Visy's Successful SAP Carve-out to Cloud in 4 months!

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150+ OPERATIONS ACROSS AUSTRALASIA

Visy is a global leader in packaging and resource recovery, and has been a pioneer in sustainability since its inception.

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Our comprehensive end to end solutions

Our innovation, manufacturing and logistic capabilities are organised around an integrated closed loop.

This gives life to tailored solutions that deliver enduring value for our customers, partners and communities.

A full lifecycle of packaging capability

- Recycling
- Paper
- Insights & Innovation
- Primary Packaging
- Fibre Packaging
- Packaging Supplies
- Point of Sale
- Automation
- Materials Handling
- Logistics

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Our scale is your advantage: Visy key numbers

A$4.1B
SALES

A$6.5B
ASSETS

7,000
PEOPLE

As at 30 June 2019 (including Glass business revenue prior to acquisition)

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Closed loop manufacturing sets us apart

We take it* (FY2022)

PAPER & CARDBOARD	GLASS	OTHER PLASTICS
1.27M TONNES	**512k** TONNES	**44k** TONNES

STEEL	PET	ALUMINIUM	HDPE
24k TONNES	**29k** TONNES	**17k** TONNES	**18k** TONNES

We make it (FY2022)

BEVERAGE CANS	PLASTIC CONTAINERS	PLASTIC PREFORMS	FOOD CANS
2.4B	**1B**	**1B**	**547M**

BOARD	GLASS	RECYCLED PAPER	KRAFT PAPER
928k TONNES	**814k** TONNES	**813k** TONNES	**681k** TONNES

Includes recyclable materials used by Visy and provided to other recyclers. Source: Visy Blue Book FY2022 ANZ Materials Reporting

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The Challenge

Visy acquired Owens Illinois ANZ Glass Manufacturing Business in August 2020

- The whole organisation is on a single Instance of SAP ERP & Payroll

- O-I ECC6 EHP6 in Azure , Visy ECC6 EHP7 in AWS

- We had an **8 month** timeline to migrate to Visy SAP Instances

- View Access to OI Systems until October 21

- Closing Balances loaded only

- 33% increase in SAP Users – New PM,QM,WM Modules

- Significant Transformation of applications and analytics reporting

- Resource Constraints – Team was focused on Visy SAP Migration

- Covid – the whole transformation was to be performed remotely

- No simple means of making the data available

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The Solution - SNP Transformation Platform

A Carveout of 2 SAP Systems & 3 Clients

1. Agree on the migration concept and rules: VISY & OI, as per SNP framework
2. Clone the Source system as this is now static – no impacts to OI
3. Customize the SNP Data Transformation Platform, as per the migration rules
4. Conduct a technical test migration
5. Validate with a visual data inspection
6. Correct/adjust errors in data extraction/implementation of the rules in the SNP Data Transformation Platform
7. Conduct two (2) TEST migrations
8. Verification check of the TEST migrations
- Visual data inspection
- Check on data records based on transformation logs
- Correct errors , as required

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Key Considerations

- 2 Source Systems P15 & AU1.
- 3 Source Clients P15, AU1 100 & 110.
- P15 DB size 4.5TB.
- AU1 DB size 1TB.
- 6 ANZ Company code carve out only (6010,6015,6020,6030,6040,6100) from both P15 & AU1.
- Client 110 (NZ HR) - full data copy moved to target system.
- OS/DB change DB2 to SQL.
- Target environment AWS
- 2 Target Systems X16 & XU2.
- 4-month project duration approx. and purposed start of July 2021

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O-I Source Data

P15 Global

Company Code	Company Name
6010	Visy Packaging Services
6015	Visy Operations AU Pty Ltd
6020	Brisbane Cullet Pty Ltd
6030	Visy International Pty Ltd
6040	Visy Packaging Penrith
6100	Visy Operations NZ Pty Ltd

AU1 Client 100 & 110

Company Code	Company Name
1000	ACI Operations Pty Ltd
1010	ACI Operations NZ Ltd
1030	O-I Asia Pacific
1040	ACI International Pty Ltd
1050	ACI Packaging Services
1060	Owens-Illinois Australia
1090	Brisbane Cullet Pty Ltd

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Current Landscape to Target Landscape

OI AUS/ANZ Carveout

SAP landscape

P15
ECC 6 EHP6
DB2

AU1
ECC 6 EHP 6
DB2

X16
ECC 6 EHP6
DB2

XU2
ECC 6 EHP6
DB2
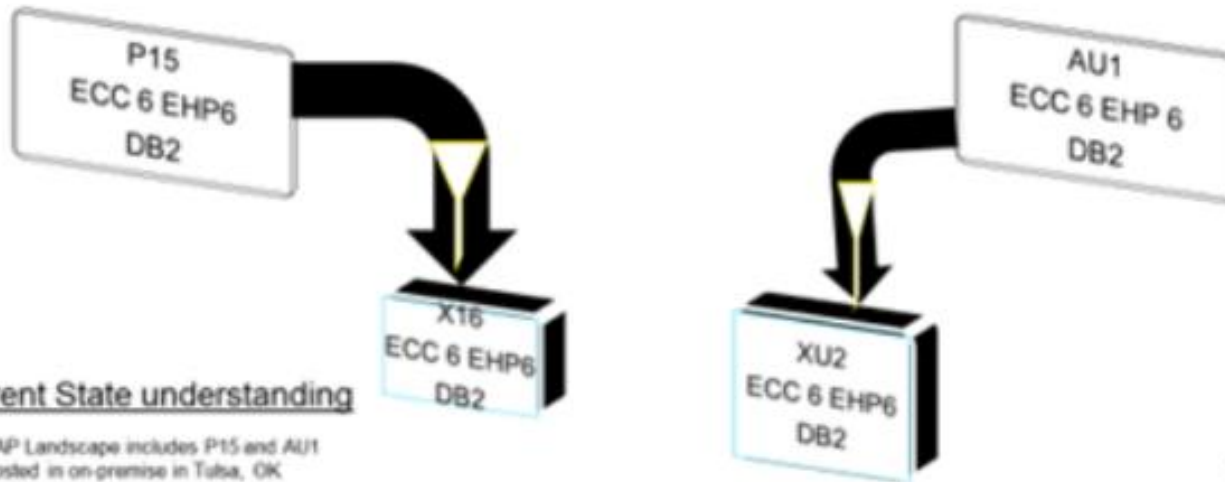
Current State understanding

- SAP Landscape includes P15 and AU1
- Hosted in on-premise in Tulsa, OK

Target considerations

- Keep existing architecture
- Minimize Business disruptions
- Copy of P15 / AU1 with data related 6 company codes

Target State

- Keep all functionality
- Copy of P15 and AU1 with data of 6 company codes on DISK as system images.
- Buyer will restore these onto buyer's infrastructure
- Buyer will procure SAP / DB2 licenses

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	P15	AU1 (100)	AU1 (110)
SAP Version	ECC 6 Ehp6	ECC 6 Ehp6	
DB Size	4.5 TB	1 TB	
No of Plants	30	14	14
No of cost centers	282	573	275
No of Profit Centers	66	117	63
No of Unique GL accounts	869	831	673
Total SO in the system	120,453	23,5267	75,730
Total PO in the system	214,480	230,815	54,719
Total IO in the system	107,375	410,730	9,438
Open Items-AP	23,141	17,914	1,676
Open Items-AR	17,005	8,980	3,101
Asset Line items	81,650	498,160	191,252
Projects	6,040	47,487	8,992

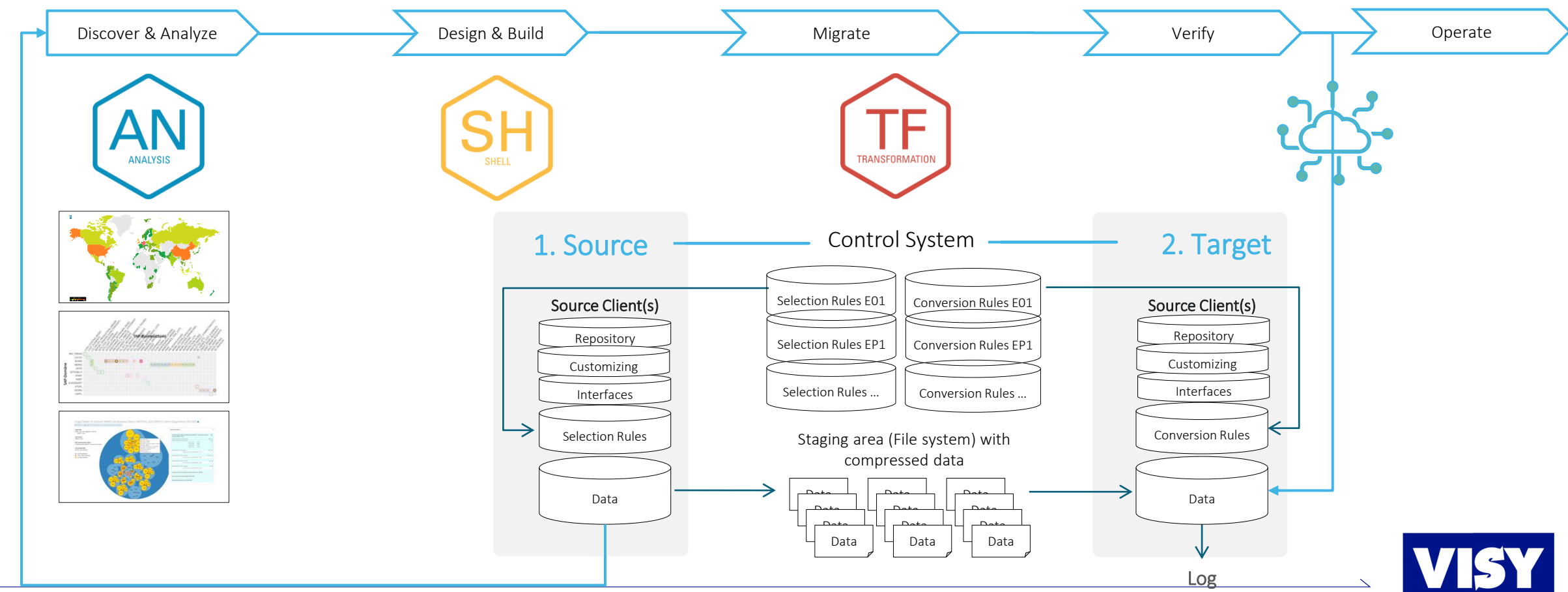Cloned P15 (X16) & AU1 (XU2) DB sizes at VISY

X16 – 1.137 TB

XU2 – .2424 TB

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Project Plan and Timeline (July to end-October)

SNP Transformation activities		Status	12-Jul W1	19-Jul W2	26-Jul W3	2-Aug W4	## W5	## W6	## W7	## W8	## W9	13-Sep W10	20-Sep W11	27-Sep W12	4-Oct W13	11-Oct W14	18-Oct W15	25-Oct W16	1-Nov W17
			Analysis			TM1			Test-1			TM2			Test-2		GL	Support	
Analysis and Planning																			
Project Kick-off	SNP & OI & VISY	completed																	
Definition of timeline	SNP & OI & VISY	completed																	
Definition of relevant migration objects from System scan	SNP & OI & VISY	completed																	
Initiate SNP Shell creation software (RESC) request & License	SNP	completed																	
Initiate SNP T-Bone software request for Control (CNT), Source(STG)	SNP/OI	completed																	
SNP RESC Shell export from ECC-P15 & AU1	SNP	completed																	
Temp ECC shell system (X16 & XU2) creation with above shell export	OI & VISY	completed																	
SNP T-Bone software implementation on Control, Source P15 & AU1 and Target X16 & XU2 systems	OI & VISY	completed																	
Workshop for Business Rules verification & Confirm Organisational Units	SNP & OI	completed																	
Identify Interfaces (BW / BO web EDI, Vendor EDI)	OI	completed																	
BBP preparation and finalization	SNP & OI	in progress																	
BBP sign-off	SNP & OI	in progress																	
Test Migration - 1						TM1			Test & Fix										
TM1 Scenario validation and system assignment	SNP	completed																	
Implementation of Transformation Rules for selection & mappings	SNP	completed																	
Processing the Data Migration with selection & mappings	SNP	in progress																	
Technical verification by SNP	SNP	Open																	
Unit Test by CUSTOMER	OI	Open																	
Correction of Transformation Rules	SNP	Open																	
Sign-off for TM-1	SNP & OI	Open																	
Test Migration - 2												TM2			Test & Fix				
Prepare copy of PRD system	OI	Open																	
Source & Target System preparation for TM-2	SNP & OI & VISY	Open																	
Correction of Business Rules for selection & mappings	SNP	Open																	
Processing the Data Migration with selection & mappings	SNP	Open																	
Technical verification by SNP	SNP	Open																	
UAT by CUSTOMER	OI & VISY	Open																	
Correction of Transformation Rules if any	SNP	Open																	
Sign-off for TM-2	SNP & OI	Open																	
GO LIVE																	GL		
System Change Freeze - Transports, Config Changes etc.																			
Prepare copy of PRD system	OI	Open																	
Source & Target System preparation for Go-Live	SNP & OI & VISY	Open																	
Processing the Data Migration with selection & mappings	SNP	Open																	
Technical verification by SNP	SNP	Open																	
Verify Data	OI	Open																	
Verify Data - 2	VISY	Open																	
Go-Live	OI & VISY																		
GO LIVE SUPPORT																		Support	
Post Go-Live support for 2 week		Open																	

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RACI Matrix

SNP Transformation activities		OI - SOURCE				VISY - TARGET				SNP			
Analysis and Planning		**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**
Project Kick-off	SNP & OI & VISY	x	x					x	x	x	x		
Definition of timeline	SNP & OI & VISY	x	x					x	x	x	x		
Definition of relevant migration objects from System scan	SNP & OI & VISY			x	x			x	x	x	x		
Initiate SNP Shell creation software (RESC) request & License	SNP			x	x			x	x	x	x		
Initiate SNP T-Bone software request for Control (CNT), Source(STG)	SNP/OI			x	x			x	x	x	x		
SNP RESC Shell export from ECC-P15 & AU1	SNP			x	x			x	x	x	x		
Temp ECC shell system (X16 & XU2) creation with above shell export	OI	x	x					x	x			x	x
SNP T-Bone software implementation on Control, Source P15 & AU1 and Target X16 & XU2 systems	OI	x	x					x	x			x	x
Workshop for Business Rules verification & Confirm Organisational Units	SNP & OI	x	x					x	x	x	x		
Identify Interfaces (BW / BO web EDI, Vendor EDI)	OI	x	x					x	x			x	x
BBP preparation and finalization	SNP & OI	x	x					x	x	x	x		
BBP sign-off	SNP & OI	x	x					x	x			x	x
Test Migration - 1		**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**
TM1 Scenario validation and system assignment	SNP			x	x			x	x	x	x		
Implementation of Transformation Rules for selection & mappings	SNP			x	x			x	x	x	x		
Processing the Data Migration with selection & mappings	SNP			x	x			x	x	x	x		
Technical verification by SNP	SNP			x	x			x	x	x	x		
Unit Test by CUSTOMER	OI	x	x					x	x			x	x
Correction of Transformation Rules	SNP			x	x			x	x	x	x		
Sign-off for TM-1	SNP & CUSTOMER	x	x					x	x	x	x		
Test Migration - 2		**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**
Prepare copy of PRD system	CUSTOMER	x	x					x	x			x	x
Source & Target System preparation for TM-2	SNP & CUSTOMER	x	x			x	x			x	x		
Correction of Business Rules for selection & mappings	SNP			x	x			x	x	x	x		
Processing the Data Migration with selection & mappings	SNP			x	x			x	x	x	x		
Technical verification by SNP	SNP			x	x			x	x	x	x		
Unit Test by CUSTOMER	OI & VISY	x	x			x	x					x	x
Correction of Transformation Rules if any	SNP			x	x			x	x	x	x		
Sign-off for TM-2	SNP & CUSTOMER	x	x						x	x	x		
GO LIVE		**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**
System Change Freeze - Transports, Config Changes etc.		x	x					x	x			x	x
Prepare copy of PRD system	OI	x	x			x	x			x	x		
Source & Target System preparation for Go-Live	SNP & OI & VISY	x	x			x	x			x	x		
Processing the Data Migration with selection & mappings	SNP			x	x			x	x	x	x		
Technical verification by SNP	SNP			x	x			x	x	x	x		
Verify Data	OI & VISY	x	x			x	x					x	x
Go-Live	CUSTOMER	x	x			x	x					x	x
GO LIVE SUPPORT		**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**	**R**	**A**	**C**	**I**
Post Go-Live support for 2 week				x	x			x	x	x	x		

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SNP Transformation Platform - Keep the best transform the rest!

Discover & Analyze → Design & Build → Migrate → Verify → Operate

AN ANALYSIS

SH SHELL

TF TRANSFORMATION

1. Source — Control System — 2. Target

Source Client(s)
- Repository
- Customizing
- Interfaces
- Selection Rules
- Data

Selection Rules E01
Selection Rules EP1
Selection Rules ...

Conversion Rules E01
Conversion Rules EP1
Conversion Rules ...

Staging area (File system) with compressed data

Data Data Data
Data Data Data
Data Data Data

Source Client(s)
- Repository
- Customizing
- Interfaces
- Conversion Rules
- Data

Log

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Selective Data Transformation Approach

Select from Source	Transform	Migrate to Target

Transformation Cockpit

1. Source

Control System

2. Target

(A)

Selection Rules	Conversion Rules
Selection Rules	Conversion Rules
Selection Rules ...	Conversion Rules ...

(A)

Source Client(s)

| Repository |
| Customizing |
| Interfaces |

Selection Rules

Target Client(s)

| Repository |
| Customizing |
| Interfaces |

Conversion Rules

Data

(B)

Staging area (File system) with compressed data

Data

(C)

Data

(D)

Log

A. **Distribution of Rule Base**

Provided Rules are distributed from Control System to source and target system

B. **Data Export**
- Business object level (logical table grouping)
- Export Processes running on source system

C. **Data Import**
- Import into target client with conversion
- Fast direct table updates

D. **Verification**

Automated checks and test procedures ensure data consistency and quality

Benefits
- Table-based transformation independent from finished customizing
- Fast transformation without using application checks
- Highly automated and improved technical procedures

Migration Methodology Steps/Sequence

1.Distribution of rule base
•Provided Rules (selection and conversion) will be implemented in the central transformation cockpit and are distributed to source and target system

2.Data export
•On business object level (logical table grouping)
•Extraction of all master data objects plus all relevant transactional data objects
•Export Processes running on source system
•Exported data will be saved as compressed data files in the file share

3.Data Import
•Compressed data from the fileshare will be decompressed
•After decompressing the provided rules for conversion, like mapping or renaming etc., will be applied during the import of the data
•Import will be done table based directly on the database

4.Verification
•Automated checks and test procedures ensure data consistency and quality
•Procedure certified by leading auditing company.
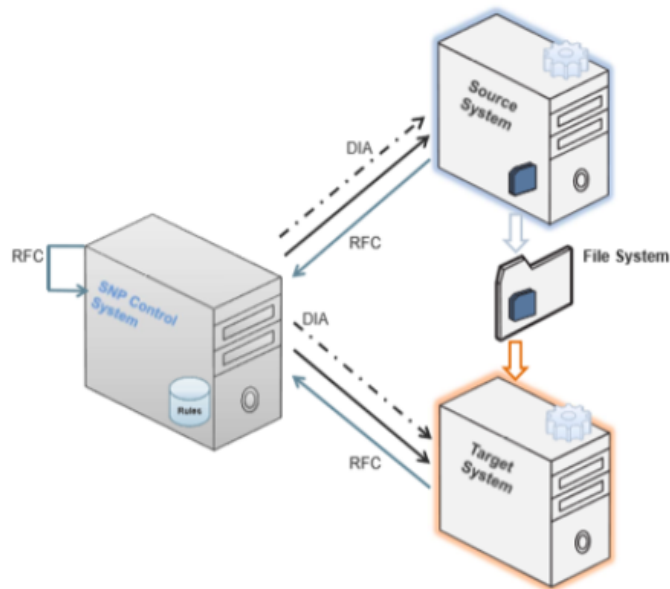
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Key SNP Requirements

1. Shell
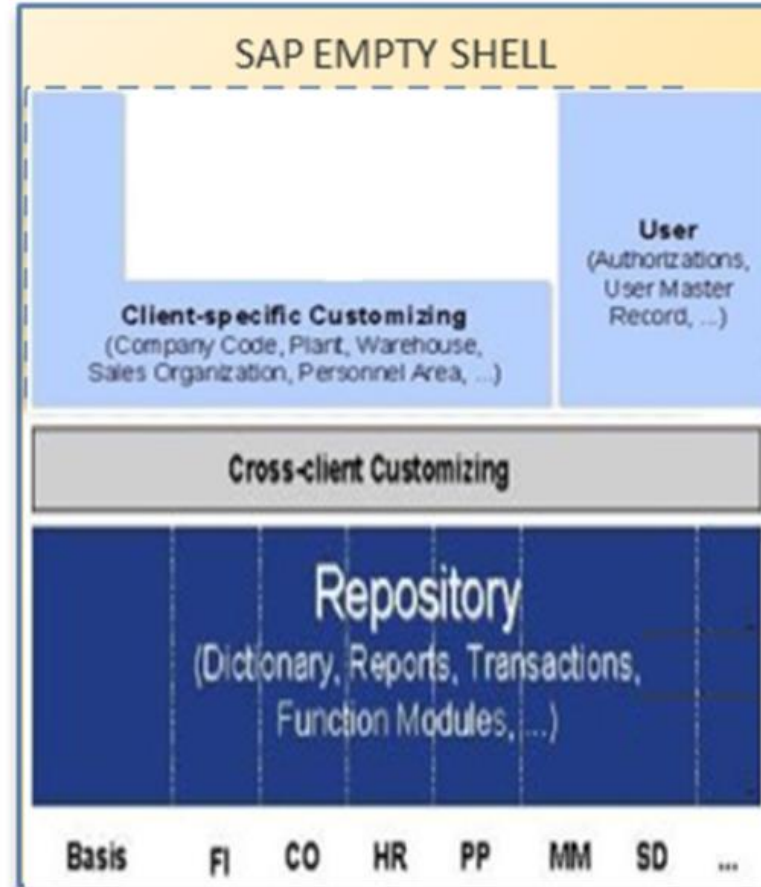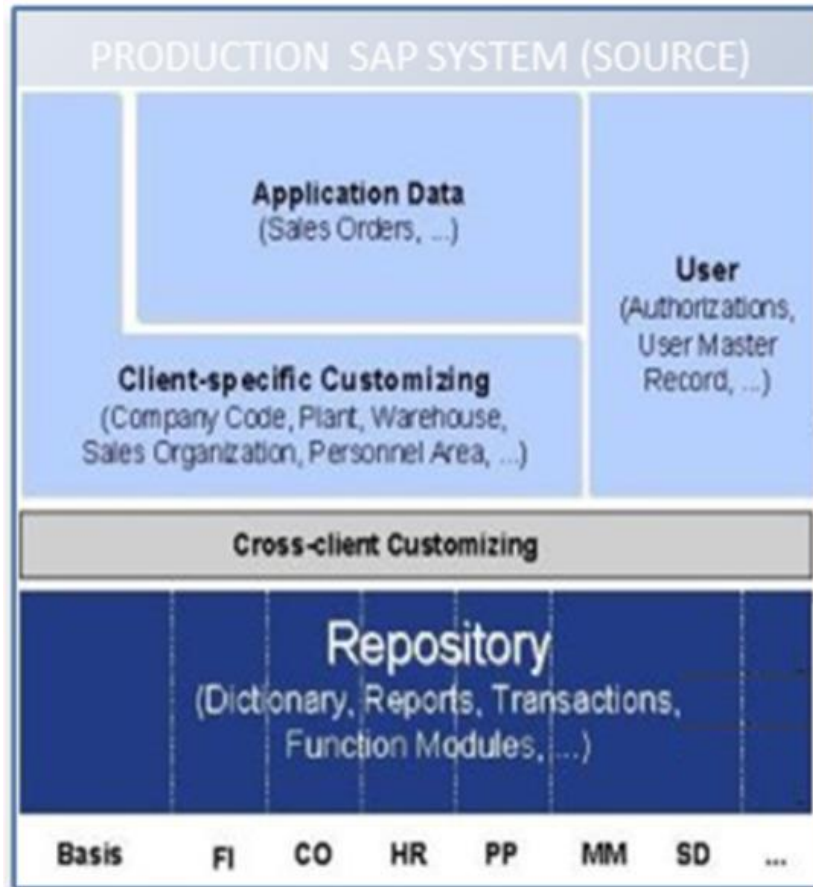
Key SNP Requirements

2. Fileshare – data exported from the SOURCE system is compressed which is then imported and de-compressed in the TARGET system

3. RFC Connections – Solution Manager is used as the control system which connects SOURCE & TARGET

RFCs to be created for each system:
<SNP-component>_<System-ID>_<Client>
<SNP-component>_<System-ID>_<Client>_DIA
For PRD/200:
SNP_TB_PRD_200
SNP_TB_PRD_200_DIA
RFC User: SNP_RFC (Communication User)
Assigned with below SNP roles:
/SNP/CN_RFC_BASIS
/SNP/CN_RFC_70

Benefits/Outcomes

Ongoing Data availability with minimal change management

The Cloned Systems were available to the business in the required timeframe

- A simple GUI update and business communication was all that was required

- Minimal change to the user experience

- A "Visy Glass" SAP configuration system for reference

- Ability to shutdown outside business hours to control cost

- Data Migration and eventual shutdown in our own timeframe

- This was commercially the most viable option
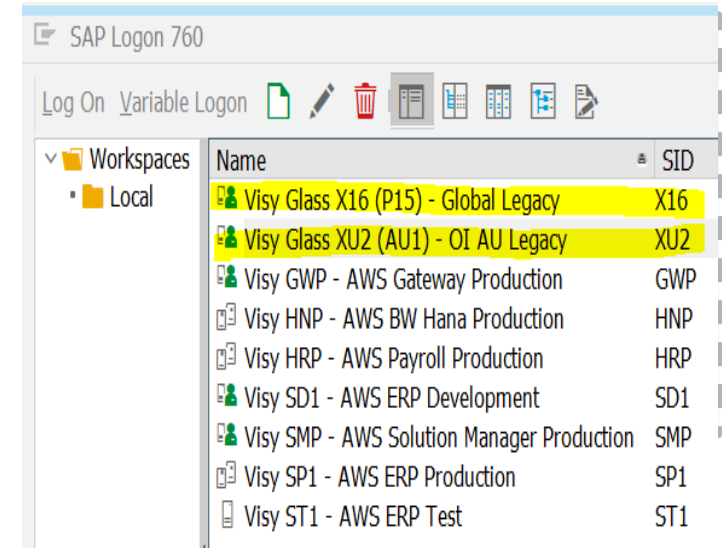
Essentials & Lessons Learnt

1. Agreement/consensus on the approach – **SNP**, **SOURCE** owner & **TARGET** owner
2. **Network connectivity**
   - Same Data Center – VPC Peering
   - Different Data Center – compatible network solution
3. **Governance & coordination** – access and verification of data
4. **Quick turnaround** – from verification to fixes
5. **Preparation** and **skills** of the verification teams
6. **Business commitment** to testing

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Future Plans

Eventually Decommission

Use has reduced over 2.5 years

- 945 users on day 1 , 45 users as at May 23

- Ongoing use for Tax & Compliance , other business drivers

- Reviewing what data we need to retain and retention methods

- Evaluating SNP outboard Data Fridge for mass archiving

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> "
>
> *The Carveout of our Legacy SAP Systems allowed us continued access to our data in a manner we were familiar with.As an added bonus, irrelevant data was not migrated.We had uninterupted access to our data, with zero input required.*

Iain Murphy – Procurement Manager , Primary
Packaging

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Questions?

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