Specification Document

RDD-C-3-10-300 Premise Status Report

Version 2.0

Jani



Version Control

Version	Date	Description	Author
1.0	2/17/2019	Initial Draft	Jani
1.1	2/27/2019	Update after internal review	Jani
1.2	3/2/2019	Update additional logics and layout	Jani
1.3	3/15/2019	Update after some changes in the status definition	Jani
1.4	3/27/2019	Update after meeting with FA and Regulatory to finalize the status definitions	Jani
2.0	4/6/2019	Tech Specs	Jani

Approvals

Date	Printed Name	Signature	Organizational Responsibility

Contents

1.	General Information	4
2.	Business Needs & Requirements	5
3.	Assumptions	5
4.	Frequency and Timing	6
5.	Output Type (Online/Print/Spreadsheet)	6
6.	Audience and Distribution	6
7.	Detailed Functional Requirements	7
8.	Report Layout	8
9.	Report Field Details	8
10.	Input Prompts/Selection Screen	10
11.	Exceptions	10
12.	Conditions	10
13.	Charts/Graphs	10
14.	Data Requirements/Pre-requisites	10
15.	Security Requirements / Authorization Details	11
16.	Testing Scenarios	11
17.	Regression Impacts	11
18.	References	11
19.	Report Data Source Details	12
19	9.1 Reporting Data Provider (InfoProvider)	21
19	9.2 Semantic Layer Details (View/Universe/BEx Query)	21
20.	Report Location Details	22
R	Reports	22

1. General Information

Object ID	RDD-C-3-10-300			
Object Description	Premise Status Report			
Functional Owner	Finance and Regulatory			
Dependent Developments	TS-RDD-C-3-20-2 MVI MVO Docs – Switch docs TS-RDD-C-3-10-230 ISU Installation Master Data - Time based			
Reference Documents (BPD/GAP)	BPD C-3-10 Manage Technical Master Data			
Technical information				
1 Report Created Using	□ Report Painter □ Report Writer □ SAP Query □ ABAP program □ Info system □ R/3 □ BW/BOBJ			
3 Execution Mode	CNP BOBJ Portal			
4 Volume of Data	Around 2.5M			
5 Frequency	Ad-hoc			

2. Business Needs & Requirements

BRD FA 09.01.0 Reg# 4.8:

The system shall determine and store a premise status based on the most current state relationships

- New = premise with customer and competitive retailer; move-in or switch completed but has not yet been billed
- Active = premise with customer and competitive retailer; move-in or switch completed and at least one bill has been rendered
- Final = premise with ended customer and competitive retailer relationships and final bill
- Retired = premise where the facilities (meter) has been removed and an 814 20 retire transaction has been sent
- Pending = premise where either a) installation of meter is awaiting a move-in; or, b) meter is installed and a move-in order is present but not yet completed.

CS 01.03.0 Req # 2.15:

2.15 The system shall provide a method to identify and report on the status of the account (contract) and whether it is pending, new (active unbilled contract), active, inactive, final billed, or meter removed. The receipt of Move-Ins and the completion of Move-ins, Move-outs, and Remove Meter orders will update the status.

After the additional clarification from business, the requirement of this report is:

We only need one report which provides the counts as of a key date provided (aka entered by client). Count of distinct ESI.

Drill down capability on each count.

SAP is not storing a status. It is going to maintain the retirement indicator; thus, only the retirement will be obtained from a stored data element. The rest of the statuses will be derived from the condition of the ESI for the time requested with the various relationships identified as the 'drivers' of the condition.

Count provided for each of the below:

Total Pending

Premise with pending MVI

New (Meter/facilities installed/contract active/no billing has been rendered)

Active (Meter/facilities installed/contract active/at least one invoice has been rendered)

Total Inactive

Meter/facilities Removed

Meter/facilities installed/no contract

Meter/facilities installed/past 30 days has final bill contract

Meter/facilities was never installed/no pending MVI

Retired (the ESI is retired)

3. Assumptions

- 1. All fields required by this report will exist or can be derived from the fields in SAP ECC.
- 2. The BW data will be refreshed nightly.
- The MFM_Tariff and Billing Categories spreadsheet has all categories which are "New" or "Present in SAP". The
 assumption is the values should be derived by installation types and rate categories. T & BC Spreadsheet (future
 state) requirement is not finalized yet.

4. Frequency and Timing

Ad-hoc

5. Output Type (Online/Print/Spreadsheet)

Online (CNP BOBJ Portal)

6. Audience and Distribution

Audience Group	Use/Distribution	Estimated Number Users
Finance	CNP BOBJ Portal	N/A
Regulatory	CNP BOBJ Portal	N/A
Electric Market	CNP BOBJ Portal	N/A
Operations (EMO)		

7. Detailed Functional Requirements

New: Installation with active contract (move-in date <= key date, move out date > key date), and the same contract has no bill yet in SAP/BW. This means this status would not be accurate during the cutover period (June 2018 up to October 2018...maybe even into October depending on billing life cycle for the last ESI_IDs converted into SAP.)

Active: Installation with active contract (move-in date <= key date, move out date > key date), and the same contract has at least 1 bill in SAP/BW. This means this status would not be accurate during the cutover period (June 2018 up to October 2018...maybe even into October depending on billing life cycle for the last ESI_IDs converted into SAP.)

Retired: Installation with Deregulation Status = "Retired"

Pending:

- Installation not in Active or New status
- Installation with a pending move in (Switch Document table has at least one entry where switch doc type = 71 and status is not Complete, Complete Unexecuted or Cancelled for the PoD corresponding to the Installation)

Inactive (Other):

- Installation not in Retired or Pending status
- Installations which never had contract in EVER table in SAP

Inactive (Meter/Light Removed):

- Installation type = ENDR, TEMP, ELIT, EIDR, and ESTL
- Installation not in Retired or Pending status
- Installation not in Inactive (Other) status
- For metered installation and streetlight (installation type = ENDR, TEMP, EIDR, and ESTL), there is no device for the time slice where valid from date <= key date and valid to date > key date.
- For the lights unmetered installation (installation type = ELIT), check the installation fact table with the conditions below:
 - o Operand starts with "GL-" (guard light) or "SE-" (security light)
 - Valid from date <= key date < valid to date
 - o If the sum of entry value (ETTIFN- WERT1) is 0, then it's considered as light removed for the installation.

Inactive (Final):

- Installation not in Retired or Pending status
- Installation not in Inactive (Meter/Light Removed) status or Inactive (Other) status
- Installation with inactive contract (move out date < key date), and the move out date has the calendar year/month of the key date. The final bill date is always same as move out date in SAP.

Inactive (Vacant):

- Installation not in Retired or Pending status
- Installation not in Inactive (Meter/Light Removed) status or Inactive (Other) status
- Installation with inactive contract and the move out date does not have the same calendar year/month of the key date.

Total Inactive = Inactive (Final) + Inactive (Vacant) + Inactive (Meter/Light Removed) + Inactive (Other)

Note:

Monthly snapshot will be stored at every month end.

- Even if the drill down fields will be available in the report, it's definitely not a good practice to drill down account # or ESIID number to list all 2.4M premises. Business users should do the proper filter/drill down first to reduce the data volume to a meaningful range, then go to the individual account or ESIID level. For example:
 - Filter by select premises. For example, then we carve out the Department of Energy "Transportation" class based on a supplied list of ESI IDs.
 - Show a subset of premises for a small Town Codes, RACs, REPs (Service Provider), etc.

8. Report Layout

Header: Key Date

Count of New	Count of Active	Count of Final	Count of Retired	Count of Pending	Count of Inactive

The below fields are for drill down purpose

Move- out Date	Switch Doc Type	Switch Doc Status	Deregulation Status	Installation	Premise	Status	Contract Account	Rate Category

ESIID	Contract	Move- In Date	Rev Rate Type	code	Revenue Group	Revenue Class	Service Provider	Town Code	Census Tract	GLN	Lambert Number

There will be another month end status report which will be driven by the calendar year/month. Users can input multiple calendar year/month to see the counts as of month end dates.

9. Report Field Details

Report Field Description	SAP Table	SAP Field Name	Calculation	Business Rules/Notes/ Comments
Key Date	N/A	N/A		User input variable. Default value is system date
Count of New	N/A	N/A	Count of distinct ESIID	Status = New
Count of Active	N/A	N/A	Count of distinct ESIID	Status = Active
Count of Final	N/A	N/A	Count of distinct ESIID	Status = Final
Count of Retired	N/A	N/A	Count of distinct ESIID	Status = Retired

		Cimilion Document			
Count of Pending	N/A	N/A	Count of distinct ESIID	Status = Pending	
Count of Meter Removed	N/A	N/A	Count of Status = M Removed		
Count of Inactive	N/A	N/A	Count of	Status =	
			distinct ESIID	Inactive	
Switch Doc Type	EIDESWTDOC	SWITCHTYPE		Equal to 71	
Switch Doc Status	EIDESWTDOC	STATUS		not in the list of Z3 (Rejected), Z4 (Cancelled), and Z7 (Complete Un- executable)	
Deregulation Status	EANL	DEREGSTAT			
Contract	EVER	VERTRAG			
Move In Date	EVER	EINZDAT			
Move Out Date	EVER	AUSZDAT			
Status	N/A	N/A		Refer to Section 7 above	
Installation	EANL	ANLAGE			
Premise	EVBS	VSTELLE			
ESIID	EUITRANS	EXT_UI			
Asset Type	EANL	ANLART			
Division	EANL	SPARTE		Equal to 10	
Operand	ETTIFN	OPERAND			
Valid From	ETTIFN	AB		Installation fact time slice	
Valid To	ETTIFN	BIS		Installation fact time slice	
Entry Value	ETTIFN	WERT1			
Valid From	EGERH	AB		Device time slice	
Valid To	EGERH	BIS		Device time slice	
Contract Account	EVER	VKONTO			
Rate Category	EANLH	TARIFTYP			
Rev Rate Type	EANLH	TARIFTYP		Derived by rate category. Existing infoobject ZUCRATCL	
RAC Code	ETTIFN	WERT1		OPERAND = RAC	
Revenue Group	ETTIFN	TARIFART		OPERAND = EREVGROUP .Existing infoobject ZUCRTTYPE	
Revenue Class	ETTIFN	TARIFART	Revenue Group = EREVGRP1, then revenue class =1. If EREVGRP2,	Derived by Revenue Group. Use infoobject ZREV_CLS.	

	Report Der	inition Document		
			then class = 2. If EREVGRP3 or EREVGRP4, then class = 3. If EREVGRP5, then class = 4. Else, class = blank.	
Service Provider	EVER	INVOICING_PARTY		
Town Code	ZCEEF_REG_STR	TOWN_CODE		
Service Address Zip Code	ADRC	POST_CODE1		Existing attribute of OUCPREMISE
Census Tract	EVBS	ZZ_CENSUS_TRACT		
GLN	STG.T_GIS_CONN ECTIVITY_TSL	GLN		
Lambert Number	STG.T_GIS_CONN ECTIVITY_TSL	GLN		Derived by GLN. First 4 digits of GLN.
1		I		1

10. Input Prompts/Selection Screen

Field Description	Mandatory vs. Optional	Single Value, Multiple Values or Range
Key Date	Mandatory	Single Value (Default value is system date)

11. Exceptions

N/A

12. Conditions

Filter conditions are listed in section 9 above.

13. Charts/Graphs

N/A

14. Data Requirements/Pre-requisites

15. Security Requirements / Authorization Details

Roles & Security					
Role Name	Roles / Security Description	Access needed (C, R, U, D)	Employee IDs assigned to role		
BOBJ Security role is yet to be determined	Users will be able to display the report. They can also customize the reports, but the customized version can only be saved in the users' favorite folder. The default version of the report cannot be changed by business users.				

16. Testing Scenarios

ID	Description				
Norr	Normal Functionality – test cases that ensure the conversion requirement as it should				
1	New move in customer without the first bill, the report should show it in the count of New column.				
2	Bill the customer, the report should show it in the count of Active column.				
3	Move out and final bill the customer, the report should show it in the count of Final column.				
4	Remove the meter from the premise and an 814_20 retire transaction has been sent, the report should show it in the count of Retire column.				
5	Move in order is pending, the report should show it in the count of Pending column.				
6	New premise in the system, there is no contract and no move in order for the premise in the system. The report should show it in the count of Pending column.				
Exce	eption - special logic or exceptions				
5					
6					
Erro	r Handling - functionality in case of errors				
7					
8					

17. Regression Impacts

18. References

Document Title	Document Location

	1 topol t Dollin Coll Document
BPD C-3-10 Manage Technical Master Data	http://teams.cnptoday.com/IT/SAP/MM/CIS/Deliverables/Forms/AllItems.aspx? RootFolder=%2FIT%2FSAP%2FMM%2FCIS%2FDeliverables%2FBusiness% 20Process%20Documents%20%28BPDs%29%2F03-Final
TS-RDD-C-3-20-2 MVI MVO Docs – Switch docs	http://teams.cnptoday.com/IT/SAP/MM/CIS/Deliverables/Forms/AllItems.aspx? RootFolder=%2FIT%2FSAP%2FMM%2FCIS%2FDeliverables%2FTechnical% 20Specs%2F03- Final&InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersisten ce
TS-RDD-C-3-10-230 ISU Installation Master Data - Time based	http://teams.cnptoday.com/IT/SAP/MM/CIS/Deliverables/Forms/AllItems.aspx? RootFolder=%2FIT%2FSAP%2FMM%2FCIS%2FDeliverables%2FTechnical% 20Specs%2F03- Final&InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersisten ce

19. Report Data Source Details

The Premise is having totally 8 statuses as follows.

- 1. New
- 2. Active
- 3. Retired
- 4. Pending
- 5. Inactive (Other)
- 6. Inactive (Meter/Light Removed)
- 7. Inactive (Final)
- 8. Inactive (Vacant)

The proposed solution architecture is to evaluate the status separately and combine them for reporting purpose.

Proposed Architecture



PremiseStatus_repor t_design.xls

Required Technical Objects

SI No	Logical name	HANAVIEW	
1	Contracts	UCCONTRACT	
2	Sales Stats	CV_CBIC_BILL_AGG	
3	Device	UC_DEVICE	
4	Installation	UCINSTALLA	
5	InstFacts	UCS_DS06	
6	SwitchDocument	ZCBI28A0	

Design Notes:

Inactive Light Meter Removed and Inactive LightUnMetered belong to same

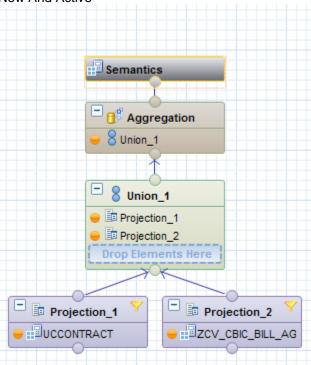
- 1 status in Functional Specs
- Division = 10 for all these objects
 Division should be added to the CV_CBIC_BILL_AGG and ZCBI28AO and UCS_DS06

The evaluation of the statuses are shown in below HANA views. Additional modelling is needed to get the rest of the installation and ESI ID attributes that are needed for the report.

- 1. UC Device Status
- 2. UC_Device_New_Active
- 3. UC Device Retired
- 4. UC_Device_Pending
- 5. UC_Device_Other
- 6. UC Device Inactive MLR
- 7. UC_Device_Inacive_LUM
- 8. UC_Device_Final_Vacant

(Naming standards would be adopted for all objects)

New And Active



Docdate filter in CV_CBIC_BILL_AGG ("0D0C_DATE" <= '\$\$IP_KeyDate\$\$')

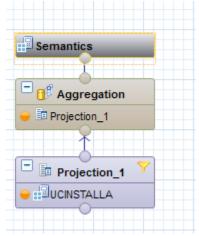
Filter in UCCONTRACT

("OUCMOVEIN_D" <= '\$\$IP_KeyDate\$\$') AND ("OUCMOVEOUTD" > '\$\$IP_KeyDate\$\$') AND ("ODIVISION"
= '10')

Use Anti Join by Union design concept to figure out Billed document exists or not. If Billed Doc exists, it is Active otherwise it is New.

Join UCCONTRACT and UCINSTALL to get Installation details

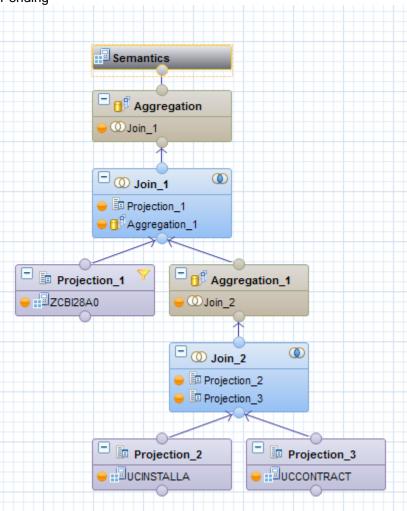
Retired



Filter in UCINSTALLA ("0UCDEREGST" = 'ZZ') AND ("0DIVISION" = '10')

Since the source does not maintain the date on which DeregStatus got changed to ZZ, all such installations will be shown in report.





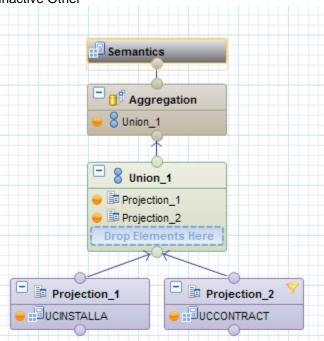
Projection2 and Projection 3 are inner joined by Installation Number in Join2 above Filter for ZCBI28A0 Switch Doc DSO

("OUCSWTTYPE" = '71') AND (in ("OUC_SWTSTAT", 'Z4', 'Z7', '08')) AND ("OUCMOVEIN_W" >= '\$\$IP_KEYDATE\$\$')
AND ("OUCMOVEOUTW" <= '\$\$IP_KEYDATE\$\$')

In Join 1, PODExt is used for inner join

Division = 10 is to be added to ZCBI28A0 to improve the performance

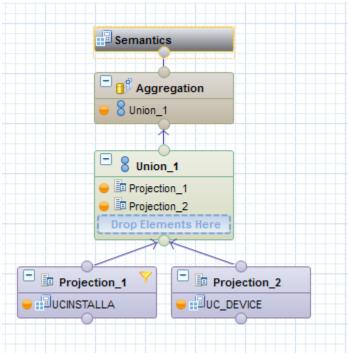
Inactive Other



USCONTRACT - ZCONCRE > KeyDate

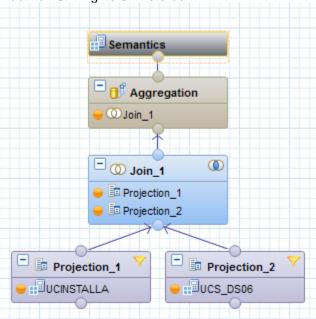
If exists in Ucinstalla and not in UCCONTRACT, then status = inactive Other

Inactive MLR



Asset Type = ENDR, TEMP, EIDR, ESTL in UCINSTALLA

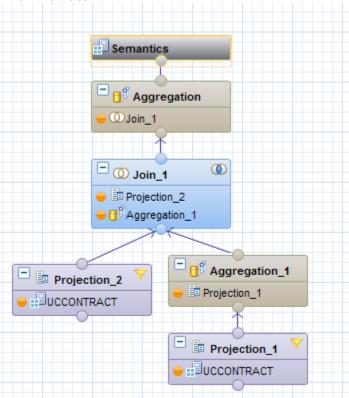
Inactive LUM Lights Unmetered



Filter UCS_DS06

(match("0UCOPERAND",'SE*') or match("0UCOPERAND",'GL*')) AND ("0DATEFROM" <= '\$\$IP_KEYDATE\$\$') AND
("0DATETO" >= '\$\$IP_KEYDATE\$\$') and ("0UCINSTALLA__0DIVISION" = '10') and ("0UCVAL_INT" = '0')

Final And Vacant

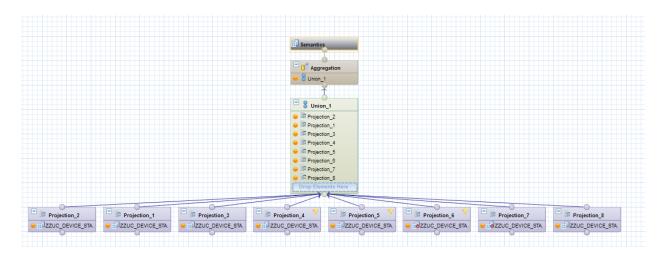


Contrcat of the Max(Moveout date) is to be joined with Contrcat and get the Contract, Installation from UCCONTRACT

```
if (
(
(leftstr("0UCMOVEOUTD",4) = leftstr('$$IP_KEYDATE$$',4))
    and
  (leftstr(rightstr("0UCMOVEOUTD",4),2) = leftstr(rightstr('$$IP_KEYDATE$$',4),2))
),
    'InactFin','InactVac')
```

Join UCCONTRACT and UCINSTALL to get Installation details

Final Join all the sets



Notes: 1 Input parameter Keydate is required which should be used to bind in all views where ever is required.

- 2 Key date is Mandatory
- 3. Division = 10 is required in every view to reduce the data read from database to improve the performance

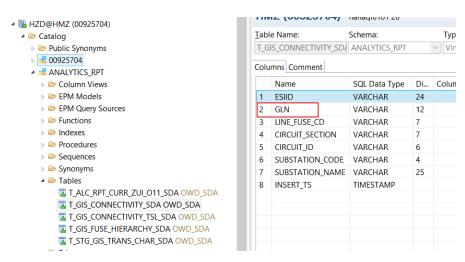
Fields Listing

Report Field Description		SAP Field Name	Calculation	Business Rules/Notes/ Comments
Key Date	Input from User			User input variable. Default value is system date
Count of New	Count from report		Count of distinct ESIID	Status = New
Count of Active	Count from report		Count of distinct ESIID	Status = Active
Count of Retired	Count from report		Count of distinct ESIID	Status = Retired
Count of Pending	Count from report		Count of distinct ESIID	Status = Pending
Count of Inactive Other	Count from report		Count of distinct ESIID	Status = InactOther
Count of Meter Removed	Count from report		Count of distinct ESIID	Status = InactLUM And InactMLR

		inition Document	T	ı
Count of Inactive Final	Count from report		Count of distinct ESIID	Status = InactFinal
Count of Inactive Vacant	Count from report		Count of distinct ESIID	Status = InactVacant
Switch Doc Type	ZCBI28A0	SWITCHTYPE		
Switch Doc Status	ZCBI28A0	0UC_SWTSTAT		
Deregulation Status	UCINSTALLA	DEREGSTAT		
Contract	UCONTRACT	0UCCONTRACT		
Move In Date	UCONTRACT	0UCMOVEIN_D		
Move Out Date	UCONTRACT	OUCMOVEOUTD		
Status	Derived in the report as Premise Status			
Installation	UCINSTALLA	OUCINSTALLA		
Premise	UCINSTALLA	0UCPREMISE		
ESIID				
Asset Type	UCINSTALLA	0UCINST_TY		
Division	UCINSTALLA	0DIVISION		
Operand	UCS_DS06	0UCOPERAND		
Valid From	UCS_DS06	0DATEFROM		Installation fact time slice
Valid To	UCS_DS06	0DATETO		Installation fact time slice
Entry Value	UCS_DS06	0UCVAL_INT		
Valid From	UC_Device	TBD		Device time slice
Valid To	UC_Device	TBD		Device time slice
Contract Account	UCCONTRACT	0CACONT_ACC		
Rate Category		TARIFTYP		
Rev Rate Type	UCINSTALLA	ZUCRATCL		Derived by rate category. Existing infoobject ZUCRATCL
RAC Code	0UCS_DS06			OPERAND = RAC
Revenue Group	0UCS_DS06			OPERAND = EREVGROUP .Existing infoobject ZUCRTTYPE
Revenue Class	Derived Field	ZREV_CLS	Revenue Group = EREVGRP1, then revenue class = 1. If EREVGRP2, then class = 2. If EREVGRP3 or EREVGRP4, then class = 3. If EREVGRP5,	Derived by Revenue Group. Use infoobject ZREV_CLS.

			then class = 4. Else, class = blank.	
Service Provider	UCCONTRACT	0UCSERV_ID		
Town Code	ZUCRACCDE	ZUCTWNCDE		
Service Address Zip Code	0UCPREMISE	ZPOSTCD_5		Existing attribute of OUCPREMISE
Census Tract	EVBS	ZZ_CENSUS_TRACT		
GLN		GLN		
Lambert Number	Derived field based on GLN	GLN		Derived by GLN. First 4 digits of GLN.

*For GLN & Lambert Number



19.1 Reporting Data Provider (InfoProvider)			
Technical Name	Description		
ZXXXXCP Premise Status Composite Provider			

19.2 Semantic Layer Details (View/Universe/BEx Query)						
Universe/View/B	Ex Name	Desc	ription Notes/Comments (Eg		g. Table join details)	
ZUC_ZXXXXCP_0		Premi	ise Status			
Field Name	Field Descript	ion	Field Type (Dimension /	Attribute / Measure)	Notes/Comments All the fields and related infoobjects listed in section 19	

20. Report Location Details

Reports					
Report Name	Premise Status Report				
Report Location	CIS Folder	CU ID	TBD		
Report Type	Excel Analysis	Frequency Run	adhoc		
Report Screenshots					
Report Scheduling Scree	enshots				