DRAFT

Using OCH Online

User's manual

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Revision	Author	Comment
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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

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.
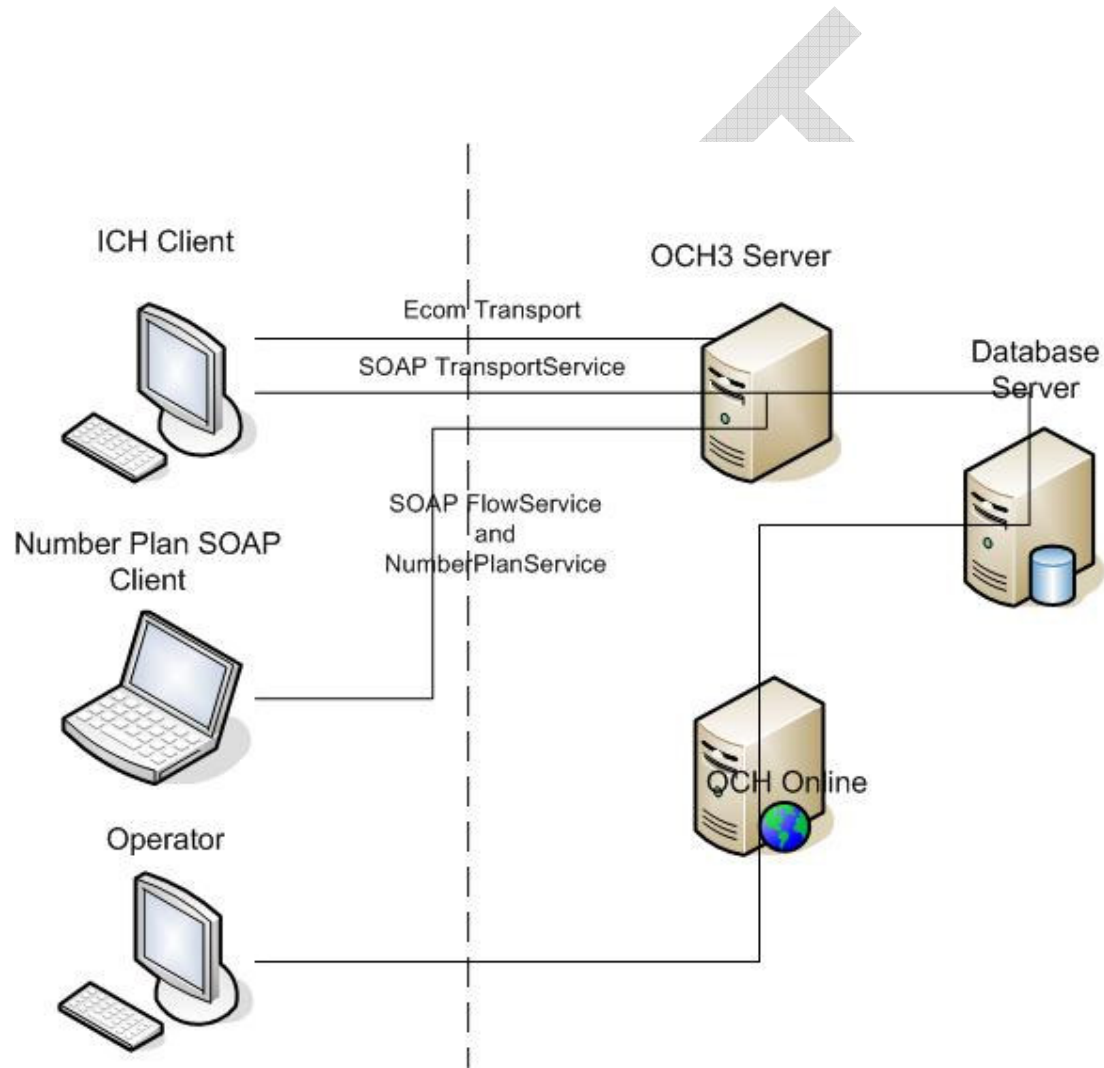
2 The OCH Online web GUI

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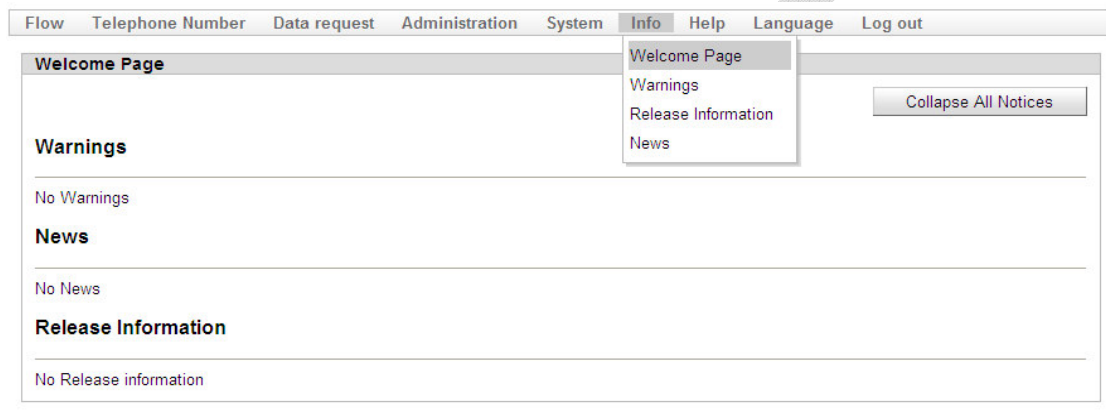
Most of the tabbed pages contain a list of menu items (in the form of link fields) and an area where the currently relevant dialog fields and buttons are displayed.

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 adress>:<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.
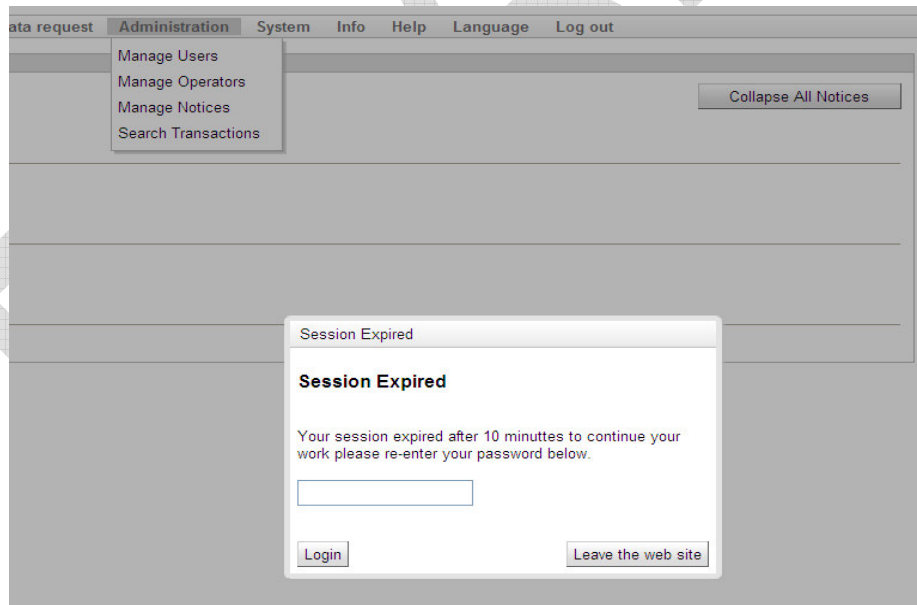
Welcome to the OCH Online System

Username

Password

Login

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

Collapse All Notices

Session Expired

Session Expired

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

Login   Leave the web site

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_TRANSPORT	SOAP_NUMBER PLAN	SOAP_FLOW	Site area
Search telephone number	x	x	x	x	x	x				FLOW
Search orgigiating 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:

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:

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

3.2   Telephone Number tab

Contents

The Telphone 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:

Clicking on any of the rows in either the Portabilities or Range table directs the user to the OCH Order information page described in chapter 3.1.
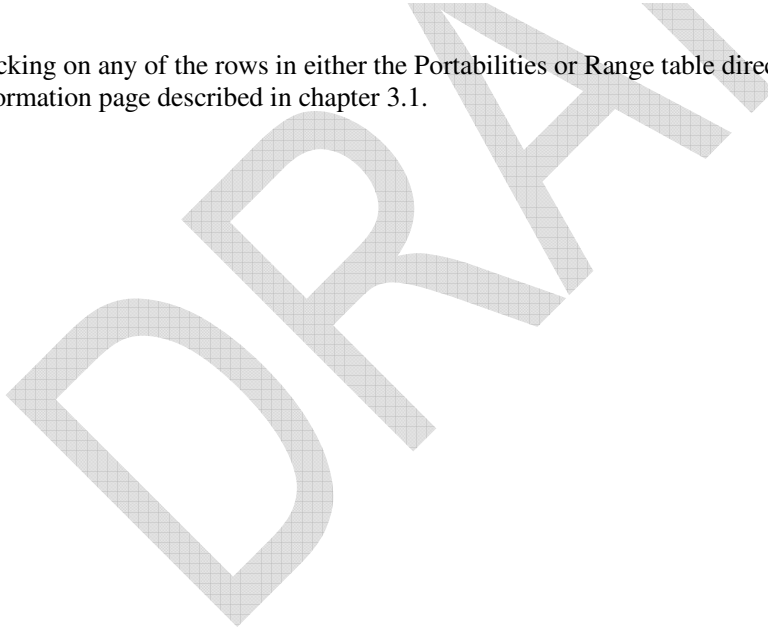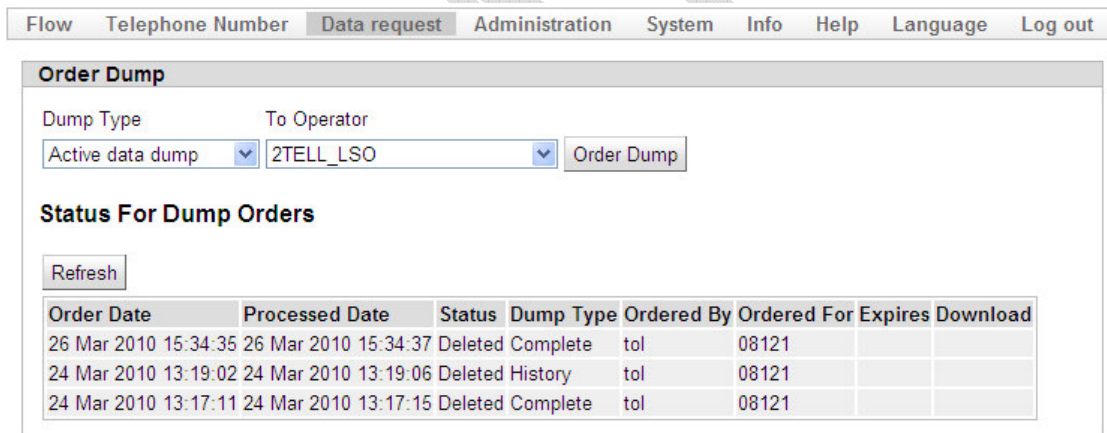
3.3   Data request tab

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:

This is an example of the Order Report page:

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

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:

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 desciption.

Manage Operators

This is an example of the create user dialogue box:

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:

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:

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

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:

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

Show System Load

Refresh

OCH System Status 7 May 2010 15:42:35

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

Transactions In Progress

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.

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:

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:

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:

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, NPUpdateComplete strategy etc... are configured.

(see Appendix A for the complete file)

NPUpdateComplete strategy

To change NPUpdateComplete 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
<?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>