

Tandvårdsstöd  
Care Provider Interfaces  
Register Patient

## Versions

Version	Date	Description	Name
RevA	2008-03-11	First signed off version	
RevB	2009-01-09	<ul style="list-style-type: none"> <li>Removed note parameter from request</li> <li>Updated message flow diagram.</li> <li>Updated XML samples.</li> <li>Changed birth-year to birth-date in mappings.</li> <li>Updated XML samples.</li> <li>Updated export BAPI parameters in mappings.</li> <li>Restructured document.</li> <li>Updated common parts for release 2B (No update of interface!)</li> <li>Format update + added "Introduction".</li> <li>Smaller updates of the architecture and sequence diagrams</li> <li>Smaller format updates</li> <li>Added missing export error response BAPI parameters</li> </ul>	
RevC	2015-02-24	<ul style="list-style-type: none"> <li>Removed old obsolete component names, e.g. JCAPS, ESB.</li> <li>Updated architecture and sequence figures.</li> <li>Changed "foreign-identity-number", new value=char(20), old value=char(60)</li> <li>Document name differs from FS, changed from: TV_Integration_contract_I-027_Register_Patient-RevC to: TV_Integration_contract_I-126_Register_Patient-RevC</li> </ul>	Lars Dalenius
RevD	2015-08-26	<ul style="list-style-type: none"> <li>Added error message 123.</li> </ul>	Stefan Nordenström
RevE	2016-06-13	<ul style="list-style-type: none"> <li>Attribute "vendor-name" is changed to mandatory.</li> <li>Length of "vendor-name" is changed to char (30).</li> <li>Length of "product-name" is changed to char(30).</li> <li>Added "Complex Type" in tables for grouped elements, i.e yellow lines, since this is the type used in the xml-schema.</li> <li>Updated statistics.</li> <li>Signed-off by Mohamed Osman.</li> </ul>	Lars Dalenius

## Attachment- and reference list

Number	Title, document ID, search path	Version
1	Solman: 006_01_02_I-126_RegisterPatient	
2	Solman: 006_01_02_I-126_ICRegisterPatient	
3	Solman: 009_20_xml_schema_pack	
4	Grupprum Tandvårdsstöd förvaltning, typ=Systemdokument: Teknisk arkitektur Tandvårdsstöd	



## Table of contents

<b>1</b>	<b>INTRODUCTION.....</b>	<b>4</b>
<b>2</b>	<b>INTEGRATIONS.....</b>	<b>4</b>
<b>3</b>	<b>INTEGRATION 1.....</b>	<b>7</b>
3.1	REGISTERPATIENT REQUEST .....	7
3.1.1	<i>Message and translation .....</i>	7
3.1.2	<i>Sample XML.....</i>	9
3.2	REGISTERPATIENT RESPONSE.....	10
3.2.1	<i>Message and translation .....</i>	10
3.2.2	<i>Sample XML.....</i>	11
3.3	REGISTERPATIENT ERROR RESPONSE.....	12
3.3.1	<i>Message and translation .....</i>	12
3.3.2	<i>Sample XML.....</i>	14
3.3.3	<i>Error Messages.....</i>	14
<b>4</b>	<b>VOLUMES .....</b>	<b>14</b>



# 1 Introduction

IT-product	Care Provider Interfaces – RegisterPatient
Release	DecR 2016

The main information in this document is the tables which contain all parameters and their translation between XML and BAPI parameters. There is some color codes used in the tables:

Color	Description
	Cells are changed or added in this version of the document.
	Parameters are removed in this version of the document.
	Parameter is not translated between XML and SAP.
	Complex Type which does not contain a single value, but several parameters.

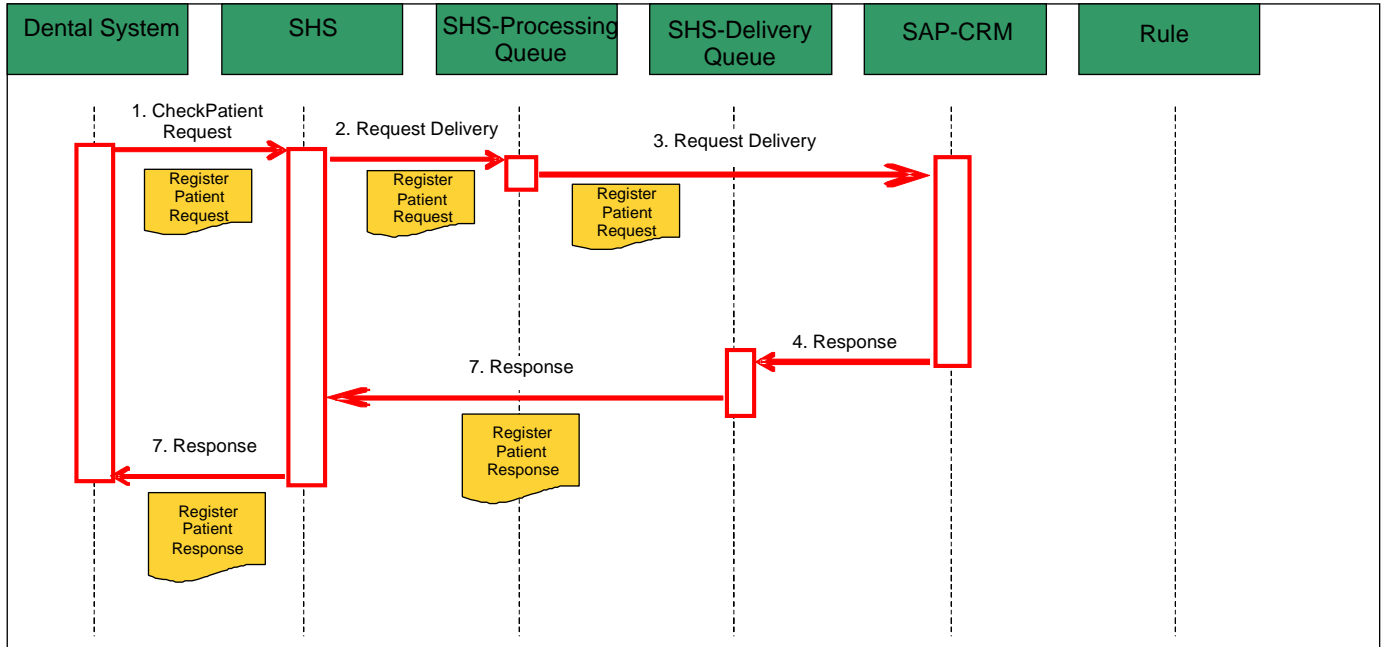
Table 1 Overview over color codes used in the message parameter and translation tables.

# 2 Integrations

The Care Provider Interface "Register Patient" makes use of one interface for the internal FK communication with SAP:

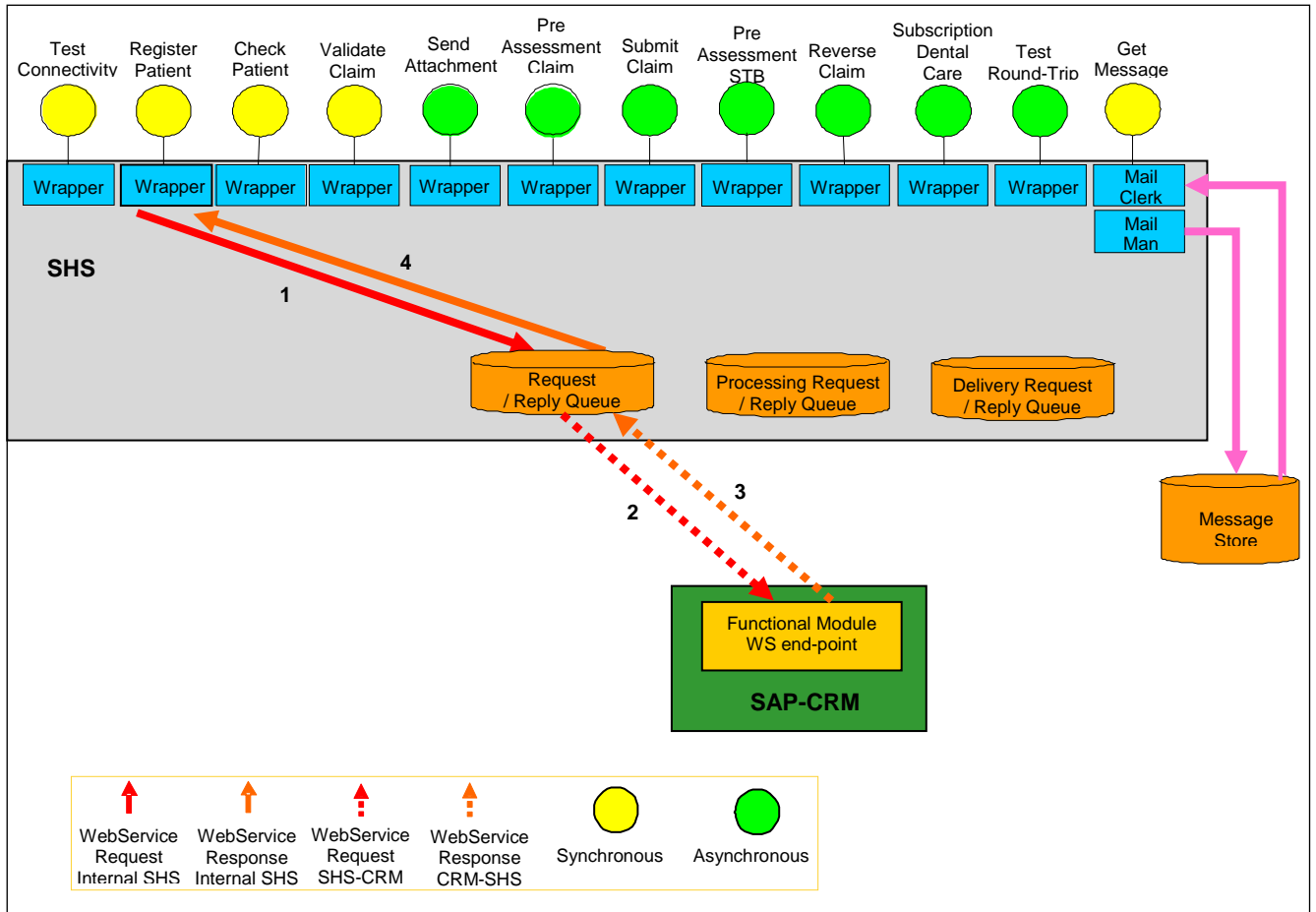
No	Description
1	The interface is used to register a patient with a foreign identity number within the SAP CRM dental system

The message request will be sent via the SHS internal queue service as a WS request from SHS to SAP-CRM. The anticipated message flow is depicted in the following diagram (SHS = FK:s Spridning och HämtningSystem):



**Figure 1 Sequence diagram for the RegisterPatient interface.**

Architecturally, the messages will flow in the following manner:



**Figure 2 Architectural overview for the RegisterPatient interface.**

In the case of an error, SHS should place the inbound message back into the processing queue for later retry.

## 3 Integration 1

### 3.1 RegisterPatient request

The following section describes the incoming XML elements and attributes to the external SHS interface. It also describes the SHS translation into the WS request sent to SAP-CRM.

#### 3.1.1 Message and translation

XML				SAP	Transformation info		Details	
Name	Element / Attribute	Optional	Data type	Parameters	Comp.	Transformation	Description	Comments
request-id	Attribute		char (36)	IRequestId			ID used to link the request with the response.	This attribute must be copied to the Response Message.
shs-invoked-interface	Attribute	X	char (36)					This attribute may be ignored. It is not sent to SAP-CRM.
vendor-name	Attribute		char (30)					This attribute is mandatory, it is used for statistics.
product-name	Attribute	X	char (30)					This attribute may be ignored. It is not sent to SAP-CRM
version-number	Attribute	X	char (15)					This attribute may be ignored. It is not sent to SAP-CRM

XML				SAP	Transformation info		Details	
Name	Element / Attribute	Optional	Data type	Parameters	Comp.	Transformation	Description	Comments
organization-number	Attribute	X	int (10)	IOrgNum	N/A	N/A	The organizational number of the care provider.  Used to compare with the care provider which created any subscriptions for the patient	This attribute is copied to the Response Message as the "organization-number".  This XML attribute is always overwritten by SHS with the ID from the certificate. The certificate is issued with the care provider's organization number as ID.
user-id	Attribute		int (12)	IUserId	No	No	User sending the request.	Used for iLogging purposes.
foreign-identity-number	Element		char (20)	IPatientId	No	The SHS integration will add an F in front of this value before sending it to CRM to distinguish it from a SSN. Example: F199012121212	The passport ID or other foreign ID of the patient.	The inbound XML Message will contain either the social-security-number or the foreign-identity number, but not both.
country	Element		char (2)	ICountry	No	No	Country code for the country where the patient is from.	In two characters format according to ISO 3166-1 standard. Example: IT
surname	Element		char (40)	ILastName	No	No	Surname for the patient	Example: Nilsson
name	Element		char (40)	IFirstName	No	No	First name for the patient	Example: Anders
birth-date	Element		date	IBirthDate	No	No	Birth date for the patient	Example: 1978-12-13

**Table 2 Overview over parameters and their translation for the RegisterPatient request.**



### 3.1.2 Sample XML

```
<FK.TV.RegisterPatientRequest
  xmlns="http://fk.se/SHS/xsd/tanden"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://fk.se/SHS/xsd/tanden ../TandenTypes.xsd"
  shs-invoked-interface="Register Patient"
  request-id="a4924e42-4214-ba93-af22-98739237ba23"
  vendor-name="Vendor-Name-OPTIONAL"
  product-name="Dental-System-Product-Name-Goes-Here-OPTIONAL"
  version-number="V#-OPTIONAL"
  organization-number="2929921234"
  user-id="197512141502">
  <foreign-identity-number>EU 125678 A15</foreign-identity-number>
  <country>ES</country>
  <surname>Spaniard</surname>
  <name>Juan</name>
  <birth-date>1984-03-14</birth-date>
</FK.TV.RegisterPatientRequest>
```

Figure 3 Sample XML for a RegisterPatient request.

## 3.2 RegisterPatient response

The RegisterPatient Response to SHS is used to indicate that a record has been successfully created. If an error occurred, an alternate error message will be provided.

### 3.2.1 Message and translation

SAP	XML				Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
ERequestId	request-id	Attribute		char (36)			ID used to link the response with the request.	This value must be copied from the "request-id" message on the inbound request XML message.
EStatus							Internal status from SAP-CRM used by SHS to determine which xml structure to use.  Valid values: S=Success	If status=S, this xml structure is used.  If status=E, the xml structure for error message is used, see ch. 3.3.
	organization-number	Attribute		int (10)			The care provider's organization number	This value must be copied from the "organization-number" parameter in the inbound request XML message.
EPatientId							The passport ID or other foreign ID of the patient.	

**Table 3 Overview over parameters and their translation for the RegisterPatient response.**

### 3.2.2 Sample XML

```
<FK.TV.RegisterPatientResponse  
  xmlns="http://fk.se/SHS/xsd/tanden"  
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
  xsi:schemaLocation="http://fk.se/SHS/xsd/tanden ../TandenTypes.xsd"  
  request-id="a4924e42-4214-ba93-af22-98739237ba23"  
  organization-number="2929291234"/>
```

**Figure 4 Sample XML for a RegisterPatient response.**

### 3.3 RegisterPatient Error response

An error response is sent if there is a technical problem or if the header validation fails. Technical errors could be sent directly from the SHS, but header validation errors are sent from SAP-CRM.

#### 3.3.1 Message and translation

The parameters and translation is shown in the table below:

SAP	XML			Transformation info		Details		
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
IRequestId	request-id	Attribute		char (36)			ID used to link the response with the request.	This value must be copied from the "request-id" message on the inbound request XML message.
EStatus							Internal status from SAP-CRM used by SHS to determine which xml structure to use.  Valid values: E=Error	If status=E, this xml structure is used.
	organization-number	Attribute		int (10)			The organizational number of the care provider.	This value must be copied from the "organization-number" message from the inbound request XML message.
EZclaimMessage	error	Complex Type			N/A			

SAP	XML				Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
EZclaimMessage\ EErrorNumber	error/ error-code	Element		int (3)	No	No	The unique code for the type of error that has occurred	
EZclaimMessage\ EErrorMessage	error/ error-text	Element		char (255)	No	No	The header/short description of the error	
EZclaimMessage\ EErrorDetail	error/ error-details	Element	X	char (255)	No	No	A more detailed description of the error.	

**Table 4 Overview over the parameters and their translation for an Error response.**

### 3.3.2 Sample XML

The following example demonstrates a possible error message:

```
<FK.TV.ErrorResponse
  xmlns="http://fk.se/SHS/xsd/tanden"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://fk.se/SHS/xsd/tanden ../TandenTypes.xsd"
  request-id="a4924e42-4214-ba93-af22-98739237ba23"
  organization-number="8421812392">
  <error>
    <error-code>121</error-code>
    <error-text>Patienten är redan registrerad</error-text>
    <error-details></error-details>
  </error>
</FK.TV.ErrorResponse>
```

**Figure 5 Sample XML for a RegisterPatient Error response.**

### 3.3.3 Error Messages

Code	Description	Source
001	Connection Error	Any
002	Technical Error	Any
003	Invalid XML	SHS
101	Obligatoriska parametern <parameter> saknades	CRM
102	Parametern <parameter> är i ett ogiltigt format.	CRM
111	Ogiltig landsbeteckning	CRM
121	Patienten är redan registrerad	CRM
122	Användaren kunde inte hittas	CRM
123	Födelsedatum är i framtiden	CRM

**Table 5 List over possible RegisterPatient Error messages.**

## 4 Volumes

The following data is based on the total traffic during April 2016 (30 days). Distribution to be spread throughout the day, but likely to be more load during the workday hours.

Received RegisterPatient requests:

per Year	per Month	per Day	per Hour	Size
19 848	1 654	55	2,3	~1 kb

**Table 6 Preliminary forecast for the volumes of RegisterPatient requests.**