



Smart Open Services for European Patients  
Open eHealth initiative for a European large scale pilot of  
Patient Summary and Electronic Prescription

OpenNCP MRO Service Design and Engineering details

APPENDIX E

D 3.B.2


WORK PACKAGE	<b>WP3.B</b>
DOCUMENT NAME	OpenNCP MRO Service Design and Engineering details
SHORT NAME	OpenNCP MRO Service
DOCUMENT VERSION	<b>1.0.2</b>
DATE	<b>30/06/2014</b>

COVER AND CONTROL PAGE OF DOCUMENT	
Document name:	<b>OpenNCP MRO Service Design and Engineering details</b>
Document Short name:	<b>OpenNCP MRO Service</b>
Distribution level	<b>PU</b>
Status	Final
Author(s): Organization:	OpenNCP Community <b>OpenNCP Community</b>

Dissemination level: PU = Public, PP = Restricted to other programme participants, RE = Restricted to a group specified by the consortium, CO = Confidential, only for members of the consortium.


ABSTRACT
“OpenNCP MRO Service Design and Engineering details: represents a basic reproduction from the online documentation created by the OpenNCP Community while planning, executing and controlling this epSOS Phase 2 new service implementation.

Change History					
Version	Date	Status Changes	From	Details	Review
V1.0	28/12/13	Draft	L. Mano	Reproduced from the OpenNCP Knowledge Repository	Licinio Mano Marcello Melgara
V1.0.1	22/05/14	Draft	L. Mano	Included comments from QA	Licinio Mano Marcello Melgara
V1.0.2	30/06/2014	Final	APM	Line numbers out, version number	

	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
		Version:	1.0.12
	WP3.B: epSOS OSS NCP Implementation	Date:	30/06/2014

## TABLE OF CONTENTS

<b>1</b>	<b>Medication Related Overview .....</b>	<b>4</b>
<b>2</b>	<b>Scenario Clarification.....</b>	<b>4</b>
2.1	Purpose .....	4
2.2	Use Case Actors .....	4
<b>3</b>	<b>Requirements .....</b>	<b>6</b>
3.1	Service State diagram.....	6
3.2	Non-Functional Requirements .....	6
3.3	Legal Requirements.....	6
3.4	Security Requirements.....	6
3.5	Clinical Requirements .....	7
3.6	Additional Architecture NCP / Central Service requirements .....	7
<b>4</b>	<b>3. Implementation Strategy Design .....</b>	<b>7</b>
4.1	Overview.....	7
4.2	Proposed Solution.....	7
<b>5</b>	<b>Testing Strategy .....</b>	<b>9</b>
<b>6</b>	<b>Documentation and References .....</b>	<b>9</b>
6.1.1	Documents .....	9

	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
		Version:	1.0.12
	WP3.B: epSOS OSS NCP Implementation	Date:	30/06/2014

## 1 Medication Related Overview

The purpose of this page is to provide a better clarification on the specification of the implementation of the **Medication Related Overview Service** on the OpenNCP scope.

## 2 Scenario Clarification

### 2.1 Purpose

The overall purpose to be achieved by this use case is to enable a foreign HCP to review the medical information of a patient consulting her, thereby securing an updated and more safe further treatment of the patient.

### 2.2 Use Case Actors

The actors involved in the epSOS MRO Use Case are:

#### Primary actors:


- The Patient
- A Prescriber
- A Dispenser

#### Secondary actors:

- Patient identification, authentication & role authorization service;
- The epSOS Patient Access translation service;

#### Diagram 1: Use case diagram

The following diagram illustrates the basic use case for the MRO service.

	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
		Version:	1.0.12
WP3.B: epSOS OSS NCP Implementation		Date:	30/06/2014

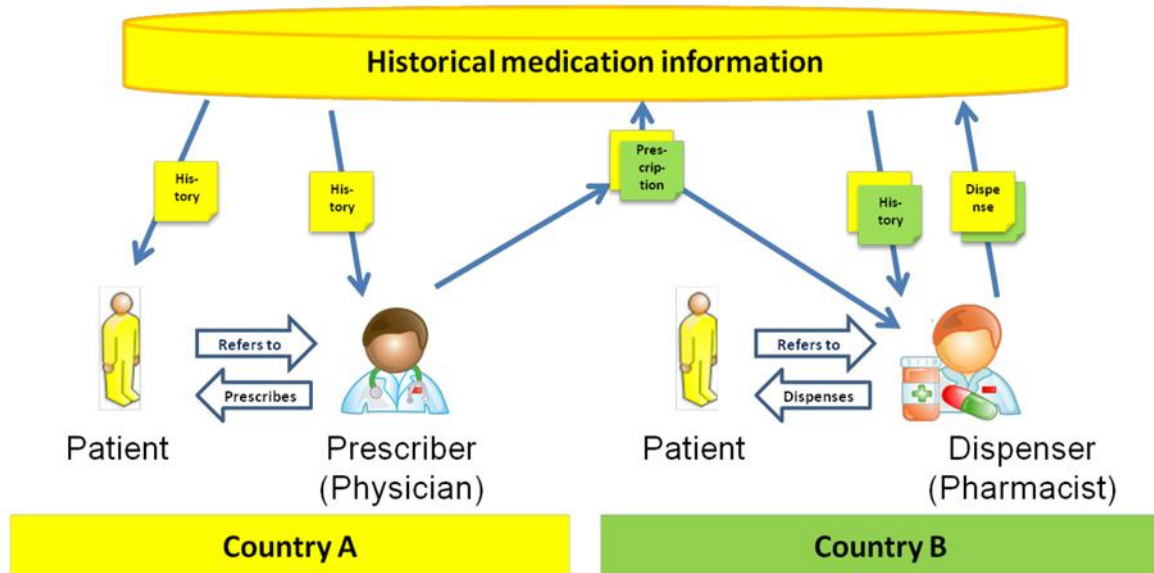



Figure 1. Process diagram of the medication distribution 2 (eP and eD) + distribution II (medication related overview).

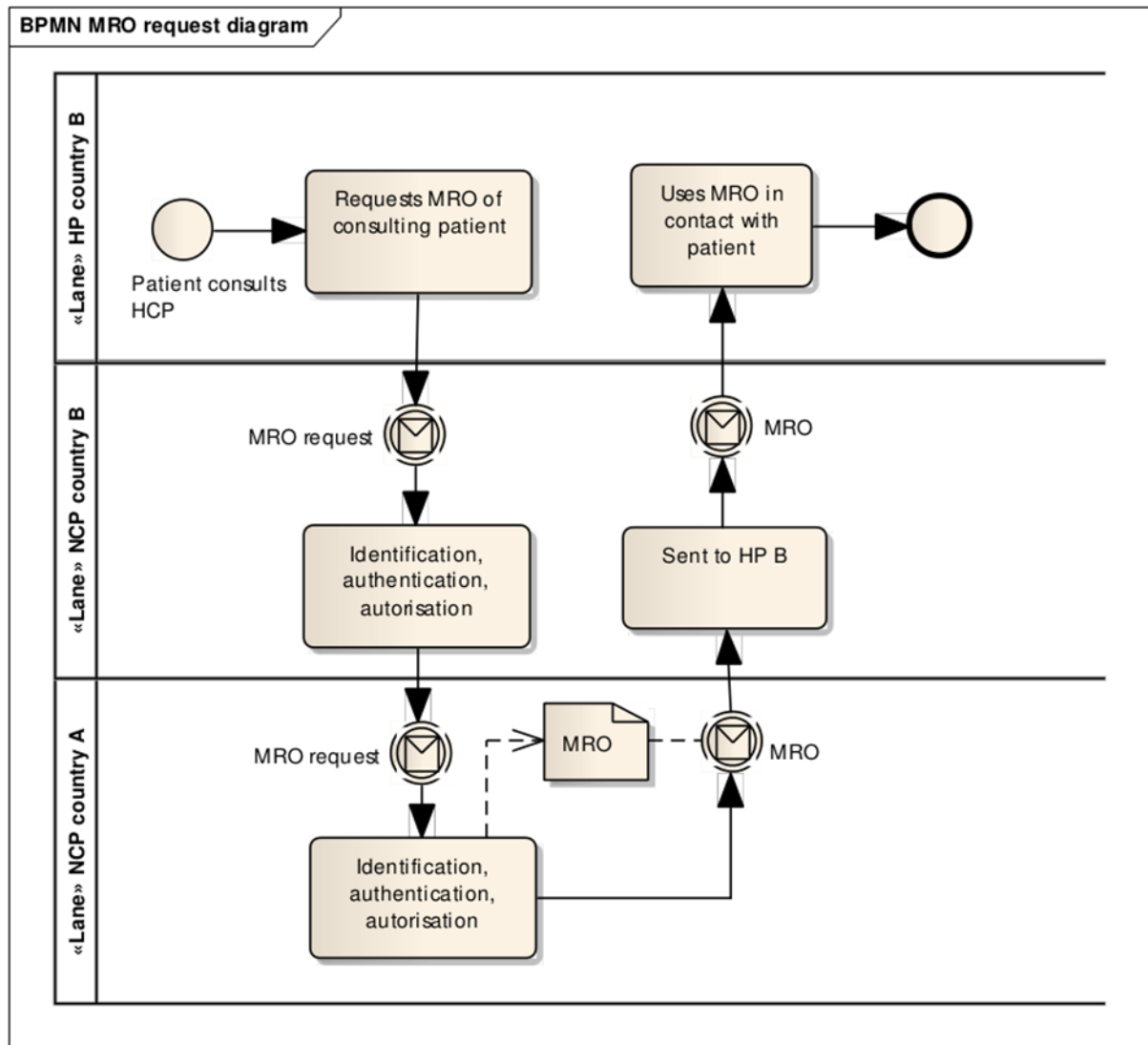
### Basic explanation of the Use case

- The patient, who is referred to (or reports himself to) a physician.
- When the decision is made that the patient has to take medication for treatment the physician, in his role as prescriber, issues a medication prescription that can be seen both as an order to a pharmacist as well as the agreement between the physician and the patient on the specific treatment with this medication. For doing this, the prescriber receives relevant historical medication information.
- The pharmacist, in his role as a dispenser of medication, receives the prescription, in some countries he receives relevant historical medication information, and dispenses the medication. The pharmacist then issues information about the dispensation, which serves two goals: it is added to the historical medication information, and it is used to update the status of the prescription (in some cases it lowers the amount of remaining items that can be given out from the prescription). The patient again, finally, receives the medication and takes care of the administration, with or without the intervention of family members and/or nurses.

	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
	WP3.B: epSOS OSS NCP Implementation	Version:	1.0.12
		Date:	30/06/2014

### 3 Requirements

#### 3.1 Service State diagram



#### 3.2 Non-Functional Requirements


For Non-Functional requirements please consult the D 1.4.3, page 71;

#### 3.3 Legal Requirements

For service legal requirements please consult the D 1.4.3, page 67;

#### 3.4 Security Requirements

For service security requirements please consult the D 1.4.3, page 68;

	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
		Version:	1.0.12
	WP3.B: epSOS OSS NCP Implementation	Date:	30/06/2014

### 3.5 Clinical Requirements

For service clinical requirements please consult the D 1.4.3, page 69.

### 3.6 Additional Architecture NCP / Central Service requirements

For additional Architecture NCP / Central Service requirements please consult the D 1.4.3, page 72.


## 4 3. Implementation Strategy Design

### 4.1 Overview

The chosen implementation strategy will make use of the existent Architecture and implemented profiles. Following you can find a table that maps the required steps, in order to accomplish this service and the behaviour that will occur within the OpenNCP system.


### 4.2 Proposed Solution

Step	Actions	OpenNCP actions and operations description	To be implemented in the OpenNCP	Related Profiles
1	Health professional identification and authentication	<ul style="list-style-type: none"> <li>The health professional will authenticate himself in the OpenNCP portal (e.g: using database-stored credentials or LDAP);</li> </ul>	Already supported	XUA
2	The patient's identity has to be validated in country B, the patient's identifier(s) from country A must be used for retrieving the MRO.	<ul style="list-style-type: none"> <li>The health professional selects the corresponding country flag in the OpenNCP portal and performs a validation of the Patient Identifiers;</li> <li>The NCP-B will communicate with NCP-A and perform the</li> </ul>	Already supported	XCPD

	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
		Version:	1.0.12
WP3.B: epSOS OSS NCP Implementation		Date:	30/06/2014

Step	Actions	OpenNCP actions and operations description	To be implemented in the OpenNCP	Related Profiles
		findEntityByTreats() operation using the Identification Service;		
3	The patient must agree with sending the MRO to country B (patient consent in country A).	<ul style="list-style-type: none"> <li>▪ The Health Care professional submits the consent or tries to query for the MRO documents immediately;</li> <li>▪ If the patient has previous consent given, an answer, regarding the available MRO documents, will be provided.</li> <li>▪ If not, the submit consent window will be presented;</li> </ul>	Already supported, some adjustment is needed.	XCA
4	Country B requests the MRO from country A. Country A processes this request and sends the MRO to country B.	<ul style="list-style-type: none"> <li>• In this workflow the NCP-B will communicate with NCP-A using the XCA protocol.</li> </ul>	Already supported, some adjustments are required in the client and server part, mostly at the NI interface level. The portal also requires some changes in order to display the MRO correctly.	XCA



	Appendix E: OpenNCP MRO Service Design and Engineering details	Document Short name:	OpenNCP MRO Service
		Version:	1.0.12
	WP3.B: epSOS OSS NCP Implementation	Date:	30/06/2014

## 5 Testing Strategy

MRO service can be considered like the PS service, where a reduced PS, limited to the part accessible to a pharmacist (i.e. Medication Summary and Allergies) is transferred.

Hence the testing process (conformance testing and workflow testing) are very similar to the one of the PS, with the exception that the document scrutiny testing where the specific MRO document model based validation test are applied.

Regarding the testing strategy, the following topics need to be covered:

- Extend integration testing for both CLIENT and SERVER part;
- Add extra validation in CI environment

## 6 Documentation and References

### 6.1.1 Documents

<u>File</u>	<u>Modified</u>
PDF File <b>D1.4.3 EED SERVICES including specifications for all services v1 0 20120911.pdf</b>	Oct 14, 2013 by Marcelo Fonseca
PDF File <b>D1.4.1 EED SERVICES including use cases for all services.pdf</b>	Oct 14, 2013 by Marcelo Fonseca
PDF File <b>WP3A_epSOS_EED_CM_CDAIG_04.pdf</b> Common Module document	Oct 02, 2013 by Marcelo Fonseca
PDF File <b>WP3A_epSOS_EED_MRO_CDAIG_03.pdf</b> MRO specifications	Oct 02, 2013 by Marcelo Fonseca