



Tanden

Care Provider Interfaces – ReverseClaim v2

Integrationskrav

ICC



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1 Introduction

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

Color	Description
	Cells are changed or added in this version.
	Parameters are removed in this version.
	Parameter is not translated between XML and SAP.
	Grouping element 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 "ReverseClaim" makes use of two interfaces for the internal FK communication with SAP:

No	Description
1	An integration used to allow the dental system to send a ReverseClaim request to SAP-CRM which would be evaluated.
2	SAP-CRM pushes an evaluated response back to the dental system via SHS.

The message request will be sent in an asynchronous fashion via SHS to SAP-CRM. The anticipated message flow is depicted in the following diagram:

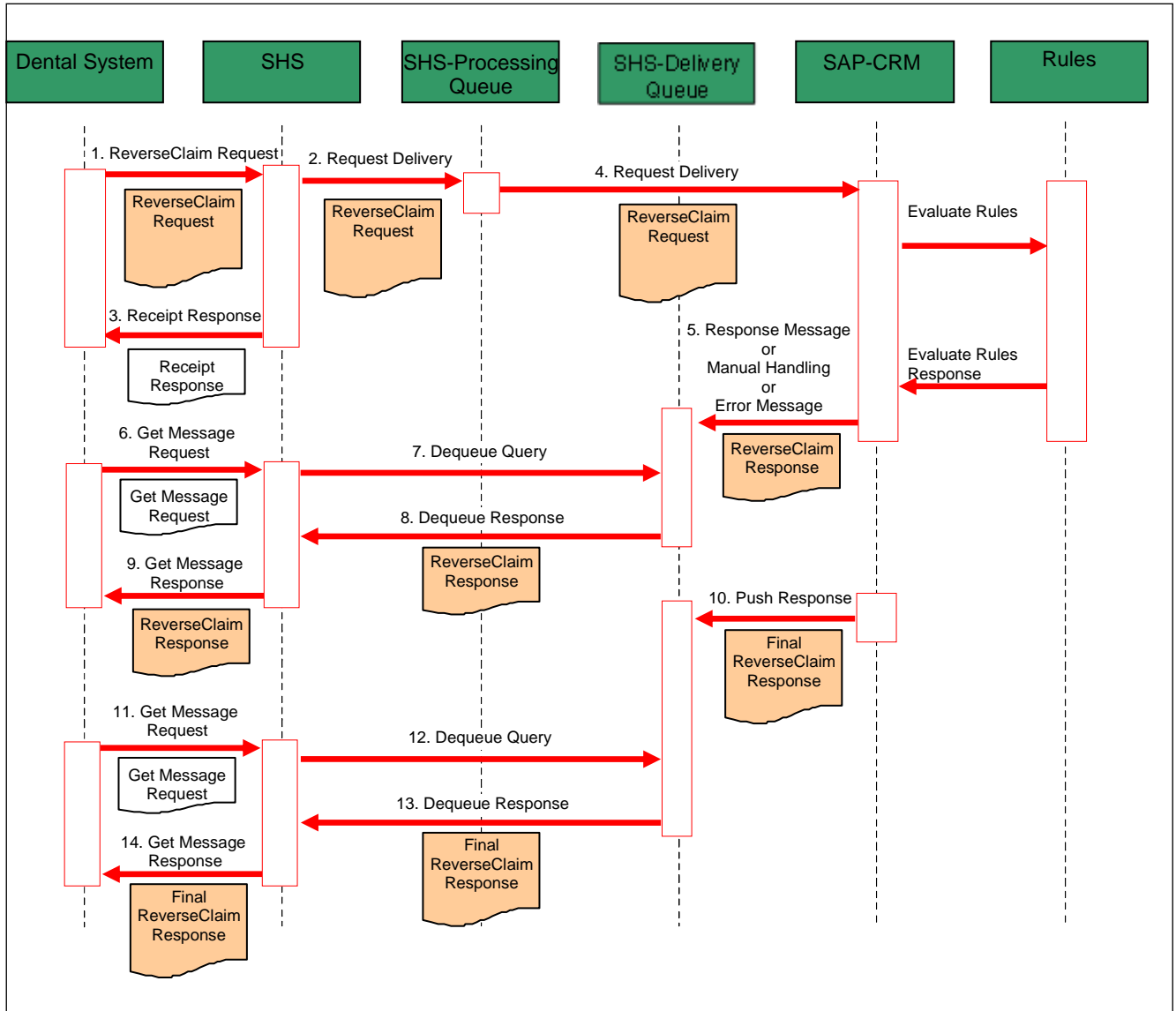


Figure 1 Sequence diagram for the ReverseClaim interface.

Architecturally, the messages will flow in the following manner:

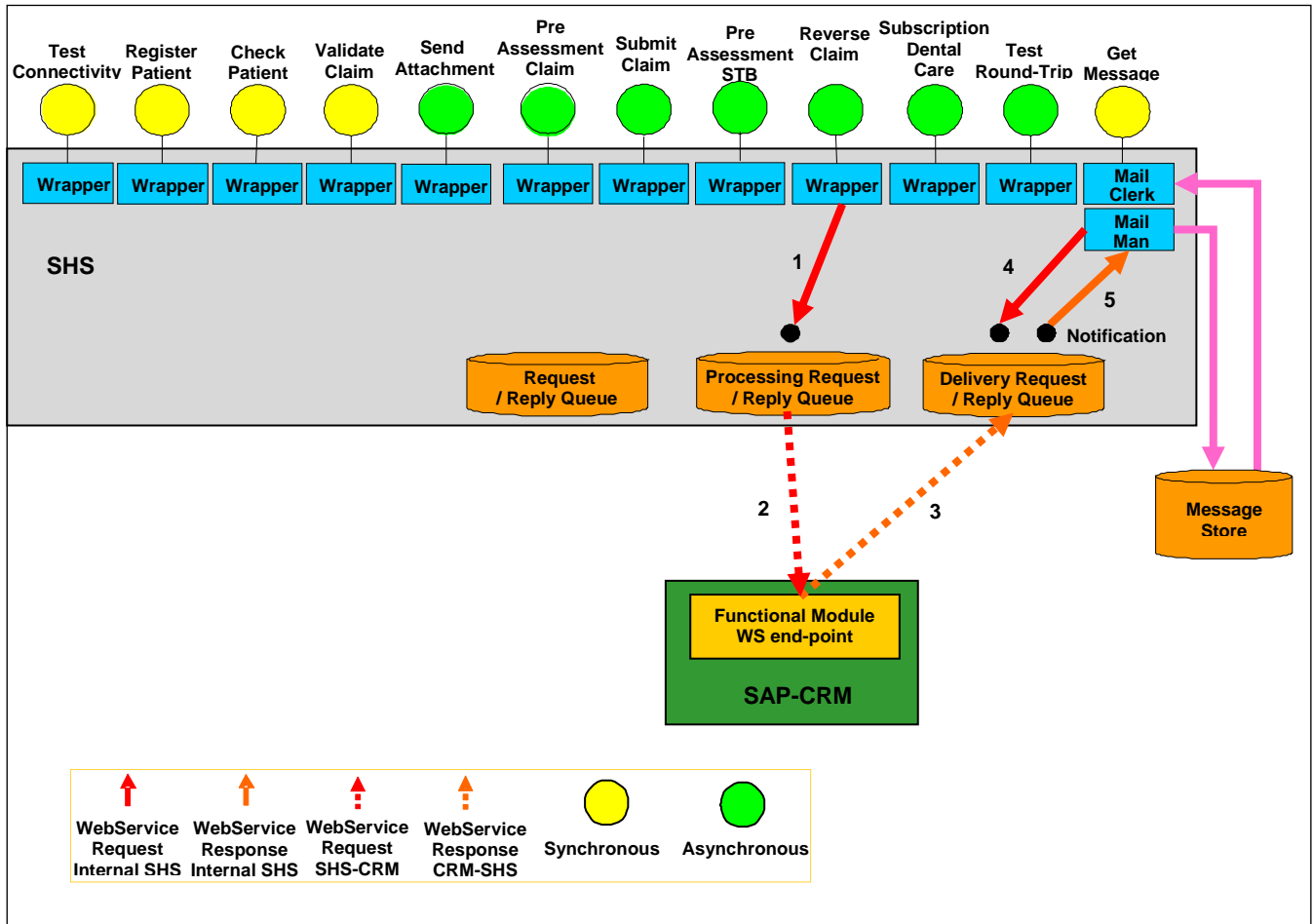


Figure 2 Architectural overview for the ReverseClaim interface.

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

3 Integration 1

The interface is invoked by the dental system which sends a request and receives a synchronous response back. The second integration which describes the asynchronous response sent back to the dental system mailbox is described in the next chapter.

3.1 ReverseClaim request

The WS name used for this service is “ZCRM_REVERSE_CLAIM_V2”.

3.1.1 Message and translation

The following section describes how to translate the incoming request parameters and attributes from the XML message (i.e. a Correction message) received at the SAP-CRM system through WS.

Any SAP-CRM parameters that are not mentioned in the table below are optional and will not need to be sent in.

XML				SAP	Transformation info		Details	
Name	Element / Attribute	Optional	Data type	Parameters	Comp.	Transformation	Description	Comments
request-id	Attribute		char (36)	IRequestId	No	No	ID used to link the request with the response.	The request id is sent to SAP-CRM in order to be able to link the request with the asynchronous response.
shs-invoked-interface	Attribute	X	char (36)					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
vendor-name	Attribute	X	char (60)					This attribute may be ignored. It is not sent to SAP-CRM
product-name	Attribute	X	char (60)					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
organization-number	Attribute	X	int (10)	IOrgNum	No	No	The organizational number of the care provider.	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
clinic-id	Element		int (8)	IClinicId	No	No	The id that the clinic has been assigned by FK.	
claim-id	Element		int (10)	IClaimId	No	No	The claim that is requested to be reversed by using a correction case.	

Table 2 Overview over parameters and their translation for the ReverseClaim request

3.1.2 Sample XML

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:tan="http://fk.se/SHS/xsd/tanden">
  <soapenv:Header/>
  <soapenv:Body>
    <tan:FK.TV.ReverseClaimRequest.v2
      organization-number="2021005521"
      request-id="a4924e42-4214-ba93-af22-98739237ab08"
      shs-invoked-interface="Reverse Claim v1"
      vendor-name="FKtest"
      product-name="R4Tanden"
      version-number="V1"
      user-id="198203041234">
      <tan:clinic-id>33300001</tan:clinic-id>
      <tan:claim-id>8000015504</tan:claim-id>
    </tan:FK.TV.ReverseClaimRequest.v2>
  </soapenv:Body>
</soapenv:Envelope>
```

Figure 3 Sample XML for a ReverseClaim request.

3.2 ReverseClaim Receipt

A receipt is sent back to the user when the request has been received correctly. The receipt does not contain any specific parameters, just the request id and organization number in order to match the response with the request.

3.2.2 Message and translation

The parameters and translation are shown in the table below:

SAP	XML				Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
	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.
	organization-number	Attribute		int (10)			The care provider's organization number.	This value must be copied from the "request-id" message on the inbound request XML message.

Table 3 Overview over the parameters and their translation for a ReverseClaim receipt.

3.2.3 Sample XML

The following sample demonstrates a ReverseClaim receipt returned synchronously:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <FK.TV.ReceiptResponse request-id="a4924e42-4214-ba93-af22-98739237ab08" organization-number="2021005521" xmlns="http://fk.se/SHS/xsd/tanden"/>
  </soapenv:Body>
</soapenv:Envelope>
```

Figure 4 Sample XML for a ReverseClaim receipt.

3.3 ReverseClaim Response

SAP-CRM will always return a synchronous response to the correction. This response will indicate if the correction was approved automatically or sent to manual handling.

These responses are sent synchronously from SAP-CRM to SHS but asynchronously from the dental journal systems point of view.

3.3.1 Message and translation

The parameters and translation are shown in the table below:

SAP		XML			Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
ERequestId	request-id	Attribute		char (36)	N/A	N/A	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. 0
	organization-number						The care provider's organization number	This value must be copied from the "organization-number" parameter in the inbound request XML message.
	clinic-id						The SHS property end-recipient will be set to the value of clinic-id.	This value must be copied from the "clinic-id" parameter in the inbound request XML message.

SAP	XML			Transformation info		Details		
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
EClaimStatus	status	Element		char (1)	No	No	Indicating the status of the correction case for reversing the specified claim. Valid values: A = Approved M = Manual Handling	
EZclaimCommentary\item\	commentary	Element	X				This is an information and warning field.	This xml element block is only required if status=M
EZclaimCommentary\item\ ECommentaryNumber	commentary/id	Attribute		int(10)	No	No	A unique identifier for the line item in the submitted collection.	
EZclaimCommentary\item\ ECommentaryMessage	commentary/code	Element		int(3)	No	No		
EZclaimCommentary\item\ ECommentaryDetail	commentary/commentary	Element		char(255)	No	No		
ECorrectionCaseId	correction-case-id	Element	X	int (10)	No	No	This field corresponds to the Service Order ID created in SAP-CRM	

Table 4 Overview over the parameters and their translation for the synchronous ReverseClaim Response.

3.3.2 Sample XML

The following sample message demonstrates a typical response where the correction request was automatically approved:

```
<FK.TV.GetMessageResponse
  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="8942132412">
  <ReverseClaimResponse.v2 request-id="a4924e42-4214-ba93-af22-98739237ba23">
    <status>A</status>
    <correction-case-id>8123123123</correction-case-id>
  </ReverseClaimResponse.v2>
</FK.TV.GetMessageResponse>
```

Figure 5 Sample XML for a ReverseClaim response that was approved.

The following sample message demonstrates a typical response where the correction request was sent to manual approval:

```
<FK.TV.GetMessageResponse
  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="8942132412">
  <ReverseClaimResponse.v2 request-id="a4924e42-4214-ba93-af22-98739237ba23">
    <status>M</status>
    <commentary id="1">
      <code>931</code>
      <commentary>Ärendet handläggs manuellt då besök inte är det senast godkända.</commentary>
    </commentary>
    <correction-case-id>8123123123</correction-case-id>
  </ReverseClaimResponse.v2>
</FK.TV.GetMessageResponse>
```

Figure 6 Sample XML for a ReverseClaim response that was sent to manual handling.

3.3.3 Information and Warning messages

Code	Description	Source
931	Ärendet handläggs manuellt då besök inte är det senast godkända	CRM

Table 5 List of possible ReverseClaim Information messages.

3.4 ReverseClaim 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 SHS, but header validation errors are sent from SAP-CRM.

In situations where the inbound message from SHS is corrupted or there is an issue sending the request to SAP, SHS will generate an error response and send it to the clinic mailbox.

Error messages are sent back synchronously from SAP-CRM, but asynchronously from the dental journal systems point of view.

3.4.1 Message and translation

The parameters and translation are 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.

SAP	XML				Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
	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.
EZclaimMessage	error	Element						
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.	Not used today

Table 6 Overview over the parameters and their translation for an Error response.

3.4.3 Sample XML

The following sample message demonstrates an error response:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Body>
    <FK.TV.GetMessageResponse request-id="00000001-1000-0000-0000-000000000005"
      organization-number="2021005521" xmlns="http://fk.se/SHS/xsd/tanden">
      <ErrorMessage request-id="a4924e42-4214-ba93-af22-98739237ab08">
        <error>
          <error-code>934</error-code>
          <error-text>Det finns redan en korrigering på detta besök</error-text>
          <error-details/>
        </error>
      </ErrorMessage>
    </FK.TV.GetMessageResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

Figure 7 Sample XML for a ReverseClaim Error response.

3.4.4 Error messages

Code	Text	Source
001	Connection Error	Any
002	Technical Error	Any
003	Invalid XML	SHS
004	Vi har just nu tekniska problem. Du ska inte skicka om din begäran utan vi kommer att hantera denna när våra problem är lösta.	SHS
901	Obligatoriska parametern <parameter> saknades	CRM
902	Otillåtna parametern <parameter> skickades in	CRM
903	Besöket kan inte registreras för tillfället, var god försök igen senare	CRM
910	Användaren kunde inte hittas	CRM
911	Vårdgivar-ID kunde inte hittas	CRM
912	Mottagnings-ID kunde inte hittas	CRM
913	Relationen mellan vårdgivare och mottagning kunde inte hittas	CRM
914	Besöket kunde inte hittas	CRM
929	Besöket är inte godkänt/delvis avslag och kan inte korrigeras	CRM
930	Angiven klinik är inte den klinik som sänt in det ursprungliga besöket	CRM
931	Ärendet handläggs manuellt då besök inte är det senast godkända	CRM
932	Ärendet handläggs manuellt då besöket skedde för mer än 14 dagar sedan	CRM
933	Det finns en efterhandskontroll på besöket och kan inte korrigeras	CRM
934	Det finns redan en korrigerings på detta besök	CRM
935	Mottagningen kan inte skicka in automatkorrigeringar	CRM

Table 7 List of possible ReverseClaim Error messages.

4 Integration 2 – push response

The interface is invoked by SAP-CRM when a claim has been processed and the initial status is M. Manual handling means that no final decision about the claim has been taken yet. This push response is sent when the claim has been handled manually and received a final status.

4.1 ReverseClaim Push response

If the ReverseClaim request validates correctly after manual handling, SAP-CRM will return a ReverseClaim response using the push interface.

The WS name used for this service is “ZCO_ZCRM_REVERSE_CLAIM_RESP_PO”.

Note that ReverseClaim.v2 uses the same push response as ReverseClaim.v1, see example in ch. 4.1.2.

4.1.1 Message and translation

SAP		XML			Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
IRequestId	request-id	Attribute		char (36)	N/A	N/A	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.

SAP		XML			Transformation info		Details	
Parameter	Name	Element / Attribute	Optional	Data type	Comp.	Transformation	Description	Comments
EStatus				char(1)			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.
IOrgNum							The organizational number for the care provider.	This value will also be set as a SHS property.
IClinicId								Used to place the message in the right mailbox in SHS.
EClaimStatus	status	Element		char (1)	No	No	Indicating the status of the correction case for reversing the specified claim. Valid values: A = Approved D = Declined	Status D is returned if header status has been set to "Felaktigt skapad" by a Case Handler (internal FK)
ECorrectionCaseId	correction-case-id	Element	X	int (10)	No	No	This field corresponds to the Service Order ID created in SAP-CRM	

Table 8 Overview over the parameters and their translation for the asynchronous ReverseClaim push response.

4.1.2 Sample XML

The following sample message demonstrates a typical response where the correction request validated correctly:

```

<FK.TV.GetMessageResponse
  request-id="00000001-1000-0000-0000-000000000005"
  organization-number="2021005521"
  xmlns="http://fk.se/SHS/xsd/tanden">
  <ReverseClaimResponse.v1 request-id="597bdbbd-351b-4fc6-946f-3c1ac392de68">
    <status>A</status>
    <correction-case-id>8000016217</correction-case-id>
  </ReverseClaimResponse.v1>
</FK.TV.GetMessageResponse>
  
```

Figure 8 Sample XML for an asynchronous ReverseClaim push response.

5 Volumes

The following data is based on the total traffic during October 2014 (31 days).

Distribution to be spread throughout the day, but likely to be more load during the workday hours.

Received ReverseClaim requests:

per Year	per Month	per Day	per Hour	Size
98 904	8 242	266	11	~0.5kb

Table 9 Preliminary forecast for the volumes of ReverseClaim requests.