

Integration strategies for Siebel CTMS:

Examining integration between CTMS and ERP, CTMS and OC/RDC



Alex Platkin, Jason Essig, Ahila Selvaraj
DBMS Consulting

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Acknowledgements

- ❑ Thanks to OCUG for this opportunity to present for the CTMS focus group
- ❑ Thanks to the OCUG Planning and Review Committee and Siebel Clinical CTMS Focus Group Chairs for their patience in receiving and reviewing this presentation



The Business Case (1)

- ❑ Users being able to **easily** program their own procedures was a major sales argument for Oracle Clinical
- ❑ Siebel Clinical allows significant customization, and leverages a significant developer community—again, a major lever



The Business Case (2)

- This is the era where every program talks to everybody else
- Imagine the power of being able to leverage data from Oracle Clinical into **signals** for Study Managers, to be displayed in Siebel Clinical CTMS



The Business Case (3)

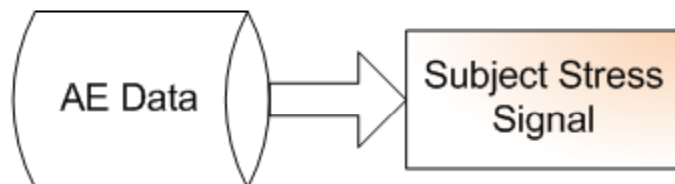
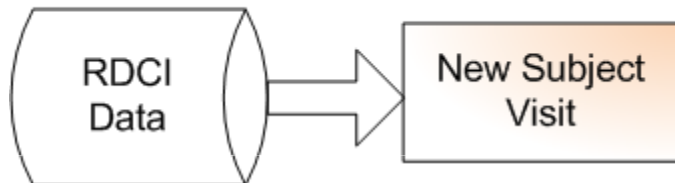
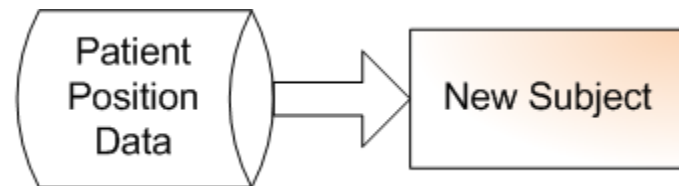
- ❑ All Siebel systems implement business processes that eventually translate into money
- ❑ (Yeah, so does Oracle Clinical, but not as explicitly...)
- ❑ Interface to Oracle ERP, SAP, or equivalent, can imply live reconciliation of expense reports, site payments...



The Business Case (4)

- ❑ Imagine the operational impact of being able to define business rules in one system, and have the result immediately written in the other system...
- ❑ And having all that power from the user seat, not having to develop custom code each time

OC to Siebel Clinical Example



AE | Menu ▾ | Query **Query Results** 1 - 3 of 3

Event	Patient	Subject Initials	Site	Visit Name
> LOWER BACK PAIN	40301	GGG	403	VISIT1
COLD	40302	HHH	403	VISIT1
BACKACHE	40303	III	403	VISIT1

Each rule incorporates a specific trigger

Siebel Clinical to Oracle ERP Example

Invoicing happens upon accrual of revenue and is triggered by milestone achievement or monthly/quarterly, per contract

Invoices

1-1520527

Menu ▾ | Refresh Total | Cancel | Query

Invoice #: 1-1520527	Status: Approved ▾	Bill To Account: A1 Pvt Ltd	Days Open: 0	Late: <input type="checkbox"/>
Invoice Date: 4/22/2009 12:00:00 A	Revision:	Invoice Amount: Rs.3,500.00	Description: For Payable Inv to A1 for Q1	
Due Date:	Period:	Payments: Rs.0.00		
Type: Payable ▾	Code: Standard ▾	Total Due: Rs.3,500.00		

More Info | Attachments | Contacts | Line Item Details | **Line Items** | Notes | Payments | Signature

Menu ▾ | New | Delete | Query

Line	Type	Units Billable	Amount	Protocol #	Site	Task Id	Activity Id	Project Code	Department Code	Invoice Status
> 1	Expense	1	Rs.1,000.00	Psoriasis	Psoriasis Site			024	601	Approved
2	Fees	2	Rs.2,500.00	Psoriasis	Psoriasis Site			024	601	Approved



Siebel Clinical to Oracle ERP Example

Division: Protocol #: Class:

Cost

Total Accrued Amount: Total Billed Amount: Total WIP Amount:

Final Cost: Total Budgeted Cost:

Access | Activities | Revenue | Agreements | Attachments | Calendar | Contacts | Financial Profile | **Invoices** | Site Payments | Orders | Organization Analysis

Menu ▾ | New Query

Invoice #	Sub-Contract	Start Period End	Status	Type	Invoice Amount	Invoice Date	Organization Site	Protocol #
> 1-1520527			Approved	Payable	Rs.3,500.00	4/22/2009	INTERNAL	APsoriasis
1-1531609			Approved	Payable	Rs.50,000.00	4/22/2009	INTERNAL	APsoriasis
1-1531615			Approved	Receivable	Rs.150,000.00	4/22/2009	INTERNAL	APsoriasis
1-1531808			Approved	Receivable	Rs.85,000.00	4/22/2009	INTERNAL	APsoriasis

Console for exporting...

Jobs | Menu ▾ | New Delete Query Submit Job Cancel Job Hold Job Resume Job Query Results

State (Icon)	ID	Component/Job	Repeating?	Requested Serve Execution Server Request
>	1-WV8Z	ERP AP Export		
	1-TYOM	ERP AP Export		CTMS051
	1-TYHB	ERP AP Export		CTMS051
	1-THFA	ERP AP Export		CTMS051
	1-T6U2	ERP AP Export		CTMS051
	1-RN3N	ERP AP Child Export	✓	
	1-RN3A	ERP AP Export	✓	

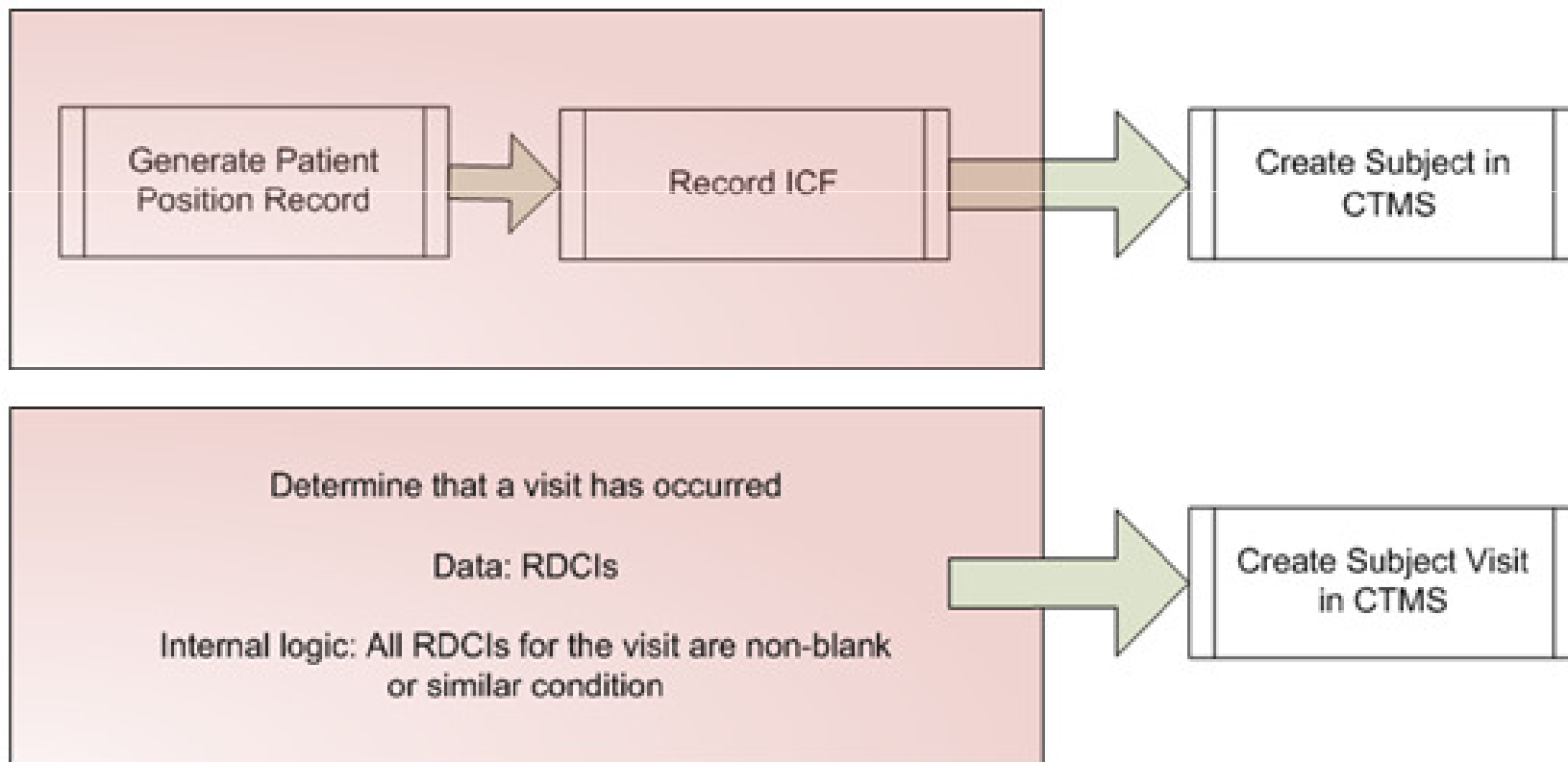


Service Oriented Architecture

- How do we get close to “Web Services”?
- First, we wrap all data in generic containers (note to self: say something about XML)
- “Services” play with data and pass it on, knowing very little about one another (note to self: say something about assembly line cells)



Abstracting Away the Process





Market Alternatives

- Oracle Corporation AIA
 - Leverage existing standards (such as BPEL)
 - Use Oracle Fusion middleware
 - Allow “DIY” solutions or pre-built “PIP”s
- Cordys
 - Slightly different technology stack



AIA View of CTMS to E-Business Suite



EBS ensures data is understood by each side

BPEL "orchestrates" the different parts of the business process



Prerequisites

- Oracle DB 10g 10.2.0.3
- Oc4J 10.1.3.1.4
- Oracle SOA Suite version 10.1.3.1.4
- Oracle Service Registry
- JDK 1.5 with upgrade version 16
- AIA Foundation Pack



Application Server Console

The screenshot displays the Oracle Enterprise Manager 10g Application Server Control interface. The main section is titled "Cluster Topology" and shows an overview of the cluster configuration for the host `ask.sif-c17d31d505f`. The overview indicates 1 Host, 1 Application Server, 2 OC4J Instances, and 1 HTTP Server Instance. The "Members" section lists the application servers and their status, with a table showing details for each.

Select Name	Status	Type	Category	Host	CPU (%)	Memory (MB)
<input type="checkbox"/> All Application Servers						
<input type="checkbox"/> ask.sif-c17d31d505f		Application Server		sif-c17d31d505f		
<input type="checkbox"/> home (JVMs: 1)	↑	OC4J			1.11	122.48
<input type="checkbox"/> HTTP_Server	↑	Oracle HTTP Server			0.03	64.67
<input type="checkbox"/> oc4j_soa (JVMs: 1)	↑	OC4J			0.91	326.00

Below the table, there is a "Groups" section showing a "default_group" containing two OC4J instances: "home" and "oc4j_soa", both with status "↑".



SOA Instance(oc4j_soa)

Oracle Enterprise Manager (oc4jadmin) - Cluster Topology - Microsoft Internet Explorer

Address: http://sif-c17d31d505f/em/console/ias/cluster/topology

Component	Status	Type	Version	Uptime	Memory
HTTP_Server	↑	Oracle HTTP Server		0.03	64.67
oc4j_soa (JVMs: 1)	↑	OC4J		0.91	326.00
AIAApplication	↑	Application			
ascontrol	↓	Application			
ccore	↑	Application	WSM		
coreman	↑	Application	WSM		
datatags	↑	Application	Service		
default	↑	Application			
deploy_service	↑	Application	BPEL		
esb-dt	↑	Application	ESB		
esb-rt	↑	Application	ESB		
gateway	↑	Application	WSM		
hw_services	↑	Application	BPEL		
javasso	↑	Application	Service		
orabpel	↑	Application	BPEL		
orainfra	↑	Application	Service		
policymanager	↑	Application	WSM		
registry	↑	Application			
ruleauthor	↑	Application	Rules		
rulehelp	↑	Application	Rules		

Start Stop Restart

Indicates the active ASControl instance.

TIP If a parent topology member is selected all contained members are implicitly selected.

Groups
A group is a collection of OC4J instances. Certain common management tasks can be performed simultaneously on all OC4J instances in a group. For more information, see [About Groups](#)

Start Stop Delete Create

Select	Name	OC4J Instance	Status	Application Server
<input type="checkbox"/>	default	hms	↑	ias-c17d31d505f

SOA Suite 10.1.3.4

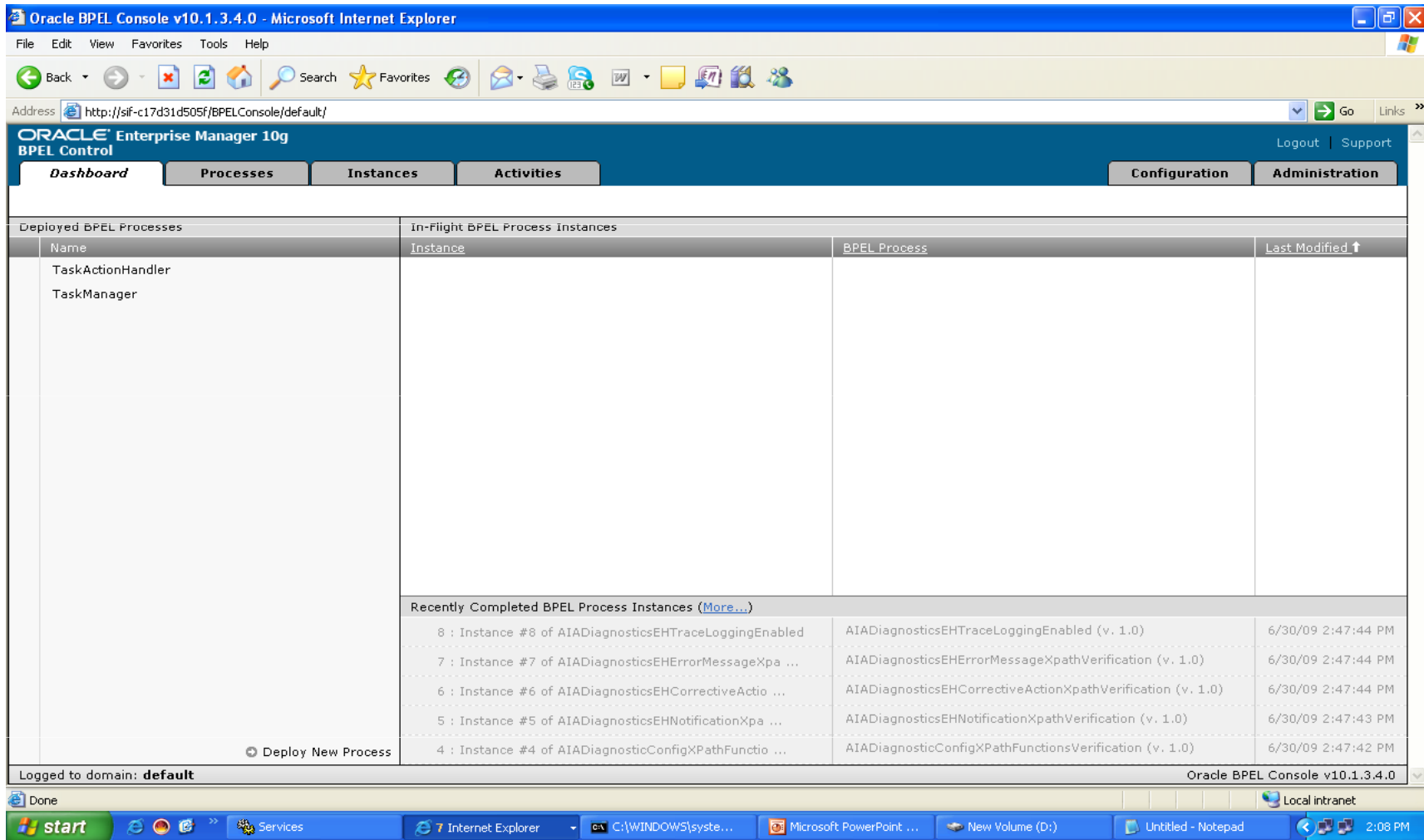


The screenshot shows the Oracle SOA Suite 10.1.3.4.0 Welcome page. The browser window title is "Oracle Application Server 10g Release 3 (10.1.3.1.0) - Welcome - Microsoft Internet Explorer". The address bar shows "http://sif-c17d31d505f/". The page content includes:

- Welcome to Oracle SOA Suite (10.1.3.4.0)**
- Overview**: Oracle SOA Suite is a complete set of service infrastructure components for creating, deploying, and managing Service Oriented Architectures. Oracle SOA Suite enables services to be created, managed, and orchestrated into composite applications and business processes.
- Oracle SOA Suite consists of:**
 - Oracle BPEL Process Manager
 - Oracle Enterprise Service Bus (ESB)
 - Oracle Web Services Manager (OWSM)
 - Oracle Business Rules
 - Oracle Application Server Service Registry
 - Oracle JDeveloper
 - Oracle Application Server
- Manage Your SOA Suite**: Access management tools of Oracle SOA Suite
 - [BPEL Control](#)
 - [ESB Control](#)
 - [Web Services Manager Control](#)
 - [Application Server Control](#)
 - [Rules Author](#)
- Learn About SOA**: Learn Oracle SOA Suite fundamentals by reading these technical guides
 - [Oracle SOA Quick Start](#)
 - [Oracle BPEL Process Manager Quick Start Guide](#)
 - [Oracle ESB Quick Start Guide](#)
 - [OWSM User and Administrator Guide](#)
 - [Oracle Business Rules User's Guide](#)
- Build Sample SOA Applications**: Try building your first SOA Application by running a quickstart tutorial
 - [Oracle SOA Quickstart Tutorial](#)
 - [BPEL Quickstart Tutorial](#)
 - [ESB Quickstart Tutorial](#)
 - [ADF Quickstart Tutorial](#)
 - [WSM Quickstart Tutorial](#)
- Plan, Develop, and Deploy Your SOA Applications**: Get a technical background by reading documentation about Oracle SOA Suite
 - [SOA Developer's Guide](#)
 - [BPEL Developer's Guide](#)
 - [ESB Developer's Guide](#)
 - [OWSM Deployment Guide](#)
- Additional Resources on the Oracle Technology Network**: Learn more about the underlying technologies of Oracle SOA Suite
 - [Release Notes](#)
 - [SOA Documentation Library](#)
 - [Service Oriented Architecture \(SOA\)](#)
 - [BPEL](#)



BPEL Console



Oracle BPEL Console v10.1.3.4.0 - Microsoft Internet Explorer

Address: <http://sif-c17d31d505f/BPELConsole/default/>

ORACLE Enterprise Manager 10g
BPEL Control

Dashboard Processes Instances Activities Configuration Administration

Deployed BPEL Processes

Name
TaskActionHandler
TaskManager

In-Flight BPEL Process Instances

Instance	BPEL_Process	Last Modified ↑

Recently Completed BPEL Process Instances ([More...](#))

8 : Instance #8 of AIADiagnosticsEHTraceLoggingEnabled	AIADiagnosticsEHTraceLoggingEnabled (v. 1.0)	6/30/09 2:47:44 PM
7 : Instance #7 of AIADiagnosticsEHErrorMessageXpa ...	AIADiagnosticsEHErrorMessageXpathVerification (v. 1.0)	6/30/09 2:47:44 PM
6 : Instance #6 of AIADiagnosticsEHCorrectiveActio ...	AIADiagnosticsEHCorrectiveActionXpathVerification (v. 1.0)	6/30/09 2:47:44 PM
5 : Instance #5 of AIADiagnosticsEHNotificationXpa ...	AIADiagnosticsEHNotificationXpathVerification (v. 1.0)	6/30/09 2:47:43 PM
4 : Instance #4 of AIADiagnosticConfigXPathFuncio ...	AIADiagnosticConfigXPathFunctionsVerification (v. 1.0)	6/30/09 2:47:42 PM

Deploy New Process

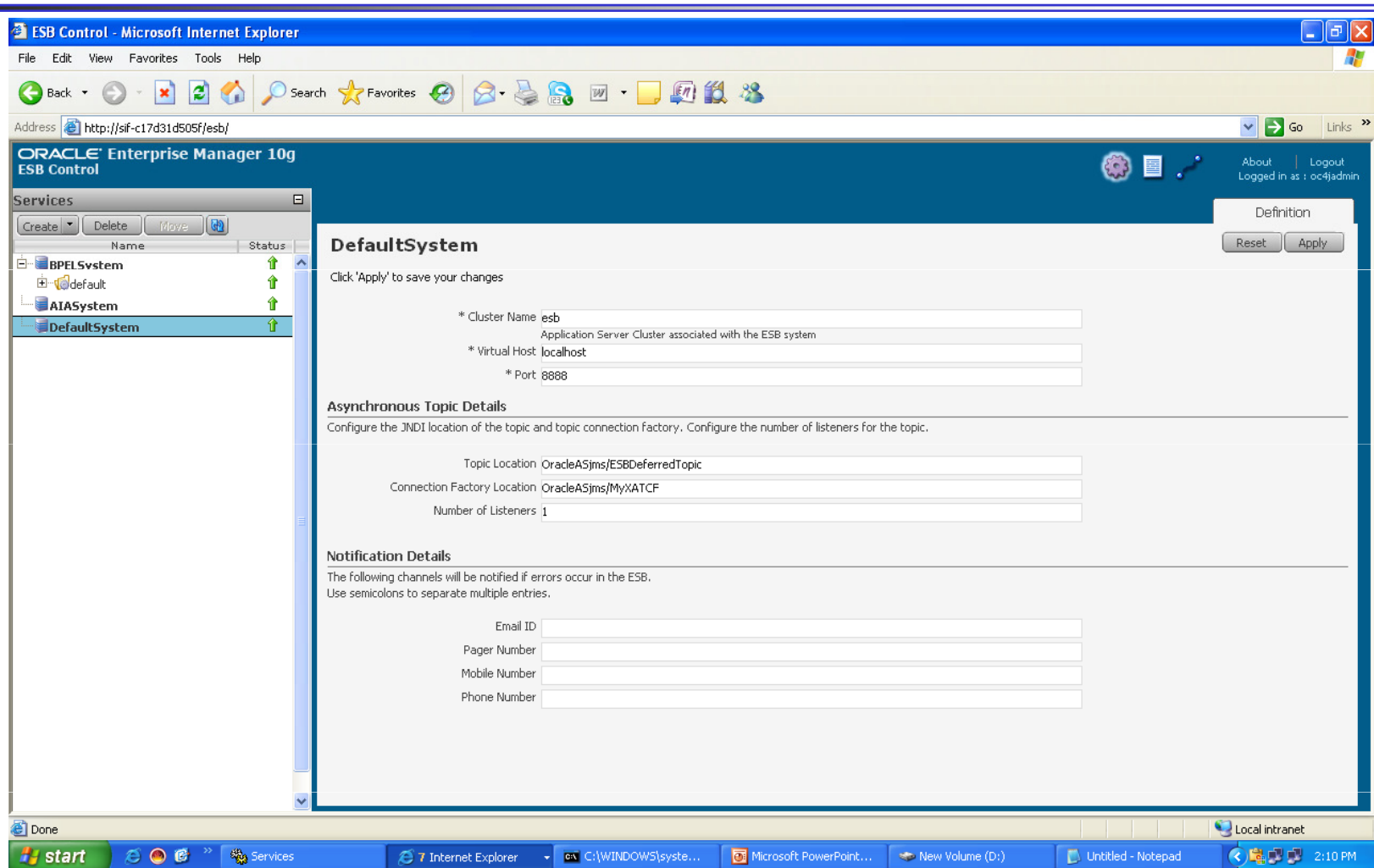
Logged to domain: default

Oracle BPEL Console v10.1.3.4.0

Done

start Services Internet Explorer C:\WINDOWS\sys... Microsoft PowerPoint ... New Volume (D:) Untitled - Notepad Local intranet 2:08 PM

ESB Console



ESB Control - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://sif-c17d31d505f/esb/

ORACLE Enterprise Manager 10g
ESB Control

Services

Name	Status
BPELSystem	↑
default	↑
AIASystem	↑
DefaultSystem	↑

DefaultSystem

Click 'Apply' to save your changes

* Cluster Name
Application Server Cluster associated with the ESB system

* Virtual Host

* Port

Asynchronous Topic Details

Configure the JNDI location of the topic and topic connection factory. Configure the number of listeners for the topic.

Topic Location

Connection Factory Location

Number of Listeners

Notification Details

The following channels will be notified if errors occur in the ESB.
Use semicolons to separate multiple entries.

Email ID

Pager Number

Mobile Number

Phone Number

Definition
Reset Apply

Done

start Services Internet Explorer C:\WINDOWS\system... Microsoft PowerPoint... New Volume (D:) Untitled - Notepad 2:10 PM

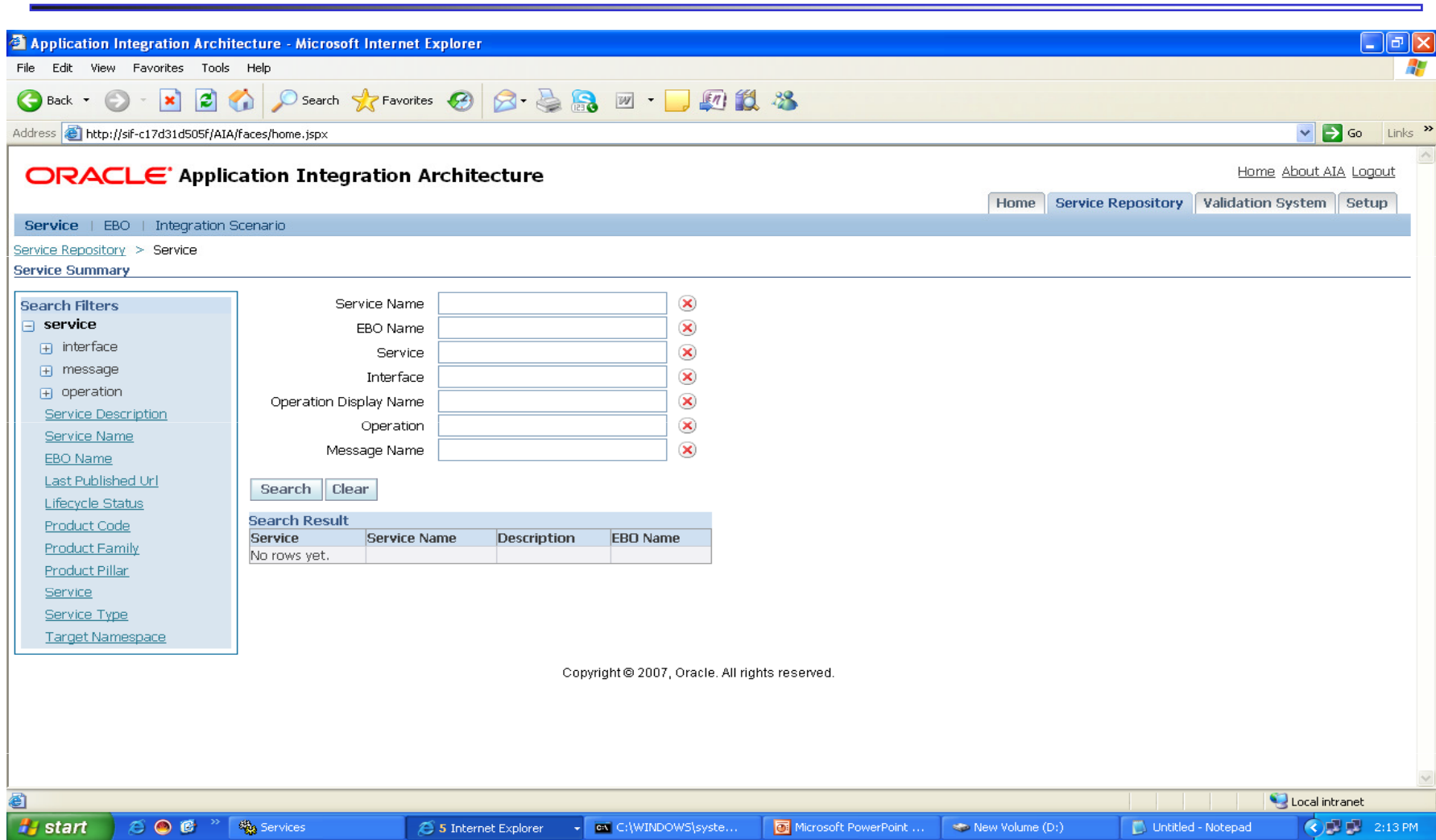


OSR Console





AIA Console



Application Integration Architecture - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://sif-c17d31d505f/AIA/faces/home.jspx> Go Links

ORACLE Application Integration Architecture [Home](#) [About AIA](#) [Logout](#)

[Home](#) [Service Repository](#) [Validation System](#) [Setup](#)

Service | [EBO](#) | [Integration Scenario](#)

[Service Repository](#) > [Service](#)

Service Summary

Search Filters

- service**
 - interface
 - message
 - operation
- [Service Description](#)
- [Service Name](#)
- [EBO Name](#)
- [Last Published Url](#)
- [Lifecycle Status](#)
- [Product Code](#)
- [Product Family](#)
- [Product Pillar](#)
- [Service](#)
- [Service Type](#)
- [Target Namespace](#)

Service Name

EBO Name

Service

Interface

Operation Display Name

Operation

Message Name

Search Result

Service	Service Name	Description	EBO Name
No rows yet.			

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Local intranet

start Services Internet Explorer C:\WINDOWS\system... Microsoft PowerPoint ... New Volume (D:) Untitled - Notepad 2:13 PM



Question and Answers

- ⇒ Alex Platkin
aplatkin@clinicalserver.com
+1-416-225-8115

- ⇒ Jason Essig
jessig@clinicalserver.com
+1-917-846-7683

- ⇒ Ahila Selvaraj
aselveraj@clinicalserver.com
+1-732-372-9976



Biography

Alex Platkin, Senior OLS/RDC/CTMS Global Deployment Specialist, DBMS Consulting, Inc.

- Alex is a Senior OLS/RDC/CTMS Global Deployment Specialist DBMS Consulting, with several years of Siebel business analysis and deployment experience.

Jason Essig, Senior Siebel Architect Expert, DBMS Consulting, Inc.

- Jason is a Senior Siebel Architect Expert for DBMS Consulting, with 10+ years of Siebel configuration and architecture experience.

Ahila Selvaraj, Senior OHS Developer, DBMS Consulting, Inc.

- Ahila is a Senior OHS Developer for DBMS Consulting, specializing in integration of OC to other OHS systems, with over 10 years of PL/SQL experience.