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ALIGNING SOLUTIONS

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BMC Remedy-Pega Integration Solution Design Document For Coforge Ltd.

Document Tracker

Version No.	Date	Created By	Reviewed/Approved By	Date of Release	Reason for Change
1.0	14-08-2021	Pranav Kumar	Sumit Kumar		Initial Draft

Revision List

Version No.	Date	Description	Author	Reason for Change
1.0	28-09-2021	Constraints\Limitations Troubleshooting FAQs	Sumit Kumar	Update per feedback from Ehtisham Ali

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Project Overview

Design a Solution to meet the following functional requirement:

- ➔ Integrate BMC Remedy System and Pega User Management System Application to automate User Creation\Modification in BMC Remedy System from Pega User Management System.
- ➔ Automatically create Location\Site, if not available in BMC Remedy System and associate it with the Company and User profile.
- ➔ Automatically triggers workflow to Create, Modify People profile in BMC Remedy with required fields as and when the request is pushed from Pega Application.
- ➔ Enables bidirectional integration between BMC Remedy and Pega Application.
- ➔ Provide a robust integration mechanism to accommodate existing business requirement.

Areas of Focus

IT-TATVA focus during the Analysis phase was to:

- ➔ Design a simple, easy-to-use, reliable solution and to address functional and technical requirements.
- ➔ Access the environment, system and services.
- ➔ Understand and identify current scenario and pain areas.
- ➔ Address possible use cases, interoperability requirements, debug, and observe error messages.

Environmental Details

Coforge has two BMC AR Admin Servers:

Hostname	IP address	Role
Remedybe	10.50.33.155	AR System server – Administration Server
Remedyfe	10.50.33.153	AR System server
Remedymt1	10.50.33.151	Mid-Tier Server http://remedymt1.cag.gov.in:8080/arsys

Server remedybe is designated to ARadmin server. The solution has been deployed on both the servers.

Solution Components

The solution has following core components.

- Form
- Filters
- Web services
- Active link

Form – A back end base form "People Data" has been developed to capture details from Pega and BMC Remedy People and Site forms mapping upon request submission from Pega User Management Application.

The form has following fields

Sr. No.	Field Name	Mapping	Description
1	First Name	First Name (CTM:People)	Contains First Name
2	Last Name	Last Name (CTM:People)	Contains Last Name
3	Grade	Job Title (CTM:People)	Contains Employee's Grade and map with Job Title field of People form
4	Employee ID	Corporate ID (CTM:People)	Contains Employee ID
5	VIP	VIP (CTM:People)	Contains VIP Yes/No
6	State/Province	State (Sit:Site)	Contains State
7	Site	Site (CTM:People)	Contains Site
8	Person ID	Person ID (CTM:People)	Data comes from CTM:People
9	Company	Company (CTM:People)	Contains Company
10	Mobile Number	Business+ (CTM:People)	Contains mobile number
11	Email ID	Email Address (CTM:People)	Contains email address
12	Client Type	Client Type (CTM:People)	Default Value set Office-Based Employee
13	Country	Country (Sit:Site)	Contains Country
14	City	City (Sit:Site)	Contains City

15	Site_ID	Site_ID (Sit:Site)	Data comes from SIT:Site
16	Profile Status	Profile Status (CTM:People)	Contains Profile Status Enabled/Offline
17	Custom 2	Site (SIT:Site)	Data comes from Sit:Site
18	Custom 3	N/A	Set the value to Yes via workflow
19	Method	N/A	Set the value to Create/Modify via workflow
20	ID	Person ID (CTM:People)	Data comes from CTM:People
21	System State	State (Sit:Site)	Data comes from SIT:Site
22	System Country	Country (Sit:Site)	Data comes from SIT:Site
23	System_City	City (Sit:Site)	Data comes from SIT:Site
24	Custom 5	N/A	Backup Field – Not in use

Filters-Following filters have been developed and configured to handle and process the requests:

| Sno.	Filter Name	Base Form	Description
1	Z_Validate_ID	People Data	It checks for the "Employee ID" submitted on People Data form with CTM:People's Corporate ID. If matches it sets "Method" fields to "Modify" else "ID" and Method are set to NULL.
2	Z_Set_Method	People Data	Sets "Method" to "Create" if fields "ID" is "NULL" as per last filter.
3	Z_test_Validate_city	People Data	It checks or validate the cite\site from SIT_Site_Alias_Company_Lookup form.
4	Z_Modify_Site	People Data	It updates site on SIT:Site Form via webservice http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_Site_Modify and update the SiteID on People Data form.
5	Z_Create_Site	People Data	It calls webservice http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_CreateSiteNew to create Site when Custom2 field is NULL by filter "Z_test_Validate_city".
6	Z_Site_Company	SIT:Site	It does the site and company association.
7	Z_People_Modify	People Data	It calls Webservice http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_Modify_People to update People data on CTM:People form.
8	Z_People_Data_New	People Data	It calls webservice http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_People_Create_New to create People profile on CTM:People form.

WebService-Following Web services have been developed and configured to process the requests.

Sno.	Web service Name	Base Form	Description
1	Z_People_Data	People Data	Create record on People Data form via Base Form WS URL. http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_People_Data
3	Z_Site_Modify	SIT:Site	It matches for Site ID and executes a Set Operation on SIT:Site form for Country, State and City.
4	Z_CreateSiteNew	SIT:Site	It executes a Create Operation on SIT:Site form.
5	Z_Modify_People	CTM:People	It runs a Set Operation on CTM:People form to update people profile.
6	Z_People_Create_New	CTM:People	Runs a Create Operation on CTM:People Form.

Active Link –Following Active link is developed and configured to update Site Address on CTM:People Page.

Sno.	Web service Name	Base Form	Description
1	Z_Test_SetBaseValues_From_Site	CTM:People	It sets field "Site Address" on CTM:People.

Architecture Flow Diagram
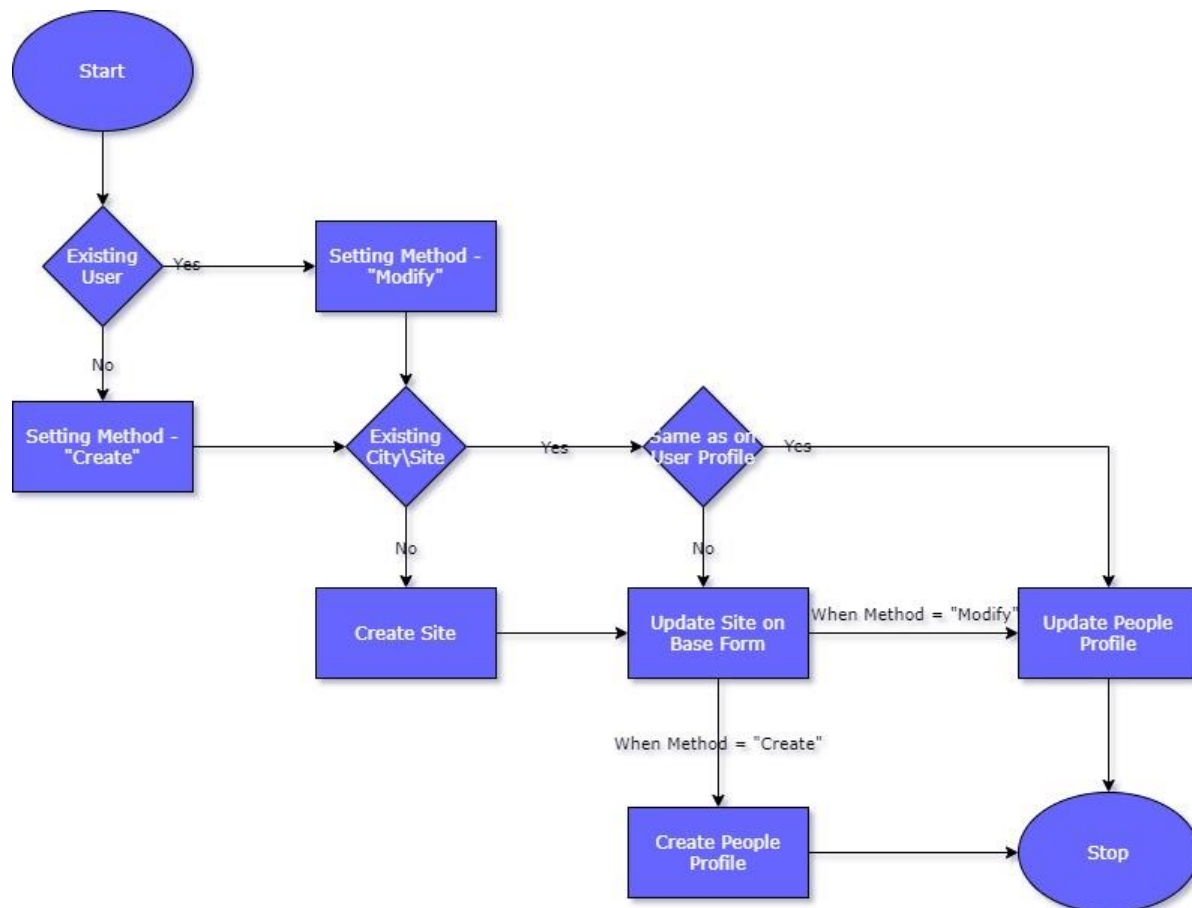
Workflow

- Pega User Management Application Team will consume BMC Remedy Web service "Z_People_Data" for Backend base form "People data".
- Once data is received on the Backend base form it will trigger the workflow configured on BMC Remedy System.
- First of all the Workflow will check whether the requested user profile is already existing in BMC Remedy or not and based on that it sets the "Method" to either "Create" or "Modify" on the backend base form.
- Further it also checks for the site availability and if not then it creates and also associate the site with Company "Coforge."
- The Workflow also checks for the pushed site, if it is same as on CTM:People form and update the people record for the pushed details on CTM:People form.
- The updated information can be seen on CTM:People form.

Constraints\Limitations

The solution is designed tier wise wherein no direct processing is being done on the main CTM:People form. The Backend "People data" form is being used as staging form where the data is being validated and updated before pushing it into CTM:People form. However in order to working it seamlessly it is required that the workflow must be able to run and process the data.

- ➜ Filters – All the given filters must be Active and one should not change their sequence as well.
- ➜ Web services – All the data processing is getting done by the Web services. The Solution web service is published and being consumed by Pega Application. Therefore the solution is based on Push mechanism. Hence inaccessibility\unavailability to web services would cause issue in triggering the workflow.
- ➜ Data Feed – All the fields are mandatory and must be fed to base form Web service URL. http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_People_Data
- ➜ User Credentials– The solution has BMC Remedy Webservice Users "appadmin" & "wscag" configured. Any change to the users\credentials\attributes will lead to failure of solution.

Troubleshooting

In order to troubleshoot it is recommended to proceed with sequential approach.

- ➜ Ensure that backend base form "People data" web service, http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_People_Data is accessible.
- ➜ Check with Pega Team if they are successfully able to call web service from their Application.
- ➜ You can also try load and call web service via SOAP UI, if available.
- ➜ Once done ensure data is getting set on the backend base form .
- ➜ If not, you can insert the record manually on "People data" form and check if workflow gets triggered and you get it in CTM:People form.
- ➜ Ensure the field values are getting set as per their values.

FAQs

Q.1 What all fields are required to create People Data on BMC Remedy?

Ans. All fields are mandatory to feed the data in BMC Remedy System. Following are the fields.

- First Name
- Last Name
- Grade
- Employee ID
- VIP
- State/Province
- Site
- Person ID

- Company
- Mobile Number
- Email ID
- Client Type
- Country
- City
- Site_ID
- Profile Status

Q.2 What backup should be taken for implemented solution?

Ans. As per standard, No specific backup is needed, should be accommodated with BMC Remedy backup policy.

Q.3 What references should be changed in case of migrating solution to different environment?

Ans. In case of environment change once backup is restored all references of Mid-tier and AR Application server must be changed manually e.g. in Web service "http://10.50.33.151:8080/arsys/WSDL/public/remedyfe/z_People_Data" should be updated with http://<<Midtier server>>:8080/arsys/WSDL/public/<<AR System>>/z_People_Data

Q.4 What is workflow trigger condition?

Ans. The workflow will be triggered upon submission of any new record in the "people data" form with above mentioned mandatory fields.

Q.5 What if I change my ARsystem server or switch the server to another ARsystem server?

Ans. Although the solution is deployed on both ARSystem Servers i.e. remedybe(10.50.33.155) and remedyfe(10.50.33.153). However there is only one routing configuration is available in Mid-tier configuration i.e. to remedyfe(10.50.33.153).

AR Server Settings

DELETE/EDIT	AR SERVER NAME	DOMAIN NAME	USE SHORT NAME	AR SERVER ADMIN PASSWORD	AR SERVER TCP PORT NUMBER	AR SERVER RPC	PRE-LOAD	CACHE UPDATE NEEDED	CACHE UPDATE INTERVAL	SKIN ENABLE
☐	remedyfe		Yes	********	3333		Yes	On	86400	Off

Select All   Clear All

[Add Server] [Edit] [Delete] [Help]

Therefore Webservice has soap Path: is as follows :
http://10.50.33.151:8080/arsys/services/ARService?server=remedyfe&webService=z_People_Data
.

Hence to ensure the solution is always running it is required to have services up and running on "remedyfe" server.