Provisioning IMS with z/OSMF

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Agenda

• Brief overview of z/OS Management Facility
• Exploring the possibilities for IMS
  – Workflows
  – Comparison of traditional vs z/OSMF methods
• Summary & demo
• Q&A
Brief Overview of z/OS Management Facility
Overview of z/OSMF

• IBM z/OS Management facility (z/OSMF) delivers on IBM’s strategy for mainframe simplification and modernization
• z/OSMF provides a modern browser based interface to managing the z/OS system
• z/OSMF has a zero price for z/OS customers
• z/OSMF has it’s own product number and must be ordered
  – It can be ordered with z/OS in the same serverpac
  – Can be ordered as its own serverpac
  – Can also be ordered as a separate CBPDO
  – Product ID is 5655-S28
  – S&S PID is 5655-S29

Note: With z/OS 2.2, it is not necessary to order separately
Overview of z/OSMF continued

- z/OSMF helps system programmers to more easily manage and administer a mainframe system by simplifying day to day operations and administration of a z/OS system.

- Not just a graphical user interface,
  - the z/OS Management Facility is intelligent, addressing the needs of a diversified skilled workforce and maximizing their productivity.

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z/OS Management Facility architecture

- z/OS Management Facility is a Web 2.0 application on z/OS
- z/OSMF manages z/OS from z/OS, no client install required
- Browser communicates with z/OSMF via secure connection,
  - Connect from anywhere, anytime, no 3270 emulator required!
  - z/OSMF V1R12 is supported on z/OS V1R12
  - z/OSMF V1R13 is supported on z/OS V1R13
  - z/OSMF V2R1 is supported on z/OS V2R1
- z/OSMF uses industry standard technology like DOJO, JavaScript, JAVA
  - JAVA eligible for offload to specialty engine
- z/OSMF communicates with security server on z/OS and other components as needed

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Exploring Possibilities for IMS & z/OS Management Facility
Exploring the possibilities for IMS

- Two-way Parallel Sysplex running z/OS 2.1.
- z/OSMF version 2.1 SPE3
- “Workflows” plugin

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Workflows in
z/OS Management Facility
What are Workflows in z/OSMF

- Workflows provide a guided flow through end-end steps required to accomplish a task.
- User provides XML metadata file that contains steps and details.
  - Steps may be manual or invoke wizards
  - Within the steps, user can update and submit jobs, execute shell scripts
- User can provide variable input manually or via an input file.
- Steps may define dependency on other steps.
- Steps may be performed manually or automatically, can be assigned, accepted, not ready, ready, in progress, complete, complete (override), skipped.
- History is maintained of all activities in the workflow task.
- Steps in the workflow can be assigned to specific roles, such as "system programmer“, "security administrator," or an individual to complete setup tasks.
- z/OSMF user can be notified of assigned steps via email notification.
IMS Workflow example

- Workflow created to install IMS has three components, the xml definition file, the variable input file and the properties file. (Normal SMP/E process used to get IMS libraries)
- **XML Definition file**
  - XML file that defines the steps( and jobs) needed to install and start an IMS DB/DC system with IMS Catalog, IMS Connect, ODBM & SCI
    - IVP panels were used as a guide and options that will deploy a system able to handle the vast majority of the typical test environment workloads were chosen
- **Variable input file**
  - Contains all the resource names related to the parallel sysplex (The log datasets, pools sizes, DBRC RECON, dataset sizes etc)
- **Properties file**
  - Contains the z/OS and IMS environment information as directed by the Sys Admin, for example: SMPE Info GIM_IMS_GLOBALzone_CSI=IMSGBL
### Completed IMS Workflow

**IBM z/OS Management Facility**

**Welcome > Workflows**

**Install IMS TM-DB System - PoonamWorkflow_2**

**Description:**
Procedure to provision an IMS TM-DB System

**Percent complete:** 100%

**Steps complete:** 40 of 40

**Status:** Complete

### Workflow Steps

<table>
<thead>
<tr>
<th>State Filter</th>
<th>No. Filter</th>
<th>Title Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Complete</td>
<td>1</td>
<td>Specify IMS Criteria</td>
</tr>
<tr>
<td>✓ Complete</td>
<td>2</td>
<td>IMS Installation preparation</td>
</tr>
<tr>
<td>✓ Complete</td>
<td>3</td>
<td>Build</td>
</tr>
<tr>
<td>✓ Complete</td>
<td>4</td>
<td>Start IMS Concomitant Address Spaces</td>
</tr>
<tr>
<td>✓ Complete</td>
<td>5</td>
<td>Start the IMS Control Region</td>
</tr>
<tr>
<td>✓ Complete</td>
<td>6</td>
<td>Perform IMS Restart</td>
</tr>
<tr>
<td>✓ Complete</td>
<td>7</td>
<td>Start IMS Connect</td>
</tr>
</tbody>
</table>

**CalledWorkflow Filter:**

**Automated Filter:** Yes

**Owner Filter:** poonam

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8/13/2015
XML definition file for the workflow

Step 2: IMS Installation Preparation

Invoke JCL

JCL stored in same directory

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Creation and execution of a workflow

• Variable Gathering
  – Specify user id, dataset name for example

• Execution
  – Edit the JCL to be pertinent to your own environment if necessary
  – Execute the jobs manually or automatically skipping or overriding steps as necessary

• Validation
  – ISPF interface is available to validate the IMS that was installed this way
Variable gathering

IBM z/OS Management Facility

Welcome  Workflows

Workflows  Install IMS TM-DB System - PoonamWorkflow_2  1. Specify IMS Criteria

Properties for Workflow Step 1. Specify IMS Criteria

Input Variables - IMS

Enter the variable values for this input category.

+ENVIRONMENT - Environment for which the IMS system is to be processed

+IMSM_USERID - TSO user ID for IMS: POONAM

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Performing steps: Execution

Review JCL

Edit and Submit

Complete your session evaluations online at w
Validation

- Once IMS is installed, it can be verified with IMS commands, IMS explorer etc.
- ISPF interface is available in z/OSMF. So you don’t have to leave the browser.
Comparison of installation methods
## Installing IMS Workflow comparison

- **Traditional(IVP) vs z/OSMF installation**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Traditional</th>
<th>z/OSMF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>ISPF</td>
<td>Web Browser</td>
</tr>
<tr>
<td>z/OS Skill level</td>
<td>Experienced skills</td>
<td>Entry level skills</td>
</tr>
<tr>
<td>Speed</td>
<td>Slower, time consuming</td>
<td>Minutes, if all variables are available</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Pick &amp; choose</td>
<td>Simplified</td>
</tr>
<tr>
<td>Customization</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Automation</td>
<td>Not as easy to automate</td>
<td>Can be easily automated</td>
</tr>
</tbody>
</table>
Summary

- Web interface
- Easy to understand
- Automation

Are you ready to try z/OSMF for installing IMS?
Next up: DEMO
DEMO

• Creating Workflow
• Completed Workflow
• XML definition file
Questions?
Comments?
Thank You!