OIM Connector For Webservices

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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remain at the sole discretion of Oracle.
Agenda

• Business Drivers

• Architecture and Design

• Connector’s Features

• Assets and Roadmap

• Q and A
Business Drivers

- Need for Cloud Connectors
  - Salesforce.com, Workday, Amazon WS, Box.net etc.

- Vertical Specific Integration
  - Healthcare integrations using HL7
  - Telco standards

- Demand for Integrating with Custom In-house Webservice Targets

- Support for SPML Targets to replace GTC SPML
Webservice Connector

Architecture - SOA Suite Based Integration

- Loosely Coupled Integration between OIM and SOA – Webservice Based
- Support for Remote SOA
- SOA version is not important
Webservice Connector
Architecture - Advantages of SOA

• SOA Suite based Integration approach can let customer also use the following features
  • WS-Security
  • WS-Reliable Messaging
  • Mediator (filter, transform, validate)
  • Rich Function library (BPEL)
  • Non-coding Customizations (Business rules)
  • Infrastructure (Notification)

• Governance
  • SOA Governance
  • EM Based Diagnostics
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Architecture - Advantages of SOA

- No need for customers to buy any additional SOA License for this connector

- Framework can be later extended to also consume [Most of them make sense for Remote SOA]
  - Leverage Integration to Apps to which we have SOA Adapters (JMS, Socket)
  - OSB
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Low Level Design

- Support for all ICF Contracts
- Support for Any Schema
- Use of Mediator (filter, transform, validate)
- Use of Rich BPEL Function library

- Support for WS Security
- Special Password Handling
- Support for Custom Headers
- Support for Error Handling
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Low Level Design

SOA Composite

create/update/search Op
Assign/Transform
Invoke
Receive

Exposed Services

WS Connector Bundle
WS Connector Client

OIM

WS Security
WSDL

ICF

Input Variable
Output Variable

WS End Point for SOA
WS Security
WSDL

Target

BPEL Process

Security
- SSL
- WS Security / CSF Key
- Password Encryption

Security
- SSL
- WS Security / CSF Key
- Custom Header
- Run Time Password Decryption
Webservice Connector
Configuration Steps

1. Start
2. Download Connector
3. Build Connector – OIM Metadata – Skeleton Composite
4. Understand Target – Get Target Details
5. Build Composite
6. Deploy and Test
7. Test End to End Process
8. Install Connector
9. Configure and Extend
10. OIM
11. Done
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Build Connector

• Download from OTN
• Generate the Connector
  • OIM Metadata
  • Connector Bundle
  • Skeleton Composite
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Understand OIM Payload and Target Services

• Understand OIM – SOA Integration
  • Operations Exposed
  • OIM XSD – Input/output Payload
  • OIM/SOA Security

• Define Target Services
  • Define Partner Links
  • Import WSDLs into Partner Link
  • Configure Target WSSecurity
Webservice Connector

Understand OIM Payload and Target Services

• Examine Target WSDL and Schema/XSD
  • URL and Ports
  • User Operational Interfaces and Input / Output Payload
  • Entitlements and Interfaces
  • Password Interfaces
  • Error Messages and Exception Throwing Mechanism

• Target Security Requirements
  • SSL
  • WS Security
  • Custom Header
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Deploy/Configure/Extend Connector in OIM

• Install Connector
• Configure IT Resource
  • Configure Target SOA
  • Configure OIM – SOA Security Layer
    • WS Security
    • SSL
• Extend Metadata
  • Custom Attributes
    • Provisioning Lookup, Recon Lookup, Process From, Process Definition
  • Custom Child From
    • Provisioning Lookup, Recon Lookup, Child From, Process Definition
  • Custom Lookups / Custom Schedule Tasks
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Configure Composite – Define Operations

Create User

• Go to Composite in Jdeveloper
• Open BPEL Process
• Open Create Branch and Add following activities
  • Assign Activity – Map OIM Input Payload to Target Input Payload
  • Invoke - Invoke Target Service
  • Assign Activity – Map Target Output Payload to OIM Output Payload
  • Reply – Response code UID
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Configure Composite – Define Operations

Update User

- Open Update Branch and Add following activities
  - Assign Activity – Map OIM Input Payload to Target Input Payload
    - Target Requires Complete User XML – We need to use choose condition to map each input attribute to map to appropriate target input attribute.
    - Target Requires Updated Attribute Name and Value
  - Invoke - Invoke Target Service
  - Assign Activity – Map Target Output Payload to OIM Output Payload
  - Reply – Response code UID
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Configure Composite – Define Operations

Enable/Disable User

- Status comes as part of Update Payload only.
- If Enable/Disable is treated as one of the attribute in target and it can be set via updateUser operation then no extra work needed.
- If Enable/Disable Operation is Configured as a separate Webservice than Update Webservice at target then do the following:
  - Open Update Branch and Add following activities
    - Switch
      - Using XPATH find out if the Update Operation comes with Status Attribute Change
    - Invoke - Invoke Target Service
    - Reply – Response code UID
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Configure Composite – Define Operations

Delete User

• Open DeleteOp Branch and Add following activities

  • **Assign Activity** – Map OIM Input Payload to Target Input Payload
  • **Invoke** - Invoke Target Service
  • **Reply** – Response code None
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Special Password Handling

- Fields that are sensitive will be encrypted by OIM and this encrypted value will be sent to the SOA composite.

- The “passcode” attribute in the IT Resource of the connector will be used as a key for encrypting the value

- In the composite, the custom OUTBOUND_POLICY which will handle password decryption will be attached to the target partner link

- The passcode, password fields and target namespaces will be specified in the composite which the policy will make use of to decrypt the password fields

- In runtime, the policy will decrypt the password field using the passcode and replace in the target SOAP payload before invoking the target Webservice operation

- Only the masked password will be shown in the EM and payloads.
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Configure Composite – Define Operations

Password Reset

- Define “passcode” attribute in OIM
- Import Custom Policy
- Deploy custom policy jar (GenericWS-oim-integration.jar)
- Configuring Custom Policy using Property Inspector Palate
- Open passwordReset Branch and Add following activities
  - Assign Activity - Map OIM Input Payload to Target Input Payload
  - Invoke - Invoke Target Service
  - Reply - Response code UID
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Configure Composite – Define Operations

Child From - Add

- Define OIM Metadata – Already Done
- Open UpdateAddAttributeValue Branch and Add following activities
  - Switch
    - Define Each Child From as a separate branch using Switch activity and XPatch condition Assign Activity
  - Invoke
  - Reply
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Configure Composite – Define Operations

Child From - Delete

- Define OIM Metadata – Already Done
- Open UpdateRemoveAttributeValue Branch and Add following activities
  - Switch
    - Define Each Child From as a separate branch using Switch activity and XPatch condition
  - Assign Activity - Map OIM Input Payload to Target Input Payload
  - Invoke - Invoke Target Service
  - Reply - Response code UID
Webservice Connector
Configure Composite – Define Operations

Lookup Search/ Lookup Recon

- Define OIM Metadata – Already Done
- Open lookupSearch Branch and Add following activities
  - Switch
    - Define Each Lookup Object as a separate branch using Switch activity and XPatch condition
  - Invoke - Invoke Target Service
  - Transform output into OIM Readable Format
  - Reply - Response List Of Name-Value Pairs
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Configure Composite – Define Operations

User Search/User Recon

- Open search Branch and Add following activities
  - Assign - Map OIM Input Payload to Target Input Payload
  - Invoke - Invoke Target Service
  - Transform output into OIM Readable Format
    - Map Output data into OIM Schema
  - Reply - Response List Of Users
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Configure Composite – Error Handling

**Scenario 1:** Target service catches exception at its end and returns errors back to Composite

At Composite Level –
- Map Target Error Code to OOB Exception
- Throw it back to OIM

**Scenario 2:** Target service does not catch exception at its end and throws exceptions back to Composite

At Composite Level –
- Catch Exception
- Map Target Error Code to OOB Exception
- Throw it back to OIM
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Deploy and Test

• Deploy and Test Composite via EM
• Test End to End Operations from OIM
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Assets and Roadmap

• Current Assets
  • 3 Viewlets on OLL
  • 2 Labs on OTN

• Planned Assets
  • Sample Solution Toolkit
    • CRM OD
    • OW SPML
    • OpenSPML

• Future Updates
  • Support for Async Service
  • Support for REST
  • Support for Multiple Attributes in Child Form
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FAQs

- **Dedicated Connector for Salesforce.com**
  - Logistical challenges. We are evaluating partner options. But you can build it using Webservice Connector.

- **Dedicated Connector for Workday**
  - No Plans to build it for now.

- **Support for Async Targets**
  - Not supported in the current releases

- **Support for REST Based Targets**
  - SOA does not support REST in 11g

- **Clarification around Local SOA vs. Remote SOA**
  - Both are supported

- **Clarification around using SOA Adapters - OSB, JMS Integration**
  - SOA Adapters can be used in Remote SOA. OIM SOA has limited usage license

- **GTC SPML vs. WS Connector**
  - Use WS Connector moving forward instead of GTC SPML
  - No Upgrade support from GTC SPML to WS Connector
**Webservice Connector**

**Important URLs**

- **OTN Download Page**
  

- **Connector Documentation Page**
  
  http://docs.oracle.com/cd/E22999_01/index.htm

- **Assets Page**
  
  http://www.oracle.com/technetwork/middleware/id-mgmt/overview/extending-webservice-connector-1936919.zip

- **Viewlets URL**
  


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Important URLs

- SOA Doc URL
  http://fmwdocs.us.oracle.com/doclibs/fmw/E10285_01/dev.1111/e10224/toc.htm
- SOA Samples Page
  http://java.net/projects/oraclesoasuite11g/pages/Home
- Webcast Recording
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