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JDE Orchestrator Case Study

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JDE Orchestrator

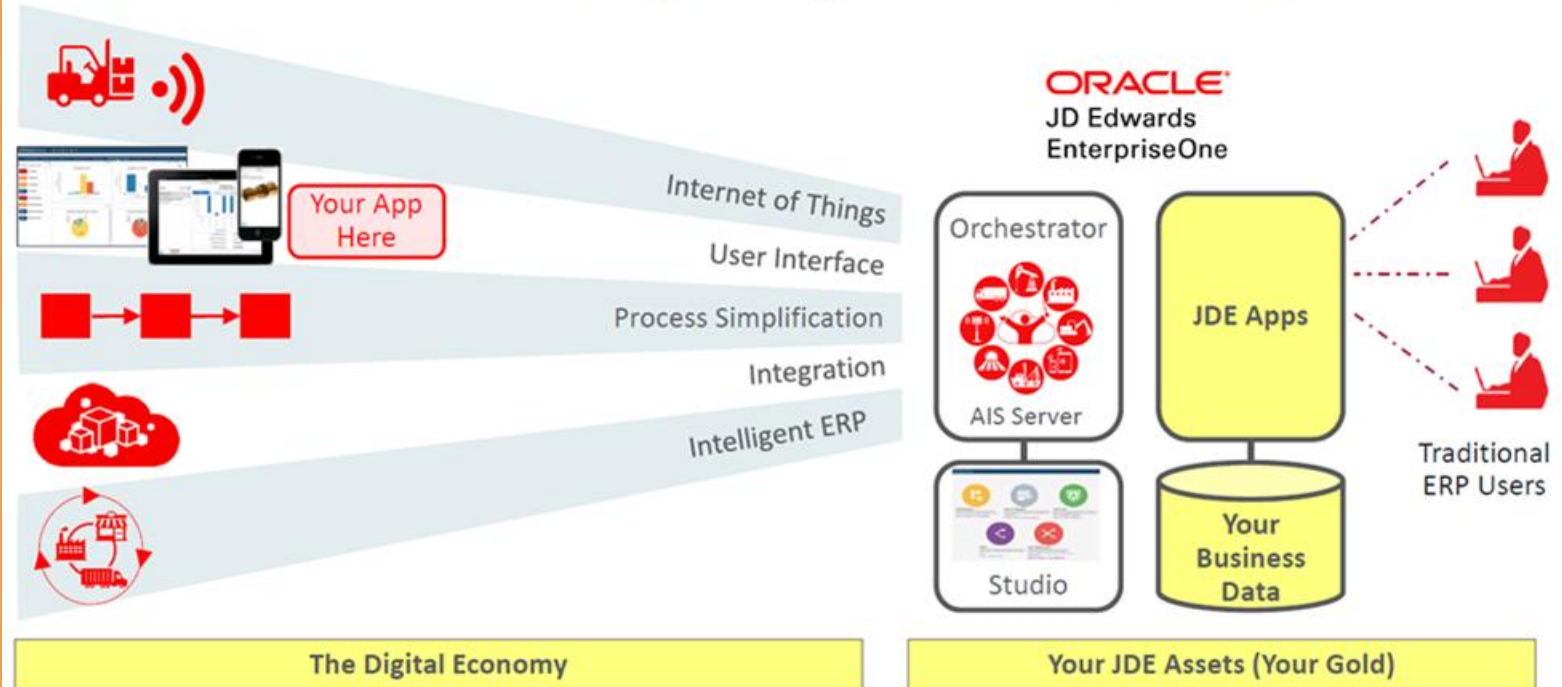**Top 4 Key Ways Orchestrator enhances your JDE environment:**

- Harness the Internet of Things
  - The Orchestrator enables IoT-enabled devices and machines to become users of the EnterpriseOne applications. As they feed data to the orchestrations, your JD Edwards system stays up-to-date and accurate without human intervention.
- Harness the Digital Economy
  - The Orchestrator also integrates with external systems and Cloud services, allowing your EnterpriseOne system to send and receive data for integrated business processes.
- Simplified Orchestration Development
  - The Orchestrator Studio enables a business analyst—someone who keenly understands both the field operations and the JD Edwards EnterpriseOne applications—to create, test, and deploy orchestrations. Analysts can even capture the key processes just by recording the steps while using the EnterpriseOne applications.
- Less Human Involvement
  - Orchestrating your key business processes opens the door for extreme automation, integration with external systems and devices, less repetitive, mundane work for human users, fewer errors, lower costs, and better business data. It increases the value of your entire investment in JD Edwards, leading to optimized operations, clearer analytics, and better regulatory compliance.

JDE Orchestrator Overview

Orchestrator Architecture:

- AIS Server
- Orchestrator Studio
- Oracle WebLogic Server w/ADF runtime
- Oracle WebLogic Server instance (for AIS)
- E1 Tools release of 9.2.3 or greater

Orchestrator – A Gateway to Digital Transformation

Internet of Things
User Interface
Process Simplification
Integration
Intelligent ERP

The Digital Economy

ORACLE
JD Edwards
EnterpriseOne

Orchestrator

AIS Server

Studio

JDE Apps

Your Business Data

Traditional ERP Users

Your JDE Assets (Your Gold)

Orchestrator Introduction

JD Edwards Orchestrations are a series of defined steps taken in order to automate a business process.

They provide a RESTful JSON web API that can be used by IoT (Internet of Things) devices, web applications, mobile applications, integration processes, and even within JDE development (starting with tools 9.2.3, we can call orchestrations from business function B98ORCH).

This tool builds on top of the AIS layer of JDE and simplifies many key features of AIS.
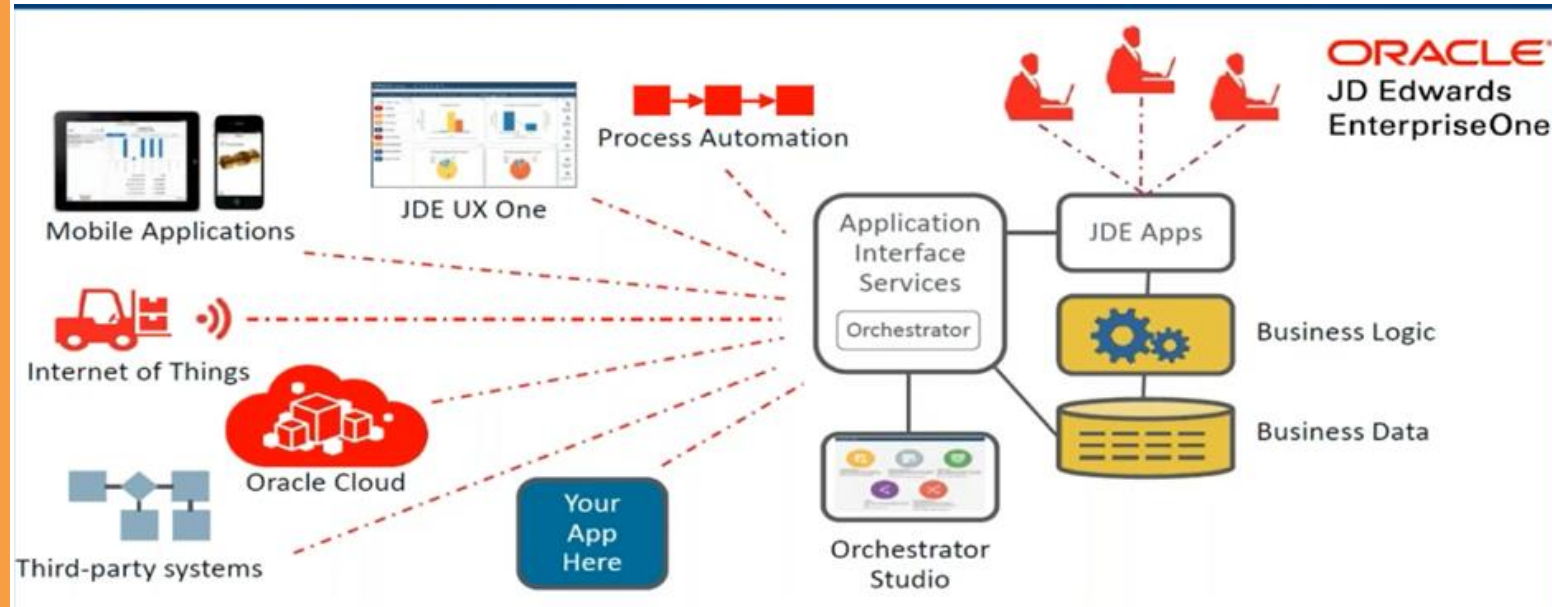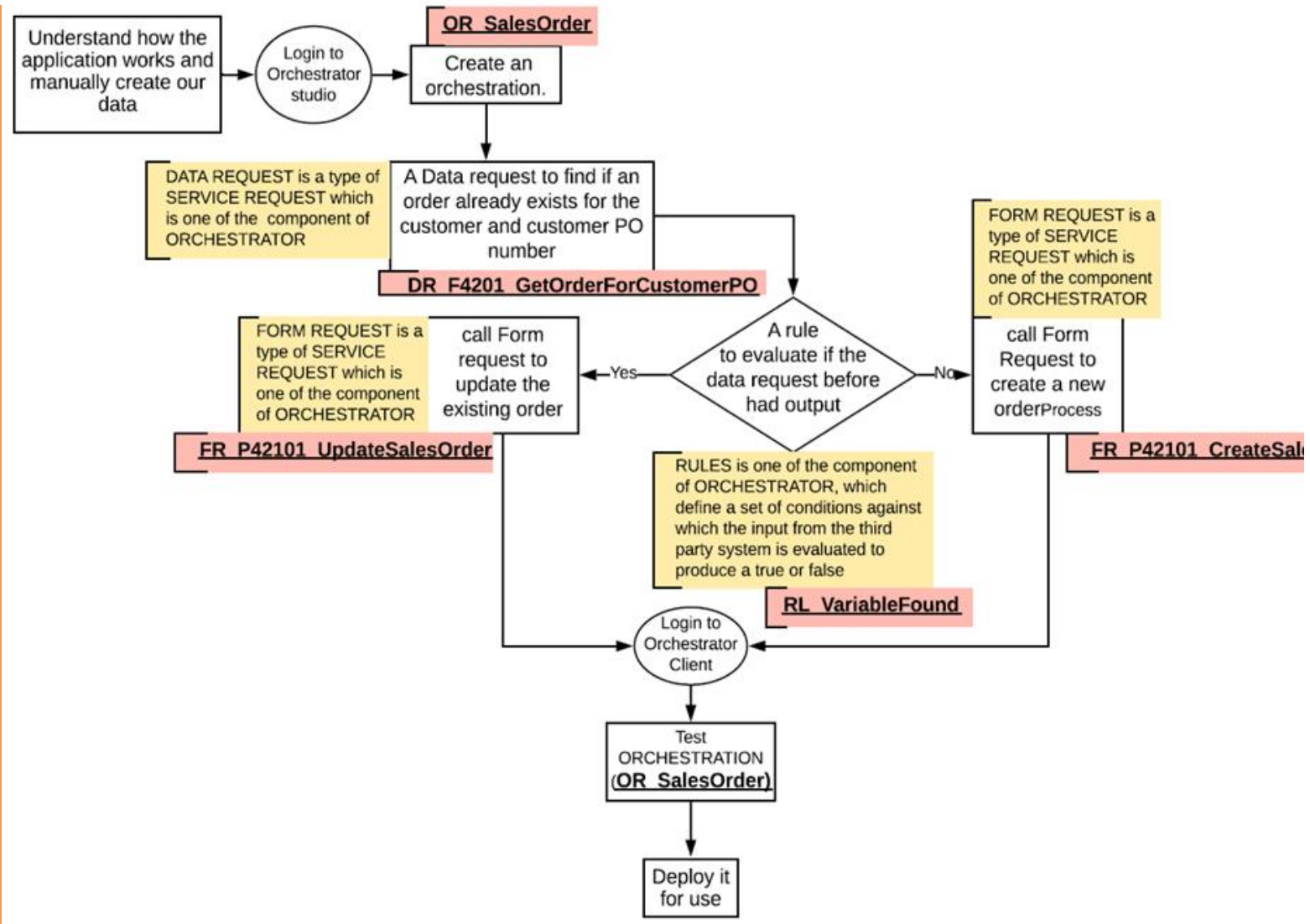
Test Case 1 – Create New Sales Order or Change Lines

We will start by building an orchestration to create a new sales order, or if it already exists add a line to an existing sales order into JDE.

The Orchestration will receive following inputs:
- Sold To
- Ship To
- 2nd Item Number
- Quantity
- Line Number
- Customer PO number

JDE Orchestrator

Configuration Steps

The steps involved in such an orchestration are as follows:

- Understand how the application works and manually create our data.
- A Data request to find if an order already exists for the customer and customer PO number
- A rule to evaluate if the data request before had output
- If no output from the data request call Form Request to create a new order
- If there was output from the data request call Form request to update the existing order
- Create an orchestration.
- Test the orchestration.
- Deploy it for use.

JDE Orchestrator

Configuration Steps

Data Request to Find order - DR_F4201_GetOrderForCustomerPO

- Go into the Orchestrator and navigate to Service Requests. Create a New Service Request of Type "Data Request".
- Name the Data request **DR_F4201_GetOrderForCustomerPO,** set the table to F4201 and press Load. All fields available in the table will appear.
- Select Sold To and Customer PO as filter field.
- Set the return values Order Number, Order Company and Order Type.
- Rename the variables in upper CamelCase and Save.

JDE Orchestrator

Configuration Steps

Rule to determine if an order is existing – RL_VariableFound

- We need to create a rule that will decide if the order already exists or not.

- Go back to the Navigation Menu. Select New Rule and provide the name **RL_VariableFound**.

- Set the rule to a variable called "input" being bigger than a space character and match all. In value 2 explicitly set a space character after setting literal type = String.

- Press Save.

JDE Orchestrator

Configuration Steps

Form Request to Create a new order – FR_P42101_CreateSalesOrder

- This Form Request will be made using the Process Recorder. First, create a sample
- order manually to ensure we go through the process recorder without errors prior to using the process recorder.
- Go to Sales Order Entry and open P42101 application.
- Start the Process Recorder
- Create an order for a single order line. Ensure we fill in below parameters, these fields will be input for creating new orders from Third Party system via Orchestration:
  - Sold To
  - Ship To
  - Customer PO
  - Quantity
  - Item Number
  - Line Number
- Press Submit and Close to enter the order.
- Choose return values in the process recorder.
- We now get the option to return values. Select Previous Order Number, Previous Order Type and Previous Order Company by clicking on the fields. These values will be back to Third party system via Orchestration, once order gets created in JDE.
- Press Resume and Press Stop Process Recorder.
- We now get the option to save your request as. Save as:
- **FR_P42101_01_CreateSalesOrder**

JDE Orchestrator

Configuration Steps

Edit Form Request: FR_P42101_CreateSalesOrder

- Go to the Orchestrator Studio and log on with the credentials provided.

- Go To "Service Requests".

- Search for the Form Request we have just created and select Edit.

- **Note: each form we used in the process recorder has been added as a step.**

- For all inputs provided and buttons clicked an action is added to the appropriate form. We can rename the variable names for better understanding.

- Save the Form Request and press Close.

JDE Orchestrator

Configuration Steps

Form Request to Update an existing order –FR_P42101_UpdateSalesOrder

- In this form request we will find the order that we located in the data request and update the order.
- Create another Form service request.
- Name the form request "FR_P42101_UpdateSalesOrder".
- Fill in application P42101, form W42101C, version ZJDE0001, Update Mode and press Load Form. All available fields and buttons are loaded.
- (First the user would fill in Order Number, Company and Order type) Locate the Order Number, Company and Order Type fields and in the mapped variable column enter a variable name. For each click Add Action.
- (Now the user would press Find) Locate find under buttons and add the action.
- (Next the user would select the first row and use press "Select"). "Select Row" is under the Manage Existing Order-Grid section and enter 1 by default value.
- The Select action is under buttons and exits. Add the select row and select actions.
- Press save. We can now collapse the W42101C form.
-
- (In JD Edwards the user would now be taken to form W42101D). Add this to the form request by changing the form to W42101D and press Load Form. All available fields and buttons are loaded for Form D.
- Add the actions for item number, Quantity ordered.
- (Now the user would Press Submit and Close) add this action from Buttons & Exits.

JDE Orchestrator Configuration Steps

Create the Orchestration – OR_SalesOrder

- Go to the Orchestration. Click New Orchestration and Name the Orchestration as **OR_SalesOrder.** Set product code to 55 and enter a short description. Press Save.

- First step the data request to try and find the order. Select Service Request and locate

- data request "**DR_F4201_GetOrderForCustomerPO".**

- Proceed to map the variables to inputs. In order for return values to become available for follow up service requests you may need to save the Orchestration first.

- Add the rule as second step Via add step select the rule **RL_VariableFound** and click on expand. We can now add actions for if the rule result is TRUE or FALSE.

- In our case if no order is found we want to create a new order, if result is true, we want to update the order. Call the two form requests we have made **FR_P42101_01_CreateSalesOrder** and **FR_P42101_UpdateSalesOrder.**

- Press Save. The Orchestration has been created

JDE Orchestrator

Configuration Steps

Test the orchestration

- To test the Orchestration, you can go to the Orchestration Client via Tools.
- Once you log on you should find your Orchestration in the dropdown under personal.
- Before testing any change made ensure to clear any cache.
- Fill in required inputs
- Press Run to execute. You should now under output find your new order number

JDE Orchestrator

Configuration Steps

Deploy it for use

- Orchestrations, Rules, Form Requests, and any other Orchestrator components are all UDOs, and when you create them, they are created as personal UDOs. Similar to other UDOs, we must publish them and assign security for others to be able to use them.
- Also, like UDOs, to deploy to other environments, we must put them in a web OMW package and promote from within JD Edwards using defined Change Management process.
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THANK YOU

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