

**Oracle® Clinical Trial Payments Integration Pack  
for Siebel Clinical 3.1 - Implementation Guide**

Release 3.1

**Part No. E20513-01**

February 2011

**ORACLE®**

Copyright © 2011, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

#### U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are “commercial computer software” or “commercial technical data” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

This software and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third party content, products and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third party content, products or services.

# Contents

Preface .....	4
Oracle AIA Guides .....	4
Additional Resources .....	4
Chapter 1: Getting Started with the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical 3.1 .....	5
Key Benefits of the PIP .....	5
Business Process Flow .....	5
Design Assumptions .....	8
Chapter 2: Understanding the Oracle Clinical Trial Payments Pack for Siebel Clinical Integration .....	9
Generate Payment Request in Siebel Clinical .....	9
Update Status of Payment Request in Siebel Clinical .....	9
Update Payment Request with Disbursed Payment Details in Siebel Clinical .....	10
Industry AIA Components .....	10
Integration Scenarios .....	13
Integration Services .....	19
Chapter 3: Configuring the Oracle Clinical Trial Payments Process Integration Pack for Siebel Clinical .....	21
Overview .....	21
Setting Up Siebel Clinical .....	22
Configuring the Oracle Clinical Trial Payments Partial PIP .....	22
Identifying Cross-References .....	26
Working with Domain Value Maps .....	26
Handling Errors .....	28
Viewing Enterprise Business Object Implementation Maps (EIMs) .....	28
Index .....	29

# Preface

Welcome to the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical 3.1 Implementation Guide.

Oracle Application Integration Architecture (AIA) provides the following guides and resources for this release:

---

## Oracle AIA Guides

- Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Reference Process Models User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Migration Guide for Oracle Application Integration Architecture 11g Release 1 (11.1.1.4.0)
- Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)

---

## Additional Resources

The following resources are also available:

Resource	Location
Oracle Application Integration Architecture: Product-to-Guide Index	Oracle Technology Network: <a href="http://www.oracle.com/technetwork/index.html">http://www.oracle.com/technetwork/index.html</a>
Known Issues and Workarounds	My Oracle Support: <a href="https://support.oracle.com/">https://support.oracle.com/</a>
Release Notes	Oracle Technology Network: <a href="http://www.oracle.com/technetwork/index.html">http://www.oracle.com/technetwork/index.html</a>
Documentation updates	My Oracle Support: <a href="https://support.oracle.com/">https://support.oracle.com/</a>

# Chapter 1: Getting Started with the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical 3.1

This chapter discusses the:

- [Key Benefits of the PIP](#)
- [Business Process Flow](#)
- [Design Assumptions](#)

---

## Key Benefits of the PIP

The Oracle Clinical Trial Payments business process enables Siebel Clinical Trial Management System (CTMS) to submit Payment Requests generated for the Clinical Study activities that were carried out, for downstream processing. It also enables Siebel Clinical to receive updates on Payment processing.

The partial Process Integration Pack takes into account that Siebel Clinical is one end application plugged to the AIA Middleware. You have the flexibility to select and plug an intermediate or target system of your choice to the partial PIP and build your own end-to-end solution for Clinical Trial Payments. The PIP automates the business process around managing payments to ensure Investigators are compensated correctly on time.

The Oracle Clinical Trial Payments Integration Pack for Siebel Clinical works with the participating applications to enable these business processes:

- Generating payments for the services rendered by the Health Care Professionals.
- Sending response acknowledgement to the Siebel Clinical about the successful Payment Request receipt.
- Sending message consisting of disbursed payment details such as amount paid, check number and so forth to the Siebel Clinical.
- Sending Rejection reason to the Siebel Clinical if there are any deviations in the Payment Request. Siebel Clinical resends the Payment Request with the updated information for re-processing.

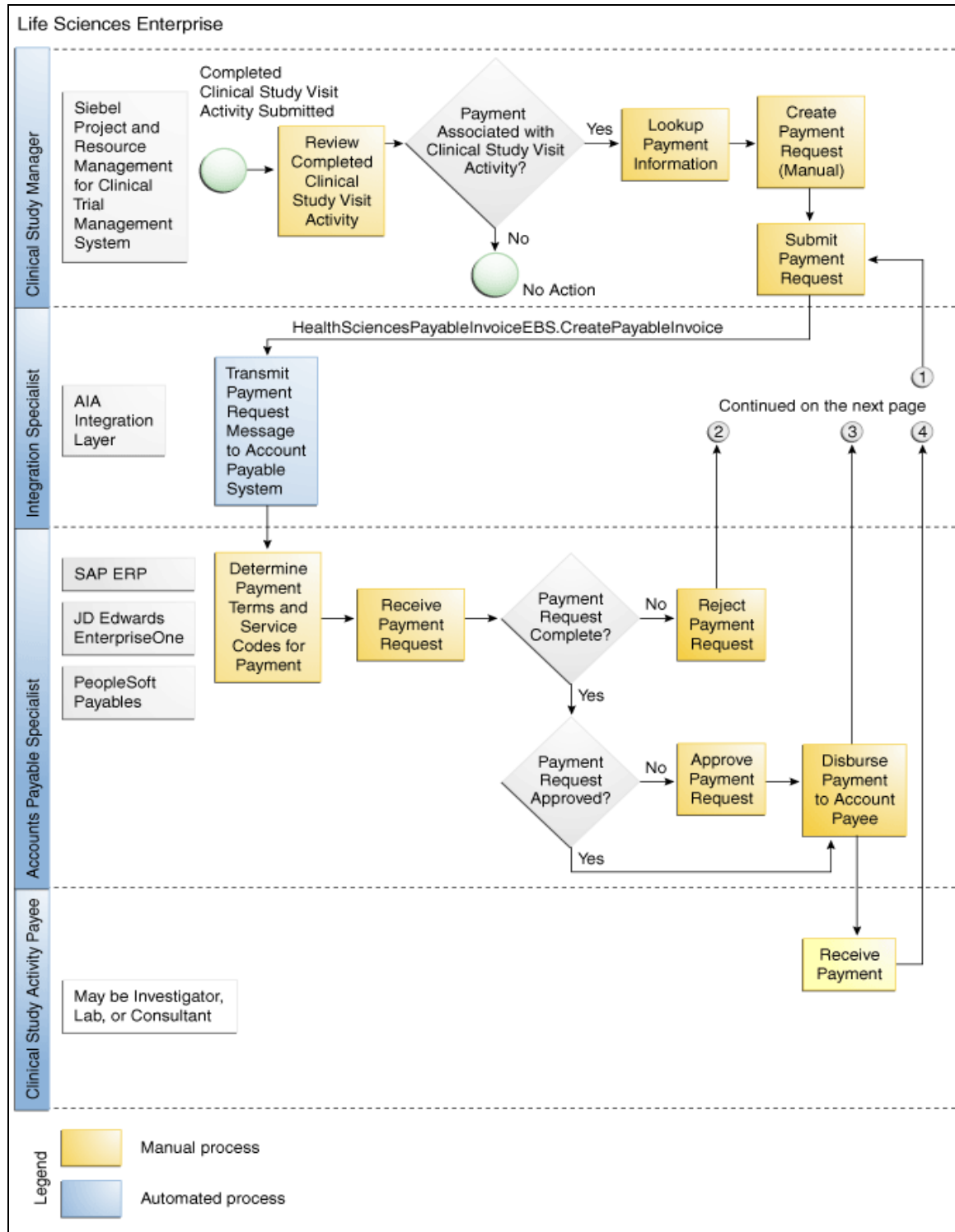
---

## Business Process Flow

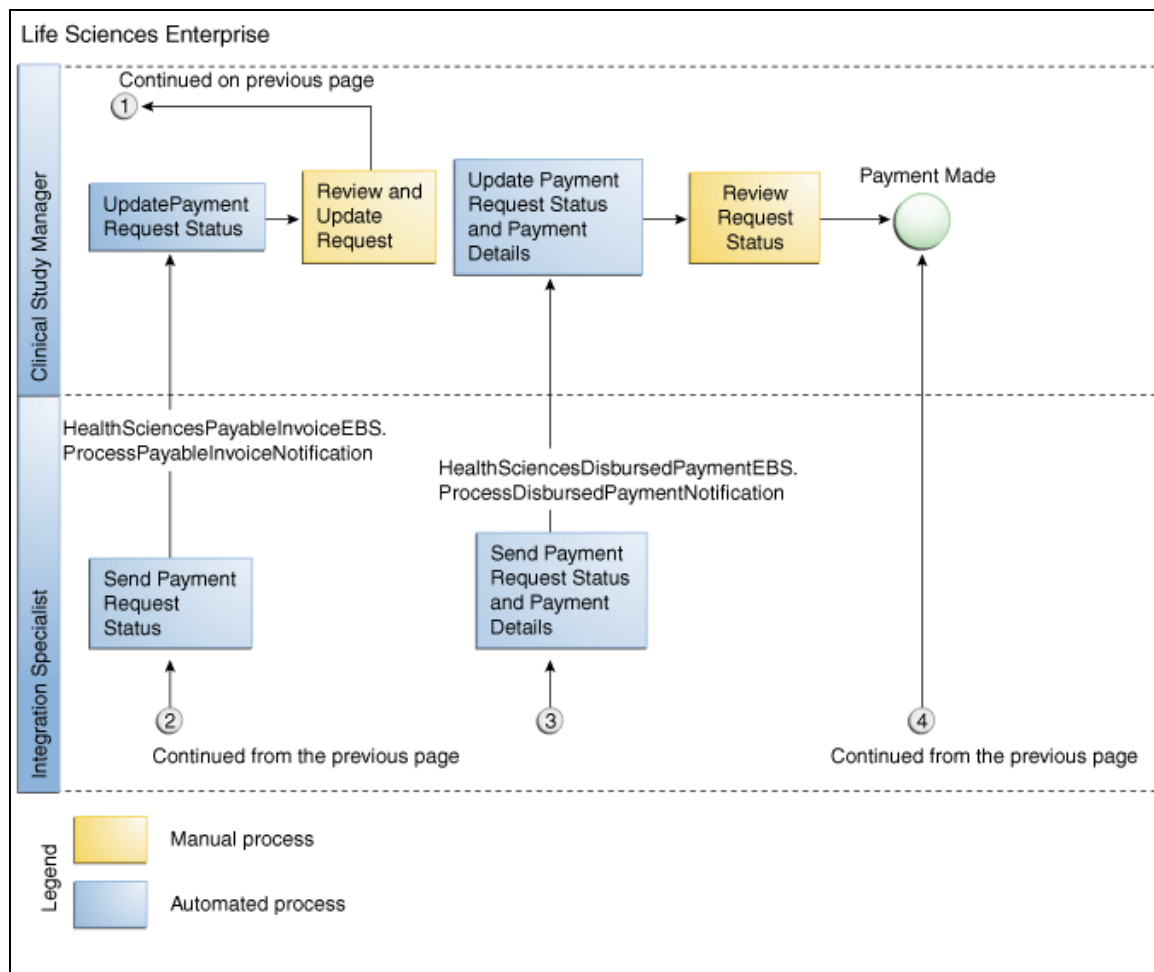
The Oracle Clinical Trial Payments Integration Pack for Siebel Clinical consists of these integration flows:

- Generate Payment Request in Siebel Clinical
- Update Status of Payment Request in Siebel Clinical
- Update Payment Request with Disbursed Payment Details in Siebel Clinical

The diagrams 1 and 2 represent the Clinical Study Payments Business Process flow for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical.



Clinical Study Payments Business Process Diagram 1 of 2



Clinical Study Payments Business Process Diagram 2 of 2

## Description

This section provides an overview of the business process flow for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical.

1. Clinical Study Manager provides approval along with request for generating payments from Siebel Clinical Trial Management System to the target system.
2. Siebel Clinical receives a final acknowledgement once payment is disbursed by the target system, consisting of payment details such as amount paid, check #, and so on. The corresponding Payment Request is updated with this information.
3. Response acknowledgement is sent to Siebel Clinical about the successful Payment Request Receipt, once the Payment Request is received by the target backend system.
4. In case of any deviations in the Payment Request, a rejection reason is received in Siebel Clinical for any corrective action to be taken on the payment request. Siebel Clinical sends this Payment Request to target system with updated information for re-processing.

---

## Design Assumptions

This section describes the design assumptions for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical. This design assumes that the following statements are true:

1. The Oracle Clinical Trial Payments Integration Pack for Siebel Clinical assumes that the Target system could be any Back End Financial system such as SAP or Oracle Financial suite or any third-party back office system.
2. Contract Names will be entered into Siebel Clinical for the Payment Request.
3. Tax computation (for example Service Tax, VAT, and so forth.) with respect to the generated invoice is assumed to be performed in the back office financial system and thus is not considered in the scope of this PIP.
4. After trigger of Payment request from Siebel Clinical, the Payment Request can also be withdrawn manually by updating the Payment Request status accordingly in Siebel Clinical. No message would be sent over to external system about this. Instead, either the Study Manager or some appropriate user would communicate with the appropriate stakeholder outside the system and request the halt of payment processing, manually.



# Chapter 2: Understanding the Oracle Clinical Trial Payments Pack for Siebel Clinical Integration

This chapter discusses:

- [Generate Payment Request in Siebel Clinical](#)
- [Update Status of Payment Request in Siebel Clinical](#)
- [Update Payment Request with Disbursed Payment Details in Siebel Clinical](#)
- [Industry AIA Components](#)
- [Integration Scenarios](#)
- [Integration Services](#)

---

## Generate Payment Request in Siebel Clinical

This feature lets the Siebel Clinical generate new or updated Payment Requests to the AIA Layer for downstream processing. The status of the Payment record created in Siebel Clinical is changed from a default value (for example In Progress) to a value (for example To Be Submitted) that dispatches Payment Request messages to the AIA layer for downstream processing. The Payment Request status is the central condition that triggers the workflow for dispatching the Payment Request from Siebel Clinical to AIA. The Payment Request status can be triggered either manually or automatically.

Additionally, the feature lets Siebel Clinical receive a response acknowledgement about the successful Payment Request receipt, which updates the status of the Payment Request from 'Waiting for Acknowledgement' to 'Submitted' in Siebel Clinical.

**For more information** about triggering Payment Request from Siebel Clinical, see the *Siebel Life Sciences Guide, Version 8.1, Rev. D*.

---

## Update Status of Payment Request in Siebel Clinical

This feature lets Siebel Clinical receive any updates of Payment Request status information and feedback/comments from AIA.

As the payment request gets processed, there may be status information and feedback/comments that need to be passed back to Siebel. This is accomplished by sending the `ProcessPayableInvoiceNotificationEBM` to the `HealthSciencesPayableInvoiceEBS`. `HealthSciencesPayableInvoiceEBS` routes the EBM to `ProcessPayableInvoiceNotificationSEBLCLINProvABCSImpl` to transform the EBM into the Siebel Clinical specific message and call the Siebel web service to update the status of the payment request. The status of the payment request will be updated in Siebel Clinical and the comments passed will be placed in the feedback field of the payment request.

The status passed in must exist in the `PAYABLEINVOICE_INVOICESTATUS` DVM.

The status must also be a valid state transition in the State Model for the payment request in Siebel.

**For more information** about state models, see the chapter “State Models” of *Siebel Applications Administration Guide 8.1, Rev. A*.

---

## Update Payment Request with Disbursed Payment Details in Siebel Clinical

This feature lets Siebel Clinical receive Disbursed Payment details after the Payment Request is approved and the amount has been disbursed. When Siebel Clinical dispatches a Payment Request for downstream processing (for example approval, disbursement and so on), a corresponding message can be received containing the details of the Payment disbursed (for example Amount, check number, and so on.)

Regardless of the method of payment, the check number field in Siebel Clinical will be updated with the payment number. For example, even if payment was made by Electronic Fund Transfer. The EFT# will be placed in the check number field for the payment request in Siebel Clinical.

No currency conversion is done. The amount paid will be updated in Siebel Clinical with the currency that it was disbursed, even if this is not the currency of the requested amount.

The check date will be updated with the date passed in as is in the time zone passed in. No conversion to the time zone of the Siebel Clinical database will occur.

---

## Industry AIA Components

Health Sciences Industry AIA Components include the EBOs, EBM, and EBS services that are used in the integration flows.

This section provides an overview of these components:

- [EBOs](#)
- [EBM](#)
- [EBS](#)

## EBOs

The Health Sciences industry EBO .xsd files are located at this location:

\$AIA\_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Industry/HealthSciences/EBO/

The EBOs for each Oracle Clinical Trial Payments Integration Pack for Siebel Clinical flow are listed in each integration scenario section of this document.

**For more information** about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository."

EBOs can be extended to add new data elements. These extensions are protected and remain intact after a patch or upgrade.

**For more information**, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Understanding Extensibility".

**For more information** about how services are mapped, see the My Oracle Support document: EBO Implementation Maps (EIMs) 881022.1.

This table lists the EBOs and therefore the integration points that are available in the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical:

EBO	Description
PayableInvoiceEBO	PayableInvoice EBO is used to request an invoice for payment be created in a financial system. The payment request sent from Siebel Clinical will use the CreatePayableInvoiceEBM. Additional information needed by the financial system can be added to the EBM by an intermediate system or the provider ABCS of the Financial System. The ProcessPayableInvoiceNotificationEBM is used to pass status information back to Siebel Clinical.
DisbursedPaymentEBO	The Disbursed Payment EBO is used to describe the payment transaction that occurred for the payment request. The ProcessDisbursedPaymentNotificationEBM is used to send this information to Siebel Clinical.

**For more information** about the EBO for each Oracle Clinical Trial Payments Integration Pack for Siebel Clinical flow, see [Integration Scenarios](#).

---

## EBMs

The Health Sciences industry EBM .xsd files are located at:

\$AIA\_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Industry/HealthSciences/EB  
O/PayableInvoice/V1/PayableInvoiceEBM.xsd

**CreatePayableInvoiceEBM** – The payment request sent from Siebel Clinical will use the CreatePayableInvoiceEBM.

**ProcessPayableInvoiceNotificationEBM** - The ProcessPayableInvoiceNotificationEBM is used to pass status information back to Siebel Clinical.

\$AIA\_HOME/AIAMetaData/AIAComponents/EnterpriseObjectLibrary/Industry/HealthSciences/EB  
O/DisbursedPayment/V1/DisbursedPaymentEBM.xsd

**ProcessDisbursedPaymentNotificationEBM** - The ProcessDisbursedPaymentNotificationEBM is used to send the payment disbursement information to Siebel Clinical.

The EBMs for each Oracle Clinical Trial Payments Integration Pack for Siebel Clinical flow are listed in each integration scenario section of this document.

**For more information** about the EBM for each Oracle Clinical Trial Payments Integration Pack for Siebel Clinical flow, see [Integration Scenarios](#).

---

## EBSs

The Health Sciences industry EBS .wsdl files are located at:

\$AIA\_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Industry/HealthSci  
ences/EBO/PayableInvoice/V1/HealthSciencesPayableInvoiceEBSV1.wsdl

**HealthSciencesPayableInvoiceEBS** – This is used to route the CreatePayableInvoiceEBM from Siebel Clinical to the target system. This EBS also routes the ProcessPayableInvoiceNotificationEBM from the Source system to Siebel Clinical. Routing rules are not shipped with this PIP for this EBS because this is a partial PIP.

**HealthSciencesPayableInvoiceResponseEBS**- This EBS routes the acknowledgement response for the CreatePayableInvoice Request Message from the Target system to Siebel Clinical. Routing rules are not shipped with this PIP for this EBS because this is a partial PIP.

\$AIA\_HOME/AIAMetaData/AIAComponents/EnterpriseBusinessServiceLibrary/Industry/HealthSci  
ences/EBO/ DisbursedPayment/V1/HealthSciencesDisbursedPaymentEBSV1

**HealthSciencesDisbursedPaymentEBS**- This EBS routes the ProcessDisbursedPaymentNotificationEBM from the source system to Siebel Clinical. Routing rules are not shipped with this PIP for this EBS because this is a partial PIP.

**For more information** about defining routing rules in EBS, see *Oracle Fusion Middleware Developer's Guide for Oracle SOA Suite*, "Defining Routing Rules."

**For more information** about the EBS for each Oracle Clinical Trial Payments Integration Pack for Siebel Clinical flow, see [Integration Scenarios](#).

## Integration Scenarios

This section describes the integration flow and Health Sciences Industry AIA components for each Oracle Clinical Trial Payments Integration Pack for Siebel Clinical integration scenarios:

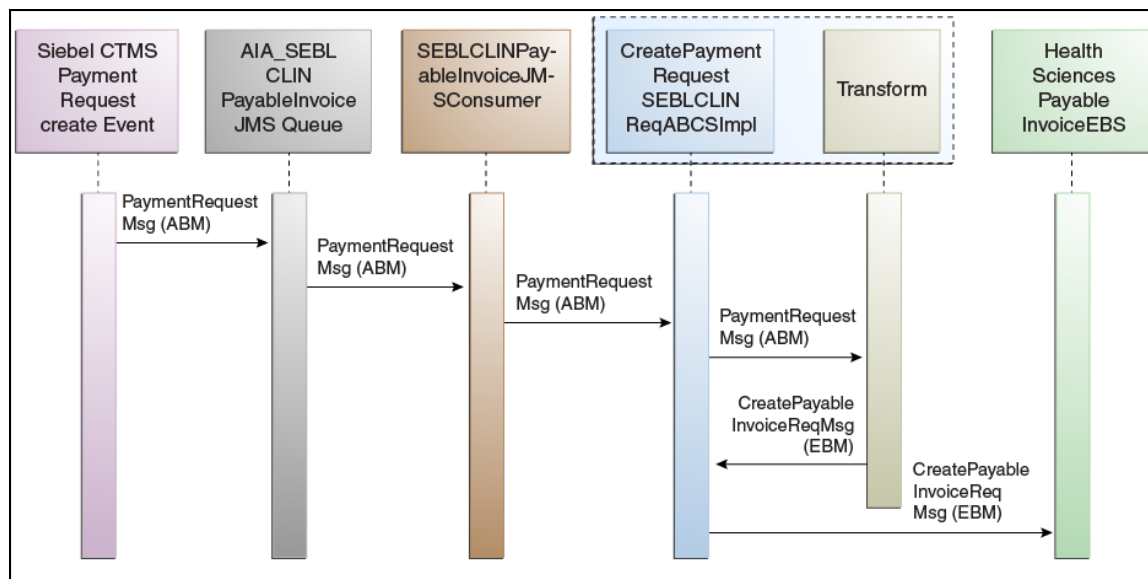
1. Generate Payment Request in Siebel Clinical
2. Acknowledge Payment Request Receipt in Siebel Clinical
3. Update Status of Payment Request in Siebel Clinical
4. Update Payment Request with Disbursed Payment Details in Siebel Clinical

### Generate Payment Request in Siebel Clinical

This section provides the flow diagram for the Generate Payment Request in Siebel Clinical flow and describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS).

#### Flow Diagram

This diagram represents the Generate Payment Request in Siebel Clinical flow for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical.



#### Generate Payment Request in Siebel Clinical

This table describes the steps that are available in Generate Payment Request in Siebel Clinical flow diagram:

Sr. No.	Name	Step Description
1	Siebel CTMS Payment Request create Event	When the Siebel Clinical user changes the status of the Payment Request to 'To Be Submitted', workflow is triggered. This workflow writes the Payment Request message to the JMS Queue <b>AIA_SEBLCLINPayableInvoiceJMSQueue</b> in the middleware.

Sr. No.	Name	Step Description
2	AIA_SEBLCLINPayableInvoiceJMSQueue	The JMS queue <b>AIA_SEBLCLINPayableInvoiceJMSQueue</b> in the middleware contains the Payment Request messages.
3	SEBLCLINPayableInvoiceJMSConsumer	The message in the queue is picked up by the <b>SEBLCLINPayableInvoiceJMSConsumer</b> service and routes this message to <b>CreatePaymentRequestSEBLCLINReqABCSImpl</b> .
4	CreatePaymentRequestSEBLCLINReqABCSImpl	The Siebel Clinical Requester ABCS implementation, <b>CreatePaymentRequestSEBLCLINReqABCSImpl</b> , transforms the PaymentRequestMsg ABM to the CreatePayableInvoiceEBM and invokes the 'CreatePayableInvoice' operation of the <b>HealthSciencesPayableInvoiceEBS</b> .
5	HealthSciencesPayableInvoiceEBS	<b>HealthSciencesPayableInvoiceEBS</b> receives the CreatePayableInvoiceEBM from CreatePaymentRequestSEBLCLINReqABCSImpl after transformation.

## Health Sciences Industry AIA Components

This table describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS):

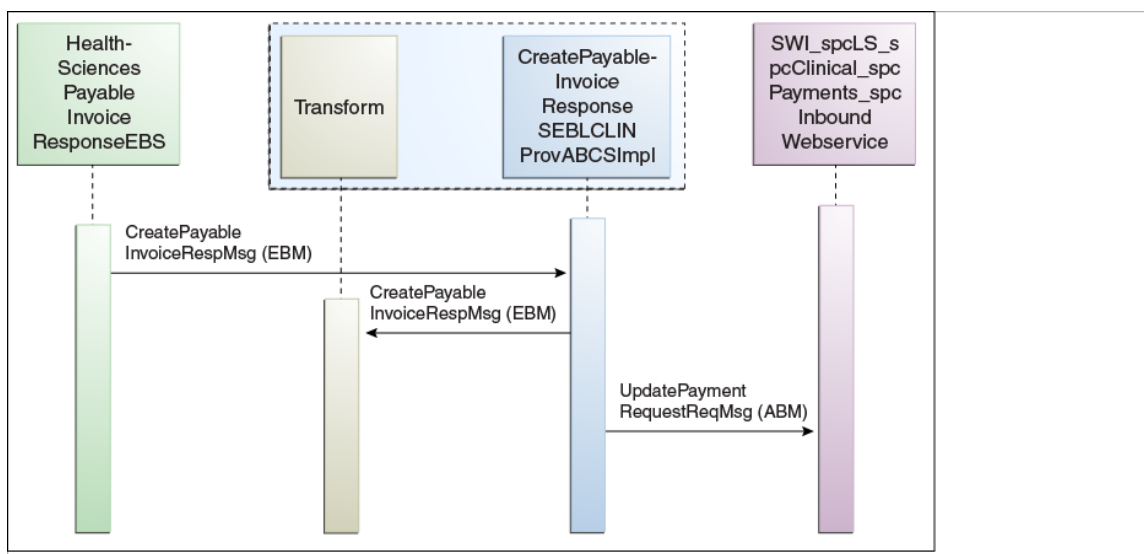
EBO	EBM	EBS	ABCS
PayableInvoiceEBO	CreatePayableInvoiceEBM	HealthSciencesPayableInvoiceEBS	CreatePaymentRequestSEBLCLINReqABCSImpl

## Acknowledge Payment Request Receipt in Siebel Clinical

This section provides the flow diagram for the Acknowledge Payment Request Receipt in Siebel Clinical flow and describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS).

## Flow Diagram

This diagram represents the Acknowledge Payment Request Receipt in Siebel Clinical flow for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical.



### Acknowledge Payment Request Receipt in Siebel Clinical

This table describes the steps that are available in Acknowledge Payment Request Receipt in Siebel Clinical flow diagram:

Sr. No.	Name	Step Description
1	HealthSciencesPayableInvoiceResponseEBS	This service can route the CreatePayableInvoiceResponseEBM to the Siebel CTMS Response Provider ABCS implementation service, <b>CreatePayableInvoiceResponseSEBLCLINProvABCSImpl</b> .
2	CreatePayableInvoiceResponseSEBLCLINProvABCSImpl	This service transforms CreatePayableInvoiceResponseEBM to UpdatePaymentResquestReqMsg ABM and calls SWI_spcLS_spcClinical_spcPayments_spcInbound Webservice.
3	SWI_spcLS_spcClinical_spcPayments_spcInbound Webservice	This service updates the payment request in Siebel.

## Health Sciences Industry AIA Components

This table describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS):

EBO	EBM	EBS	ABCS
PayableInvoiceEBO	CreatePayableInvoiceResponseEBM	HealthSciencesPayableInvoiceResponseEBS	CreatePayableInvoiceResponseSEBLCLINProvABCSImpl

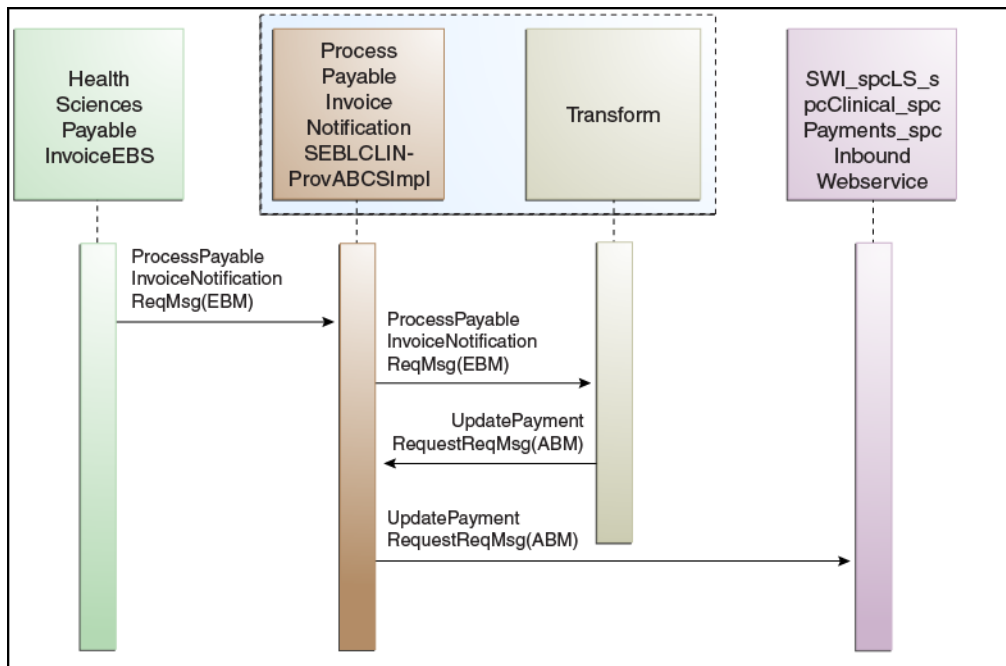
## Update Status of Payment Request in Siebel Clinical

This feature lets Siebel Clinical update the status of the Payment Request. If there is any change in status of the Payment Request, Siebel Clinical receives an acknowledgement, with appropriate reasons.

This section provides the flow diagram for the Update Status of Payment Request in Siebel Clinical flow and describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS).

### Flow Diagram

This diagram represents the Update Status of Payment Request in Siebel Clinical flow for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical.



### Update Status of Payment Request in Siebel Clinical

This table describes the steps that are available in Update Status of Payment Request in Siebel Clinical flow diagram:

Sr. No.	Name	Step Description
1	HealthSciencesPayableInvoiceEBS	This service can route <b>ProcessPayableInvoiceNotificationEBM</b> to the provider service <b>ProcessPayableInvoiceNotificationSEBLCLINProvABCSImpl</b> .
2	ProcessPayableInvoiceNotificationSEBLCLINProvABCSImpl	This service is responsible for transforming the <b>ProcessPayableInvoiceNotificationEBM</b> into the <b>UpdatePaymentRequestReqMsg</b> Siebel ABM and invoking the <b>SWI_spcLS_spcClinical_spcPayments_spcInbound</b> Webservice.
3	SWI_spcLS_spcClinical_spcPayments_spcInbound	<b>SWI_spcLS_spcClinical_spcPayments_spcInbound Webservice</b> updates the payment request in Siebel.



Sr. No.	Name	Step Description
	Webservice	

## Health Sciences Industry AIA Components

This table describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS):

EBO	EBM	EBS	ABCS
PayableInvoiceEBO	ProcessPayableInvoiceNotificationEBM	HealthSciencesPayableInvoiceEBS	ProcessPayableInvoiceNotificationSEBLCLINProvABCSEBImpl

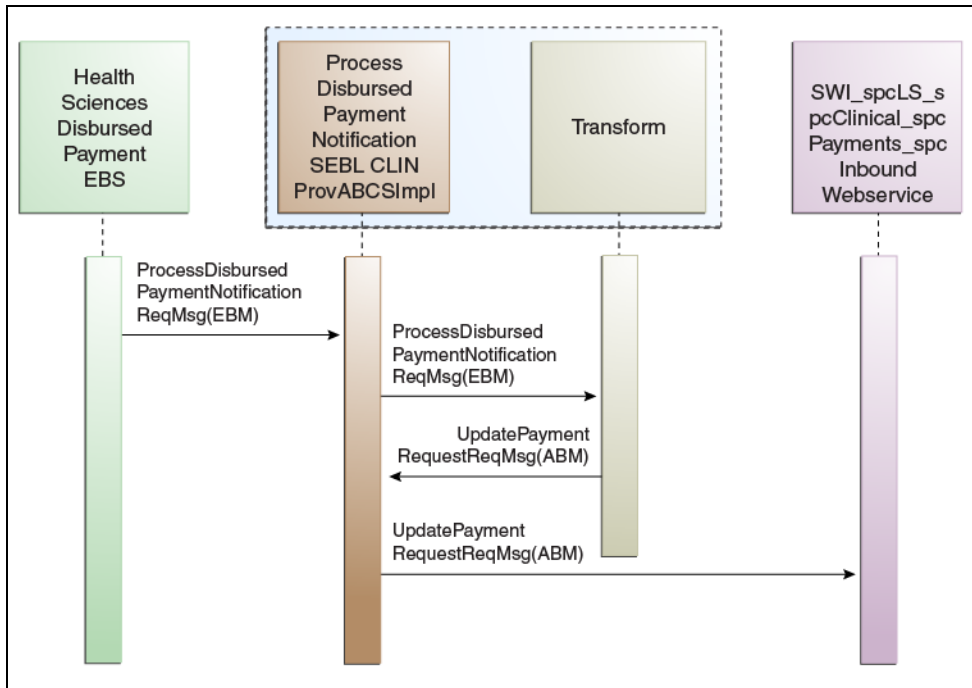
## Update Payment Request with Disbursed Payment Details in Siebel Clinical

This feature lets Siebel Clinical receive Disbursed Payment details after the Payment Request is approved and the amount has been disbursed. When Siebel Clinical dispatches a Payment Request for downstream processing (for example, approval, disbursement and so on), a corresponding message should be received containing the details of Payment disbursed (for example: amount, check number and so on.)

This section provides the flow diagram for the Update Payment Request with Disbursed Payment Details in Siebel Clinical flow and describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS).

## Flow Diagram

This diagram represents the Update Payment Request with Disbursed Payment Details in Siebel Clinical flow for the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical.



### Update Payment Request with Disbursed Payment Details in Siebel Clinical

This table describes the steps that are available in Update Payment Request with Disbursed Payment Details flow diagram:

Sr. No.	Name	Step Description
1	HealthSciencesDisbursedPaymentEBS	This service can route the <b>ProcessDisbursedPaymentNotificationEBM</b> to the provider service <b>ProcessDisbursedPaymentNotificationSEBLCLINProvABCSImpl</b> .
2	ProcessDisbursedPaymentNotificationSEBLCLINProvABCSImpl	This service transforms the <b>ProcessDisbursedPaymentNotificationEBM</b> into the <b>UpdatePaymentRequestReqMsg</b> and invokes the <b>SWI_spcLS_spcClinical_spcPayments_spcInbound Webservice</b>
3	SWI_spcLS_spcClinical_spcPayments_spcInbound Webservice	<b>SWI_spcLS_spcClinical_spcPayments_spcInbound Webservice</b> updates the payment request in Siebel.

## Health Sciences Industry AIA Components

This table describes the Health Sciences Industry AIA components (EBO, EBM, EBS, ABCS):

EBO	EBM	EBS	ABCS
DisbursedPayment EBO	ProcessDisbursedPayment NotificationEBM	HealthSciencesDisbursedPayment EBS	ProcessDisburse dPaymentNotific ationSEBLCLINP rovABCImpl

## Integration Services

These are the delivered services:

- CreatePaymentRequestSEBLCLINReqABCImpl
- CreatePayableInvoiceResponseSEBLCLINProvABCImpl
- ProcessDisbursedPaymentNotificationSEBLCLINProvABCImpl
- ProcessPayableInvoiceNotificationSEBLCLINProvABCImpl
- HealthSciencesPayableInvoiceEBS
- HealthSciencesPayableInvoiceResponseEBS
- HealthSciencesDisbursedPaymentEBS
- SEBLCLINPayableInvoiceJMSConsumer

**For more information** about using the Oracle Enterprise Repository and configuring it to provide the AIA Reference Doc link, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Configuring and Using Oracle Enterprise Repository as the Oracle AIA SOA Repository".

### CreatePaymentRequestSEBLCLINReqABCImpl

This service transforms the PaymentRequestMsg ABM to the CreatePayableInvoiceEBM and invokes the 'CreatePayableInvoice' operation of the HealthSciencesPayableInvoiceEBS.

**For more information** about ABCS, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Designing and Developing Application Business Connector Services" and, "Understanding Application Business Connector Services."

### CreatePayableInvoiceResponseSEBLCLINProvABCImpl

This service transforms CreatePayableInvoiceResponseEBM to UpdatePaymentRequestReqMsg ABM and calls SWI\_spCLIS\_spCLINCLIN\_spCLIPayments\_spCLInbound Webservice.

---

## ProcessDisbursedPaymentNotificationSEBLCLINProvABCImpl

This service transforms the ProcessDisbursedPaymentNotificationEBM into the Siebel format and invokes the SWI\_spCLS\_spcClinical\_spcPayments\_spcInbound Webservice.

---

## ProcessPayableInvoicetNotificationSEBLCLINProvABCImpl

This service transforms the ProcessPayableInvoiceNotificationEBM into the Siebel format and invokes the SWI\_spCLS\_spcClinical\_spcPayments\_spcInbound Webservice.

---

## HealthSciencesPayableInvoiceEBS

This service receives the CreatePayableInvoiceEBM from CreatePaymentRequestSEBLCLINReqABCImpl after transformation.

**For more information** about EBS, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Designing and Developing Enterprise Business Services” and “Understanding Enterprise Business Services.”

---

## HealthSciencesPayableInvoiceResponseEBS

This service can route the CreatePayableInvoiceResponseEBM to the Siebel CTMS Response Provider ABC implementation service, CreatePayableInvoiceResponseSEBLCLINProvABCImpl.

---

## HealthSciencesDisbursedPaymentEBS

This service can route ProcessDisbursedPaymentNotificationEBM to the provider service ProcessDisbursedPaymentNotificationSEBLCLINProvABCImpl.

---

## SEBLCLINPayableInvoiceJMSConsumer

This service picks up the CreatePaymentRequest ABM message from the SEBLCLINPayableInvoiceJMSQueue and route it to CreatePaymentRequestSEBLCLINReqABCImpl.

**For more information** about JMS Consumer Services, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Creating JMS Consumers to Consume Siebel Messages from JMS Queues/Topics.”

# Chapter 3: Configuring the Oracle Clinical Trial Payments Process Integration Pack for Siebel Clinical

This chapter provides an overview and discusses:

- [Setting Up Siebel Clinical](#)
- [Configuring the Oracle Clinical Trial Payments Partial PIP](#)
- [Identifying Cross-References](#)
- [Working with Domain Value Maps](#)
- [Handling Errors](#)
- [Viewing Enterprise Business Object Implementation Maps \(EIMs\)](#)

---

## Overview

The Oracle Clinical Trial Payments Integration Pack for Siebel Clinical is a partial PIP. Therefore, in addition to setting up Oracle Clinical Trial Payments Integration Pack for Siebel Clinical for the integration and applying the required patches or workarounds, your organization must build the integration from the Fusion Middleware layer of the integration pack to the third-party provider application of your choice.

How you implement and use the Oracle Clinical Trial Payments partial PIP is dependent on your specific business requirements and the participating applications that you select. Nevertheless, you must do the following:

- Review flows, services, roles, ABCS construction, cross-references, and EBOs.
- Create routing rules in the EBS to route to the appropriate systems.
- Run the XSL Mapping Analyzer tool provided by AIA as part of the Foundation Pack, to provide information about EBM.
- Map DVMs and cross-references to the other applications that are participating in the integration.
- For each application involved in the integration other than Siebel clinical, you must create an ABCS for each EBM it will receive and each EBM it will send.

**For more information** about the XSL Mapping Analyzer tool provided by AIA in the Foundation Pack, see *Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*.

## Setting Up Siebel Clinical

Enhancements have been made to Siebel Clinical to support this Integration. This new functionality is provided as a quick Fix to Siebel 8.1.1.3. Please see the Oracle Application Integration Architecture Installation Guide for Process Integration Packs Release 3.1 for details on software prerequisites.

Out of the box, when a payment request is set to “To be submitted”, a payment request will be written to the JMS queue on the SOA server. If you want a different status to trigger the sending of the payment request, this can be configured. Please see the Configuration Instructions in the Release Notes for the Siebel Clinical Quick Fix.

When the integration needs to update the status of the payment request in Siebel and optionally provide feedback comments to go with the status, a new Siebel web service will be invoked. This web service depends upon the status transition being valid in the state transition model defined for payment request status. If you are passing statuses other than the out of the box, ‘Rejected’ or ‘Paid’, you must ensure these statuses are added to the state transition model for the payment request status.

**For more information**, refer to the chapter “State Models” of *Siebel Applications Administration Guide 8.1, Rev. A*.

**For more information** about how to customize Siebel workflows, state diagrams to meet a given business requirement, see *Siebel Life Sciences Guide, Version 8.1, Rev. D*.

## Configuring the Oracle Clinical Trial Payments Partial PIP

Configure these properties in the AIAConfigurationProperties.xml file. The file is located in \$AIA\_HOME/AIAMetaData/config/. Entries in the AIAConfigurationProperties.xml file are case-sensitive.

**For more information** about requirements for working with AIAConfigurationProperties.xml, see *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, “Building AIA Integration Flows”, “How to Set Up AIA Workstation”.

**For more information**, see *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack*, “Using the Oracle Enterprise Repository (OER),” Loading Oracle AIA Configuration File Updates.

Settings for the CreatePaymentRequestSEBLCLINReqABCImpl service:

Property Name	Value/Default Values	Description
Default.SystemID	SEBLCLIN_01	It is the responsibility of the application to send the SystemID from which the request is being sent. If any requestor application fails to send this, AIA will pick the default SystemID from this config property.
Routing.	True/false. Default = False	Controls whether

Property Name	Value/Default Values	Description
HealthSciencesPayableInvoiceEBS.CreatePayableInvoice.RouteToCAVS		CreatePaymentRequestSEBLCLINReqABCSImpl should route messages to the CAVS or to the mediator service (real flow).
Routing. HealthSciencesPayableInvoiceEBS.CreatePayableInvoice.CAVS.EndpointURI	http://<hostname:port>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL
ABCSExtension.PreProcessABM	True/false. Default = False	This property determines if the extension service 'CreatePaymentRequestSEBLCLINReqABCSImplExtension' invocation at the extension point (enabled before the transformation) is to be made or not.
ABCSExtension.PreProcessEBM	True/false. Default = False	This property determines if the extension service 'CreatePaymentRequestSEBLCLINReqABCSImplExtension' invocation at the extension point (enabled before the invocation of the EBS) is to be made or not.

Settings for the CreatePayableInvoiceResponseSEBLCLINProvABCSImpl service:

Property Name	Value/Default Values	Description
Default.SystemID	SEBLCLIN_01	It is the responsibility of the application to send the SystemID from which the request is being sent. If any requestor application fails to send this, AIA will pick the default SystemID from this config property.
Routing. UpdatePaymentRequestWSPortType. SEBLCLIN_01.EndpointURL	\${participatingapplications.siebel.server.InternetProtocol}\${participatingapplications.siebel.server.host}:\${participatingapplications.siebel.server.port}/eai_\${participatingapplications.siebel.server.Language}/start.swe?SWEExtSource=SecureWebService&SWEExtCmd=Execute&WSSOAP=1	URL for Siebel Instance Web service for "SWI_spcLS_spcClinical_spcPayments_spcInbound WebService"
Routing. UpdatePaymentRequestWSPortType.RouteToCAVS	True/false. Default = False	Controls whether CreatePayableInvoiceResponseSEBLCLINProvABCSImpl should route messages to the CAVS or to the Siebel Clinical system.
Routing. UpdatePaymentRequestWSPortType.CAVS.EndpointURI	http://<hostname:port>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL
ABCSExtension.PreProc	True/false. Default = False	This property determines if the extension

Property Name	Value/Default Values	Description
essEBM		service 'CreatePayableInvoiceResponseSEBLCLINProvABCSImplExtension' invocation at the extension point (enabled before the transformation) is to be made or not.
ABCSExtension.PreProcessABM	True/false. Default = False	This property determines if the extension service 'CreatePayableInvoiceResponseSEBLCLINProvABCSImplExtension' invocation at the extension point (enabled before the Siebel CTMS Inbound Webservice invocation) is to be made or not.

Settings for the ProcessDisbursedPaymentNotificationSEBLCLINProvABCSImpl service:

Property Name	Value/Default Values	Description
Default.SystemID	SEBLCLIN_01	It is the responsibility of the application to send the SystemID from which the request is being sent. If any requestor application fails to send this, AIA will pick the default SystemID from this config property.
Routing. UpdatePaymentRequest WSPortType. SEBLCLIN_01.Endpoint URL	\${participatingapplications.siebel.server.InternetProtocol}\${participatingapplications.siebel.server.host}:\${participatingapplications.siebel.server.port}/eai_\${participatingapplications.siebel.server.Language}/start.swe?SWEExtSource=SecureWebService&SWEExtCmd=Execute&WSSOAP=1	URL for Siebel Instance Web service for "SiebelCTMSPaymentsInboundWebservice"
Routing. UpdatePaymentRequest WSPortType.Route ToCAVS	True/false. Default = False	Controls whether ProcessDisbursedPaymentNotificationSEBLCLINProvABCSImpl should route messages to the CAVS or to the Siebel Clinical system.
Routing. UpdatePaymentRequest WSPortType.CAVS.EndpointURI	http://<hostname:port>/AIAValidationSystemServlet/syncresponsesimulator	CAVS Endpoint URL
ABCSExtension.PreProcessEBM	True/false. Default = False	This property determines if the extension service 'ProcessDisbursedPaymentNotificationSEBLCLINProvABCSImplExtension' invocation at the extension point (enabled before the transformation) is to be made or not.
ABCSExtension.PreProcessABM	True/false. Default = False	This property determines if the extension service 'ProcessDisbursedPaymentNotificationSEBLCLINProvABCSImplExtension' invocation at



Property Name	Value/Default Values	Description
		the extension point (enabled before the invocation of the Siebel CTMS Inbound Webservice) is to be made or not.

Settings for the ProcessPayableInvoiceNotificationSEBLCLINProvABCSImpl service:

Property Name	Value/Default Values	Description
Default.SystemID	SEBLCLIN_01	It is the responsibility of the application to send the SystemID from which the request is being sent. If any requestor application fails to send this, AIA will pick the default SystemID from this config property.
Routing. UpdatePaymentRequest WSPortType. SEBLCLIN_01.Endpoint URL	<code>\${participatingapplications.siebel.server.InternetProtocol}\${participatingapplications.siebel.server.host}:\${participatingapplications.siebel.server.port}/eai_\${participatingapplications.siebel.server.Language}/start.swe?SWEExtSource=SecureWebService&amp;SWEExtCmd=Execute&amp;WSSOAP=1</code>	URL for Siebel Instance Web service for "SWI_spcLS_spcClinical_spcPayments_spcInbound WebService"
Routing. UpdatePaymentRequest WSPortType.Route ToCAVS	True/false. Default = False	Controls whether ProcessPayableInvoiceNotificationSEBLCLINProvABCSImpl should route messages to the CAVS or to the Siebel Clinical system.
Routing. UpdatePaymentRequest WSPortType.CAVS.Endpoint URL	<code>http://&lt;hostname:port&gt;/AIAValidationSystemServlet/syncresponsesimulator</code>	CAVS Endpoint URL
ABCSExtension.PreProcessEBM	True/false. Default = False	This property determines if the extension service 'ProcessPayableInvoiceNotificationSEBLCLINProvABCSImplExtension' invocation at the extension point (enabled before the transformation) is to be made or not.
ABCSExtension.PreProcessABM	True/false. Default = False	This property determines if the extension service 'ProcessPayableInvoiceNotificationSEBLCLINProvABCSImplExtension' invocation at the extension point (enabled before the invocation of the Siebel CTMS Inbound Webservice) is to be made or not.

## Identifying Cross-References

Cross-references map and connect the records within the application network, and they enable these applications to communicate in the same language. The integration server stores the relationship in a persistent way so that others can refer to it.

This table lists the cross-references:

Cross-Reference Table Name	Column Names: Column Values		Description
PAYABLEINVOICE_PAYABLEINVOICEID	COMMON	SEBLCLIN_01	This XREF can be used to link the payment request in Siebel Clinical with the invoice in the financial system.
	system generated GUID	Payment Request ID	
PAYABLEINVOICE_PAYABLEINVOICELINEID	COMMON	SEBLCLIN_01	This XREF can be used to link the visits/activities in the payment request in Siebel Clinical with lines on the invoice in the financial system if needed.
	system generated GUID	Activity UID	

**For more information** about cross-references, see *Oracle Fusion Middleware Developer's Guide for Oracle SOA Suite*, "Working with Cross References."

## Working with Domain Value Maps

Domain value maps (DVMs) are a standard feature of the Oracle SOA Suite and enable you to equate lookup codes and other static values across applications. For example, "FOOT" and "FT" or "US" and "USA."

DVMs are static in nature, though administrators can add additional and/or update maps as needed. Transactional business processes never update DVMs—they only read from them.

DVM types are seeded for the flows, and administrators can extend the list of mapped values by adding more maps. The DVM data should be synchronized with what the participating applications use.

These are the seeded DVMs:

Sr. No.	Name	Description	Columns	SEBLCLIN_01 Mapping Details	COMMON Mapping Details
1	PAYABLE INVOICE_ PAYABLE INVOICE TYPE	Payment Request Type	SEBLCLIN_01, COMMON	Type	CreatePayableInvoice EBM/DataArea/Create PayableInvoice/TypeCode
2	CURRENCY_ CY_COD	Currency Code	SEBLCLIN_01, COMMON	AmountCurrencyCode	CreatePayableInvoice EBM/DataArea/Create

Sr. No.	Name	Description	Columns	SEBLCLIN_01 Mapping Details	COMMON Mapping Details
	E				PayableInvoice/CurrencyExchange/SourceCurrencyCode
3	Same DVM details as given in row number 2	Same DVM details as given in row number 2	Same DVM details as given in row number 2	Same DVM details as given in row number 2	ProcessDisbursedPaymentNotificationEBM/DataArea/ProcessDisbursedPaymentNotification/ClearedAmount/@currencyCode
4	PAYABLE INVOICE_ PAYABLE INVOICEL INETYPE	Payment Request Line Type	SEBLCLIN_01, COMMON	Type	CreatePayableInvoiceEBM/DataArea/CreatePayableInvoice/PayableInvoiceLine/TypeCode
5	PAYABLE INVOICE_ INVOICE STATUS	Payment Request Status	SEBLCLIN_01, COMMON	Status	CreatePayableInvoiceEBM/DataArea/CreatePayableInvoice/Status/Code
6	Same DVM details as given in row number 5	Same DVM details as given in row number 5	Same DVM details as given in row number 5	Same DVM details as given in row number 5	CreatePayableInvoiceResponseEBM/DataArea/CreatePayableInvoiceResponse/Status/Code
7	Same DVM details as given in row number 5	Same DVM details as given in row number 5	Same DVM details as given in row number 5	Same DVM details as given in row number 5	ProcessPayableInvoiceNotificationEBM/DataArea/ProcessPayableInvoiceNotification/Status/Code
8	Same DVM details as given in row number 5	Same DVM details as given in row number 5	Same DVM details as given in row number 5	Same DVM details as given in row number 5	ProcessDisbursedPaymentNotificationEBM/DataArea/ProcessDisbursedPaymentNotification/Status/Code

**For more information** about working with DVMs, see *Oracle Fusion Middleware Developer's Guide for Oracle SOA Suite 11g Release 1*, "Working with Domain Value Maps" and "Using Oracle SOA Composer with Domain Value Maps".

## Handling Errors

Based on the roles defined for the services, email notifications are sent if a service errors out.

This table lists the errors that are thrown by the Oracle Clinical Trial Payments Integration Pack for Siebel Clinical services:

Sr. No.	Message Text
1	The Invoice Status provided PAYABLEINVOICE_INVOICESTATUS DVM is not valid. Please enter the correct status and resubmit the transaction.
2	The Currency Code provided CURRENCY_CODE DVM is not valid. Please enter the correct status and resubmit the transaction.

**For more information** about AIA error handling, see the *Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1*, "Setting Up and Using Error Handling and Logging."

## Viewing Enterprise Business Object Implementation Maps (EIMs)

**For more information** about how services are mapped, see the My Oracle Support document: EBO Implementation Maps (EIMs) 881022.1.

# Index

CreatePayableInvoiceEBM, 14  
CreatePayableInvoiceResponseEBM, 15  
CreatePayableInvoiceResponseSEBLCLINP  
 , 15  
CreatePaymentRequestSEBLCLINReqABC  
 SImpl, 14, 19  
DisbursedPaymentEBO, 11  
HealthSciencesCreatePayableInvoiceEBS,  
 20  
HealthSciencesCreatePayableInvoiceRespo  
 nseEBS, 20  
HealthSciencesDisbursedPaymentEBS, 18  
HealthSciencesPayableInvoiceEBS, 14, 16  
HealthSciencesPayableInvoiceResponseEB  
 S, 15  
HealthSciencesProcessDisbursedPaymentN  
 otificationEBS, 20  
PayableInvoiceEBO, 11  
ProcessDisbursedPaymentNotificationEBM,  
 18  
ProcessDisbursedPaymentNotificationSEBL  
 CLINProvABCSImpl, 18, 20  
ProcessPayableInvoiceNotificationEBM, 16  
ProcessPayableInvoiceNotificationSEBLCLI  
 NProvABCSImpl, 16  
ProcessPayableInvoiceNotificationSEBLCLI  
 NProvABCSImpl, 20  
SEBLCLINPayableInvoiceJMSSCons, 14