

**SAP Technical Specification**

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| --- | --- |
| Project | **HCM to MIM Interface** |
| Customer | **Serco** |
| Solution | **Technical Specification** |
| Version | **0.1** |
| Author | **Likita Cherukuri** |
| Date | **23.06.2020** |

Template Control

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| 0.1 | 13th August 2013 | Malcolm Smith | Created from existing templates |
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Document Control

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| 0.1 | 23.06.2020 | Likita Cherukuri | Initial TS |
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Approval

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| Sandeep Mishra |  |  |  |

Distribution

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# Overview

This project is MIM as UAM replacement.

Microsoft Identity Manager (MIM) is a state-based identity management software product, designed to manage user’s digital identities, credentials and groupings throughout the lifecycle of their membership of an enterprise computer system.

In line with UAM, to facilitate the creation of user identities in MIM, HR data from SAP HCM system need to be interfaced to MIM. Employee (personal data) and Organisation (hierarchy) data for all the regions will be pulled from HCM to MIM system

# General Information

**Program Names:**

ZHCM\_MIM\_ORG\_PROG

ZMIM\_EMPDATA\_UPDATE

ZMIM\_EMPDATA\_FULL\_UPDATE

**Function Module:**

ZHCM\_MIM\_ORG

**Proxy Details:**

Namespace: SERCO\_SOFTWARE\_COMP, 1.0 of Serco

For Employee - Urn:Serco.com:interface\_MIM\_Employee

Service Interface: SI\_HCM\_Employees\_Sync

For Org – Urn:Serco.com:interface\_MIM\_Organisation

Service Interface: SI\_HCM\_Org\_new

**Class**:

ZCL\_IM\_HRALE00CHANGE\_PTRS

# Selection Screen

No selection screen

# Database Tables / Structures Used

Tables: HRP1001,

HRP1000

PA0000,

PA0001,

PA0002,

PA0006,

PA0041,

PA0105,

ZMIM\_ORG\_TAB,

ZMIM\_EMPDATA,

ZMIM\_EMPDATAFULL.

# Program Details

## Solution Details

### Organisation (hierarchy) data

1. Go to SE38 and create a new program -

ZHCM\_MIM\_ORG\_PROG

Call function module ZHCM\_MIM\_ORG

1. Get SAP Organisation Node ID, Start Date of Org Unit, End Date of Org Unit, Status, Short text & long name (Division) from HRP1000 table
2. Get Object ID and get Primary Manager, Manager EPN & Molga from HRP1001 table for B012 relationship
3. Get Object ID and get Primary Manager, Manager EPN & Molga from HRP1001 table for A002 relationship if B012 relationship doesn’t exists.
4. Get Name of HR Country Grouping from T500T table.
5. FM - RH\_GET\_LEADER is used to get primary manager, RH\_PM\_GET\_MOLGA\_FROM\_PERNR to get country grouping & HRHAP\_SEL\_ORG\_UNIT\_OF\_ORG\_UNIT to get parent org unit.
6. Data will be fetched to lt\_zmim\_org & updated to table ZMIM\_ORG\_TAB.
7. Get data from ZMIM\_ORG\_TAB into lt\_org, loop the data and pass into PI structure output-mt\_hcm\_res\_org\_new-org\_employee.

### Employee (personal data) FULL Employee extract

1. Go to SE38 and create new program –

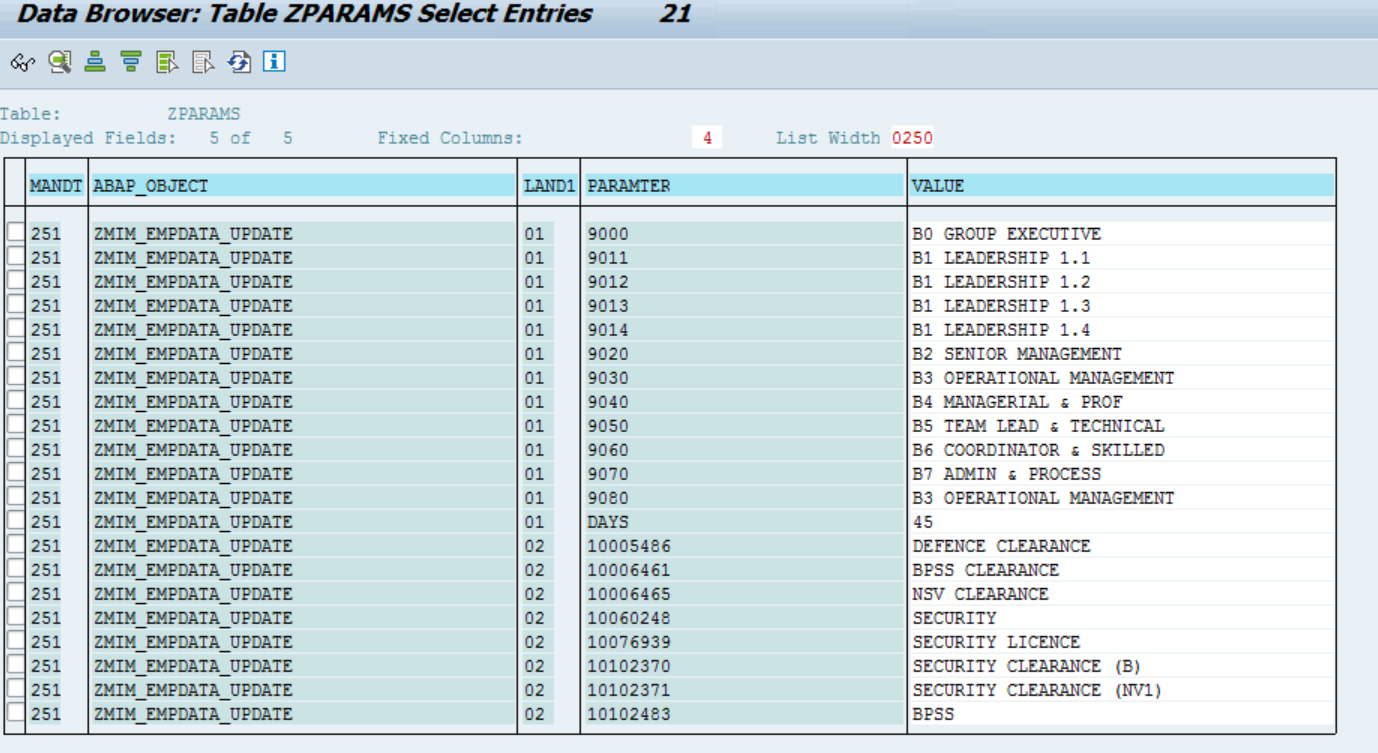
ZMIM\_EMPDATA\_FULL\_UPDATE

Create Includes

ZMIM\_EMPDATA\_FULL\_UPDATE\_TOP – Include for data declarations

ZMIM\_EMPDATA\_FULL\_UPDATE\_FORM – Include for Subroutines

1. In PERFORM get\_data all the table data will fetched. In ZPARAMS table maintain number of days from the system date to fetch future hire latest record into lv\_value.



1. Get End Date, Start Date, Action Type, Reason for Action, Employment Status from PA0000 table into it\_pa0000.
2. Get Employee Last name, Employee Birth name, Employee First name, Employee Nickname, Employee Middle name & Form-of-Address Key from PA0002 table into it\_pa0002
3. Get Form-of-Address Key, Form-of-Address Key-text from table t522t into table it\_t522t.
4. Get Business Sector, Staff Type, Personnel Area, Organizational Unit, position, persona code from table PA0001 into it\_pa0001 & get persona code from table HRP1010 into it\_hrp1010 for position from it\_pa0001.
5. Get Region from table PA0006 into table it\_pa0006 & get Contract End Date from table PA0016 into it\_pa0016.
6. Get Cost Centre from PA0315 into it\_pa0315 & prctr from CSKS table into it\_csks
7. Get WBS Element from PA0027 into it\_pa0027 & profit centre for WBS from PRPS table into it\_prps.
8. Get User ID, telephone number from table PA0105 into it\_pa0105\_50 for subtype ‘0050’, ‘CELL’, ‘WMOB’.
9. Get Division entry date from PA0041 into it\_pa0041 & FM - HR\_ECM\_GET\_DATETYP\_FROM\_IT0041 is used to fetch division entry date by passing start date & pernr from pa0041.
10. Get Vetting/Security Clearance Status, Leadership Grade from tables HRP1002 into it\_hrp1002 & T777U into it\_t777u. These will be maintained in ZPARAMS table.
11. Get Building from HRP1028 table into it\_hrp1028 & Street and House Number, city, Country Key from table T777U into it\_t777a.
12. Get Position Name from table HRP1000 into it\_hrp1000 & persona text from T777W into it\_t777w. Get Manager EPN from table from table HRP1001 into it\_hrp1001
13. Get Manager EPN from table HRP1001 into it\_hrp1001.
14. Data sending to the work area process only active records from IT\_PA0000

ls\_empdatafull-pernr = wa\_pa0000-pernr.

ls\_empdatafull-begda = wa\_pa0000-begda.

ls\_empdatafull-endda = wa\_pa0000-endda.

ls\_empdatafull-stat2 = wa\_pa0000-stat2.

ls\_empdatafull-massn = wa\_pa0000-massn.

ls\_empdatafull-massg = wa\_pa0000-massg.

Get leaving date using FM HR\_LEAVING\_DATE based on pernr

ls\_empdatafull-leave\_date = lv\_date + 1.

ls\_empdatafull-werks = wa\_pa0001-werks.

ls\_empdatafull-persg = wa\_pa0001-persg.

ls\_empdatafull-orgeh = wa\_pa0001-orgeh.

ls\_empdatafull-gsber = wa\_pa0001-gsber.

Get division using FM RH\_STRUC\_GET

ls\_empdatafull-division = wa\_objec-stext.

ls\_empdatafull-stext\_quali = wa\_zparams-value.

ls\_empdatafull-state = wa\_pa0006-state.

ls\_empdatafull-hilfm = wa\_hrp1010-hilfm.

ls\_empdatafull-htext = wa\_t777w-htext.

ls\_empdatafull-build = wa\_t777a-stext.

ls\_empdatafull-strs2 = wa\_t777a-strs2.

ls\_empdatafull-ort01 = wa\_t777a-ort01.

ls\_empdatafull-land1 = wa\_t777a-land1.

ls\_empdatafull-leadership\_grade = wa\_zparams-value.

ls\_empdatafull-manager = gc\_x .

Get manager EPN using FM ZHCM\_LINE\_MANAGER\_MIM

ls\_empdatafull-manager\_epn = ls\_managers-pernr.

ls\_empdatafull-nachn = wa\_pa0002-name2.

ls\_empdatafull-nachn = wa\_pa0002-nachn.

ls\_empdatafull-vorna = wa\_pa0002-vorna.

ls\_empdatafull-midnm = wa\_pa0002-midnm.

ls\_empdatafull-rufnm = wa\_pa0002-rufnm.

ls\_empdatafull-atext = wa\_t522t-atext.

ls\_empdatafull-ctedt = wa\_pa0016-ctedt.

ls\_empdatafull-kostl = wa\_pa0315-kostl.

ls\_empdatafull-prctr = wa\_csks-prctr.

ls\_empdatafull-prctr = wa\_csks-prctr.

ls\_empdatafull-posid = lv\_wbs.

ls\_empdatafull-usrid = wa\_pa0105\_50-usrid.

ls\_empdatafull-telephone\_no = wa\_pa0105\_50-usrid.

ls\_empdatafull-dat01 from FM - HR\_ECM\_GET\_DATETYP\_FROM\_IT0041

ls\_empdatafull-molga = lv\_molga

ls\_empdatafull-wfm = lc\_roster.

ls\_empdatafull-wfm = lc\_non\_roster.

Append the entries to lt\_empdatafull & update staging table zmim\_empdatafull

1. Clear & Refresh the work area & internal table whenever required. Also sort the internal tables where required & also can use binary search where required.
2. In proxy we get the data from table zmim\_empdatafull into lt\_mim\_empdatafull & send it to PI structure output-mt\_hcm\_res-employee for request ‘F’.

### Employee (personal data) DELTA Employee extract

1. Go to SE38 and create new program –

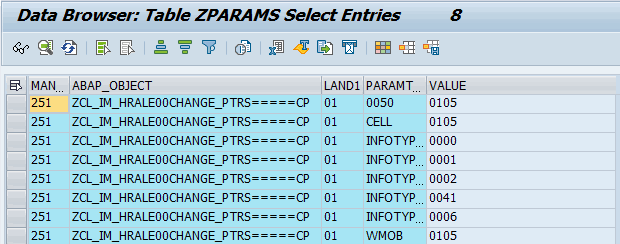
ZMIM\_EMPDATA\_UPDATE

Create Includes

ZMIM\_EMPDATA\_UPDATE\_TOP – Include for data declarations

ZMIM\_EMPDATA\_UPDATE\_FORM – Include for Subroutines

1. In PERFORM get\_data all the table data will fetched. In ZPARAMS table maintain number of days from the system date to fetch future hire latest record into lv\_value.
2. In table ZPARAMS table infotypes are maintained for which the changes on that infoypes to any PERNR will be updated through the Class - **ZCL\_IM\_HRALE00CHANGE\_PTRS** into table ZMIM\_EMPDATA with PERNR, system date & system time.



1. Get the PERNRs from table ZMIM\_EMPDATA & Get End Date, Start Date, Action Type, Reason for Action, Employment Status from PA0000 table into it\_pa0000.
2. Get Employee Last name, Employee Birth name, Employee First name, Employee Nickname, Employee Middle name & Form-of-Address Key from PA0002 table into it\_pa0002
3. Get Form-of-Address Key, Form-of-Address Key-text from table t522t into table it\_t522t.
4. Get Business Sector, Staff Type, Personnel Area, Organizational Unit, position, persona code from table PA0001 into it\_pa0001 & get persona code from table HRP1010 into it\_hrp1010 for position from it\_pa0001.
5. Get Region from table PA0006 into table it\_pa0006 & get Contract End Date from table PA0016 into it\_pa0016.
6. Get Cost Centre from PA0315 into it\_pa0315 & prctr from CSKS table into it\_csks
7. Get WBS Element from PA0027 into it\_pa0027 & profit centre for WBS from PRPS table into it\_prps.
8. Get User ID, telephone number from table PA0105 into it\_pa0105\_50 for subtype ‘0050’, ‘CELL’, ‘WMOB’.
9. Get Division entry date from PA0041 into it\_pa0041 & FM - HR\_ECM\_GET\_DATETYP\_FROM\_IT0041 is used to fetch division entry date by passing start date & pernr from pa0041.
10. Get Vetting/Security Clearance Status, Leadership Grade from tables HRP1002 into it\_hrp1002 & T777U into it\_t777u. These will be maintained in ZPARAMS table.
11. Get Building from HRP1028 table into it\_hrp1028 & Street and House Number, city, Country Key from table T777U into it\_t777a.
12. Get Position Name from table HRP1000 into it\_hrp1000 & persona text from T777W into it\_t777w. Get Manager EPN from table from table HRP1001 into it\_hrp1001
13. Get Manager EPN from table HRP1001 into it\_hrp1001.
14. Data being sending to final structure.

For all data in IT\_EMPDATA which are changed

Get data from PA00001 based on status 3 if not found get data based on status 1 if not found get data based on status 2

<ls\_empdata>-begda = wa\_pa0000-begda.

<ls\_empdata>-endda = wa\_pa0000-endda.

<ls\_empdata>-stat2 = wa\_pa0000-stat2.

<ls\_empdata>-massn = wa\_pa0000-massn.

<ls\_empdata>-massg = wa\_pa0000-massg.

Get leaving date using FM HR\_LEAVING\_DATE

<ls\_empdata>-leaving\_date = lv\_date + 1.

<ls\_empdata>-werks = wa\_pa0001-werks.

<ls\_empdata>-persg = wa\_pa0001-persg.

<ls\_empdata>-orgeh = wa\_pa0001-orgeh.

<ls\_empdata>-gsber = wa\_pa0001-gsber.

Get Division using fm RH\_STRUC\_GET

<ls\_empdata>-division = wa\_objec-stext.

<ls\_empdata>-stext = wa\_hrp1000-stext.

Get Clearance Status using function module BAPI\_QUALIFIC\_GETLIST'

<ls\_empdata>-stext\_quali = wa\_zparams-value.

<ls\_empdata>-state = wa\_pa0006-state.

<ls\_empdata>-hilfm = wa\_hrp1010-hilfm.

<ls\_empdata>-htext = wa\_t777w-htext.

<ls\_empdata>-build = wa\_t777a-stext.

<ls\_empdata>-strs2 = wa\_t777a-strs2.

<ls\_empdata>-ort01 = wa\_t777a-ort01.

<ls\_empdata>-land1 = wa\_t777a-land1.

<ls\_empdata>-manager = gc\_x .

Get manager epn using Function Module 'ZHCM\_LINE\_MANAGER\_MIM'

<ls\_empdata>-manager\_epn = ls\_managers-pernr.

<ls\_empdata>-nachn = wa\_pa0002-name2.

<ls\_empdata>-vorna = wa\_pa0002-vorna.

<ls\_empdata>-midnm = wa\_pa0002-midnm.

<ls\_empdata>-rufnm = wa\_pa0002-rufnm.

<ls\_empdata>-atext = wa\_t522t-atext.

<ls\_empdata>-ctedt = wa\_pa0016-ctedt.

<ls\_empdata>-kostl = wa\_pa0315-kostl.

<ls\_empdata>-prctr = wa\_csks-prctr.

<ls\_empdata>-prctr = wa\_prps-prctr.

<ls\_empdata>-posid = lv\_wbs.

<ls\_empdata>-usrid = wa\_pa0105\_50-usrid.

<ls\_empdata>-telephone\_no = wa\_pa0105\_50-usrid.

<ls\_empdata>-dat01 from FM - HR\_ECM\_GET\_DATETYP\_FROM\_IT0041

<ls\_empdata>-wfm = lc\_non\_roster/ lc\_roster.

APPEND <ls\_empdata> TO lt\_empdata

MODIFY zmim\_empdata FROM <ls\_empdata>.

1. Clear & Refresh the work area & internal table whenever required. Also sort the internal tables where required & also can use binary search where required.
2. In proxy we get the data from table zmim\_empdatafull into lt\_mim\_empdatafull & send it to PI structure output-mt\_hcm\_res-employee for request ‘D’.

# Test Evidence



# Annex A – Product Description (reference only)

For reference purposes only – Delete if required

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| --- | --- |
| **Product Description** | |
| **What?** | The SAP Technical Specification is a detailed description of the technical development required to meet the needs identified in the related Functional Specification. |
| **Why?** | The benefits of completing a SAP Technical Specification are:   * To provide a clear documentation of what has been developed in the system, and why. * To help future support and maintenance of the system. |
| **Who?** | The Developer is responsible for:   * Documenting the technical development requirements.   The Project Manager is responsible for:   * Ensuring that a Technical Specification document is completed for each development. |
| **When?** | The Technical Specification should be completed in the Design Stage:  Dependencies:  The Technical Specification should be delivered with the following considerations:   * Design of the Functional Specification. |
| **Hints and Tips** | N/A |
| **Next Steps** | Once completed you should consider the following products or actions:   * Testing |