

A Proven Approach to

Enterprise Data Reconciliation



 dataZap™ Whitepaper



Objective

This paper provides an insight into Best Practices for data reconciliation to verify the success and completeness of data migration, thereby assuring the continuity of operational performance after the completion of data migration activities



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A Proven Approach to

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BUSINESS

EXPECTATIONS

With the advent of modern Applications, Enterprise customers find themselves at crossroads whether to stay with antiquated Applications or adopt new Applications that not only enhance operational efficiency but also provide an opportunity for digitization with the ability to easily connect and exchange data amongst multiple Applications. This has spurred a strong growth in the adoption of modern Applications.

Migrating data from older legacy applications to modern Applications is not an easy task and often results in missing data, inability to retain older business processes in the new Application, etc. Business expectations are focused on:



Assuring availability of current business processes in new Applications

Verifying that data migrated from older legacy Applications is complete

Verifying data readiness prior to data loading into Modern Target Applications

Establishing data governance for on-boarding data into Modern Target Applications

Creating an Audit Trail that gives visibility into the data migration process

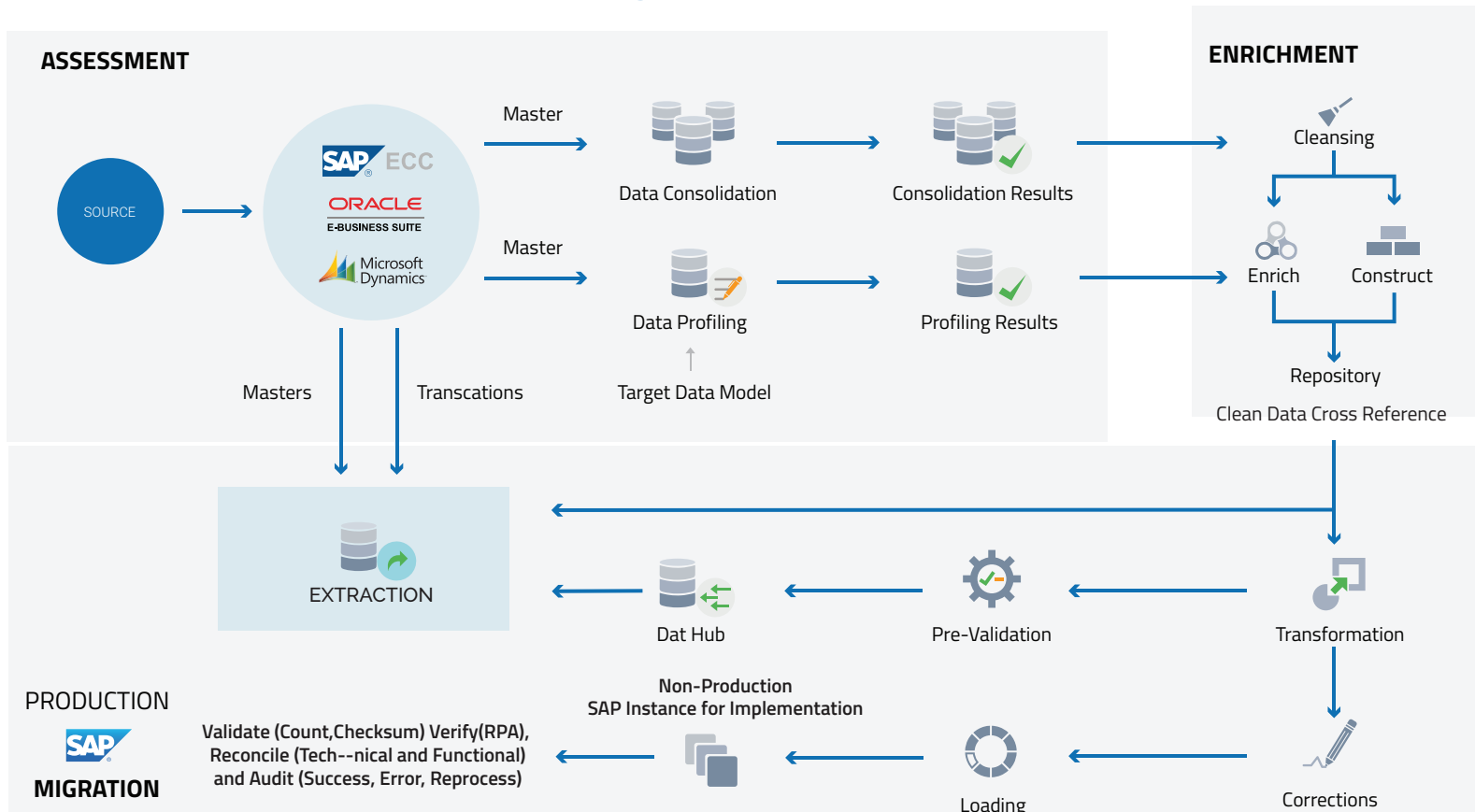
Most importantly, validation is a must have for any data migration exercise and Data Reconciliation between the Source and Target Applications becomes a stipulated requirement as part of the Go-Live process.

Data Migration Process Steps

Data Migration involves multiple steps as listed below:

- Data Extraction from source system(s)
- Data Assessment - data profiling & consolidation
- Data Cleansing & Data Quality Activities – data harmonization, data enrichment, data construction
- Data loading into the target application
- Data Reconciliation & Validation

Typical End-to-End Data migration process steps are shown below:



Data Reconciliation & Validation

Business requires a simple mechanism for data reconciliation as part of its data migration validation process, instead of the traditionally utilized Excel spreadsheets, which are often unreliable and are commonly viewed with skepticism by C-level Business executives. Any reconciliation tool utilized must be easy to deploy, simple to use, and have the ability to provide a view of the corrective actions required.

Reconciliation reports should be presented in the form of dashboards to facilitate the validation process, enabling business users to review and approval the data, and thereby expediting the migration validation and facilitating the Audit process.

Multiple levels of reconciliation reporting should be utilized. These can be typically divided into two segments:

- A pre-load reconciliation that compares data between the source system and the transformed data to confirm the right transformations have been applied.
- A post-load reconciliation that compares data between the transformed data and the data loaded in the target system to confirm the right data has been loaded

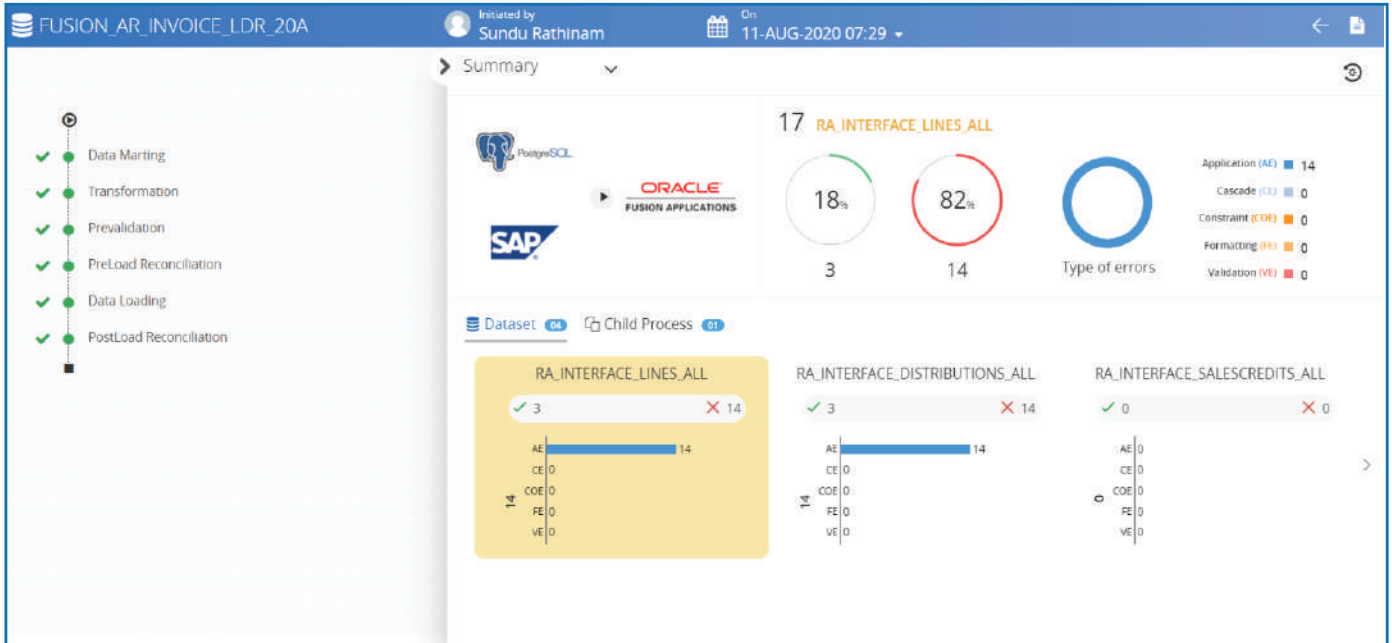
Reconciliation tools must also give a view of multiple dimensions of reconciliations under the pre-load and post-load categories, as needed by business. These can be segmented into two broad categories:

- "Technical Reconciliations" (field-to-field comparisons)
- "Functional Reconciliations" (compare field values e.g.: Currency Amount & Quantity at various dimensional levels)

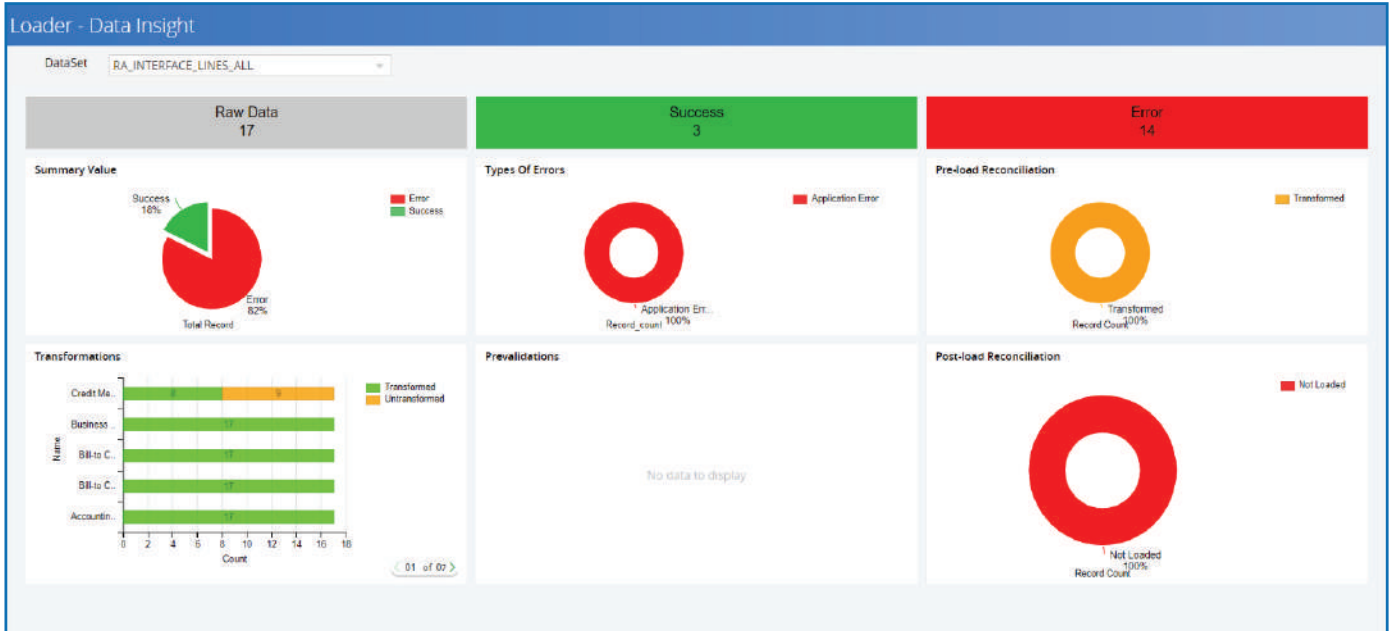
The functional level reconciliation reports include comparison of functional data models between the source and target systems and enable the business users to validate the migration, including the corresponding transformation. This is an important area that must be covered to ensure that the data set migrated to the new application is accurate.

Below are some views of data migration reconciliation reports for various ERP Platforms

Data migration from SAP to Oracle Fusion ERP Cloud: (Field to Field comparison)



The above picture shows the audit trail information on AR Invoices processed from SAP ECC to Oracle Fusion ERP Cloud.



The above picture shows the data insights for the AR Invoice migration processed from SAP ECC to Oracle Fusion ERP Cloud. It shows the Success and error counts, error details, transformation rules with data transformed through each rule, pre-load reconciliation and post-load reconciliation results.

Loader - Data Insight

DataSet: RA_INTERFACE_LINES_ALL

Summary Value

Transformations

Credit Memo
Business
Name
Bill-to C.
Bill-to C.
Accounting

Pre-load Reconciliation - Transformed Records

RA_INTERFACE_LINES_ALL

SLNo	SRC_Line Transactions Flexfield	TGT_Line Transactions Flexfield	SRC_Line Transactions Flexfi	TGT_Line Transactions Flexfi	SRC_Business_Unit_Name_C	TGT_Business Unit Name	SRC_Transaction_Batch_Sourc	TGT_Transaction
1	1800000003	SR11_1800000003	001	001	1000	US1 Business Unit		Manual
2	1800000004	SR11_1800000004	001	001	1000	US1 Business Unit		Manual
3	1800000005	SR11_1800000005	001	001	1000	US1 Business Unit		Manual
4	1600000005	SR11_1600000005	002	002	3000	US1 Business Unit		Manual
5	1600000006	SR11_1600000006	002	002	3000	US1 Business Unit		Manual
6	1600000007	SR11_1600000007	002	002	3000	US1 Business Unit		Manual
7	1600000008	SR11_1600000008	002	002	3000	US1 Business Unit		Manual
8	1600000009	SR11_1600000009	002	002	3000	US1 Business Unit		Manual
9	1800000000	SR11_1800000000	002	002	3000	US1 Business Unit		Manual
10	1800000001	SR11_1800000001	002	002	3000	US1 Business Unit		Manual

Showing all 17 rows

Only the top 1000 records are shown here.

Count 01 of 07

100% Record Count

The above picture shows the preload reconciliations for AR Invoice which is processed from SAP ECC into Oracle Fusion ERP Cloud Application.

Loader - Data Insight

DataSet: RA_INTERFACE_LINES_ALL

Summary Value

Transformations

Credit Memo
Business
Name
Bill-to C.
Bill-to C.
Accounting

Post-load Reconciliation - Not Loaded Records

RA_INTERFACE_LINES_ALL

SLNo	SRC_Accounting Date	TGT_Accounting Date	SRC_Transaction Batch Source Nam	TGT_Transaction_Batch_Source_Na	SRC_Transaction Type Name	TGT_Transaction_Type_Name	SRC_Transaction Date
1	2020/08/11		Manual Numbering		Invoice		2011/01/07
2	2020/08/11		Manual Numbering		Invoice		2011/09/16
3	2020/08/11		Manual Numbering		Credit Memo		2011/12/16
4	2020/08/11		Manual Numbering		Invoice		2011/11/08
5	2020/08/11		Manual Numbering		Credit Memo		2011/02/22
6	2020/08/11		Manual Numbering		Credit Memo		2011/02/22
7	2020/08/11		Manual Numbering		Credit Memo		2011/11/16
8	2020/08/11		Manual Numbering		Credit Memo		2011/02/22
9	2020/08/11		Manual Numbering		Invoice		2011/12/16
10	2020/08/11		Manual Numbering		Credit Memo		2011/10/16

Showing all 14 rows

Only the top 1000 records are shown here.

Count 01 of 07

100% Record Count

The above picture shows the post-load reconciliations with error records for AR Invoice which is processed from SAP ECC into Oracle Fusion ERP Cloud Application.

Migration Flow Execution

Initiated by Sundu Rathinam On 19/Aug/2020 04:58 PM

Post-Load Reconciliation step 6/6

PS_FUSION_AP_AR_FA_GL_MIG

POZ_SUPPLIERS_INT

SRC_Import Action	TGT_Import Action	SRC_Supplier Nam	TGT_Supplier Nam	SRC_Supplier Nam	TGT_Supplier Nam	SRC_Supplier Num	TGT_Supplier Num	SRC_Alt
CREATE	CREATE	SS17_1099G Repor	SS17_1099G Repor			745	1099GAL	
CREATE	CREATE	SS17_1099I Repor	SS17_1099I Repor			740	1099IALL	
CREATE	CREATE	SS17_ABC Supplie	SS17_ABC Supplie			742	ABC	
CREATE	CREATE	SS17_AC CORP	SS17_AC CORP			746	AC CORP	
CREATE	CREATE	SS17_CANNERY D	SS17_CANNERY D			743	CANNERY	
CREATE	CREATE	SS17_Consignmen	SS17_Consignmen			744	CONSIGN	
CREATE	CREATE	SS17_PC S Pro	SS17_PC S Pro			738	PCS-PRO	
CREATE	CREATE	SS17_Quick Pace	SS17_Quick Pace			739	QUICKPA	
CREATE	CREATE	SS17_Westbay Arb	SS17_Westbay Arb			741	WBAELC	

Showing all 9 rows

NOTE: Only the top 1000 records are shown here. To view more, please download the file.

The above picture shows the post-load reconciliations for AP Supplier master which is processed from Oracle Peoplesoft into Oracle Fusion ERP Cloud Application.

Data migration from Oracle EBS to SAP S/4Hana:

SAP_MM_MATERIAL_MASTER_T_V0

Initiated by jayaramasubramanian@c... On 10-AUG-2020 03:27

Summary

90 HEADER

99% 1% Type of errors

Application (A) 1 Cascade (C) 0 Constraint (CO) 0 Formatting (F) 0 Validation (V) 0

Dataset: 15 Child Process: 0

HEADER

89 1

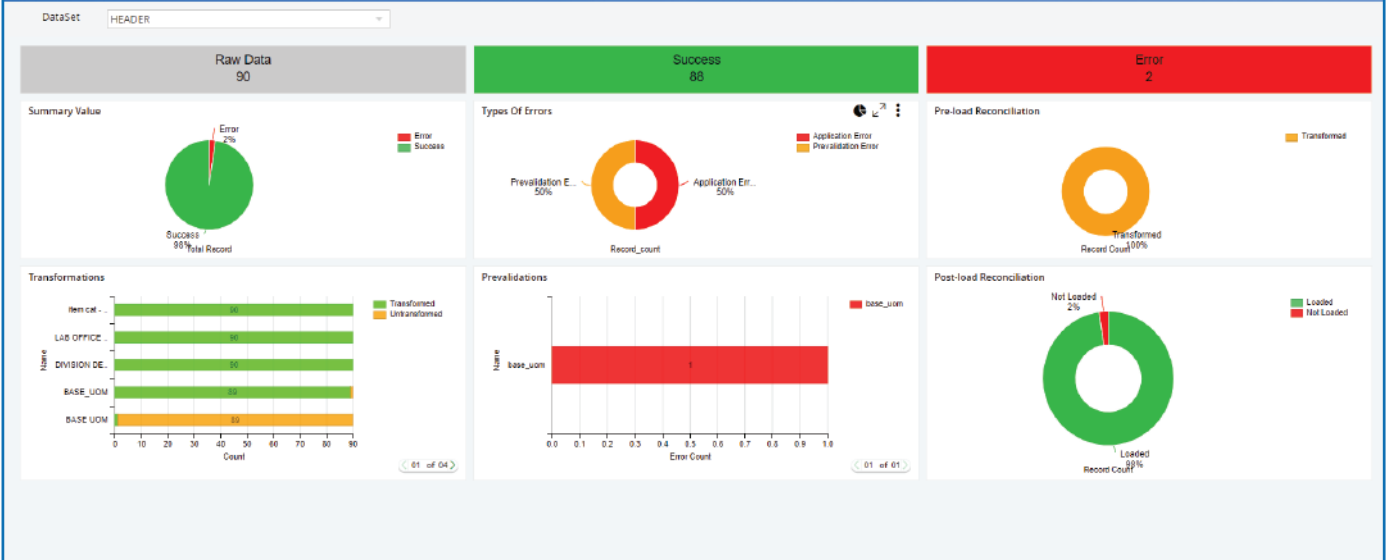
MATERIAL_DESCRIPTION

89 1

UOM

0 0

Loader - Data Insight



Loader - Data Insight

DataSet: HEADER

Pre-load Reconciliation - Transformed Records

HEADER

SLNo	SRC_MATERIAL_S	TGT_MATERIAL	SRC_PLANT_S	TGT_PLANT	SRC_MATL_TYPE_S	TGT_MATL_TYPE	SRC_BASE_UOM_S	TGT_BASE_UOM	SRC_STGE_LOC_S
1	KC6096	MM10XC6006	Vision Operations	0001	RAW	RDH	Each	EA	0001
2	CM22473	MM10CM22473	Vision Operations	0001	RAW	RDH	Each	EA	0001
3	KC5001	MM10XC5001	Vision Operations	0001	RAW	RDH	Each	EA	0001
4	CM15138	MM10CM15138	Vision Operations	0001	RAW	RDH	Each	EA	0001
5	KC1000	MM10XC1000	Vision Operations	0001	RAW	RDH	Each	EA	0001
6	CM11062	MM10CM11062	Vision Operations	0001	RAW	RDH	Each	EA	0001
7	FS100001	MM10FS100001	Vision Operations	0001	FG	FERT	Each	EA	0001
8	KC6002	MM10XC6002	Vision Operations	0001	RAW	RDH	Each	EA	0001
9	KC6005	MM10XC6005	Vision Operations	0001	RAW	RDH	Each	EA	0001
10	XP9005	MM10XP9005	Vision Operations	0001	RAW	RDH	Each	EA	0001

Showing all 90 rows

Only the top 1000 records are shown here.

Loader - Data Insight

Dataset: HEADER

Summary Value

Transformations

Renal ...

LAB OFFICE

Division DE

BASE UOM

BASE UOM

Post-load Reconciliation - Loaded Records

HEADER

SLNo	SRC_MATERIAL	TGT_MATERIAL	SRC_IND_SECTOR	TGT_IND_SECTOR	SRC_MATL_TYPE	TGT_MATL_TYPE	SRC_BASIC_VIEW	TGT_BASIC_V
1	MM10XC1000	MM10XC1000	M	M	ROH	ROH	X	X
2	MM10CM11062	MM10CM11062	M	M	ROH	ROH	X	X
3	MM10XC6002	MM10XC6002	M	M	ROH	ROH	X	X
4	MM10XC6005	MM10XC6005	M	M	ROH	ROH	X	X
5	MM10XP9005	MM10XP9005	M	M	ROH	ROH	X	X
6	MM10XC5006	MM10XC5006	M	M	ROH	ROH	X	X
7	MM10XC1005	MM10XC1005	M	M	ROH	ROH	X	X
8	MM10XC5037	MM10XC5037	M	M	ROH	ROH	X	X
9	MM10CM67433	MM10CM67433	M	M	ROH	ROH	X	X
10	MM10CM99131	MM10CM99131	M	M	ROH	ROH	X	X

Showing all 88 rows

Only the top 1000 records are shown here.

Transformed

Loaded

Not Loaded

Summary:

The process outlined in this paper can be utilized to effectively ensure against the drawbacks of insufficient or incorrect data reconciliation during data migration. Following these simple rules and a tool-based reconciliation approach would assure that business users have access to accurate data and functional processes work as expected in the new target application.

Supported Endpoints (Partial)

Oracle Sales Cloud, Oracle Marketing Cloud, Oracle Engagement Cloud, Oracle CRM On Demand, SAP C/4HANA, SAP S/4HANA, SAP BW, SAP Concur, SAP SuccessFactors, Salesforce, Microsoft Dynamics 365, Workday, Infor Cloud, Procore, Planview Enterprise One

Cloud Applications

Oracle E-Business Suite, Oracle ERP Cloud, Oracle JD Edwards, Oracle PeopleSoft, SAP S/4HANA, SAP ECC, IBM Maximo, Workday, Microsoft Dynamics, Microsoft Dynamics GP, Microsoft Dynamics Nav, Microsoft Dynamics Ax, Smart ERP, Infor, BaaN, Mapics, BPICS

Enterprise Applications

Windchill PTC, Oracle Agile PLM, Oracle PLM Cloud, Teamcenter, SAP PLM, SAP Hybris, SAP C/4HANA, Enovia, Proficy, Honeywell OptiVision, Salesforce Sales, Salesforce Marketing, Salesforce CPQ, Salesforce Service, Oracle Engagement Cloud, Oracle Sales Cloud, Oracle CPQ Cloud, Oracle Service Cloud, Oracle Marketing Cloud, Microsoft Dynamics CRM

PLM, MES & CRM

Oracle HCM Cloud, SAP SuccessFactors, Workday, ICON, SAP APO and IBP, Oracle Taleo, Oracle Demantra, Oracle ASCP, Steelwedge

HCM & Supply Chain Planning

Oracle Primavera, Oracle Unifier, SAP PM, Procore, Ecosys, Oracle EAM Cloud, Oracle Maintenance Cloud, JD Edwards EAM, IBM Maximo

Project Management & EAM

OneDrive, Box, SharePoint, File Transfer Protocol (FTP), Oracle Webcenter, Amazon S3

Enterprise Storage Systems

HIVE, Apache Impala, Apache Hbase, Snowflake, mongoDB, Elasticsearch, SAP HANA, Hadoop, Teradata, Oracle Database, Redshift, BigQuery

Big Data

mangoDB, Solr, CouchDB, Elasticsearch

No SQL Databases

PostgreSQL, Oracle Database, SAP HANA, SYBASE, DB2, SQL Server, MySQL, memsql

Databases

IBM MQ, Active MQ

Message Broker

Java, .Net, Oracle PaaS, Force.com, IBM, ChainSys Platform

Development Platform

One Platform for your

End to End

Data Management needs

Smart Data Platform™



Data Migration
Data Reconciliation
Data Integration



Data Quality Management
Data Governance
Analytical MDM



Data Analytics
Data Catalog
Data Security & Compliance

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