Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

Mobile Order Management: I2I and L2S

	Ericsson Internal				
ERICSSON 📶	DEMONSTRATION GUIDE				2 (37)
Prepared (Subject resp)		No.			
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev	Reference	
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1		

Contents

Prepared (Subject resp)			No.		
TEL/TO ENATHDA [Daniel Nathan]			UTOPIA3.5-DG-MOM-001		
Approved (Document resp)		Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]			2013-05-08	PA1	

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

Issue and Amendment Record

Issue	Date	Authored or Revised by	Comments
0.1	08/05/2013	Dan Nathan	Initial draft
0.2	24/05/2013	Xuejun Li	Added draft EMA components
0.3	18/06/2013	Dan Nathan	Filled out some.
0.4	25/06/2013	Dan Nathan	Final draft for review and testing
0.5	13/11/2013	Dan Nathan	Updated for Utopia release 4.0
0.6	04/08/2014	Sudha Ramesh	Minor editorial fixes, clarification of navigation in a few places

ERICSSON 📶		Ericsson Internal DEMONSTRATION GUIDE			5 (37)
Prepared (Subject resp) TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001			
Approved (Document resp) TEL/TO EVAIRAV [Ravi Vaidyanathan]	Checked	Date 2013-05-08	Rev PA1	Reference	

# 1 Introduction and Overview

1.1 Introduction

This document is intended to support pre-sales and other staff in performing demonstrations of "Idea to Implementation" (I2I) and "Lead to Service" (L2S) processing of Mobile Order Management (MOM) services for enterprise customers.

The document is designed to be used in conjunction with the Utopia demonstration system, version 3.5 and later.

I2I is the set of processes and activities necessary to take an idea for a new service or offering to the point where it is implemented, and can be ordered by customers.

L2S is the set of processes and activities necessary to support the conversion of individual sales leads into usable network services.

The MOM demonstration is supported by configurations of Ericsson Catalog Manager (ECM), Ericsson Order Care (EOC), and Ericsson Multi Activation (EMA).
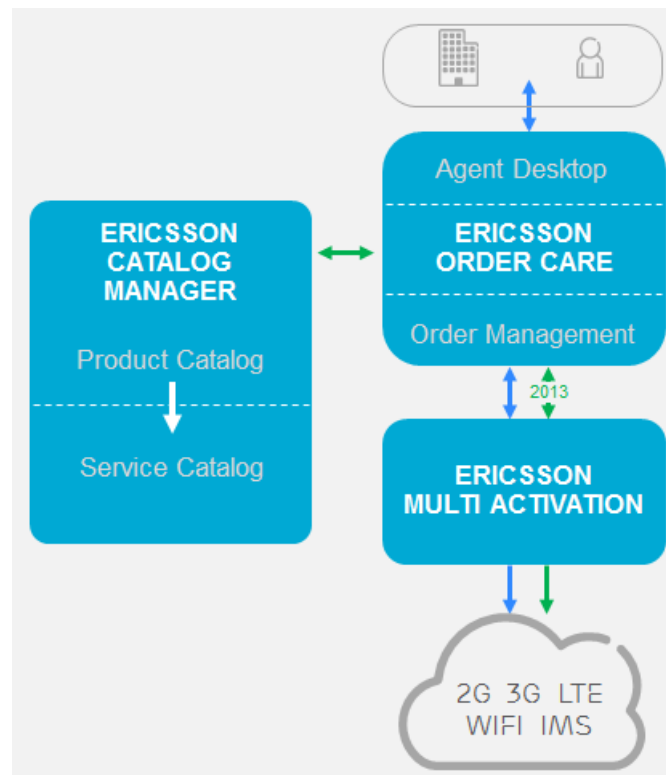
Architecture for MOM Demonstration

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

1.2 Scope

Scope is limited to functionality and activities directly relevant to the MOM demonstration. Only the "ADD" case is fully supported at this time. "DISCONNECT" and "CHANGE" may be implemented in a future release.

Generic product functionality is not covered here, although various functions of the products involved will be touched upon.

1.3 Demonstration Service Overview

The demonstration concerns a Utopian company (named "Acme") that has contracted to receive enterprise mobile services from Utopia Mobile, the wireless Communications Service Provider (CSP).

The overall service to be provided is a mobile phone subscription, comprising multiple service components, as configured in the catalog.

Various staff at the CSP maintain the core catalog of products, services and offerings, and manage the back-end configurations necessary for services to be processed and activated.

Administrators at Acme can filter and adjust the offers provided by Utopia Mobile before offering them to Acme staff.

Internal Customer Service Reps at Acme can take orders for enterprise staff.

Alternatively, Acme staff can manage their own subscriptions via a form of self-service.

1.4 Demonstration Overview

The demonstration is in two parts: Idea to Implementation (I2I) and Lead to Service (L2S).
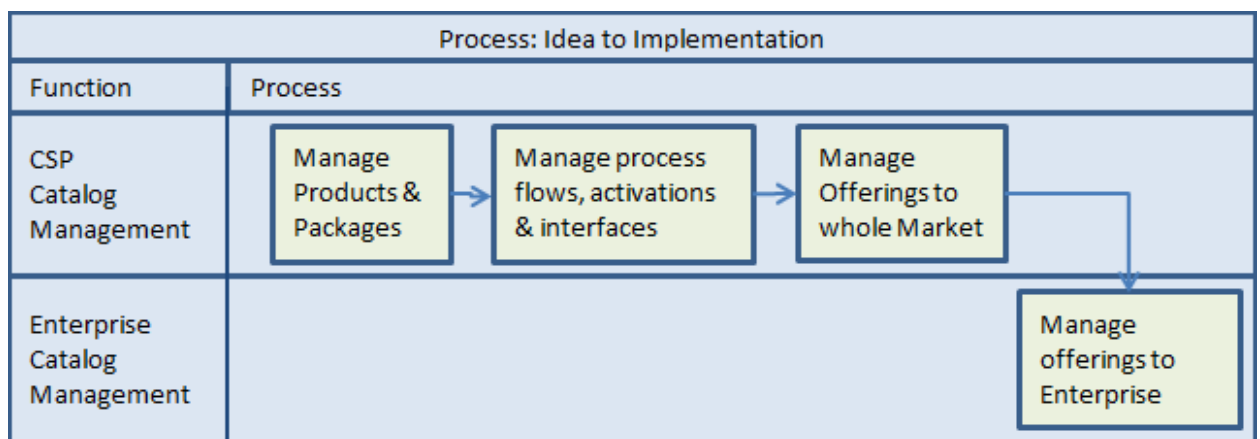
Prepared (Subject resp)				
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

The I2I demonstration introduces the structures and tools that are used to prepare BSS/OSS systems to support new products and services. This includes the product and service catalog, process modeling tools, and activation configuration. It shows how new services can rapidly be implemented from re-usable catalog components and their supporting process and activation models.

The I2I demonstration also shows how a CSP can publish catalog offerings to its Enterprise customer Administrators, who can then "extend" and customize the offerings, before making them available to their end users.

Although largely "read-only", the I2I demonstration includes creation and amendment of various catalog items, which can be used in the later L2S demo if desired.
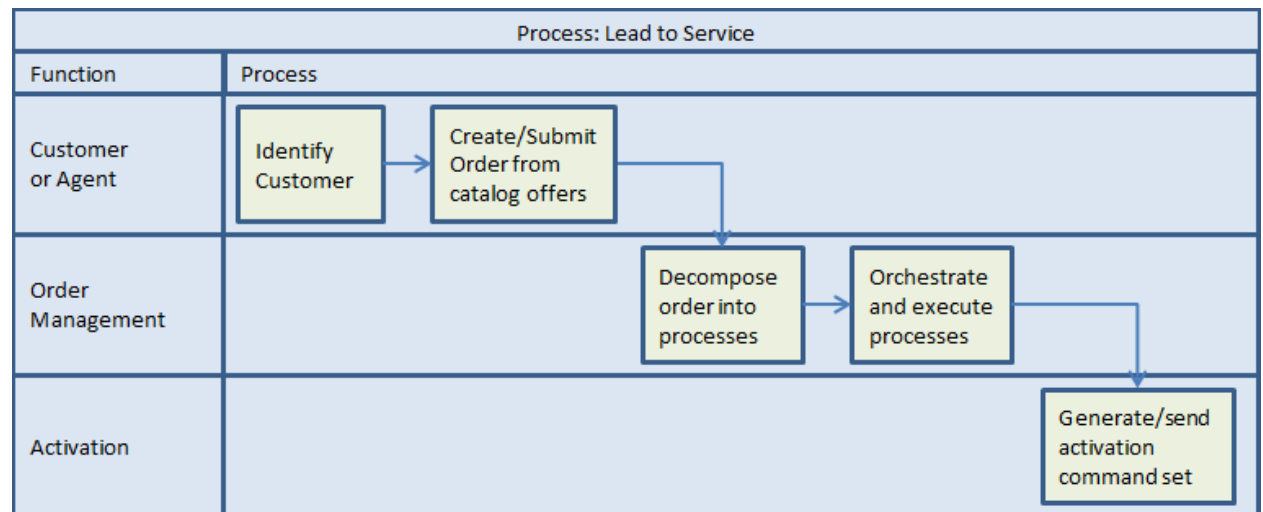
The L2S demonstration illustrates the process of order entry, negotiation and processing, optionally using some of the structures and processes designed and configured during the I2I phase. The enterprise user's dashboard is displayed before beginning a new order. Catalog items are displayed in the ordering GUI, where they can be selected, customized and configured, before the order is sent for processing. During processing the order dashboard shows the progress of the order. Activation process outputs may also be viewed.

1.5   Products Featured

- Ericsson Product Catalog (and options)

- Ericsson Order Care (and options)

- Ericsson Multi-Activation and MA Composer

ERICSSON	Ericsson Internal DEMONSTRATION GUIDE			8 (37)
Prepared (Subject resp) TEL/TO ENATHDA [Daniel Nathan]	No. UTOPIA3.5-DG-MOM-001			
Approved (Document resp) TEL/TO EVAIRAV [Ravi Vaidyanathan]	Checked	Date 2013-05-08	Rev PA1	Reference

1.6   Product Naming

Ericsson Order Care and Catalog Manager were until recently known as ConceptWave Order Care and Catalog. Although every effort has been made to reflect current names in this demonstration and documentation, this is not always wise or possible, for example where the product itself uses the old name.

2 Before Starting the Demonstration…

2.1 Understand Options

2.1.1 Presentations and other Collateral

Slides and other material is available on the Utopia VM, at *c:\Demo\Documentation\Demo Documentation\MOM\Collateral*.

Although there may be slight differences between the live demonstration and the supporting collateral, they share the same focus and aims.

This material may be used in support of the "live" demonstration detailed below.

2.1.2 Simple Live Demo

The live demonstration can be run on the Utopia "prime" Virtual Machine only, in which case the EMA runtime server is not available.

All aspects of the I2I demonstration are supported by the simple demo.

In the L2S demonstration, Order Care calls to EMA are stubbed out, but the customer/agent view of the process is otherwise unchanged.

The Utopia "prime" VM is configured by default to support the Simple Live Demo.

2.1.3 Full Live Demo

The full live demonstration requires both the Utopia "Prime" VM and the EMA VM to be running and communicating with each other.

All aspects of the I2I demonstration are supported by the full demo.

In the L2S demonstration, Order Care calls to EMA are real, and are processed on the EMA VM by the EMA runtime server. The EMA client is used to view the processing log to illustrate how the received activation requests have been processed.

Additional host resources are required to run the EMA VM. (To run both VMs on a single machine requires at least 16GB of RAM). Also, additional activities – covered here and in the EMA VM Guide – are required to start the EMA VM and establish communication with the Utopia "prime" VM.

Prepared (Subject resp)		No.			
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev	Reference	
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1		
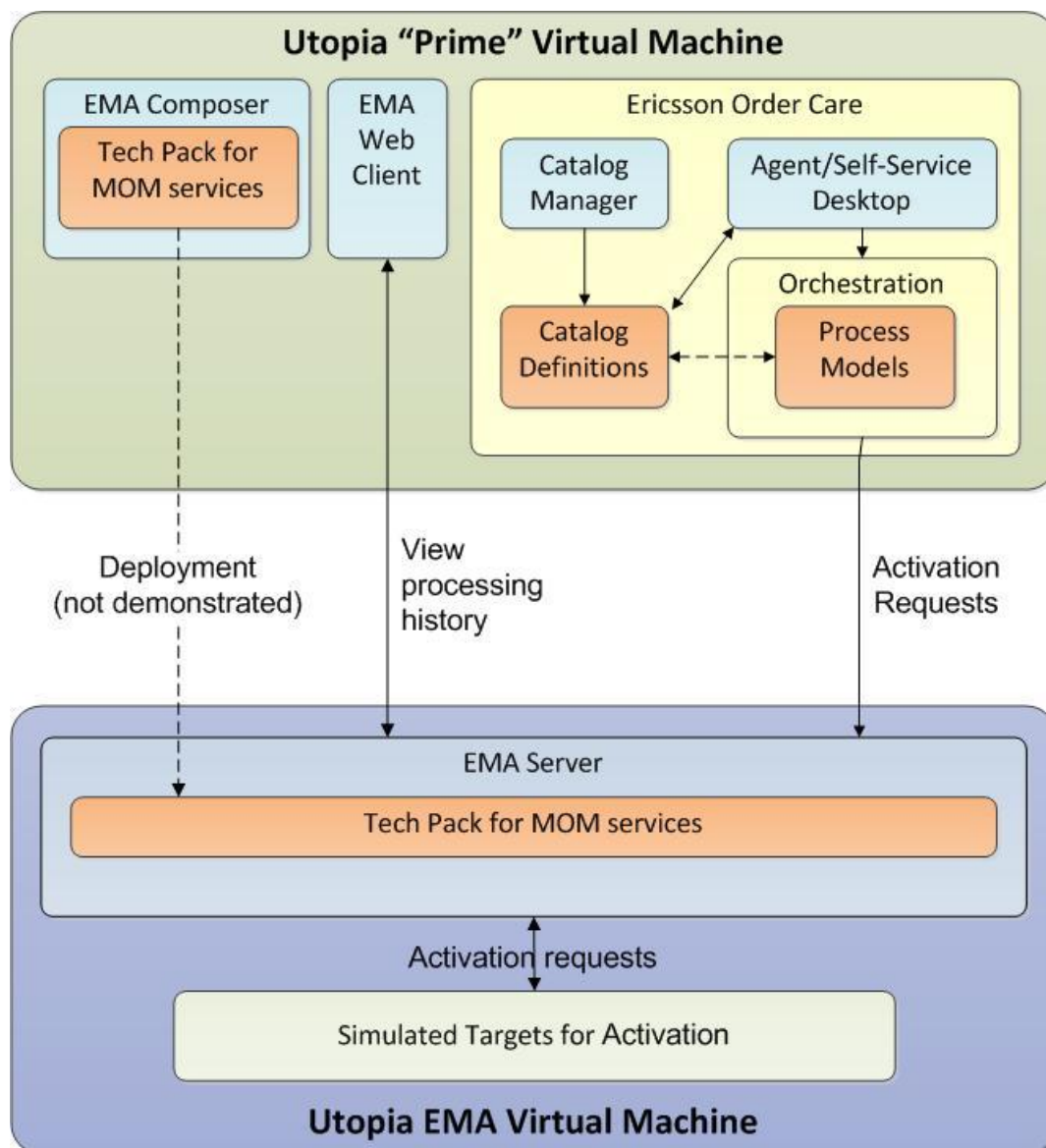
2.1.4   I2I and L2S

If I2I process and functionality are the primary topic of interest, the L2S part of the demo can be omitted.

If L2S processes and functionality are the primary topic of interest, the I2I part of the demo can be omitted.

Prepared (Subject resp)				
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

2.2   Prepare for Demo

2.2.1   EMA VM

If desired, start the EMA VM using the instructions contained in the EMA VM Guide (provided with the EMA VM). EMA server processes start automatically when the VM has been running for a little while.

To check the status of the EMA server:

1. Working on the host machine, log into the EMA VM with username = sogadm, password = sogadm.

2. Press the "Computer" button (bottom left) and select "Gnome Terminal" to open a shell/command line window.

3. Enter "emaserver status" at the command prompt. While the VM is starting up, this will return "Failed to login to FDS-PL", so if necessary wait a few minutes and try again.

4. The server is ready for use when all components show the ACTIVE state. Repeat the above command until this is the case.

To obtain the IP address of the EMA server (for later use):

1. In the same shell/command prompt opened above, enter "ip addr"

2. Note the value shown as the inet address of the eth1 network adapter, as shown below. (The interface name may be other than "eth1". Get the inet address of the first eth? Interface if you do not see the "eth1" interface)

```
linux-x8hp:~> ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 brd 127.255.255.255 scope host lo
    inet 127.0.0.2/8 brd 127.255.255.255 scope host secondary lo
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN qlen 1000
    link/ether 00:0c:29:5f:f8:10 brd ff:ff:ff:ff:ff:ff
3: eth1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 00:50:56:2c:9a:ac brd ff:ff:ff:ff:ff:ff
    inet 192.4.66.68/29 brd 192.4.66.71 scope global eth1
    inet6 fe80::250:56ff:fe2c:9aac/64 scope link
       valid_lft forever preferred_lft forever
linux-x8hp:~>
```

Obtaining the IP address of the EMA VM

3. If no value is shown for inet against the eth1 network adapter, it may be necessary to set the IP address of the EMA VM manually. To do this, consult the EMA VM Guide.

ERICSSON

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

2.2.2   Utopia VM

IMPORTANT: If running the VM locally, the Utopia VM must be started up using file "STATIC demoVM.vmx", which can be found in the VM folder. If not, the Order Care license will be invalid. VMs on the Ericloud are, by default, started statically.

Start Servers

Allow the VM time (up to 15 minutes) to start up and settle down. Using the desktop shortcut "Utopia Platform Manager", ensure that the following servers are running.

- Admin Server

- Order Care Mobile Order Mgt (any/all other Windows Services named *Order Care xxxx* must be stopped before this service is started)

- Oracle XCOM Server

Enable Communication with EMA VM

No changes are required to run the demo using the "stubbed out" EMA interface.

If the separate EMA VM is to be used, a small change to configuration must be made:

1. In folder Desktop\OSS-BSS Applications\More double-click the "Order Care MOM Config" shortcut to open the GUI in Internet Explorer. You may need to wait a few minutes for the Order Care Mobile Order Mgt server to come up.

2. Login using username = upadmin, password = upadmin.

3. On the left of the screen, select **utopia_node_MOM**

4. At the top of the screen, select the Config Variables tab.

5. Locate the variable "enableEMA" and double-click in the "value" column.

6. Change the value of "enableEMA" to "true" and click on the form background.

7. Press the Save button, then press the Reload button, then log out of the configuration application and close the window.

		Ericsson Internal			
ERICSSON ⧹		DEMONSTRATION GUIDE			13 (37)
Prepared (Subject resp)		No.			
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev	Reference	
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1		
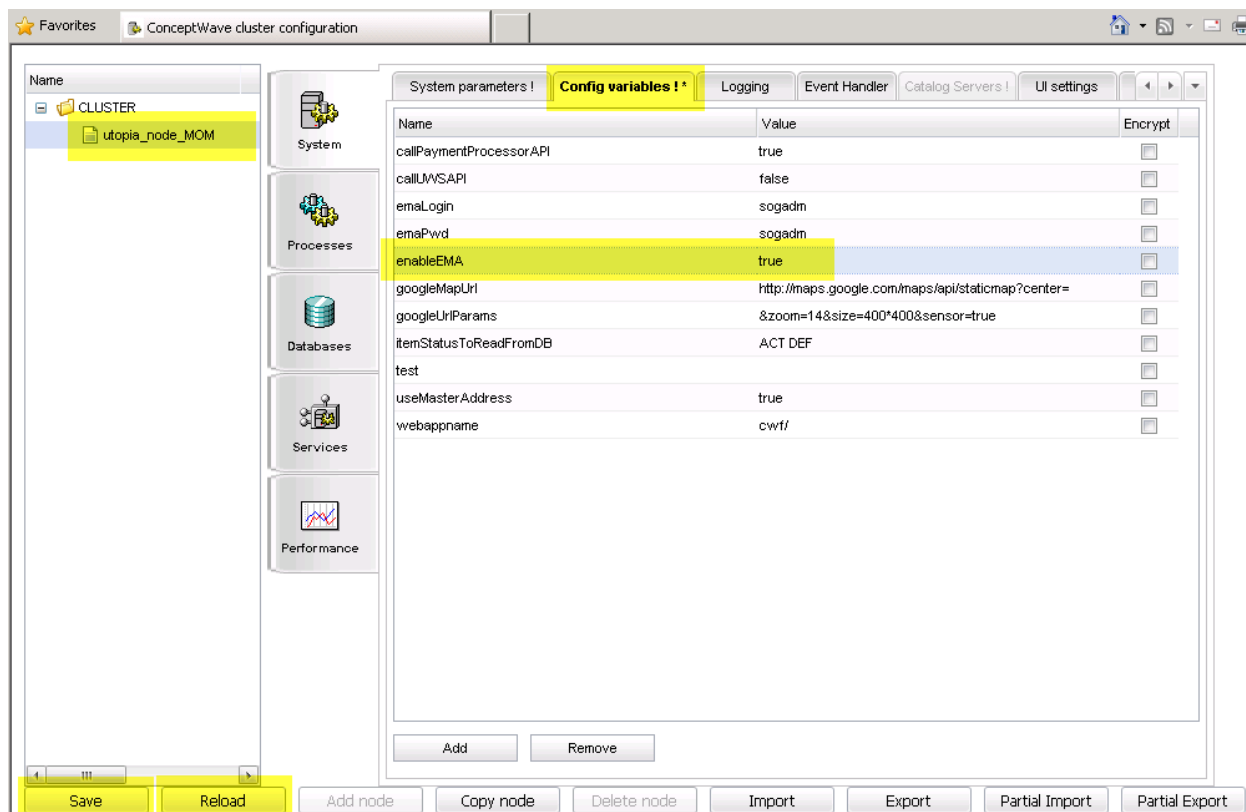
Enabling connection to the EMA Virtual Machine

To configure the Utopia VM with the IP address of the EMA VM:

1. Using the desktop tool *Utopia Platform Manager*, Scripts tab, run the script *Edit hosts file*, which will open the hosts file in the Textpad editor.

2. Amend the line containing "emaVM", replacing the IP address with the IP address of the EMA server obtained above.

3. Save and exit the file

Start Clients

Ericsson Catalog Designer and Unified Workstation

1. In folder Desktop\OSS-BSS Applications, start the Order Care client using the "Order Care (Mobile Order Mgt)" shortcut

2. Login as csp_manager/csp_manager (Other users will log into Unified Workstation using the same window as necessary)

Prepared (Subject resp)			No.		
TEL/TO ENATHDA [Daniel Nathan]			UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked		Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]			2013-05-08	PA1	

Ericsson Order Care Designer (formerly ConceptWave Velocity Studio)

1. In folder Desktop\OSS-BSS Applications\More, select *ConceptWave Velocity Studio*

2. When the application has started, select File→MOM [C:\app\Telcordia…] to load the MOM configuration metadata ready for later exploration

Ericsson Multi-Activation Composer

1. In folder Desktop\OSS-BSS Applications\More, start the EMA Composer client using the "EMA Composer" shortcut.

Ericsson Multi-Activation Web Client

NOTE: can only be used when the EMA VM is running.

1. In folder Desktop\OSS-BSS Applications, use the "EMA Web Client (requires EMA VM)" shortcut.

   If the EMA logo/graphic is not displayed, there may be a connectivity problem between the Utopia Prime VM and the EMA VM. See the EMA VM Guide for further details on analyzing and resolving such issues.

2. Log in with user = sogadm, password = sogadm.

2.3   Ensure Data Readiness for Demonstration

When running the demonstration for the second (and subsequent) time, follow the steps in section 5 Cleanup to ensure that all changes made in previous runs have been removed.

WARNING: if cleanup is not performed successfully, the following demonstration will fail!

3   Demonstration – Idea to Implementation

3.1   Introduction

The catalog, process engine and EMA have all been pre-configured to support Mobile Order Management.

This section allows the demonstrator to present this configuration, explaining the architecture and some of the mechanisms involved, and providing confidence that the demonstration which follows is genuine.

Some catalog changes are made which can (optionally) be used in the L2S demo that follows.

This section can safely be skipped.

3.2 CSP Product Management – Catalog Maintenance

Product and service catalog definitions have been created to support orders for MOM Services.

Catalog data can be viewed and amended using the Catalog Designer client.

First, show the pre-configured catalog:

1 When logged as CSP Manager (csp_manager/csp_manager) select Catalog Designer→Items (🗄 → 🔧 **Items**) from the toolbar

2 Expand the Items tree using the (+) at top-left to show ALL item types – the entire catalog contents.

3 Filter the catalog by selecting the first line in the navigation pane (initially *Item*), selecting a value in the *Type* (or other) search criteria field, and pressing *Search*. (This process will be required many times in the instructions that follow).

4 For an overview of the product catalog implemented in this demonstration, filter items by Item Type, in the following sequence:

    i. Subscription – top-level item. First thing selected during order process. Choose "Phone" and drill down in *Relations* to see Acme Staff Mobile Package.

    ii. Offer – a number of offers may exist per Subscription. Customers choose one and add it to their basket. Choose "Acme Staff Mobile Package" and drill down in *Relations* to see the services that make up the Offer.

Prepared (Subject resp)		No.			
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev		Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1		
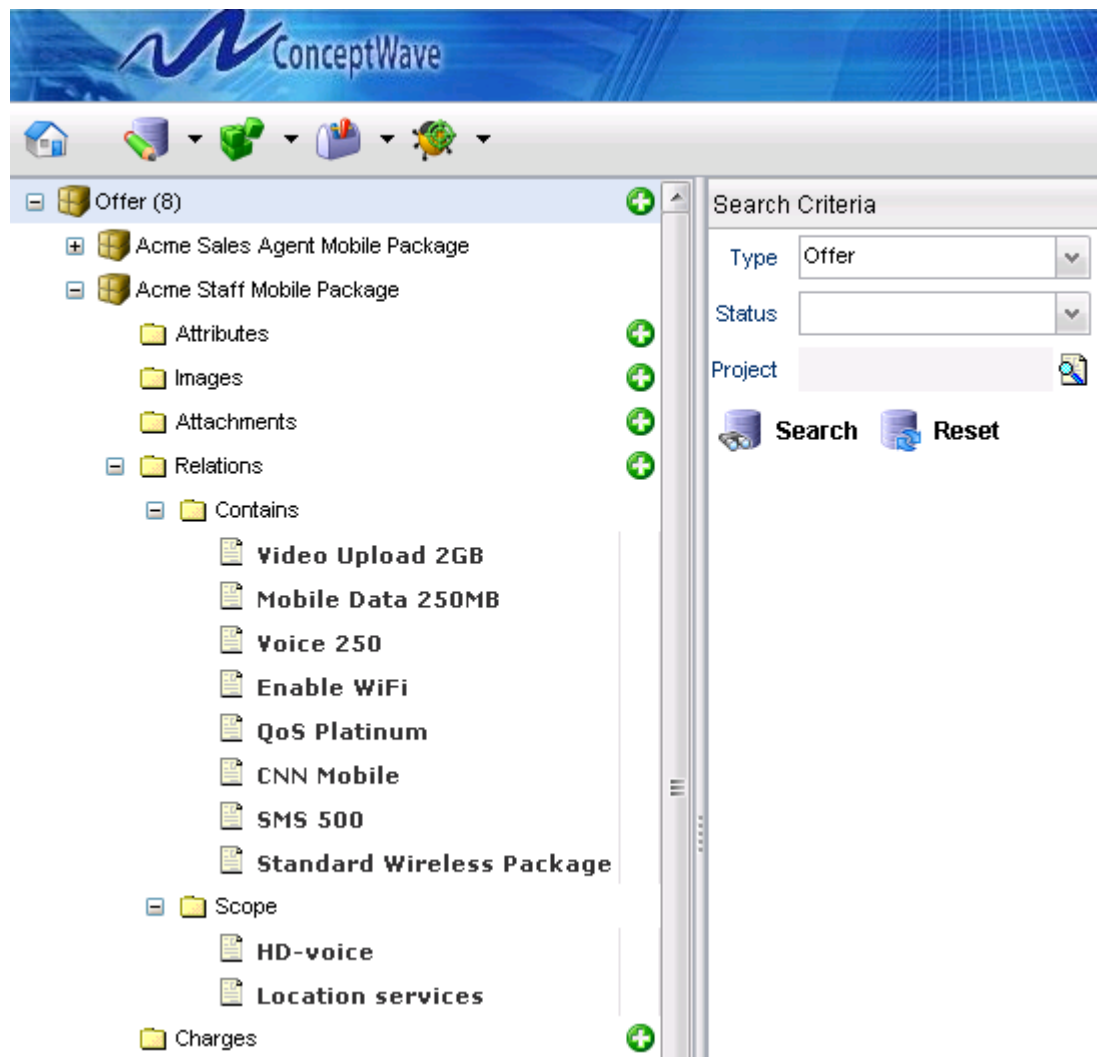
iii. Customer Facing Service – each Offer comprises a number of CFSs. A CFS can be present in any number of different Offers. Search for Customer Facing Service Type. Scroll down on the left. Choose "Voice 250", and note that this item has a *Base Item* of "Voice". This illustrates how the catalog supports the creation of generic items, which can then be extended and made more specific without the need to copy or repeat complex data entry. Drill down in *Relations* to see the contained Resource Facing Service (RFS).

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

iv. Resource Facing Service – The MOM catalog model has at most one RFS per CFS, representing the catalog layer managed by technical – rather than marketing or product management – staff. Choose "RFS – Mobile Voice 250" and drill down in Relations to see both the relationship to SIM RFS, and relationships to workflows for adding and deleting a voice service.

v. Workflow – The MOM catalog uses two levels of Workflow: the logical Add/Delete_<service> level, which is then composed of atomic process workflows. The MOM catalog model has 5 standard atomic processes (Assign, Logistics, Installation, Complete Assign and Activation) of which only Activation is implemented. Choose "Add_C_MOB_DATA Workflow" to view this structure.

Prepared (Subject resp)					
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev	Reference	
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1		

Finally, choose "Activate C_MOB_DATA" and note 2 things: the dependent relationship to "Activate C_MOB_SUBS" (data services require a basic mobile subscription), and the workflowType attribute, which is set to the value "process_Activation_DATA". This value is the connection from the catalog to the process model as we shall see.

Having viewed the existing catalog, the CSP Product Manager will now make some minor changes to an offering for enterprise customers: adding the Call Waiting service to the Gold Enterprise Mobile Package (Offer), via a bundle of services.

5   When logged into Catalog Designer as CSP Manager (csp_manager), select Catalog Designer→Projects (→   )

6   Select Projects (top left), and Add Project (bottom left) to make a new project. Enter the following project details:

Prepared (Subject resp)				
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

Project Code = *addCWtoGold*
Name = *Add Call Waiting to Gold*
Description = *Add Call Waiting to Gold Enterprise via enhanced services bundle*

7   Press Save (💾)

8   Double-click on the new Project in the left-hand panel, then click Open Project (bottom of
     screen). Project becomes the "Current Project" (top of screen). All changes made to the
     catalog will now be associated with this project.

9   Return to the Catalog Designer→Items, and filter for Customer Facing Services.

10   Select and expand the Relations of the Enhanced Wireless Package. Note that it contains
     additional voice services, but not Call Waiting.

11   Click (+) to add a new Relation, and the finder for the Target field is displayed. Press the
     search icon.

12   In the Item Finder, filter for CFSs again, and select Call Waiting (by double-clicking it).

13   Back in Relationship Detail, set Type = Contains and press Save (💾)
     Call Waiting is now included in the Enhanced Wireless Package.
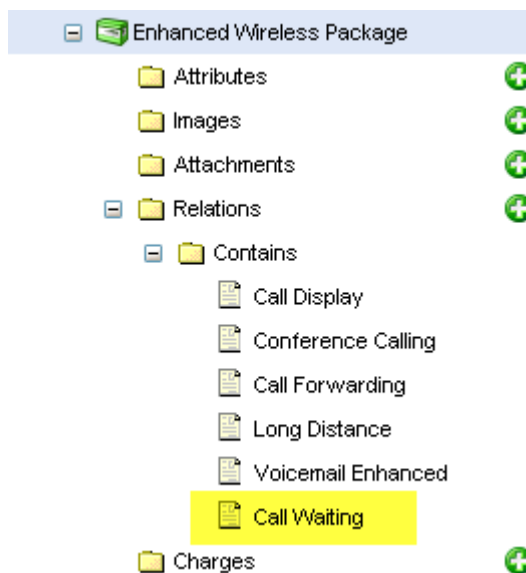
14   The CSP Manager user will now add the Enhanced Wireless Package to the Gold
     Enterprise Offer. Return to the Item Finder, filter for Offers, and select Gold Enterprise
     Mobile Package. Note that Enhanced Wireless Package is not yet part of the offer.

15   Add a new relationship by pressing the (+) icon for Relationships, then the search icon.

Prepared (Subject resp)				
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

16 Enter "Enh" in the Name field, and press Search. Double-click the returned item.

17 Set the relation Type = Contains, and press the save icon. The Enhanced Wireless Package is now part of the Gold Enterprise Mobile Package.

18 Check the Domains folder which shows the CSP/Acme domain. This means that the Gold Enterprise Mobile Package is already available to the Acme Administrator.

3.3   CSP Product Management – Process Models

This section investigates the process models and configuration which must exist for service orders to be processed by Order Care. No changes are made to the configuration, so the section can be safely skipped.

Use the *ConceptWave Velocity Studio* client opened in section 2.2.2 above.

1 Drill down to wfBusiness →Business Processes→Processes→process_Activation_DATA (This is the process fragment referenced by the Workflow catalog item viewed above).

2 Select the Diagram tab for a visual representation of the process fragment.
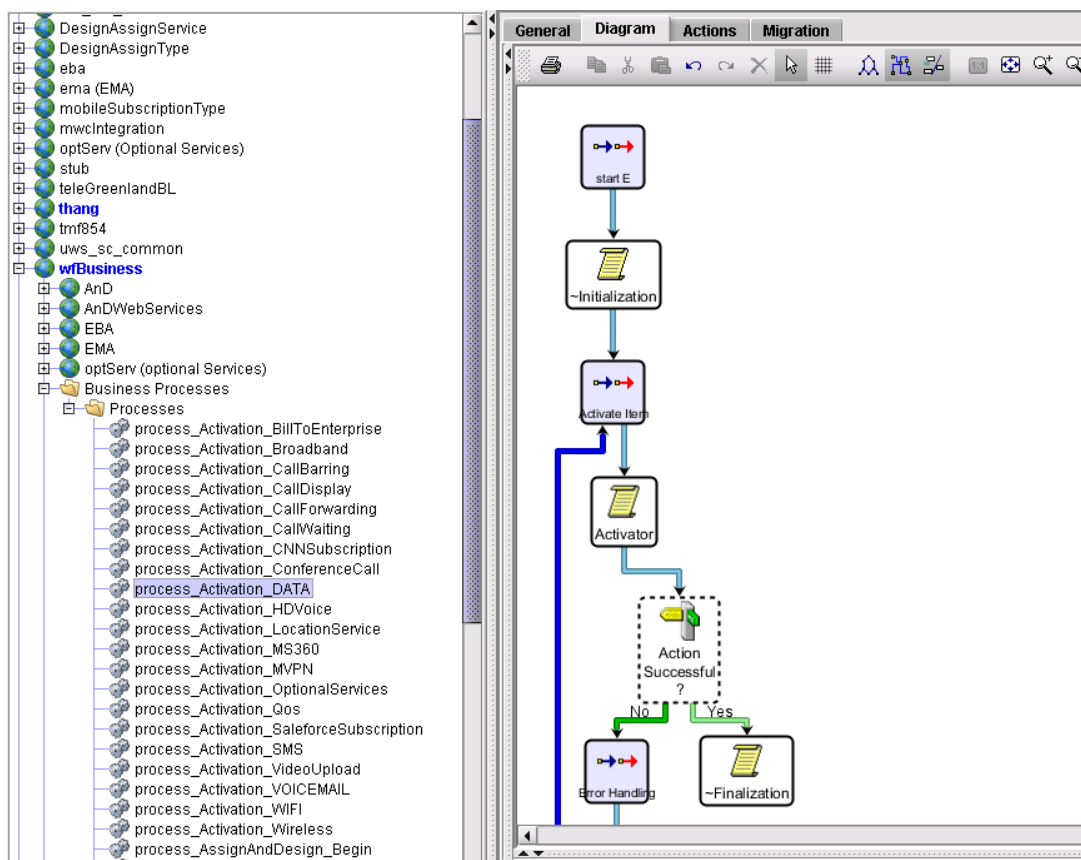
Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

3   Select the Activator node in the diagram, right click and select
Properties→Actions→cwOnProcActBefore to see a call to the script that is executed to set
subscriptions. The script is named psEMA_Set Subscription, which can be found in the
wfBusiness namespace.
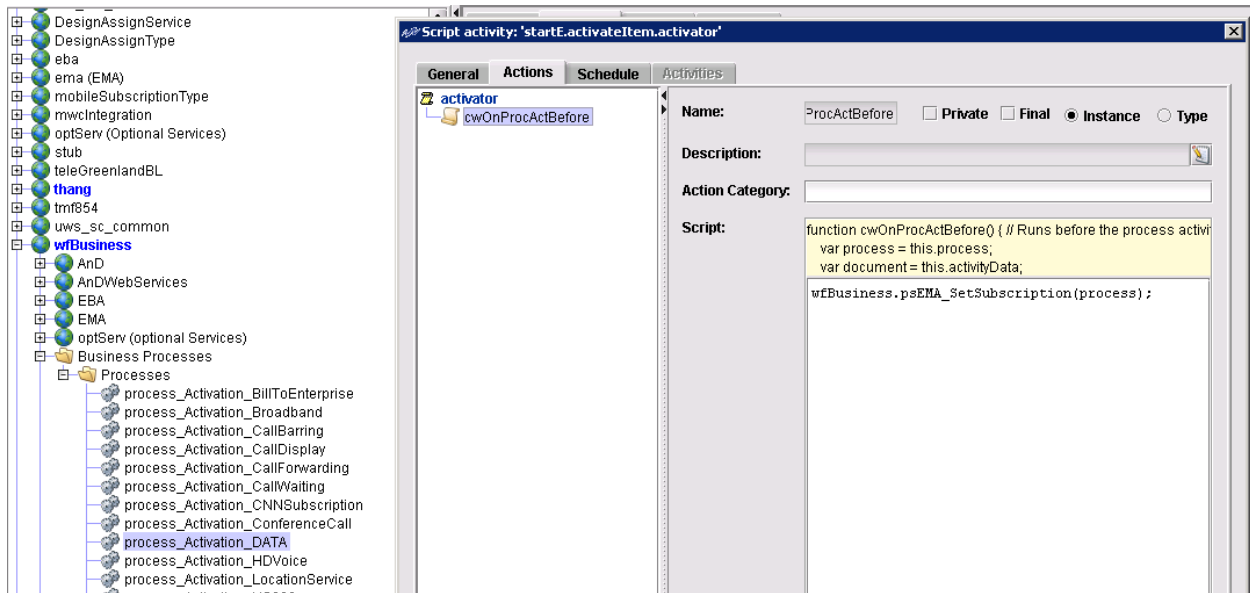
4   Close the popup window.

5   In the navigation panel (left hand side) drill down to wfBusiness →Global Scripts → Scripts
→psEMA_Set Subscription

![ERICSSON logo]

	Ericsson Internal			
	DEMONSTRATION GUIDE			22 (37)

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

6 Double-click in the script panel to maximize the script in an editor.

7 Key points in the script are where EMA interfaces are called via additional scripts ema_loginWS, ema_setWS, and ema_logoutWS.

8 Cancel out of the editor.

9 Navigate to, and display the script wf_Business →EMA →Global Scripts → Scripts →ema_setWS.
Here we see a request object being created from the process data (see also ema_setSubscription) before being sent to EMA using the generic interface method Global.invokeInterface().

3.4 CSP Product Management – Activation Models

This section explains (at a high level) the activation models/code and configuration which must exist for a service/component to be activated, and which will be executed when EMA is called during Order Care processing. No changes are made to the configuration, so the section can be safely skipped if time is tight.

Ericsson Multi Activation Composer is an integrated development environment based on Eclipse to develop new activation adaptors or to customize existing ones. These adaptors expose services that activate subscriber services or resources in various Network Elements. The services exposed are designed to be re-used by the Service Catalog and Order Management components, to build arbitrary service or product packages.

Ericsson Multi Activation supports multiple types of activation logic: DUP (Data Unit Processing) Script, JBL (Java Business Logic), and work flows – depending on the application. EMA Composer in the demo environment contains example projects of each of the above.

Note that the deployed configuration in the EMA VM contains more activation logic (for activation of all the services you will see in the product/service catalog) than can be seen in the Composer environment.

When Composer is started, use the Package Explorer to view the EMA configuration. (Errors can be ignored, as the project is provided for information only).
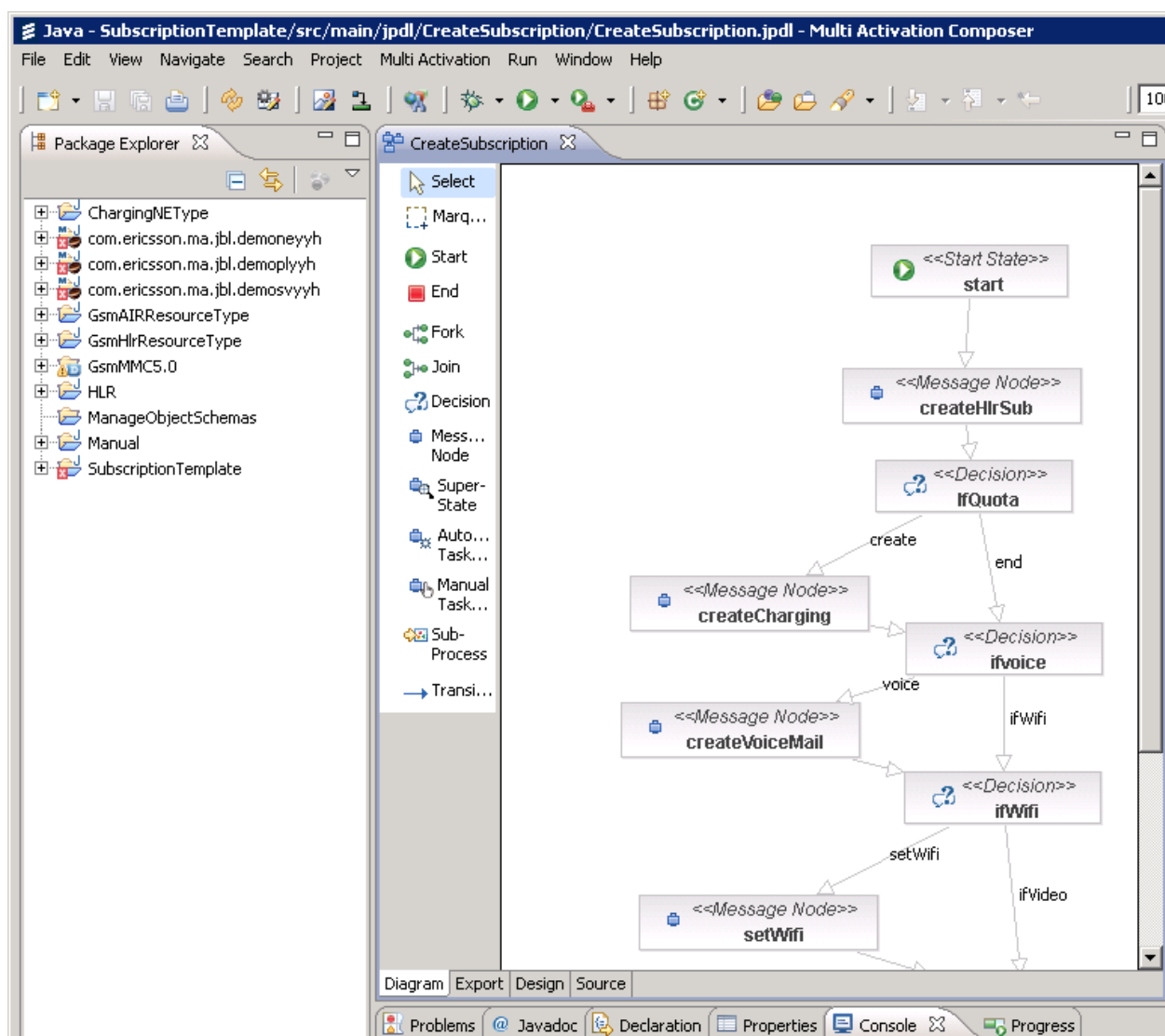
The projects we are going to use are the following:

- o "SubscriptionTemplate" which is a *workflow* project

		Ericsson Internal			
ERICSSON ⧉		DEMONSTRATION GUIDE			24 (37)

Prepared (Subject resp)		No.			
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev	Reference	
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1		

  o "GsmMMC5.0" which is a *DUP script* project

  o "com.ericsson.ma.jbl.demosvyyh" which is a *Java* project

3.4.1   Workflow Project

1 In the package explorer, navigate to: SubscriptionTemplate → src/main/jpdl → CreateSubscription. This is used to assign services to the subscriber. SetSubscription is used to change services (deactivate or change preferences of existing ones and activate new ones). DeleteSubscription is used to remove the subscriber from the NetworkElements completely.
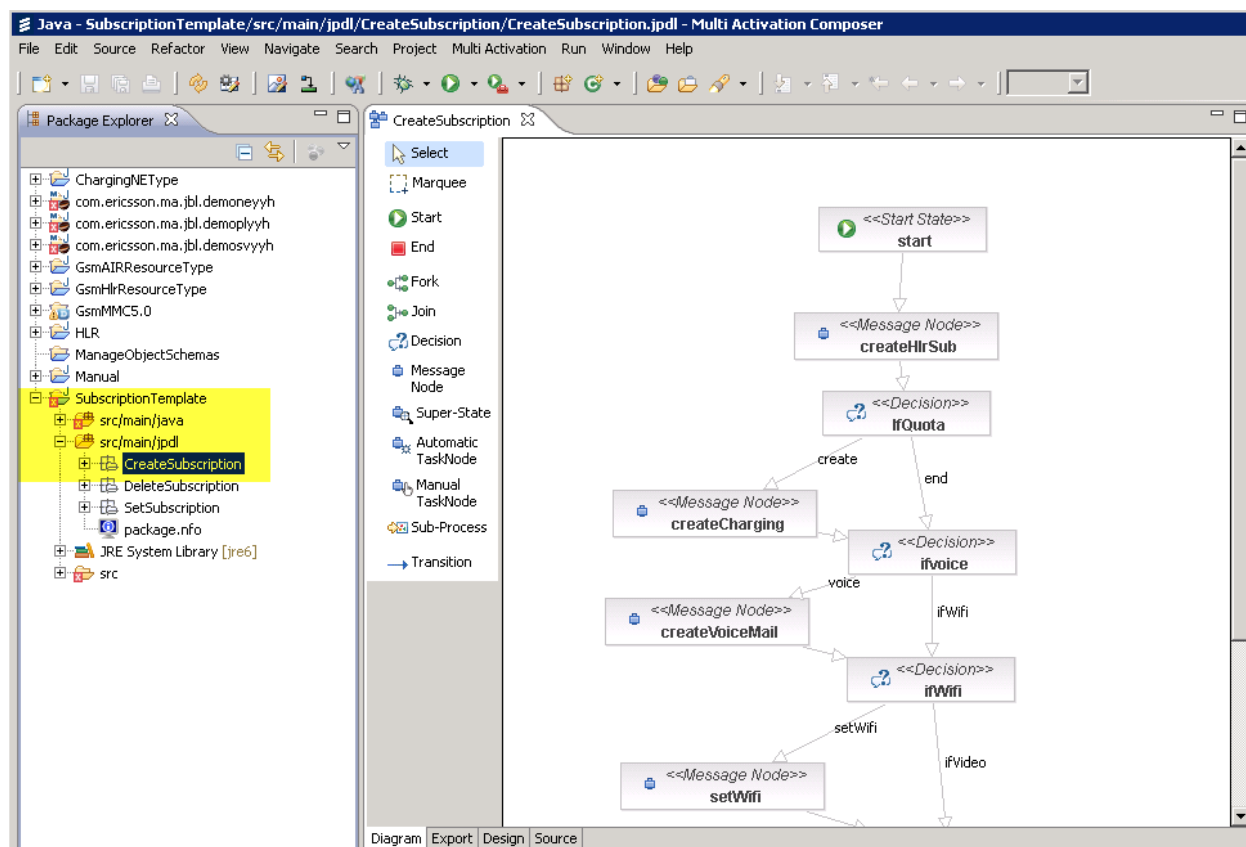
2 Double click the CreateSubscription workflow to see it in detail, as shown above.

  The central pane shows the types of nodes that are supported in the workflow. On the right is an outline of the CreateSubscription flow. Work through the flow to show how the activation of the service(s) can be implemented.

3 Click one of the Message Nodes, like "createHlrSub" to examine details in the properties pane below the workflow. It is possible to configure the processing of a message for different error handling strategies, like retry, ignore or rollback, etc.

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

3.4.2   DUP Script

4   In the package explorer navigate to GsmMMC5.0 → processing.

5   This folder contains scripts and configuration files. Double click GsmMMC-createSubscriber.pc to see more details of the script.
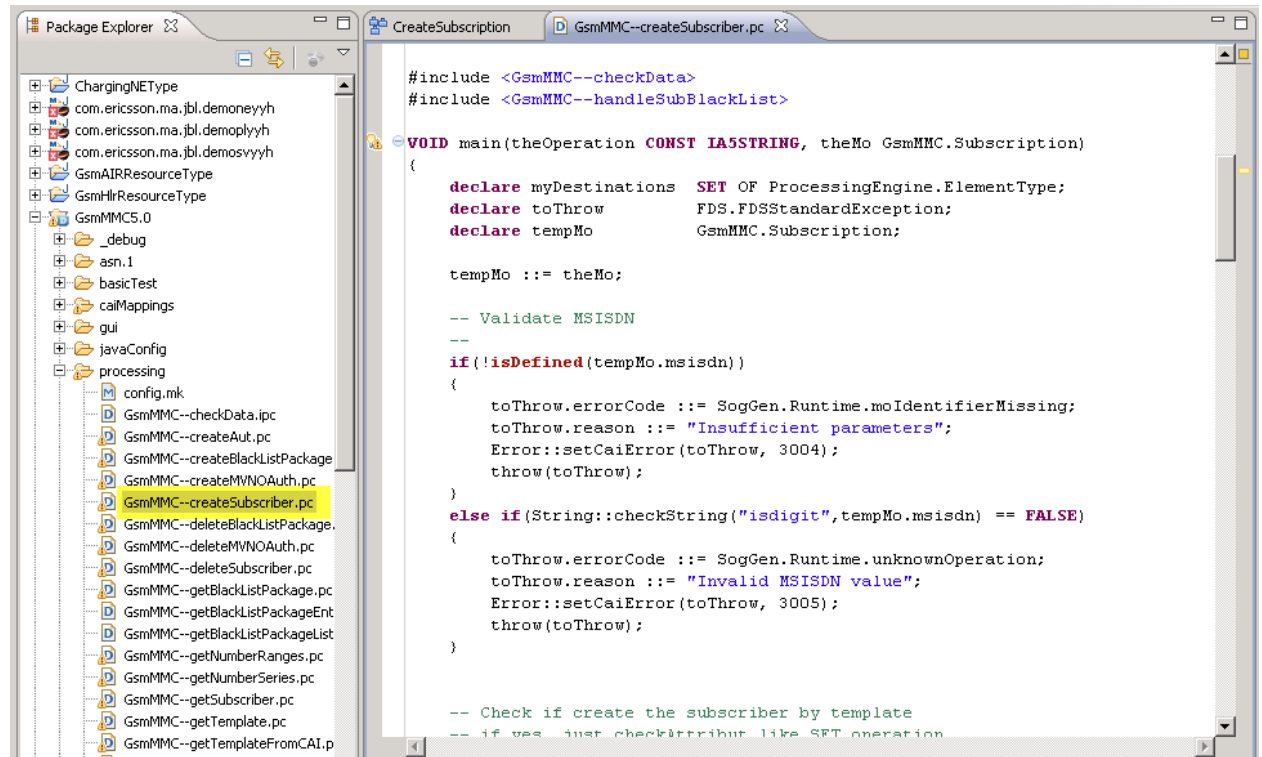
DUP Script has a syntax that is similar to other programing languages like C or Java. It has basic flow control structures and exception handling mechanisms. High level APIs are provided to simplify common activation tasks, like routing, logging, and access control.

3.4.3   Java Business Logic

6   In the package explorer navigate to com.ericsson.ma.jbl.demosvyyh → src/main/java → com.ericsson.ma.jbl.demosvyyh.internal.action. A set of Java activation logic modules for a sample service is shown. The different actions (create, delete, set, get) are implemented in different classes.

7   Select "CreateSubscriptionAction.java" to examine details, as shown in the following figure:
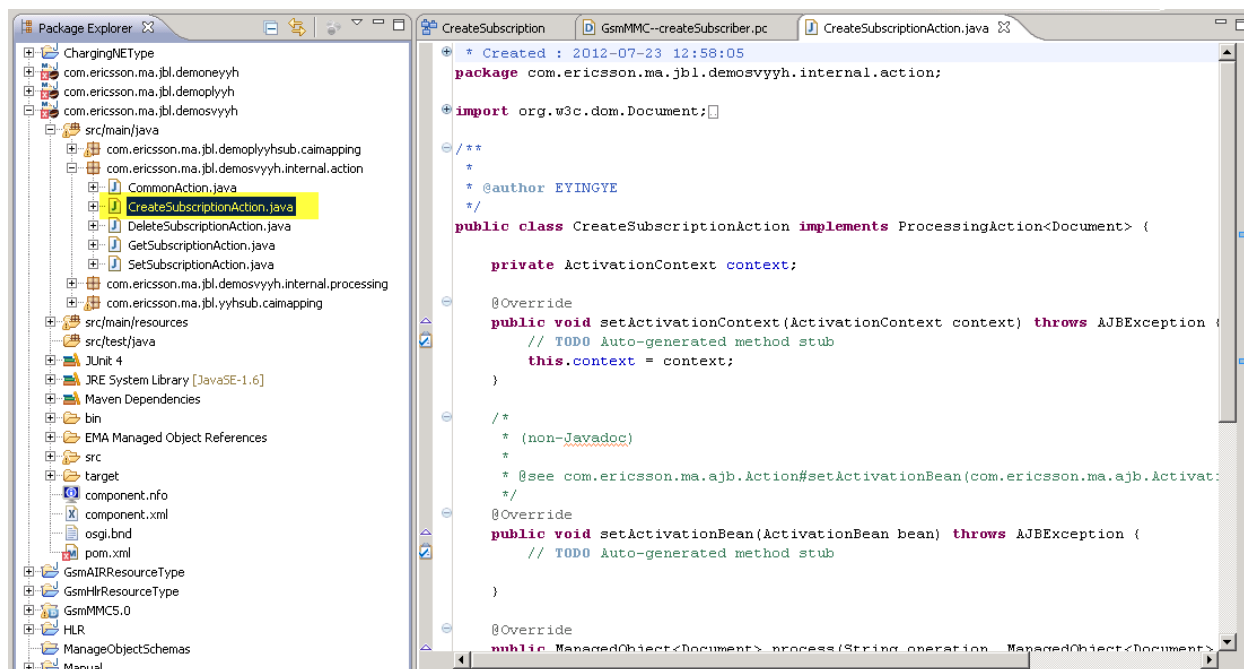
Compared to DUP script, Java activation logic enjoys all the benefits of the Java language, and can use libraries and tools that are not shipped with EMA by default. However, APIs that are commonly used in activation solutions are provided.

The Composer supports compiling and debugging in the integrated environment, and can help with packaging the developed activation logic for deployment to the EMA server.

For more information on how to use EMA Composer consult the documentation in C:\demo\documentation\product documentation\EMA.

3.5   Enterprise Product Management – Catalog Maintenance

For the purposes of this demonstration, the Acme Administrator logs into the same catalog and user interface as the CSP Managers. However, the Acme Administrator has a restricted view of the CSP's catalog, and uses a separate project to contain updates.
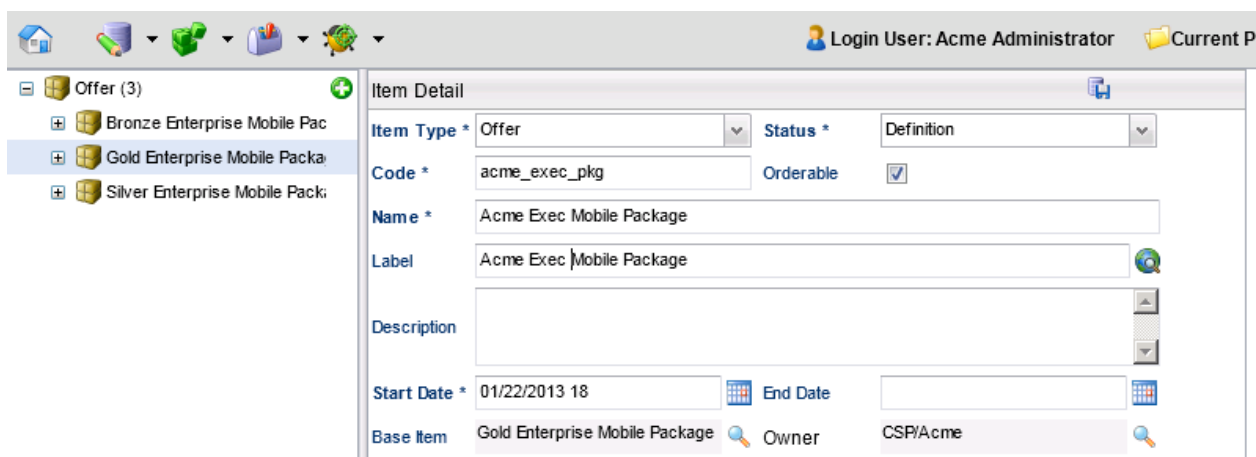
The CSP has notified Acme that an amended "Gold Enterprise Mobile Package" is available. Acme's Administrator creates (and amends) a new offer for Acme Executive staff based on the CSP offer.

1   Log out of the Catalog Management GUI (Tools ( )→Logout), and log back in as acme_admin/acme_admin.

2   Note that the CSP Manager's project is not visible to the Acme Admin user.

ERICSSON ≊

Prepared (Subject resp)				
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

3   Select menu Catalog Designer (   ) →Projects.

4   Select the top level of the content tree on the left (*Projects*), and click *Add Project* (bottom left). Enter the following project details:

Project Code = *createExecPackage*
Name = *CreateExecPackage*
Description = *Create package for Execs, based on CSP's Gold offer*

5   Press Save (   )

6   Double-click on the new Project in the left-hand panel, and then click *Open Project* at the bottom. All changes made to the catalog will now be associated with this project.

7   Return to menu Catalog Designer (   )→ Items, and drill down to show all catalog items. Note that only Subscriptions, Offers and Customer-Facing Services are available to the Acme Admin user, and that updates to objects created by the CSP are not permitted.

8   Filter for item type = Offer.

9   Select the Gold Enterprise Mobile Package, then press the "Extend" icon (   ) to create a copy (extension) of the CSP offer, which inherits all details of the original.

10   Enter Code = *acme_exec_pkg*, check the *Orderable* checkbox, and change the Name and Label to *Acme Exec Mobile Package*.

11   Press Save (   )

12   Filter for Offers again, and select and expand the newly created *Acme Exec Mobile Package*. Drill down to Relations → Contains and note that the package includes the enhanced wireless package.

Prepared (Subject resp)				
TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

The Acme Administrator decides to reduce the talk time in the Acme package.

13 In the Relations folder, under Contains, select Voice 500.

14 Click on the Override icon (   ) to override the original value.

15 Press the search button for the Target field, change the Item Code to voice250, and Search.

16 Select voice250 by double-clicking it.
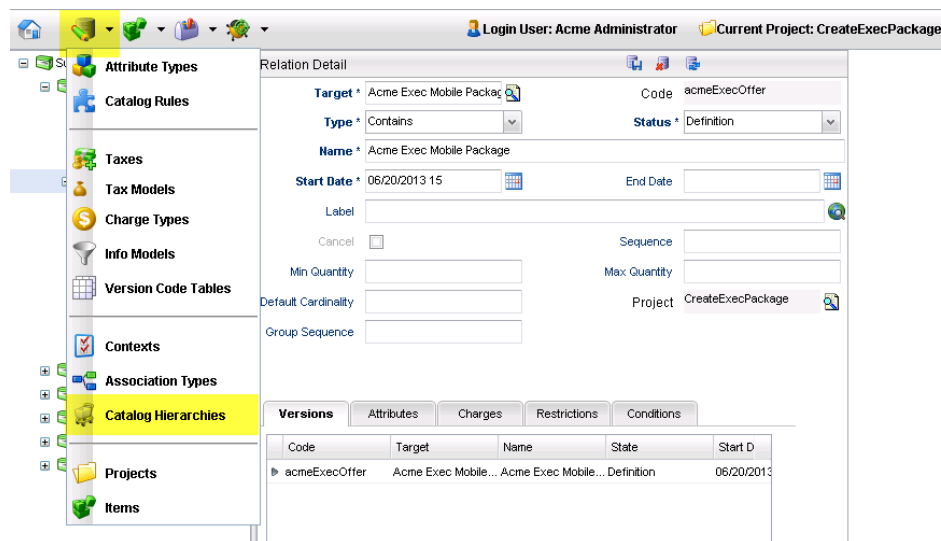
17 Change the Relation name to Voice 250 to reflect the change, and Save.

The Acme Administrator now ensures that the new offer is available only to Executive staff members…

18 Filter for Subscriptions, and select and expand the Acme Executive Phone subscription (which has been pre-created).

19 Using techniques as above, add a Relation to the *acme_exec_pkg o*ffer, with the Relation Type of "Contains", and Save the change.

20 Select Catalog Hierarchies from the main menu

21 Drill down to Enterprise → Executive. Note that the Acme Executive Phone subscription is shown here. This means that all users identified as Executives will be able to order the Acme Executive Phone subscription.

22 With "Executive" selected, select the Condition "executiveValid" in the right-hand pane, and click the Detail button below. Scroll down to see details of the condition. The script

ERICSSON ≋		Ericsson Internal DEMONSTRATION GUIDE			29 (37)
Prepared (Subject resp) TEL/TO ENATHDA [Daniel Nathan]		No. UTOPIA3.5-DG-MOM-001			
Approved (Document resp) TEL/TO EVAIRAV [Ravi Vaidyanathan]	Checked	Date 2013-05-08	Rev PA1	Reference	

ensures that any subscriptions under the Executive branch of the catalog hierarchy will be available only to Executive users.

4 Demonstration – Lead to Service

4.1 Introduction

The catalog, process engine and activation engine have all been configured to support Mobile Order Management, as detailed in the previous sections.

This section shows how the solution supports order capture and negotiation, including selection of products and options from the catalog. When an order is submitted for processing, EMA is called (if configured) and activation processing can be viewed via the EMA web client.

Two options are available for this section:

a) The Acme internal CSR logs into Order Care and makes an order on behalf of Santiago Staff (a normal Acme staff member). This option **must** be used if the catalog changes above were not made, but can also be used if they were.

b) Sofia Exec (an Acme executive) makes an order for herself as a (simulated) self-care user. This option can **only** be used if the CSP Manager and Acme Administrator have updated the catalog according to instructions in section 3 above.

4.2 Option a) CSR places Order for Acme Staff

4.2.1 Log into Order Care Unified Workstation

Log out of Catalog Designer (Tools→Logout), and log back into Order Care (Concept Wave) Unified Workstation, as *acme_csr/acme_csr*

4.2.2 Select and View Customer Details

1   Enter *Santiago* in the First Name field and press the Search button

2   Double-click the returned Customer to view the customer dashboard, showing details of customer, accounts, orders, contacts and interactions.

3   Click ORDERING to go to the Ordering page

4.2.3 Select Subscription and offering from Catalog

4   Select the displayed customer account (the order will be made against this)

5   Select the Subscription *Phone* and press ⬤ ADD ⬤ to view available tariffs

6   Press the ⬤Add +⬤ button next to *Acme Staff Mobile Package*

7   View the basket on right, containing the catalog offer and contained services

8   Go to "Customize Ordered Offering" section of this guide below.

4.3   Option b) Acme Executive Places Order

A full self-care solution will be provided in a future version of this demonstration. In this release, self-care is simulated, using Order Care Unified Workstation.

4.3.1   Log into Order Care Unified Workstation

Log out of Catalog Designer, and log back into Order Care (Concept Wave) Unified Workstation, as *sofia_exec/sofia_exec*. As a self-care user, the landing page is the customer dashboard, showing details of customer, accounts, orders, contacts and interactions.

9   Click ORDERING to go to the Ordering page

4.3.2   Select Subscription and offering from Catalog

10   Select the displayed customer account (the order will be made against this)

11   Select the Subscription *Phone* and press ⬤ ADD ⬤. The Acme Exec Mobile Package is automatically added to the basket.

12   View the basket on right, containing the catalog offer and contained services

4.4   Customize Ordered Offering

13   Click CUSTOMIZE to view the offering in full.

14   Select the package on left to view optional additions (bottom right)

15   Options can be added by pressing ⬤Add +⬤ by the currently selected optional component.

16   Click ✅ to present the order for confirmation. Scroll down, check the box and press OK. No further customizations are permitted.

ERICSSON ⧩	Ericsson Internal			
	DEMONSTRATION GUIDE			31 (37)
Prepared (Subject resp)	No.			
TEL/TO ENATHDA [Daniel Nathan]	UTOPIA3.5-DG-MOM-001			
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

4.5 Configure Order with Customer Data

17 Click CONFIGURE to enter customer details for the order. (The demonstration requires a value for MSISDN and IMSI and provides simple drop-down lists. In a production environment these would be obtained from an external system or registry)

18 Select values from the provided drop-down boxes.

4.6 Finalize Order and Submit for Processing

19 Click FINISH, and review the order.

20 Press **SUBMIT** and a confirmation popup will appear. ***DO NOT confirm*** *until you have reviewed the following steps, as the order goes through quickly, and details may disappear if you are slow!*

4.7 View Progress on Order Dashboard

21 Immediately after pressing **Yes** to confirm, select the order in the Order History panel, scroll down and click the **Dashboard** button to show the order processing dashboard.

22 Depending on whether the EMA VM is connected, and the speed of your VM(s), the order dashboard may show bands of white, yellow or green, or a combination of these. Each band represents a workflow from the catalog, as it is being processed by Order Care. Any dependencies between workflows in the catalog are reflected here in the timing of execution. For example, the CNN service has no dependencies, so can be executed immediately. Most other services depend on the voice subscription, which must be activated first.

23 When all bands are green, the order is complete, and the order dashboard can be closed. Pressing the DASHBOARD button at the top of the screen will refresh the data, showing that the order is now completed.

4.8 View Activity in EMA
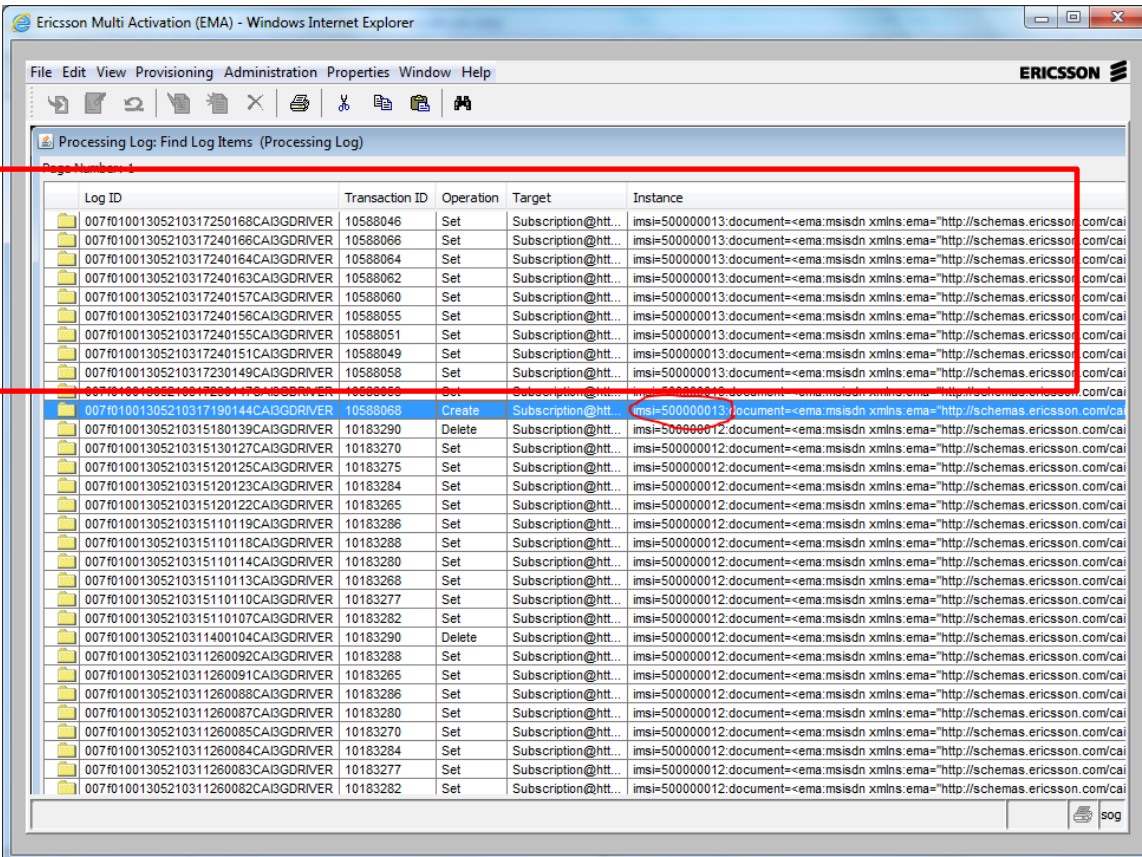
If EMA is enabled and running on a second VM, the processing that took place as a result of the order can be examined.

In the demo environment EMA is not connected to real network elements; instead, simulators of all Network Elements are used. The simulators use files that contain all pre-recorded commands and responses. From the transaction log it is possible to see all the commands that are sent and responses received as if EMA is really interacting with the network elements.

24 Switch to the EMA Web Client started in section 2.2.2 above.

Prepared (Subject resp)			No.		
TEL/TO ENATHDA [Daniel Nathan]			UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked		Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]			2013-05-08	PA1	

25 On the main menu, select Provisioning→Processing Log→Find log items..., and press 🔍

26 In the Find dialog, select "Find in" = "CSO log" (Customer Service Order log), and clear the date and time fields before pressing the Find button. EMA logging is buffered, so it may take a minute before the contents are available for viewing.

27 Close the Find dialog when the main window is populated with found log entries.

The log items for each activation order received by EMA are displayed in time order with the latest on top. In the example above, you can find that Order Care sent a number of activation orders activating the corresponding services contained in the customer order. First, there is the initial Create of the subscription (highlighted in blue) which may then be followed by a number of Set commands assigning additional services to the subscriber.

Do the following to check more details about each of the activation orders (for example, the "Create" one).

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

Double click the folder icon to expand the hierarchy. Repeat on child items to show more levels. The tree shows the execution history of the order as they are executed in time order. Here we can see that this order from ConceptWave Order Manager is decomposed into an execution of a number of actions that activates arbitrary services in the network. Here you could explain to the audience how activation helps in handling the complexity of the network and hide that from the business view and in order management and product/service catalogue. If the "Idea to Implementation" part of the demo has been shown, you can recall that the execution of the activation order here is exactly as illustrated earlier.

Double click the Log ID of the top level order to see it in more details in the pop up dialog:

The dialog shows the activation order (web service request) EMA received from the ConceptWave Order Manager and the response sent back.

Prepared (Subject resp)				No.		
TEL/TO ENATHDA [Daniel Nathan]				UTOPIA3.5-DG-MOM-001		
Approved (Document resp)		Checked		Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]				2013-05-08	PA1	

Click "Show tree…" to see details of all the commands sent to the different network elements
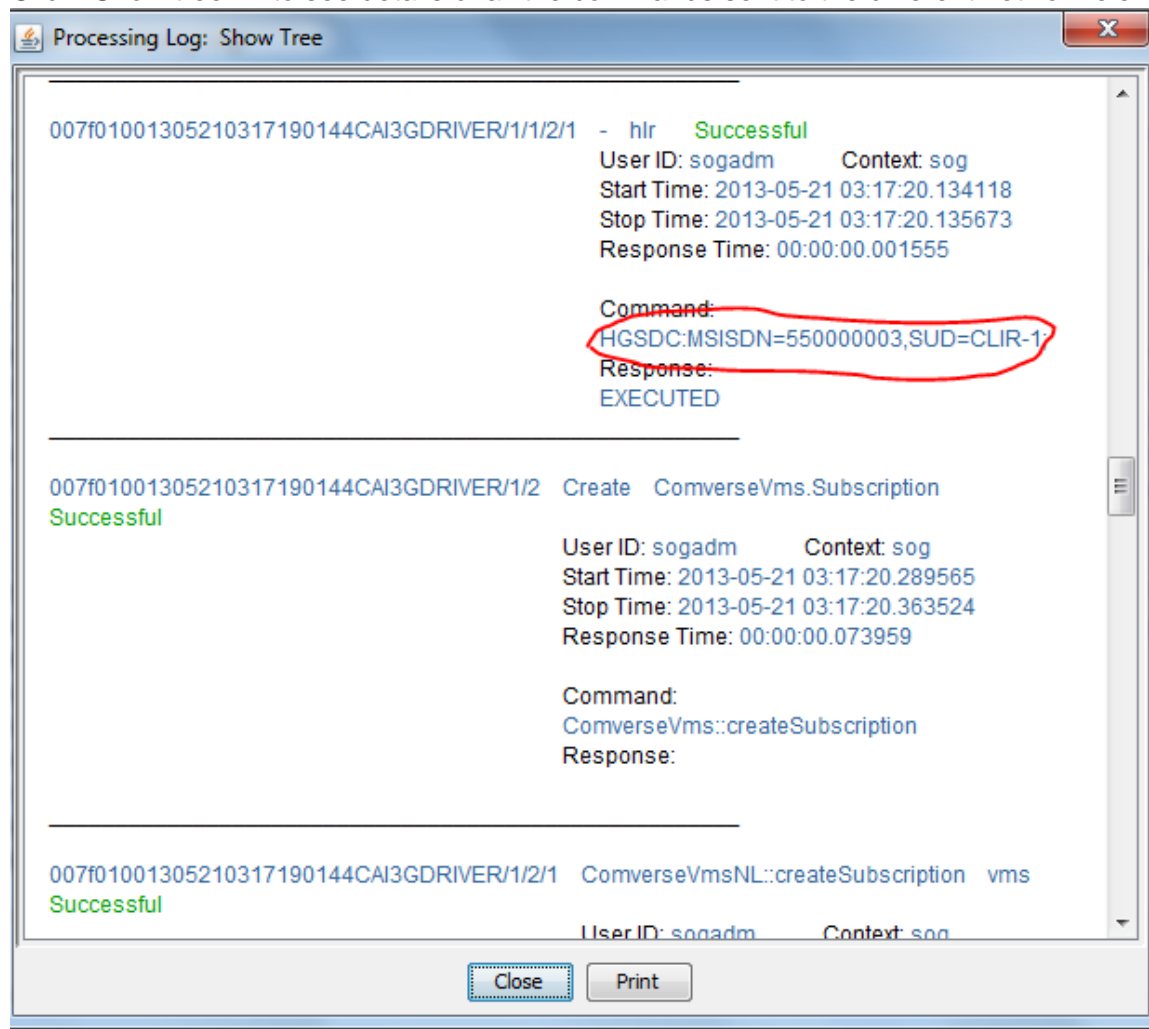
A command sent to HLR to turn on line identification service is highlighted above.

5 Cleanup

For the demonstration to work on subsequent occasions it is necessary to follow the steps below:

5.1 Ericsson Order Care

To remove all orders from the MOM OrderCare database, open the desktop tool Utopia Platform Manager, go to the scripts tab, and select and run "Delete MOM Orders".

ERICSSON 📶					
Prepared (Subject resp)			No.		
TEL/TO ENATHDA [Daniel Nathan]			UTOPIA3.5-DG-MOM-001		
Approved (Document resp)		Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]			2013-05-08	PA1	

5.2   Ericsson Product Catalog

To back out changes made to the product catalog during the I2I phase of this demonstration, open the desktop tool Utopia Platform Manager, go to the scripts tab, and select and run "Cleanup MOM Catalog changes".

Note that the script will work only if catalog changes have been made as instructed above.

5.3   Ericsson Multi Activation

It is not needed to do any cleaning after the demo. The activation of the services is done towards the simulators that do not have state. What is changed after each demo is only the processing log. The processing log is automatically cleaned by scheduled cron jobs (only logs of "today" is left).

END OF DEMO

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

6 FAQ

Q. Why?

Because….

Prepared (Subject resp)		No.		
TEL/TO ENATHDA [Daniel Nathan]		UTOPIA3.5-DG-MOM-001		
Approved (Document resp)	Checked	Date	Rev	Reference
TEL/TO EVAIRAV [Ravi Vaidyanathan]		2013-05-08	PA1	

7 References