

MDM Workflow Management Using ActiveVOS

Informatica Global Customer Support



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Housekeeping Tips



- Today's Webinar is scheduled for **1 hour**
- The session will include a webcast and then your questions will be answered live at the end of the presentation
- All dial-in participants will be muted to enable the speakers to present without interruption
- Questions can be submitted to "All Panelists" via the **Q&A option** and we will respond at the end of the presentation
- The webinar is **being recorded** and will be available to view on our **INFASupport YouTube channel** and **Success Portal**. The link will be emailed as well.
- Please take time to complete the **post-webinar survey** and provide your feedback and suggestions for upcoming topics.

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POC Customers



Enriched Customer
Onboarding
experience



Product Learning
Paths and Weekly
Expert Sessions



Informatica
Concierge with
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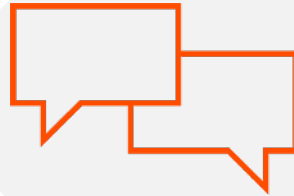
Tailored training and
content
recommendations

More Information



Success Portal

<https://success.informatica.com>



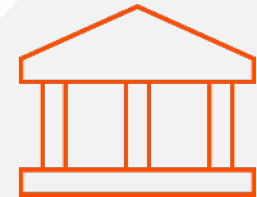
Communities & Support

<https://network.informatica.com>



Documentation

<https://docs.informatica.com>



University

<https://www.informatica.com/in/services-and-training/informatica-university.html>

Safe Harbor

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Statements made today are based on currently available information, which is subject to change. Such statements should not be relied upon as a representation, warranty or commitment to deliver specific products or functionality in the future.

Agenda

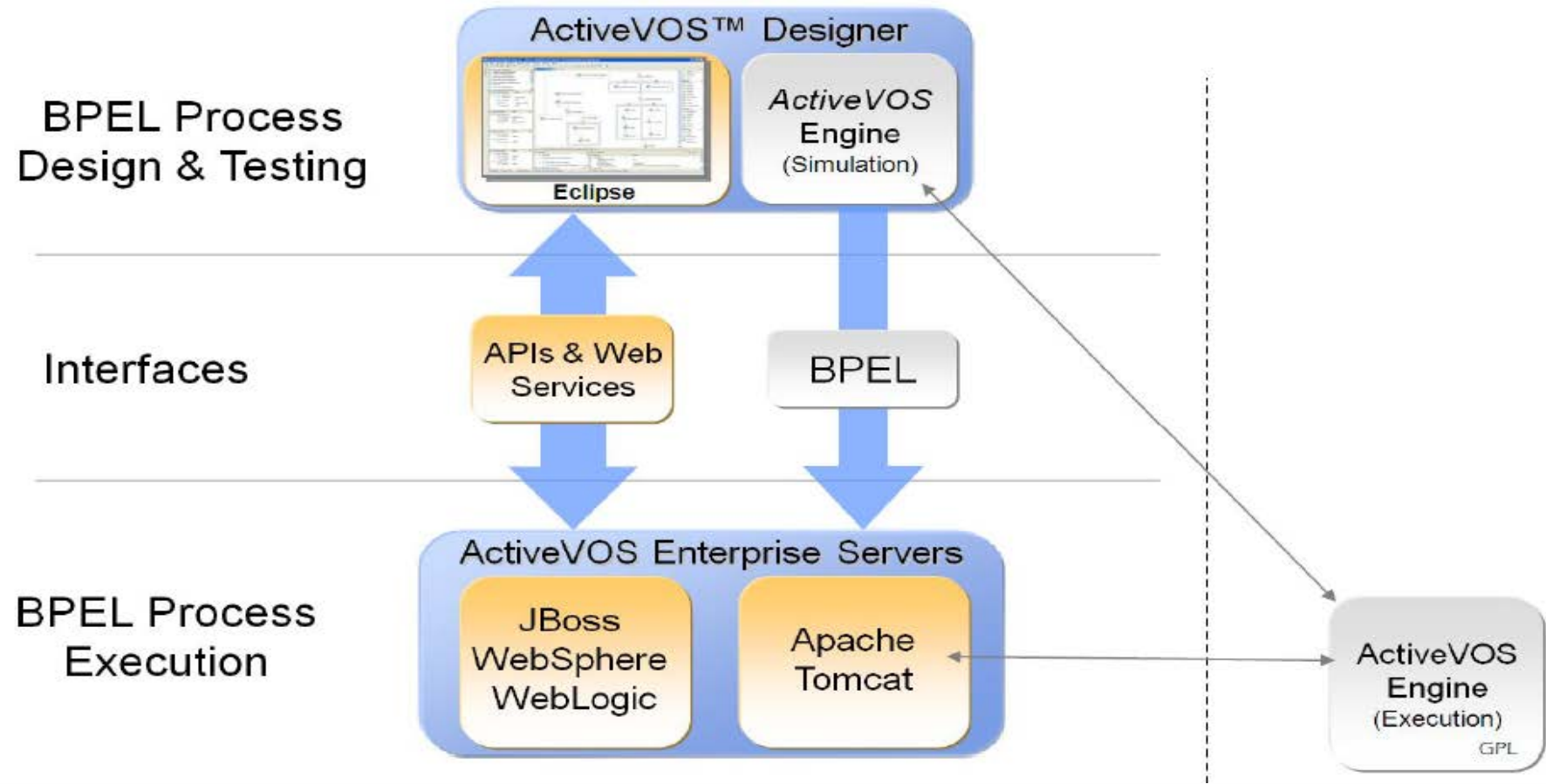
- ActiveVOS Overview
- MDM and ActiveVOS Setup Basics
- MDM and ActiveVOS Task Flows
- MDM and ActiveVOS Task Configuration
- MDM and ActiveVOS Task Management
- Demo
- Best Practices
- ActiveVOS Key Tables
- Resources
- Q&A

ActiveVOS Overview

- ActiveVOS is a BPM tool based on BPEL.
 - What is BPM – Business Process Management
 - What is BPEL – Business Process Execution Language (write and deploy)
 - Process models to Integrate people, processes, and systems.
- MDM Use Case –
 - Entity Onboarding or Edit Review, Merge or Unmerge Review and Hierarchy Review
 - Tightly integrated with Informatica MDM 10 onwards
- ActiveVOS Designer (based on Eclipse) can be used to create custom workflows e.g. adding email services etc.
- Standalone instance of ActiveVOS can be used as well.

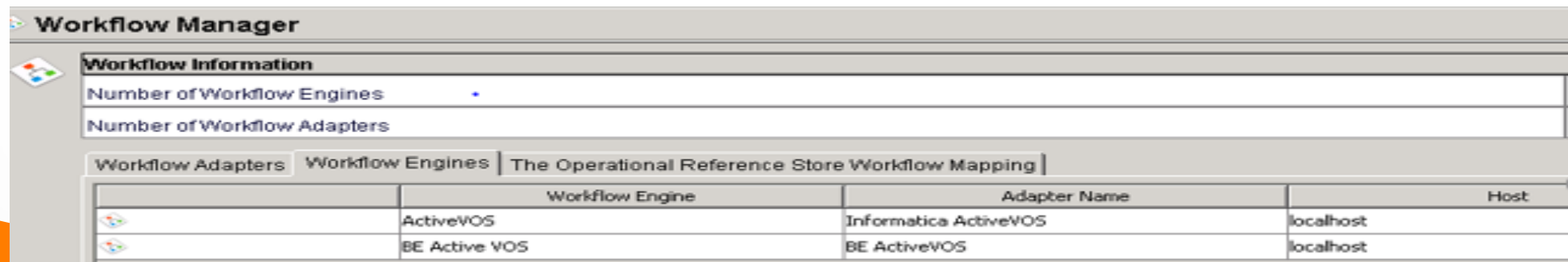
ActiveVOS Overview

ActiveVOS





MDM and ActiveVOS - Workflow Engines

- BE ActiveVOS Engine - Can also be used with SA screen and not only BE.
 - For both SA and BE Engine, Business Entity generation is needed for the workflows.
 - New Tasks can only be created on Primary Workflow Engine
- OOTB workflows available as part of Installation, as a BPR file
 - Merge, Unmerge, Hierarchy, OneStep, TwoStep and UpdatewithOptional Approvals
- ActiveVOS Designer license available separately for workflow Customization



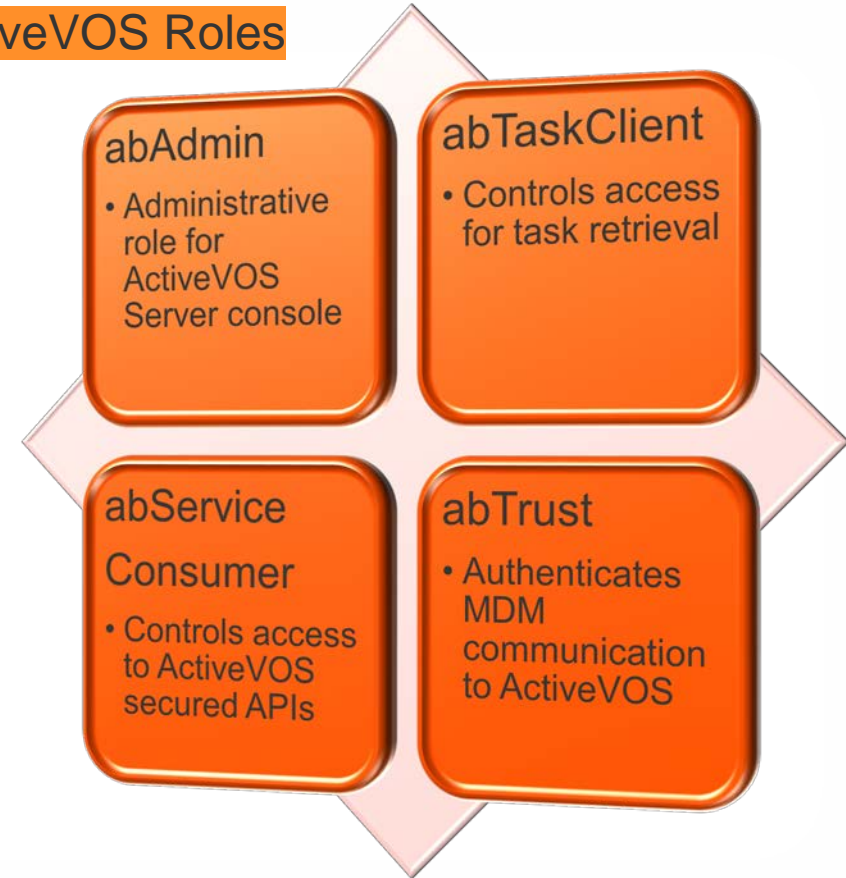
The screenshot shows the 'Workflow Manager' application window. It has a sidebar with a 'Workflow Information' section containing 'Number of Workflow Engines' and 'Number of Workflow Adapters'. The main area has three tabs: 'Workflow Adapters', 'Workflow Engines', and 'The Operational Reference Store Workflow Mapping'. The 'Workflow Engines' tab is active, displaying a table with two rows of workflow engines.

	Workflow Engine	Adapter Name	Host
	ActiveVOS	Informatica ActiveVOS	localhost
	BE Active VOS	BE ActiveVOS	localhost

MDM and ActiveVOS – User/Role Setup

- ActiveVOS – No OOTB Admin user – abAdmin Role
- ActiveVOS uses Container based authentication
- MDM Identity Service for authorization of Human Tasks
- Potential Owners defines User access to Tasks
- MDM 10.4 defines 3 types of users for Tasks –
 - Business, Administration and Hybrid
 - Admin – Task Admin role defined in Provisioning
 - Admin users cannot perform Task Actions
 - Admin users cannot access Task Data

ActiveVOS Roles



MDM and ActiveVOS – Identity Service

- Identity services is responsible for authorization of users.
- With MDM 10.2+, MDM is the only identity service provider.
- Installer registers the MDM Admin user password in Identity Service
- MDM Admin user is used for authenticating ActiveVOS communication to MDM.
- With LDAP, it is recommended to use MDM Identity Service as the Authorization Provider.

The screenshot shows the Informatica ActiveVOS web interface. The browser address bar indicates the URL is localhost:8080/activevos/idas_service.action. The page has a navigation menu on the left with options like Admin, Server Status, Tenant Detail, Cluster, MultiSite, License, Configure Server, Monitoring Thresholds, URN Mappings, Tenant Definitions, Configure Services, Alert Service, Identity Service (highlighted), Email Service, and Messaging Service. The main content area is titled 'Identity Service' and contains sections for 'Provider Configuration' (with 'Enable' checked and 'Provider Type' set to 'MDM'), 'Connection Settings' (with tabs for Connection, Users, Groups, Cache, and Test), and 'Import/Export Identity Configuration'. The 'MDM Connection Settings' section includes 'Password' and 'Confirm Password' fields, both masked with dots. An 'Update' button is located below these fields. The 'Import/Export Identity Configuration' section includes an 'Export' button, a 'Choose File' button, a 'No file chosen' message, and an 'Import' button.

MDM and ActiveVOS– URN Mapping

- URN – Universal Resource Name is used instead of URLs
- Allows for portability of code between environments
- URN can be used for Partner Services, Databases, API URLs etc.
- Sample workflows use URN to connect back to MDM for API calls like PromotePending etc.
- Post Install should registers localhost URN

The screenshot shows the 'JRN Mappings' section of an application. At the top, there are tabs for 'CATALOG' and 'ADMIN'. Below the title, there is a table with two columns: 'URN' and 'URL'. The table contains two entries: one with URN 'urn:MDMHost:InfMDM' and URL 'http://localhost:8080/cmxf/services/SifService', and another with URN 'urn:mdm:service' and URL 'http://localhost:8080/cmxf/services/BEServices'. Each entry has a 'Delete' checkbox to its left. Below the table is a 'Delete Selected' button. Underneath the table, there is a section titled 'Add new URN Mapping' with two input fields labeled 'URN' and 'URL', and an 'Add/Update Mapping' button at the bottom.

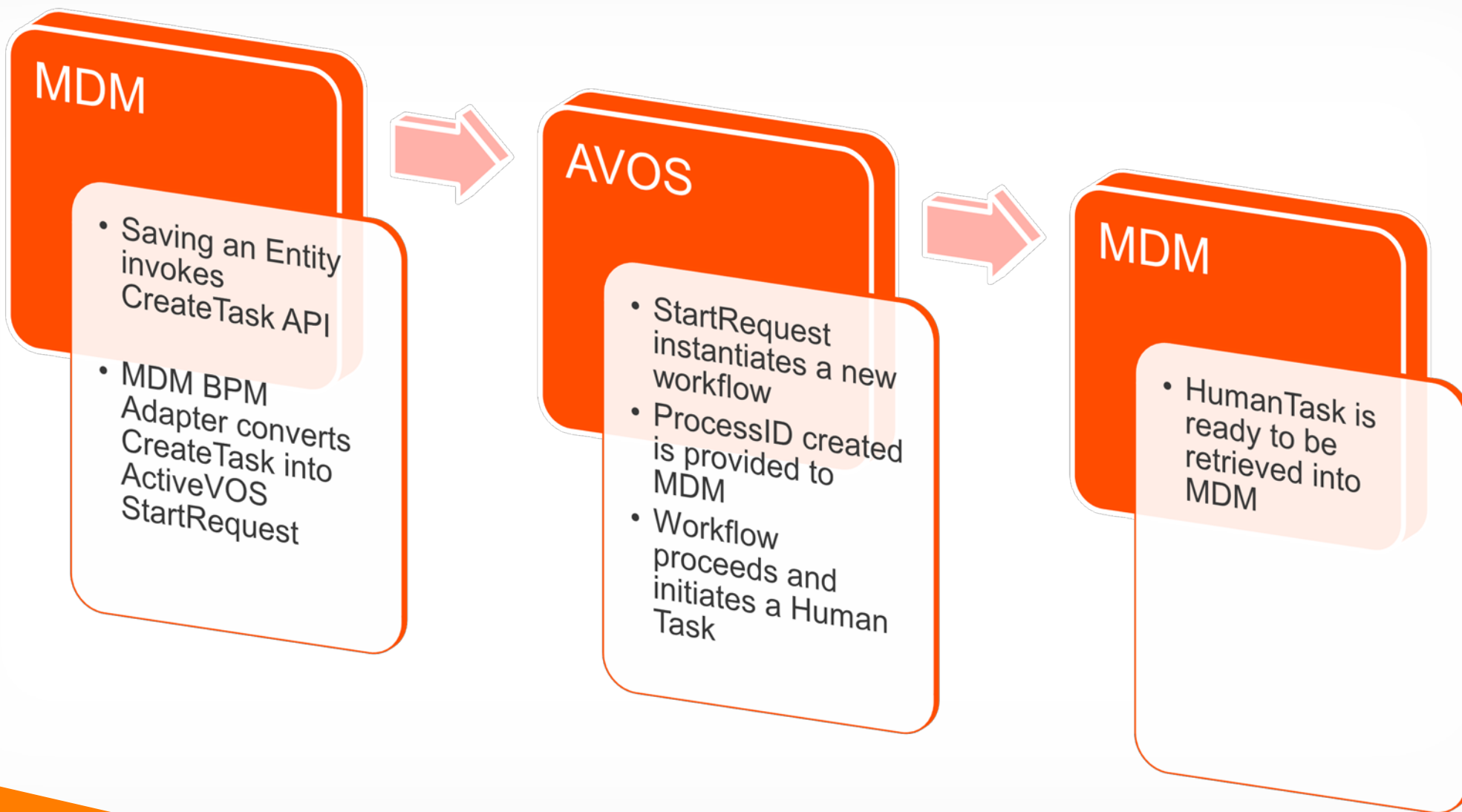
Delete	URN	URL
<input type="checkbox"/>	urn:MDMHost:InfMDM	http://localhost:8080/cmxf/services/SifService
<input type="checkbox"/>	urn:mdm:service	http://localhost:8080/cmxf/services/BEServices

Add new URN Mapping

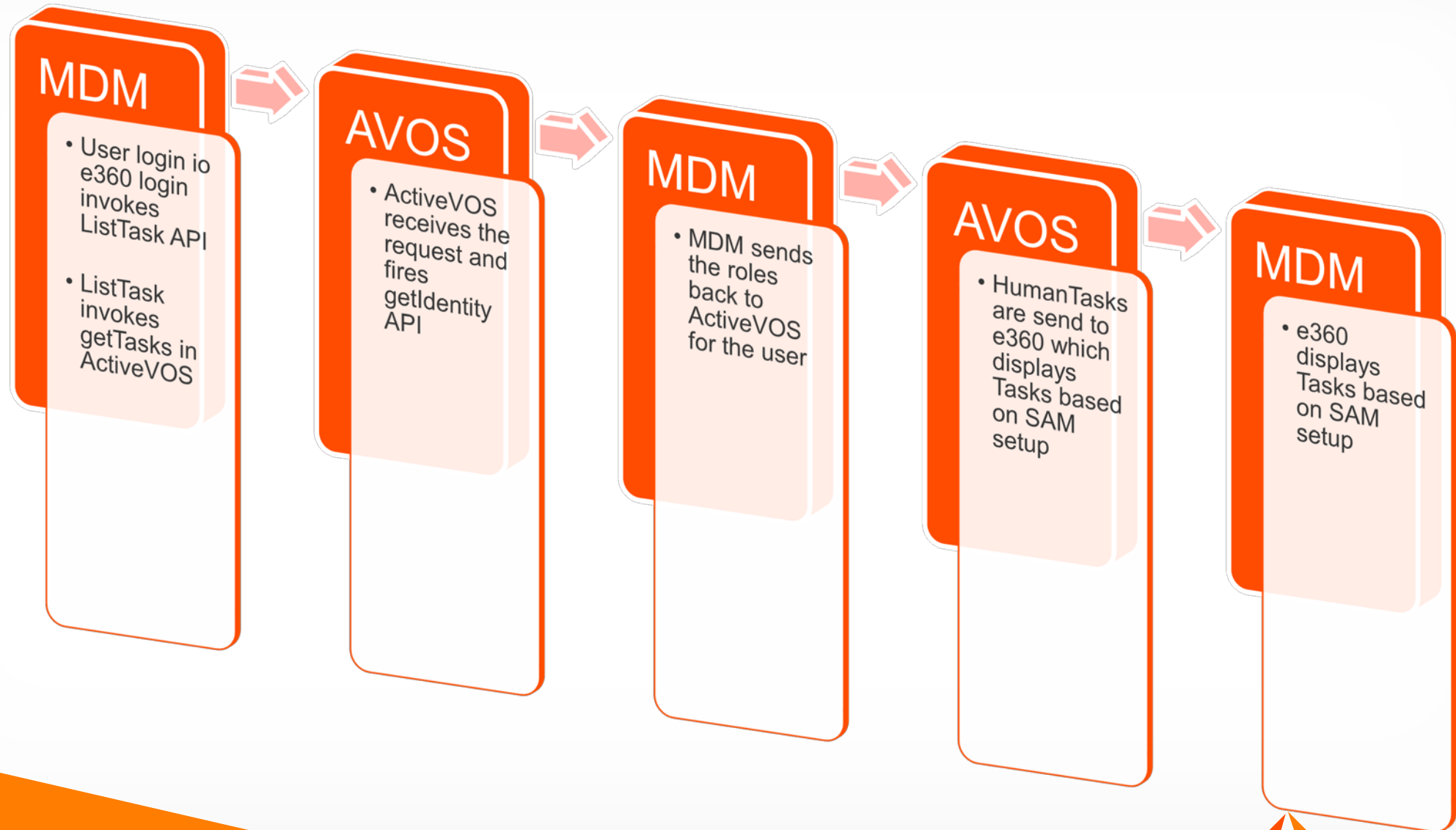
URN

URL

MDM and ActiveVOS – Create Task Flow

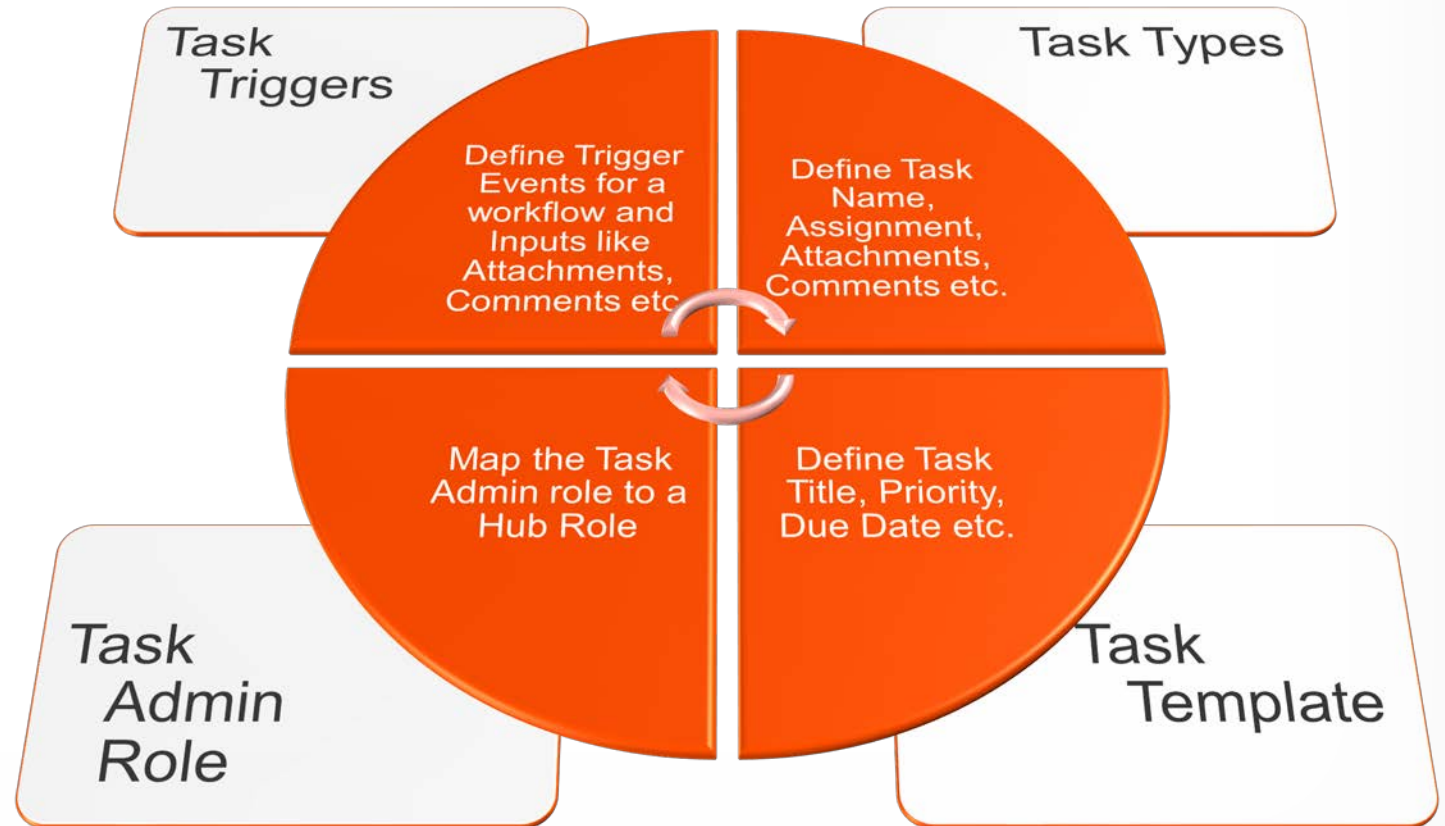


MDM and ActiveVOS – List Task Flow



MDM and ActiveVOS – Task Configuration

- Always Baseline the Configuration with Provisioning Guide or MDM Sample C_REPOS_CO_CS table before Customization.
- Assign Roles and Business Entities to the Task Types
- Define Task Manager Configuration to define list of columns in Task Manager for the ORS



MDM and ActiveVOS - Task Management

- Task Manager Features:
 - Act on Multiple Task in One interaction
 - Perform a common action on them
 - Perform individual actions on them
- Task Operations:
 - Create, List and Read (Read - all presentation parameters)
 - Claim and Disclaim (by Owner only)
 - Release (any Business Admin) and Assign (potentialowners and Task Admin)
 - Edit and Task Action
 - *Bulk – Claim, Release, Assign, Edit and Action*
- URL for Task Management APIs - [http\(s\)://host:port/cmx/task/operations/OrisId](http(s)://host:port/cmx/task/operations/OrisId)

DEMO

Best Practices – Installation and Upgrade

- ActiveVOS Server does not allow in-place upgrade.
- Third Party BPM Engines, Siperian and Subject Area adaptors are no longer supported in MDM.
- Primary and Secondary workflow engine allow you to keep existing tasks.
 - Task Migration Steps are available in IDD Migration Guide 10.4
 - Recommended to recreate existing Tasks on BEActiveVOS
- ActiveVOS works in a clustered environment, simple HA is not recommended for ActiveVOS
 - Use localhost to register ActiveVOS to save network costs
 - Use Sticky Session for ActiveVOS Load Balancer URL
- ActiveVOS cluster verification –Console -> Admin -> Cluster -> ALL ActiveVOS nodes should be RUNNING
- Use ActiveVOS Import/Export utility to migrate Server configuration

Best Practices - Implementation

- MDM Orphan Tasks – Inherent to the System due to Transitive Matching, User Merges and Async Soft-Deletes
 - Solution overview – BPR based utility executes Terminate API, based on a Customized database view.
- RoleNames in MDM should not have whitespaces
- Use URN mappings for endpoints / Don't hardcode endpoints
- Tasks needs to be claimed before taking action from 10.3 onwards
- Best Practice Guide for Custom Workflows – available in resources

Best Practices - Performance

- Active Task Count – Optimum number of Tasks is 50-70K. Beyond that number, please throttle using custom logic or `cmxserver.properties`.
 - `Task.creation.maximum` and `task.creation.batch.size` in `cmxserver.properties` controls the number of Merge Tasks
- AeProcessLogData and AeVariable Tables are high growth tables
 - Keep only running processes in ActiveVOS. Use maintenance option in ActiveVOS console to get rid of faulted/completed task.
 - Keep verbose logging off to maximize ActiveVOS performance
 - Increasing process logging causes performance issue

Best Practices - Customization

- Task Metadata cannot be modified after the Task ID has been created.
 - When Approval Task is rejected and recreated, Similar Task is created with a new ID.
 - PotentialOwners of a running Task cannot be changed as well.
- Do not directly update ActiveVOS Metadata to reflect changes in Task data
- Fields displayed in Task manager are based on presentation parameters defined in the MDM APIs
 - Custom presentation parameters added in Workflows will not be displayed in Task Manager
- Process Deletion - Do NOT DELETE FROM DB, at least when the application is running
 - Recommend to use Terminate API instead

ActiveVOS important tables

- AeProcess - Store individual process level details.
- AeProcessLogData - Logs all process related data, prone to exponential growth
- AeVariable – Stores process variable data, prone to exponential growth
- AeSystemLog - Captures all system related changes. Same can be seen in ActiveVOS console under monitor tab.
- Aeb4ptask - Store Human task details.
- Aeb4ptaskpa – Relationship between TaskID and ProcessID
- AeMetaInfo – ActiveVOS version details

Resources

- **Custom workflow development - Validation Checklist, contact MDM GCS**
- Setting up ActiveVOS Designer - <https://network.informatica.com/videos/3280>
- Workflow Health Report BPR, contact MDM GCS
- Support Videos – Informatica Network
- How-To Documentation – Informatica Network
- Knowledge Base – Informatica Network

Resources –ActiveVOS related videos

- 10.4 Task Administrator –
 - <https://www.youtube.com/watch?v=c9-Oquaj4jk>
- 10.4 Task Management –
 - <https://www.youtube.com/watch?v=NCj9GEf6kFk>
- How to debug integration issue between IDD and ActiveVOS -
 - <https://www.youtube.com/watch?v=LWwyMwEBP5o&t=7s>



Thank you



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