[

**Quote auto-creation in Siebel (ESE-EAI-CRM)**

**Interface Detail Design Document**

**CR 22169**

**ESE 1 - Quote auto-creation in Siebel**

IB Interfaces: **Quote auto-creation in Siebel** (**ESE-EAI-CRM**)

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Document History

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| Version | Change Description | Author | Date Released |
| 1.0 | First draft | Rijoy Purayil | Aug 27,2011 |
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# Approvals

The individuals listed below will be required to review and approve this document.

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Name | Signature | Date |
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# Review List

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| Name | Position |
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# Related Documentation

| Ref | Title | Author | Version |
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# Glossary

| Abbreviation | Definition |
| --- | --- |
| CCRM | Commerce and Customer Relationship Management |
| EAI | Enterprise Application Integration |
| ESE | Eikon Self Entitlement |
|  |  |

# Introduction

##### **Document Context**

This document is one of a set of Interface Definition Documents providing the definition and High Level Design of the interfaces required for the orders raised in ESE portal to be passed to Siebel via EAI Middleware governed. EAI may need to transform some of the data received from ESE before passing it on to Siebel with values and in a format that is acceptable for Siebel This document details the interfaces which support the propagation of draft quote message.

This document also covers the high level design documentation for new interfaces which would support the inbound interface that would enable the ESO portal to send the ESO quote message to EAI that will inturn be passed to Siebel for Auto Quote creation.

The eDTK is a country based system (aligned to core suite instances) and will be expected to upload the data prior to the working day in the region in which it is based.

eDTK will capture DADs and OMS will trigger eDTK to create a draft quote in Siebel.These orders placed in ESE could also be a combination of any of the afore-mentioned instructions such as adding Eikon for a new user as well as removing an add-on for an existing Eikon user.

##### **Document Structure**

This document describes about the requirements of an interface in terms of scope, functionality and characteristics.This document focus on what the interface does from an end-to-end perspective. Also covers the design of interface and the technical integration implementation.

##### **Scope**

* This document covers the interface design that will support the Enterprise Application Integration (EAI) solution that would provide the ability to the external system eDTK to upload the DAD differences to Siebel CRM as draft Quote Message.
* The process flow described in the following sections depicts the processing of DAD xml payload to create a generic quote message and its hat can be accepted by Siebel CRM and their subsequent propagation to Siebel inbound queue.
* This document also emphasis on strategic business decision where in the dad differences for the EDTK implemented countries would be propagated to Siebel to create draft Quote Messages.
* As per the agreed design, EDTK does not receive any Acknowledgement from EAI. eDTK accepts successful message delivery once the process to put reply in MQ is complete at EDTK side.
* Similarly once the Draft Quote Message has been en-queued to Siebel inbound Queues, EAI would not receive any acknowledgement from Siebel for Successful Quote creation.

##### **Out of Scope**

##### -

##### **Assumptions**

* The Integration assumes that the incoming DAD Xml Payloads are validated by the source system i.e; e-DTK and EAI would not perform any additional xml validation for the incoming request messages.
* The integration expects a reliable message exchange via MQ connectivity between eDTK and EAI for inbound messages from EDTK and a similar connectivity between EAI and Siebel CRMing for propagating the same as generic draft quote message.

# User Contacts

##### **Interface Definition**

* 1. Interface Purpose

eDTK will capture DADs and OMS will trigger eDTK to create a draft quote in Siebel. A generic draft quote interface will be developed on Siebel front ,so that it can be reused for other systems to create quote requirements. Here in this case eDTK will send the draft quote message to EAI ,which would pass it onto Siebel.

Users of the Eikon Self-Entitlement (ESE) tool will raise ‘orders’ in ESE which may contain instructions to add Eikon base product and add-ons for a given contact, modifications to the configuration of Eikon products for an existing Eikon user, swapping of Eikon from one user to another user and cancellation of Eikon. These orders placed in ESE could also be a combination of any of the afore-mentioned instructions such as adding Eikon for a new user as well as removing an add-on for an existing Eikon user.

These orders raised in ESE will be passed to Siebel via EAI and the data received by Siebel will be used to automatically create a quote in Siebel. It is expected that EAI may need to transform some of the data received from ESE before passing it on to Siebel with values and in a format that is acceptable for Siebel.

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ESE will need to pass to Quote Information via MQ to EAI and the information with required transformation would be propagated to Seibel Inbound Queue , so that quotes can successfully be created in Siebel.

This includes creation of the quote header and also of the quote line items, both of which have their own data requirements and business rules that will need to be satisfied.

If there are any problems with the data that is received from ESE when creating and validating the quote header and line items, the quote will go into error status and require manual correction by Customer Administration (CA).

For the initial release of ESE, there will be no mechanism to provide feedback from Siebel to ESE of the status of the quote/order.

Some of the key objects that are required for the quote header and line items in Siebel – and therefore which need to be supplied by ESE or inferred from other information contained in Siebel - are:

**Quote Header**

* Legal Entity (Location) Account (or Sold To Account) – to be supplied by ESE so the quote can be created against the correct LE account in Siebel.
* Billing Account – to be supplied optionally by ESE so that all quote line items will inherit this billing account; however, it is more likely that ESE will supply billing account for each line item involving the addition of Eikon for a new user.
* Other information – additional data to be supplied by ESE that is required at the quote header at the permissioning/depermissiong dates (assumption that the same dates will apply for all line items in the quote), win/loss reason, details of the ESE requestor and ESE reference number.

**Quote Line Items (QLI)**

* Billing Account (or Bill To Account) – to be supplied by ESE when the line item concerns the involving the addition of Eikon for a new user; in all other scenarios the billing account will already be known for an asset and will not change.
* Location Account (or Ship To Account) – to be supplied by ESE.
* Contact – contact details supplied by ESE for orders of new Eikon and also for user swaps; with this information Siebel will perform contact record matching or, in the absence of an existing contact record, will create a contact record. Contact details are not required for other modifications to existing assets (add or remove of add-ons or Eikon cancellations) as contact information is already stored against the asset in Siebel.
* Product – product details to be supplied by ESE when adding Eikon base product or add-ons.
* Asset – asset details to be supplied by ESE for any change to existing assets (including ordering new add-ons, removing add-ons, cancellations and user swaps). Once Siebel has identified an existing asset, other asset data such contact details, user IDs and billing accounts will already be stored in Siebel and can be retrieved into the quote.

Note: permissioning and de-permissioning dates will be set at quote header level based on the assumption that the same dates will apply to all line items for that given quote.

Key identifiers to be expected from ESE in order to identify the objects in Siebel are as follows:

|  |  |
| --- | --- |
| Object | Identifier |
| LegalEntity Account | A # |
| Billing Account | A # |
| Location Account | A # |
| Contact | Last Name  Email Address  (in addition Title, First Name, *Phone Number* (**optional**), Compliance Job Role and *Language* (**optional**) are expected from ESE in the event the contact record must be created in Siebel) |
| Product | PPL Id |
| Asset | Asset Integration Id |

Also to be included as part of the quote are the following items:

1. Quote attachment (mandatory) – an XML or HTML transcript of the ESE quote should always be made available as a quote attachment in the event that any troubleshooting of the quote by CA is required.

2. Project contact (optional) – a welcome email contact may optionally be specified in ESE; this contact is an individual (the ESE user or other nominated contact) to whom the Eikon welcome emails should be sent instead of sending individual welcome emails for each new Eikon user (default Siebel behavior).

For the first phase of the ESE project, the quote will always be manually validated by Customer Administration (CA) before being submitted to become an order. CA will be responsible for adding billing start and stop dates on ESE quotes.

The purpose of this interface design Document is to allow eDTK application to Upload the DAD Difference to Siebel to create Draft Quotes in Siebel.

Siebel won’t be sending any kind of response acknowledgements for the eDTK-DAD uploads propagated via EAI.

eDTK Application wouldn’t expect any kind of response for the successfully uploaded DAD.

The eDTK DAD Difference Xml payload structure consist of DAD envelope that encloses a DAD header and multiple Quote Line Items associated to it. Each DAD payload is identified by a unique DAD Id which would be part of DAD Header section.

The Status field associated to each quote item in DAD xml payload determines the Action code and Operation associate to each Quote line Item in generic Quote interface.

|  |  |  |
| --- | --- | --- |
| Status(eDTK) | Action Code(Siebel CRM) | Operation – (Siebel CRM) |
| I | Add | New |
| R | Delete | Cancellation |

* 1. Context

The B2CC wave 2 release will rollout SAP billing into the USA and Nordics and Customer Administration require the ability to invoice customers for orders raised as a result of Data Feed Access declarations (DADs) being returned to Thomson Reuters.

Currently the DADS orders raised in the USA and Nordics are processed through core suite and the resultant assets are RCIP’d to Siebel, therefore no orders are raised through Siebel for DADs activities.  
  
In Canada (B2CC wave 1) there is already a process allowing DADs orders to generate invoices from SAP. The process is not sustainable for customer administration when SAP is rolled out to the USA due to the significant increase in manual work as compared with the previous core suite based ordering process.

* 1. Detailed Interface Mapping

The below tabular structure shows the Mapping details of EAI Integrationbetween ESE and Siebel CRM along with the defaulted values and conditions to be checked during xslt transformation..

Tabular structure shows, ESE fields expected in Quote Message payload, the corresponding Siebel generic schema fields, Field those are defaulted in Siebel CRM , whether Mapping needs to be done in EAI or not, and which all values need to be defaulted in EAI during ESE Quote to CRM Generic quote message Transformation. The highlighted fields are received in EAI and Transformed as per the detailed Master Mapping sheet.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **eDTK Fields** | **Siebel Fields** | **Default in Siebel** | **Mapping in EAI** | **Default in EAI** |
| STATUS | ActionCode |  | **Y** | if the value is "I" EAI will default as "Add" and if its "R" EAI will default as "Delete" |
| DAD Declared Date | BillingStartDate |  | **Y** |  |
| DAD Declared Date | BillingStopDate |  | **Y** |  |
| PLI | GlobalPLI |  | **Y** |  |
| QUANTITY | InstalledQuantity |  | **Y** |  |
| PLI\_COUNT | LineStatus |  | **Y** | If the PDP has more than one PLI count EAI will send the status as "Pending OMS Review" else "Ready" |
| STATUS | Operation |  | **Y** | if the value is "I" EAI will default as "New" and if its "R" EAI will default as "Cancellation" |
| PDP\_CODE | PDPCode |  | **Y** |  |
| DIFFERENCE | QuantityRequested |  | **Y** |  |
| COST\_CENTRE | SubAccountNumber |  | **Y** |  |
| CLIENT\_NO | SubscriberNumber |  | **Y** |  |
| DAD ID | TransactionId | Siebel will concatenate the DAD ID to Quote Id and show in Quote Name | **Y** |  |

* + 1. Functional View

|  |
| --- |
|  |

* **Sequence Diagram:**

The Below Sequence Diagram shows the various EAI components involved in the DAD xml Upload from eDTK to Siebel CRM.

It also shows the MQ Components at the source and target end for ,



* 1. Interface Characteristics
  + The Generic Quote Interface for uploading the Draft Quote Message is offered by EAI to eDTK for DAD Difference Upload to Siebel. Real time interface from eDTK to draft Quote Message in Siebel would be built in such a way where in Siebel would apply the duplicate resolution logic to identify whether it needs to create a Contact or update an existing contact.
* Siebel to send the acknowledgements to EAI for the contact created/updated from TOM.

TOM to store the error messages if any.

| ESEEAISIEBEL | | | | |
| --- | --- | --- | --- | --- |
| Process | Source | Target | Mechanism | Description |
|  |  |  |  |  |
|  |  |  |  |  |
| ESE Quote xml Upload between ESE and EAI | ESE | **EAI Fusion Middleware** | MQ Service | ESE to en-queue the Quote Message xml to Remote Queues managed by ESE Queue Manger |
| Quote Message Upload between EAI and Siebel | **EAI Fusion Middleware** | Siebel CRM | MQ Service | EAI to en-queue the transformed ESE Quote Message to send a Generic Quote message to Siebel. |

##### **Interface Design**

* 1. High Level Interface Design





* 1. Data Definitions

The message specifications used in the interfaces between EAI and the external systems are defined in the API specification [6]. Latest versions of the XML schemas for the messages used in the interface are stored in the Reuters Developer Network Subversion repository (https://int.thomsonreuters.com) project called sami (https://sami.cdt.int.thomsonreuters.com). The definitions for this interface can be found in subversion at:

https://sami.cdt.int.thomsonreuters.com/svn/eai\_eai/branches/6.1/design/EAI1.0/Interfaces

##### **Interface Design Components**

|  |  |  |
| --- | --- | --- |
| **Module Name/Method** | **Module Type** | **Existing/New** |
| **ESOQM\_QuoteCreationService** | ESB | New ESB Component |
| **CCRMQM\_PropagateQuoteRequestMsg** | BPEL Process | New BPEL Component |
| **CCRMQM\_EnqueueGenericQuoteMessage** | BPEL Process | New BPEL Component |
| **CCRMQM\_DequeueQuoteStatus** | BPEL Process | New BPEL Component |
| **CCRMQM\_QuoteStatusDispatcher** | BPEL Process | New BPEL Component |
| **ESOQM\_PropagateQuoteSubmitStatus** | BPEL Process | New BPEL Component |

* + 1. ESOQM\_QuoteCreationServices
* **Purpose**

**This an ESB component routing between the ESO webservice and to Siebel MQ through EAI.**

* **Program Logic**

**The routing service in the ESB refers to the ESO webservice. It is linked to the SOAP service. The wsdl used in the routing service is EAI.SRV.EXT.ESO.312\_ReceiveESOQuotePublish.wsdl which contains an inline schema. The routing rules created links to the SOAP Service of the ESB. The wsdl refered in the SOAP service is**

**http://inkaban3uaeai01:7777/orabpel/ccrmsync/CCRMQM\_PropagateQuoteRequestMsg/CCRMQM\_PropagateQuoteRequestMsg?wsdl .This connects to the next component CCRMQM\_PropagateQuoteRequestMsg.**

**In the transformation GenerateQuote\_To\_GenerateQuote.xsl which is created as part of routing rules in the routing service, maps the ESO webservice and EAI Component CCRMQM\_PropagateQuoteRequestMsg.**

* **DVM**

-NONE-

* **Data Mapping (Transformation)**

Two transformations are done. One for the request and one for the response. In the request xslt **GenerateQuote\_To\_GenerateQuote.xsl**, the mapping is done between EAI.SRV.EXT.ESO.312\_ReceiveESOQuotePublish.wsdl which refers to the ESO webservice and CCRMQM\_PropagateQuoteRequestMsg.wsdl which is the EAI component.

Since the EAI component invoked from ESB is synchronous, the response is mapped to ESO in the response xslt **GenerateQuoteResponse\_To\_GenerateQuoteResponse.xsl**.

* **Scope:**

ValidateXML

* **Exception Handling:**

**NA**

* **Input/output Schemas:**
* EAI.SRV.EXT.ESO.312\_ReceiveESOQuotePublish.wsdl
* CCRMQM\_PropagateQuoteRequestMsg.wsdl
* **Partner links**

**NA**

* + 1. CCRMQM\_PropagateQuoteRequestMsg
* **Purpose**

This process receives quote message from the ESO through the ESB, and propagated to the enqueue process.

* **Program Logic**

This EAI service receives the canonical message structure in the form of as input structure EAI.MSQ.QM.313\_QuoteRequestResponseMessage.xsd and is transformed to Siebel’s Generic quote schema which also refers to the same schema EAI.MSQ.QM.313\_QuoteRequestResponseMessage.xsd prior to invoking the MQ for enqueing the quote message.

This transformation is achieved through xsl transformation.

* **DVM**

ESOActionToCRMActionCodeAndOperation.xml

* **Data Mapping (Transformation)**

The necessary message transformations are performed by the following xsl:

TransExtQuoteReqMsgToGenericMessage.xsl

* **Exception Handling:**

For all the scopes in CCRMDAD\_SubmitDraftQuoteMessage catch all types of exceptions and throwing the fault message.

* + *Selection Failure****:***

For any Selection Failure fault exception while transformation catches the exception and throwing remote fault exception and appending the fault message to the title.

* + *remoteFault:*

For any Remote fault exception while transformation catches the exception and throwing remote fault exception and appending the fault message to the title.

* + *runtimeFault:*

For any run time fault exception while transformation catch the exception and throwing run time fault exception and appending the fault message to the title.

* + *bindFault:*

#### For any data binding or data validations exceptions while transformation catch the exception and throwing remote fault exception and appending the fault message to the title.

#### NOTE: After Fault the BPEL instance is ready for Re-initiate, Manually user/Ops team will be re-initiating after all validations done

* **Input/output Schemas:**
* EAI.MSG.CCRM.DAD.309\_DraftQuotePublishRequest.xsd
* EAI.MSG.CCRM.DAD.308\_DraftQuotePublishRequest.xsd
* **Partner links**
* [CCRMDAD\_SubmitDraftQuoteMessage.wsdl](http://eaiblue.ime.reuters.com:7777/orabpel/ccrmasync/CCRMDAD_SubmitDraftQuoteMessage/R5.0_15.1/CCRMDAD_SubmitDraftQuoteMessage.wsdl)
* [Enqueue\_DrafttQuoteService.wsdl](http://eaiblue.ime.reuters.com:7777/orabpel/ccrmasync/CCRMDAD_SubmitDraftQuoteMessage/R5.0_15.1/Enqueue_DrafttQuoteService.wsdl)
  + 1. PL-SQL

**-**

# Developer Notes

##### **Code management**

For Code management and usage of subversion refer the document.

##### **Deployment Process:**

The deployment process for BPEL, ESB or web services components and as well as for any other deployments like DB Scripts, Business rules configurations: refer EAI- Build and Deployment Process.doc in SVN folder:

<https://sami-crm6-eai.reutersdev.net/svn/sami-crm6-eai/trunk/dev/EAI-CRM61/R2releases/BuildDocs>

# Issues/Workarounds

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.No | Summary | Status | Assigned to | Solution |
|  |  |  |  |  |
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