a single transaction by entering the transaction id.

Here is an example of a set of transactions for a given period of time:

Flow Telephone Number Data request Administration System Info Help Language Log out

---

**Search Transactions**

**Search Transactions**

Start Date: 1 Apr 2010 12:00:00    End Date: 31 May 2010 12:00:00    AL State: Null    TL State: Null    Search

Transaction Id:  Search

Transactions found 6

**Transactions**

Transactions << < Page 1 > >>

Transaction Id	Parent ID	OCH Order	Transaction Type	Responsible Layer	Originating Layer	AL State	TL State	Direction	Created	Operator	Actions
<a href="#">576548099</a>	<a href="#">576548098</a>	<a href="#">200012406971</a>	NP OCH Response	Null	Transport Layer	Null	Null		28 Apr 2010 10:31:02	OCH	<a href="#">Action</a>
<a href="#">576547994</a>	<a href="#">576547993</a>	<a href="#">200012406943</a>	NP OCH Response	Null	Transport Layer	Null	Null		14 Apr 2010 13:25:23	OCH	<a href="#">Action</a>
<a href="#">576547995</a>	<a href="#">576547993</a>	<a href="#">200012406943</a>	NP Create	Null	Transport Layer	Null	Null		14 Apr 2010 13:25:23	OCH	<a href="#">Action</a>
<a href="#">576548100</a>	<a href="#">576548098</a>	<a href="#">200012406971</a>	NP Create	Null	Transport Layer	Null	Null		28 Apr 2010 10:31:02	OCH	<a href="#">Action</a>
<a href="#">576548098</a>		<a href="#">200012406971</a>	NP Create	Null	Application Layer	Null	Null		28 Apr 2010 10:31:02	Telia	<a href="#">Action</a>
<a href="#">576547993</a>		<a href="#">200012406943</a>	NP Create	Null	Application Layer	Null	Null		14 Apr 2010 13:25:23	Telia	<a href="#">Action</a>



The 'Actions' link in the last column of the Transactions table gives the possibility of viewing the Dispatch id and modify the transaction:

The screenshot shows a web application interface with a menu bar (Administration, System, Info, Help, Language, Log out) and a table of transactions. A modal dialog box titled 'Modify Transaction 576548099' is open, allowing for the modification of transaction details. The dialog includes dropdown menus for 'Responsible Layer' (set to Null), 'Originating Layer' (set to Transaction Layer), and two 'TL State' fields (both set to Null). It also features buttons for 'Restart incoming transaction', 'Resend Outgoing Transaction', 'Cancel', and 'Submit'.

Transaction Type	TL State	Direction	Created	Operator	Actions
1 NP OCH Response	Null		28 Apr 2010 10:31:02	OCH	Action
3 NP OCH Response	Null		14 Apr 2010 13:25:23	OCH	Action
3 NP Create	Null	Transport Layer	14 Apr 2010 13:25:23	OCH	Action
1 NP Create	Null	Transport Layer	28 Apr 2010 10:31:02	OCH	Action

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### 3.5 System tab

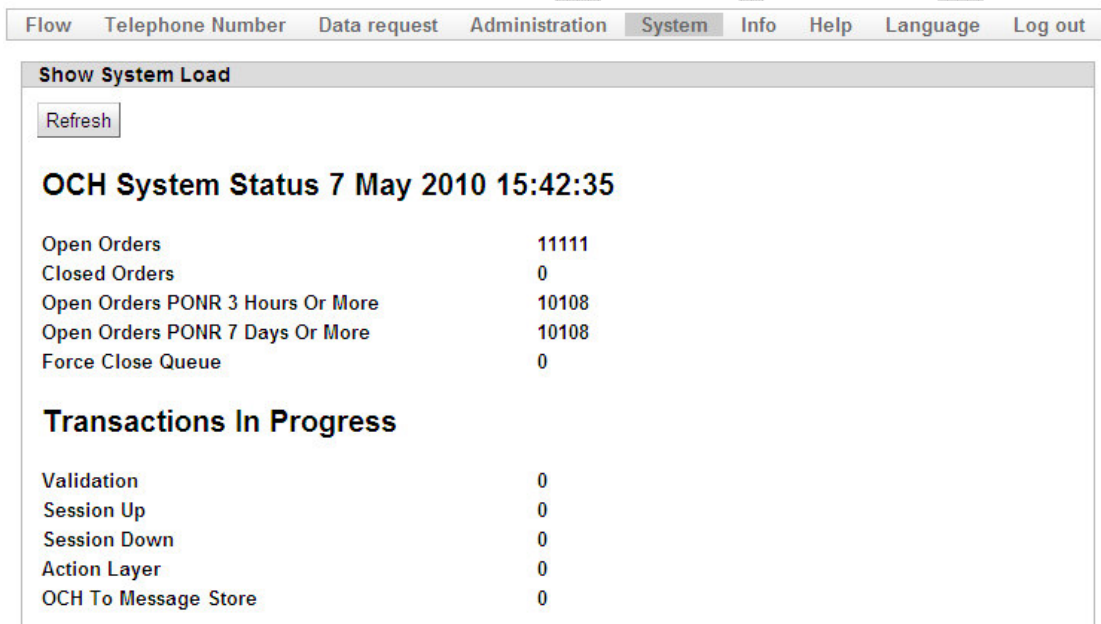
#### Contents

The System tab is where the user can monitor different system information and send commands to the server.

The following menu items are available from the System tab:

- **Show System Load** which is used to show order and transaction status in the system.
- **Operational Status** is a link to the Service Center portal.
- **Send Command** which is used by the 'Service Center' user to send different operational commands to the OCH Server.
- **System Configuration** is used to show configuration of the current running OCH Server.

This is an example of information about system load:



The screenshot shows a web interface with a navigation menu at the top containing: Flow, Telephone Number, Data request, Administration, System (highlighted), Info, Help, Language, and Log out. Below the menu is a section titled "Show System Load" with a "Refresh" button. The main content area displays "OCH System Status 7 May 2010 15:42:35" followed by two tables of system metrics.

Open Orders	11111
Closed Orders	0
Open Orders PONR 3 Hours Or More	10108
Open Orders PONR 7 Days Or More	10108
Force Close Queue	0

<b>Transactions In Progress</b>	
Validation	0
Session Up	0
Session Down	0
Action Layer	0
OCH To Message Store	0

The screenshot on the next page shows where a 'Service Center' user can send commands to the server.

---

Flow Telephone Number Data request Administration **System** Info Help Language Log out

**Send Command To Server**

**Status For Send Command**

Order Date	Processed Date	Status	Send By
------------	----------------	--------	---------

**Command descriptions**

exit Makes the OCH Server quit without parole  
restart Makes the OCH Server restart. Works ONLY if the OCH Server is running and not with exit  
stat Makes the OCH Server send status informations of all running threads to SUMO as management logs  
info Enable trace logs send from OCH Server to SUMO. Use with caution!  
trace Enable trace logs send from OCH Server to SUMO. Use with caution!  
noop No operation... does nothing, but can be used to see if system is running  
hooverstop Makes the Hoover within the OCH Server stop until next OCH Server restart  
hooverauto Makes the Hoover run only when the OCH Server is idle. This is default.  
hooveronceauto Makes the Hoover run only when the OCH Server is idle. This is default.  
hooveroncestop Makes the Hoover run a full cleanup before going into hooverstop mode

### 3.6 Info tab

#### Contents

The Info tab is where the user can choose to see notices and return to the welcome page.

The following menu items are available from the Info tab:

- **Welcome Page** which is a link to the front page of OCH Online.
- **Warnings** is a paged list of the Warning notices that have been created from the Manage Notices page which were described in chapter 3.4.
- **Release Information** is a paged list of the Release notices that have been created from the Manage Notices page which were described in chapter 3.4.
- **News** is a paged list of the News notices that have been created from the Manage Notices page which were described in chapter 3.4.

This is an example of the Warnings page:

Flow Telephone Number Data request Administration System Info Help Language Log out

**Warnings**

Navigate << < Page 1/1 > >>

▼ 23 Feb 2010 12:00:00 W1

Warning 1

### 3.7 Help tab

The following menu items are available from the Help tab:

- **OCH A/S** is a link to the official website of OCH A/S.
- **Error codes** is a paged descriptive list of error codes that the OCH Server can throw when an error occurs during the lifetime of an OCH order.

This is an example of some of the error codes and descriptions:

Flow Telephone Number Data request Administration System Info Help Language Log out

**Error codes**

Navigate << < Page 1/4 > >>

Error code	Message
300	Syntax error in line
301	Field is missing
302	Field is present more than once
303	Field content is illegal
304	Field content is missing
305	Field content not unique
306	The telephone number is not within a range in the number database
307	Field content is too long
308	Index value is illegal
309	The TelephoneNumber is present in another active flow
310	MessageCount value does not match number of messages
311	[NPUpdate] received before the agreed completion date
312	No [NPCompletion] found for this [NPUpdate]
313	OCHOrderNumber is in use in another flow
314	OperatorID does not exist

**Note:** The Error codes are split in a number of pages with a predefined number of rows.

### 3.8 Language tab

OCH Online contains a language module which makes it possible for the user to choose between different languages his or her user account.

This shows the Language menu:



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## 4 Configuring OCH Online

Configuration files for OCH Online are located in the folder

`/home/<och>/prod/server/och-online/tomcat/conf/`

This is described in further details in the System Administrations guide for the OCH3 Server and OCH Online.

The main configuration file is the `och-online.xml` which is located in

`~/conf/Catalina/localhost/`

This is the file where directory paths, timeout, phone number length, `NPUUpdateComplete` strategy etc... are configured.

(see Appendix A for the complete file)

### **NPUUpdateComplete strategy**

To change `NPUUpdateComplete` strategy configurations must be changed in two places and after that the OCH3 Server and OCH-Online must be restarted:

1. In the `och-online.xml` described in Appendix A;

`<!-- Possible values : All, NetworkOperators, None -->`

`<Environment name="NpUpdateCompleteStrategy" value="NetworkOperators" type="java.lang.String"/>`

2. In the `och.cfg` file located in `/home/<och>/prod/server/och/etc/;`

`# Possible values: All, NetworkOperators, None`

`transaction.np_update_complete_strategy = NetworkOperators`

After these two steps have been performed the OCH3 Server and the OCH Online Server must be restarted.

### **Start / Stop servers**

The `/home/<och>/prod/server/och-online/bin/` directory contains **start.sh** and **stop.sh**, which can be used to start/stop the OCH Online server. Similar scripts are available in the `/home/<och>/prod/server/och/bin/` directory.

**Note** that the start and stop scripts should not be used alone, but should instead be started through the **mainctrl.sh** script, found in the `<och3>` user's home directory. This is further described in the System Administrations guide for the OCH3 Server and OCH Online.

## 5 Appendix A: och-online.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Context antiJARLocking="true" path="/och-online">
  <!-- The main datasource for this web application -->
  <ResourceLink name="jdbc/och.ana.online"
    global="jdbc/och-online" type="javax.sql.DataSource"/>
  <!-- The authentication mechanism used for this web application -->
  <Realm
    className="org.apache.catalina.realm.DataSourceRealm"
    dataSourceName="jdbc/och-online"
    roleNameCol="role" userCredCol="password"
    userNameCol="username" userRoleTable="v_user_role"
    userTable="users"/>
  <!-- The directory containing the tomcat -->
  <Environment name="OchOnlineBaseDir" value="/home/och/prod/server/och-online"
    type="java.lang.String"/>
  <!-- The directory containing the och server-->
  <Environment name="OchServerBaseDir" value="/home/och/prod/server/och"
    type="java.lang.String"/>
  <!-- The directory where OCH Server puts the dump files -->
  <Environment name="OchServerDumpDir" value="/home/och/prod/server/och/online_dump"
    type="java.lang.String"/>
  <!-- Time in minutes before users must re-authenticate -->
  <Environment name="LoginTimeout" value="10" type="java.lang.Integer"/>
  <!-- The length of phone numbers -->
  <Environment name="PhonenumberLength" value="8" type="java.lang.Integer"/>

  <!-- Possible values : All, NetworkOperators, None -->
  <Environment name="NpUpdateCompleteStrategy" value="NetworkOperators"
    type="java.lang.String"/>
  <!-- The dispatch url -->
  <Environment name="DispatchUrl" value="http://msu.dannet.dk/cgi-
    bin/msview/src/dispatch.sh?fid=" type="java.lang.String"/>
```

</Context>

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