



Information Steward: Better Data, Better Decisions
Panel with PSE, Snohomish, SRP, and TECO
Session ID 83846

About the Speakers

Panelists

- PSE - Srinivas.Kalmikonda - Srinivas.Kalmikonda@pse.com
- SNOPUD – Jill Stelter - JASTelter@snopud.com
- SRP – Gibs SaintPaul - Gibs.SaintPaul@srpnet.com
- TECO – Debra Sanford - dlsanford@tecoenergy.com

- Panel Moderator – Marc Rosson – mdrosson@snopud.com

Agenda

- Brief introduction of each Utility and where they are in their Information Steward Journey
- Q&A from Audience – Please say your name and which company you are from.

Background on all four utilities

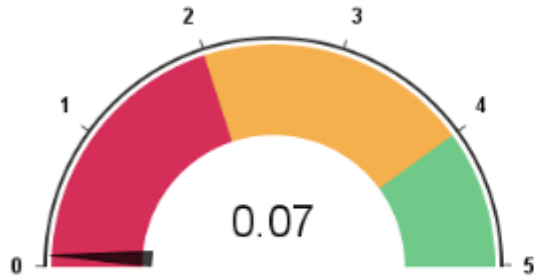
- Four customers, one presentation. All of us have implemented SAP Information Steward, each of us in different ways. We have initial deployments (Snohomish) through five years of experience (SRP).
- We all implemented to improve data quality and make better decisions.
- Business Users create rules to monitor and display data quality over many different functional areas. Providing Dashboards for the business about data quality leads to improvements and thus better decision making.
- We will also discuss architecture of the products implemented.
- We each will discuss a little about our projects and success along the way and then we will open it up to questions.

Data Quality Management

- Business justification:
 - Leverage data to increase revenue and improve operational efficiencies.
 - Challenges with volume, variety, disparate systems and human errors.
 - Implement **permanent, enterprise-wide data quality programs** to standardize and validate the information in our databases, build reusable data quality patterns to support projects.
- Information Steward components identified and in use include Data profiling, Data quality monitoring through business rules, scorecards & dashboards, Data lineage/Metadata management, Business Glossary/Metapedia
- Initial assessment (~4 months) included Information Steward Set-up, Data profiling across customer and asset domains, identifying potential business rules. Implementation (~3 months) included, prioritized rule configuration in Information steward with end to end process to monitor and metric through score cards and dashboards.
- Partnership between the business and IT. Data stewards are the day-to-day owners of business rules related to the quality of the data. Responsible for looking at any records that go beyond a set quality threshold, identifying the root cause of issues, and having those records corrected.

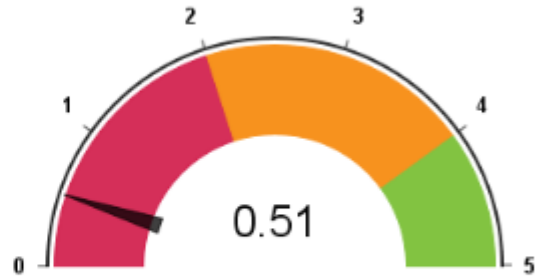
Data Governance & Data Quality

DG Adoption and Penetration



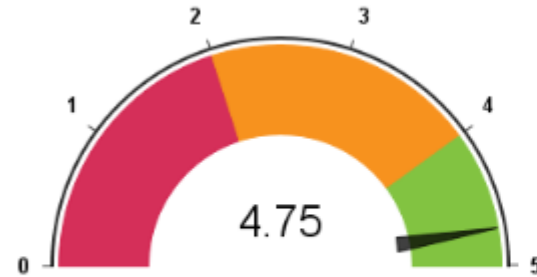
Measure of adoption and enablement of DG across PSE
Metric:
% of departments utilizing DG controls/processes/procedures

Data Operation Maturity



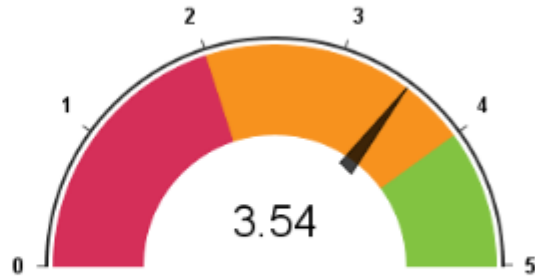
Measure of data and governance operations maturity across PSE
Metric:
1. % of BG Terms with Data and Information Security Classification
2. % of Data Domains with named Data Owners

Data Quality



Measure of profiling and Data Quality for Customer, Assets etc
Metric:
1. Customer Data Quality
2. Asset/ADMS Data Quality

EDGO Productivity, Performance, Accountability



Measure of productivity, performance and accountability of DG
Metric:
1. % of Decisions Revisited
2. % of decision not made because of lack of quorum.

Data Quality domains: Customer & Asset

Data Quality Dimensions

Accuracy

Completeness

Conformity

Uniqueness


What is SnoPUD?

Quick Facts

 Service territory covers over 2,200 square miles

 Active workforce includes ~1,000 employees

Snohomish County PUD (SnoPUD), created in 1936 by a vote of the people, is the second largest publicly owned utility in Washington state.

 # Electric customers served: **>337,000**

 # Water customers served: **>20,000**



Snohomish County Public Utility District #1 2015 Annual Report

Snohomish County PUD # 1 (SNO PUD)

- Business justification from Data Information Governance Team
 - DIG office viewed this as critical success factor for their core processes
 - DIG identified data quality issues throughout the District and intends to use Information Steward as part of their ongoing data quality program
 - As a side benefit, IT can also use the Data Services application for ETL use cases
- End to end project duration of about 3 months
- Focused scope on Customer data area (e.g. address, phone, email) with goal to demonstrate data quality processes:
 - IT work to extract and prepare data for business data stewards to perform data quality
 - Identify data that doesn't conform to business rules
 - Create dashboards for viewing data quality results

Salt River Project (SRP)

- One of the nation's largest public power utilities
- Provide electricity to roughly 1 million customers in a 2,900-square-mile service area
- Integrated utility that provides:
 - Generation, transmission and distribution
 - Metering and billing services
- SRP's water business is one of the largest raw-water suppliers in Arizona.
 - Delivering about 800,000 acre-feet of water annually to a 375-square-mile service area



"Highest Customer Satisfaction with Business Electric Service in the West among Large Utilities"

Salt River Project received the highest numerical score among 12 large utilities in the West in the I.D. Power 2016 Electric Utility Business Customer Satisfaction Study, based on 21,822 responses, and measures the experiences and perceptions of business customers surveyed March-November 2015. Your experiences may vary. Visit idpower.com.



Delivering water and power™

ASUG

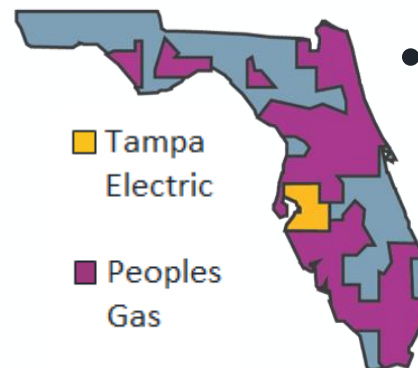
TECO - Tampa Electric and Peoples Gas



- Regulated electric utility
- Started in 1899
- Serves 765,000 customers in West Central Florida
- Owns and operates three power plants
- Building largest solar facility in the Tampa Bay area



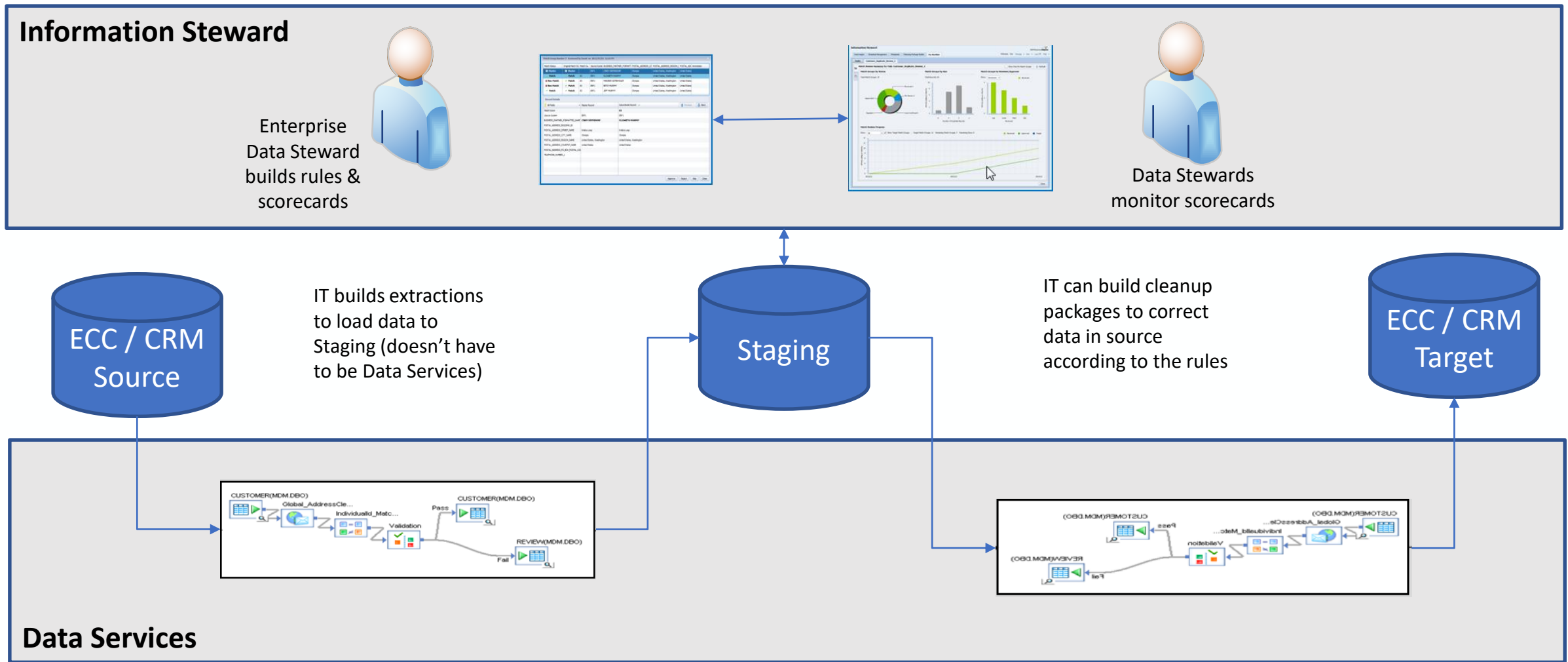
- Regulated natural gas utility
- Started in 1895
- Largest natural gas utility in Florida
- Serves 390,000 customers in all major metropolitan areas of the state



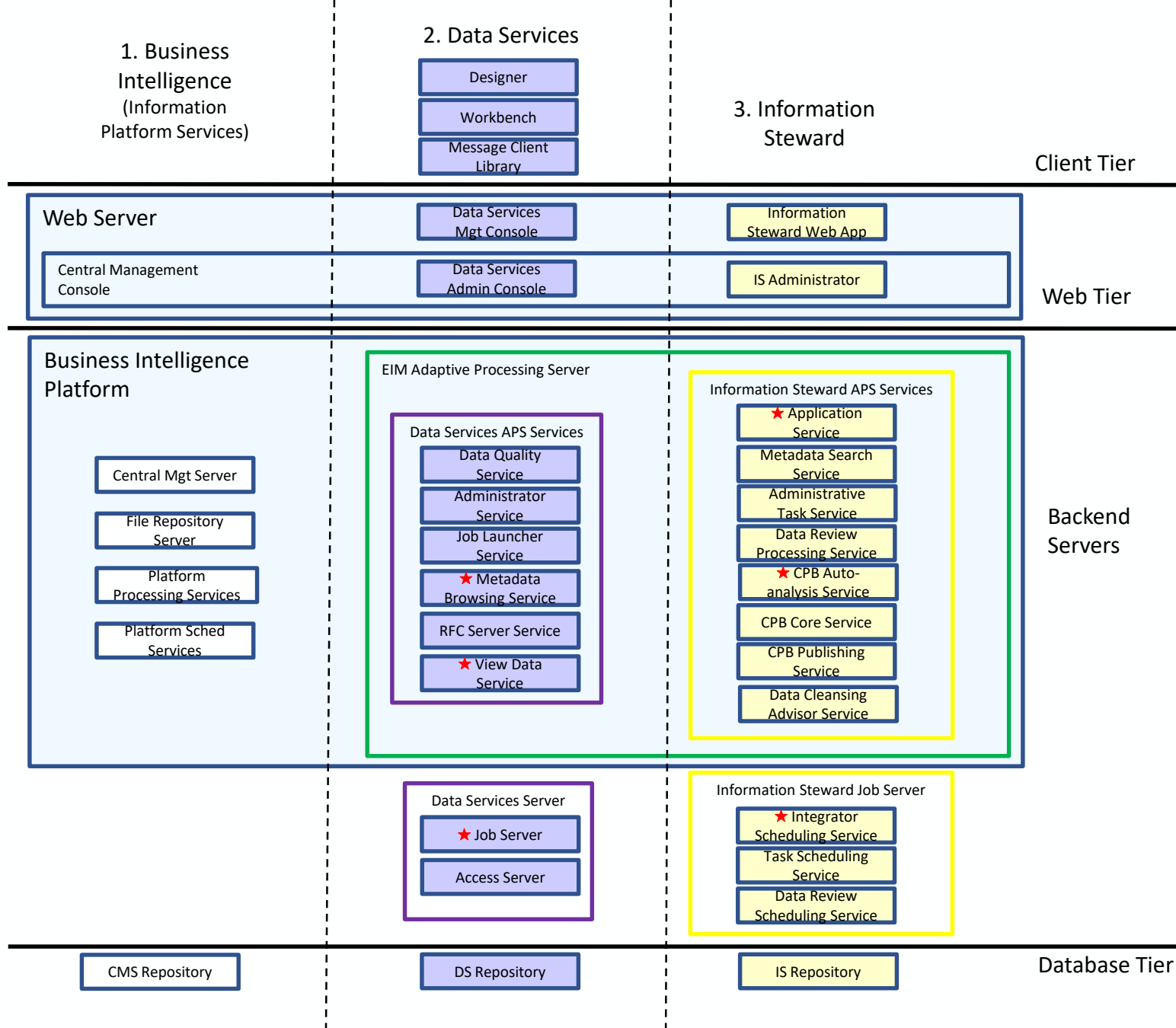
TECO – Data Quality Management

- Business justification
 - Mitigate risk associated with go live of a flexible solution with few controls
 - Information Steward was part of the portfolio with data profiling capabilities known to us through use of BODS for ETL
 - Rule based data profiling capabilities with resulting, actionable data sets and quality measures
- Initial project duration of about 3 months which included tool set up, training, business interviews and development of a set number of insights.
- Scope of prioritized insights crossed all areas of the solution with goal of avoiding process risk
- After initial effort insight development continued
- On going efforts include quarterly review of existing and proposed insights

Business Process View

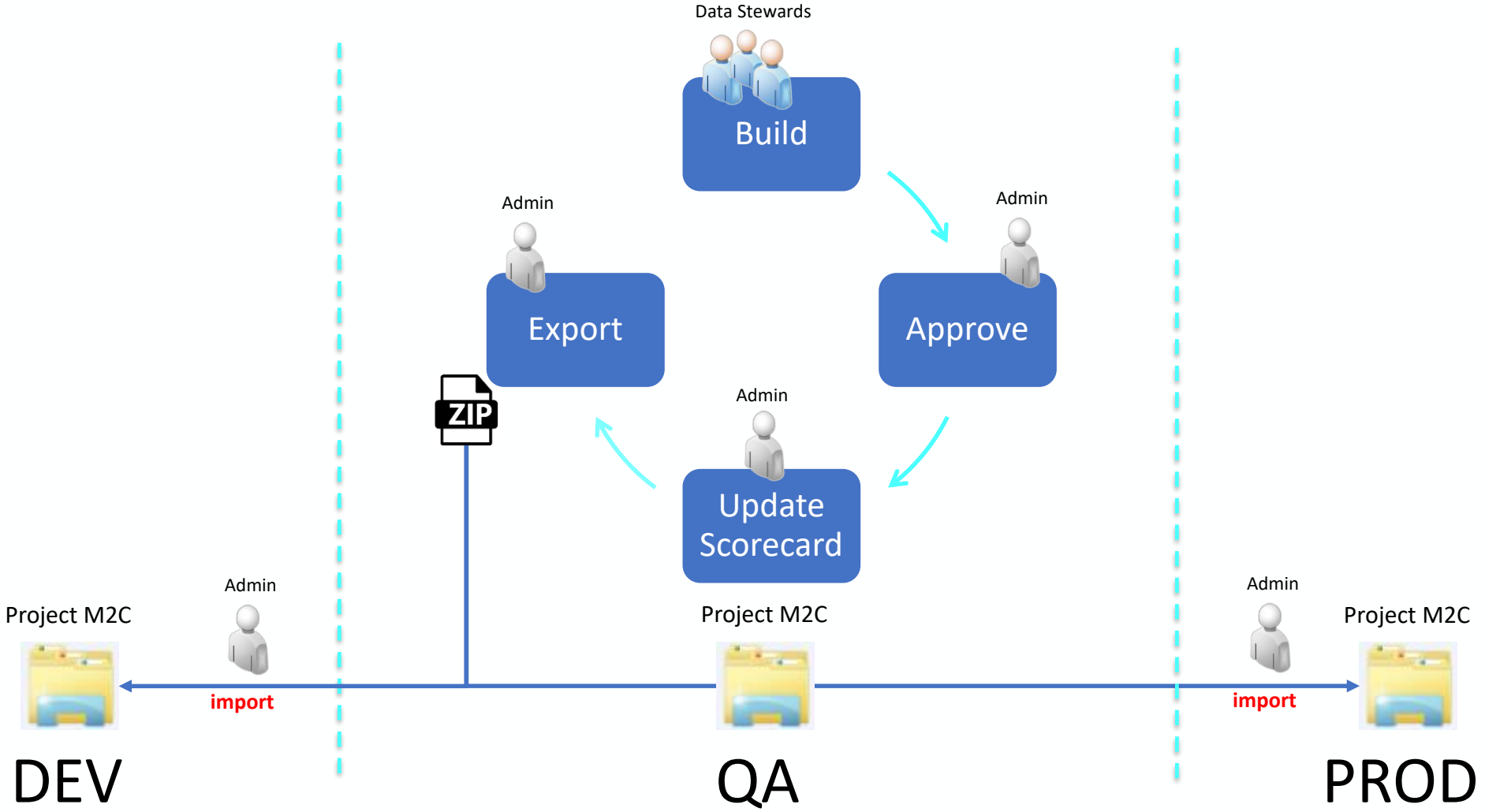


Conceptual Architecture

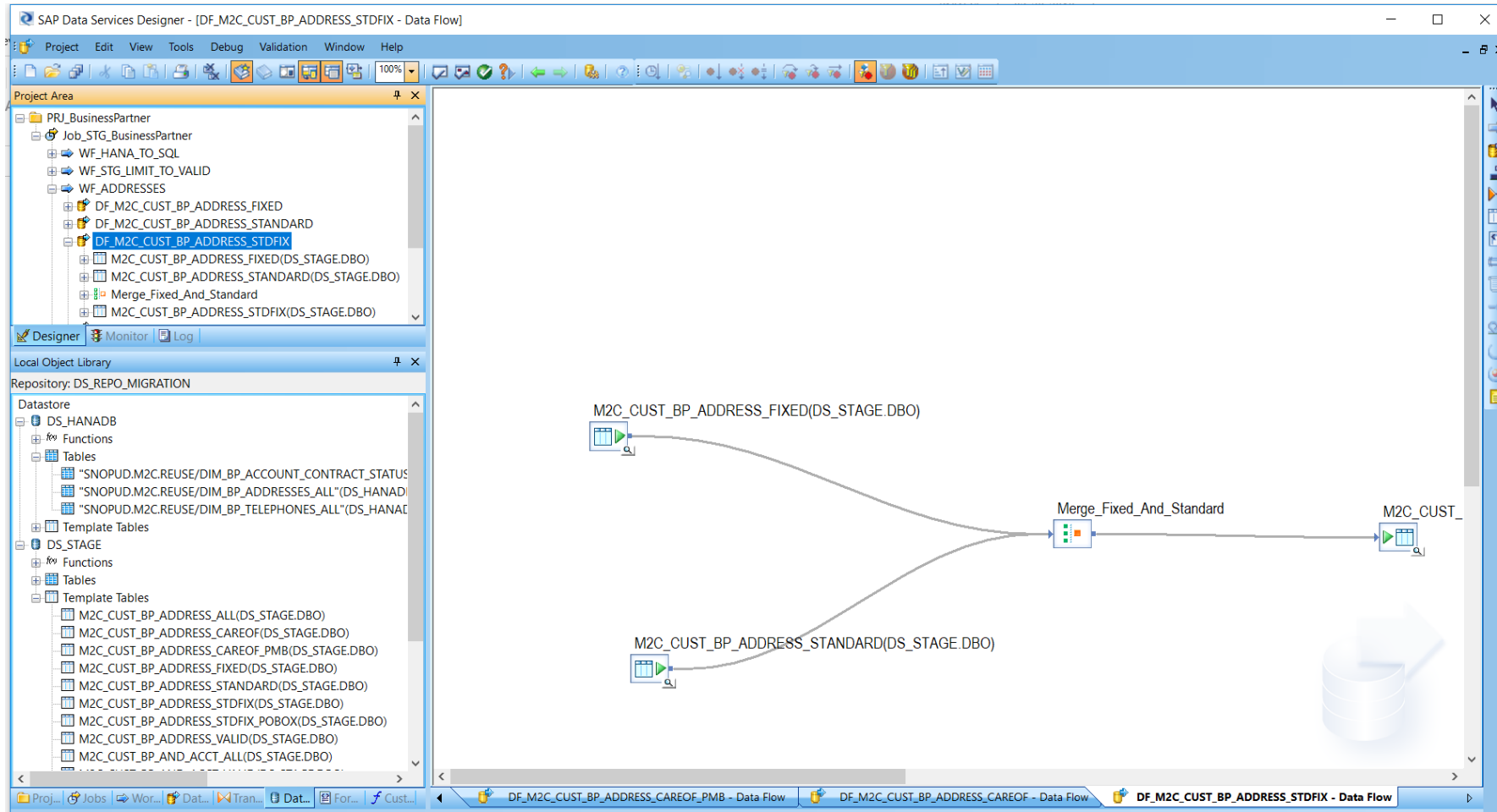


- Information Steward is a highly functional, but complex application.
- It provides data stewards with a single environment to discover, assess, define, monitor and improve the quality of enterprise data assets.
- Pre-requisite foundations include a subset of the Business Intelligence (BI) platform called Information Platform Service (IPS) as well as the Data Services platform.
- SAP recommends Information Steward be implemented on its own platform separate from existing BI platforms.

Version control – Information Steward



Data Services Designer – client install



Information Steward – Web app

1. Define database and tables for monitoring – basic profiling available

SAP Information Steward

Data Insight | Metadata Management | Metapedia | Cleansing Package Builder | My Worklist

Projects ▶ M2C_Customer ▶

Workspace Home

Add | Profile | View Data | View Impact | Manage Views | Create Rule | Associate Content Type

Tables	Advisor	Content Type	Properties		Value				String Length				Completeness				
			Data Type	Description	Min	Max	Average	Median	Min	Max	Average	Median	Null %	Blank %	Zero %		
STG_Database																	
dbo.M2C_CUST_BPNAME_ESTATEOF																	
BPCATEGORY_DESC			varchar(15)														
BPCATEGORY_KEY			varchar(1)														
BPNAME			varchar(130)														
BP_KEY			varchar(10)														
dbo.M2C_CUST_BP_ADDRESS_CAREOF																	
dbo.M2C_CUST_BP_ADDRESS_CAREOF_PMB																	
dbo.M2C_CUST_BP_ADDRESS_STDFX																	
ADDRESSVALIDFROM_DATE			varchar(10)		1926.11.10	2019.03.11				10	10	10.00		0.0	0.0		
ADDRESSVALIDTO_DATE			varchar(10)		9999.12.31	9999.12.31				10	10	10.00		0.0	0.0		
ADDRESS_KEY			varchar(10)		0000271868	0006727384				10	10	10.00		0.0	0.0		
BP_KEY			varchar(10)		0010000331	0011186908				10	10	10.00		0.0	0.0		
CITY			varchar(40)		<Blank>	vancouver				0	27	8.51		0.0	0.1		
CITYSTATEZIP			varchar(100)			vancouver WA 98686				2	35	22.35		0.0	0.1		
COUNTRY			varchar(3)		AU	US				2	2	2.00		0.0	0.0		
COUNTRYNAME			varchar(15)		Australia	United Kingdom				3	14	3.00		0.0	0.0		
HOUSENUMBER			varchar(10)		<Blank>	WOO 2 DONG				0	10	3.98		0.0	6.6		
HOUSENUMBERSUPPLEMENT			varchar(10)		<Blank>	~IAPT A203				0	10	1.93		0.0	71.1		
HOUSESTREET			varchar(120)			WOO 2 DONG #101-3402				2	43	18.07		0.0	6.6		
HOUSESTREETANDSUPPL			varchar(120)			test 12304 31ST AVE SE				2	71	18.16		0.0	6.4		
MAILING2NDLINE			varchar(100)			vancouver WA 98686				2	44	22.36		0.0	0.1		
MAILINGADDRESSWITHPOBOX			varchar(100)			test 12304 31ST AVE SE				2	71	18.73		0.0	0.1		
NAME_CAREOF			varchar(40)		<Blank>	x				0	40	0.38		0.0	98.0		

Information Steward

2. Define rules and create bindings

The screenshot displays the 'Rule Editor' window in the Information Steward application. The interface is divided into several sections:

- Rules List (Left):** A tree view showing various rules categorized under 'Accuracy' and 'Conformity'. The 'Email_Domain' rule is selected under the 'Conformity' category.
- Rule Editor (Main):**
 - Name:** Email_Domain
 - Description:** does the email address have a valid domain after the first period after the @ sign?
 - Financial Impact Per Failure:** \$ 0
 - Status:** Approved
 - Author:** AHGambi
 - Approver:** Data Insight Rule Approver
 - Observer:** (empty)
 - Quality Dimension:** Conformity
- Parameters Table:**

Name	Data Type	Content Type	Score	Description
\$email	varchar	Email	New	checking for valid domains
Add parameter				
- Expression:**
 - Definition:** BEGIN
#IF(match_regex(lower(\$email), '[a-zA-Z0-9_#&+/\-]\.+\@[a-zA-Z0-9_\-]+\.(com|org|edu|net|uk|aero|biz|coop|gov|info|mil|fr|au|us|fm|ca|de|ru)', null)) RETURN TRUE;
IF(match_regex(lower(\$email), '[a-z0-9_#&+/\-]\.+\@[a-z0-9_\-]+\.(com|net|edu|org|gov|mil|biz|coop|info|aero|us|ru|ca|in|uk|fr|jp|cc|es|kr|tw|me|mx|fm|hk|cn|br|tv|de|au|it|ph|ws)', null)) RETURN TRUE;
ELSE RETURN FALSE;
END

Information Steward

3. Complete the scorecard setup

The screenshot displays the SAP Information Steward Scorecard Setup interface. The top navigation bar includes 'SAP Information Steward', 'Welcome: AHGambi', 'Manage', 'Reports', 'Help', and 'Log Off'. The main content area is titled 'Scorecard Setup' and contains three tables. A notification states: 'Scores reflect the most current changes to the scorecard configuration and rule binding scores.'

Key Data Domains			
Name	Score	Low...	Hig...
Business Partner	9.28	5	8

Quality Dimensions			
Name	Weight	Score	
Accuracy	Auto 50	8.65	
Conformity	Auto 50	9.91	

Rules			
Name	Weight	Score	
Account_FixedAddress	Auto 11.12	9.28	
CareOf and ATTN	Auto 11.11	9.99	
ESTATE OF	Auto 11.11	9.76	
HomePhone_Multiples	Auto 11.11	9.82	
Name_CareOf	Auto 11.11	7.33	
PMB_OtherFields	Auto 11.11	9.99	
PMB_POBox_Combo	Auto 11.11	1.94	
PO Box	Auto 11.11	9.98	
Valid Phone Number	Auto 11.11	9.80	

At the bottom of each table, there are 'Add', 'Edit', and 'Remove' buttons, and a 'Total Weight: 100%' indicator.

Information Steward

4. Define a task and run against the tables that have bindings to the rule

Define Task: Rule

Name:*

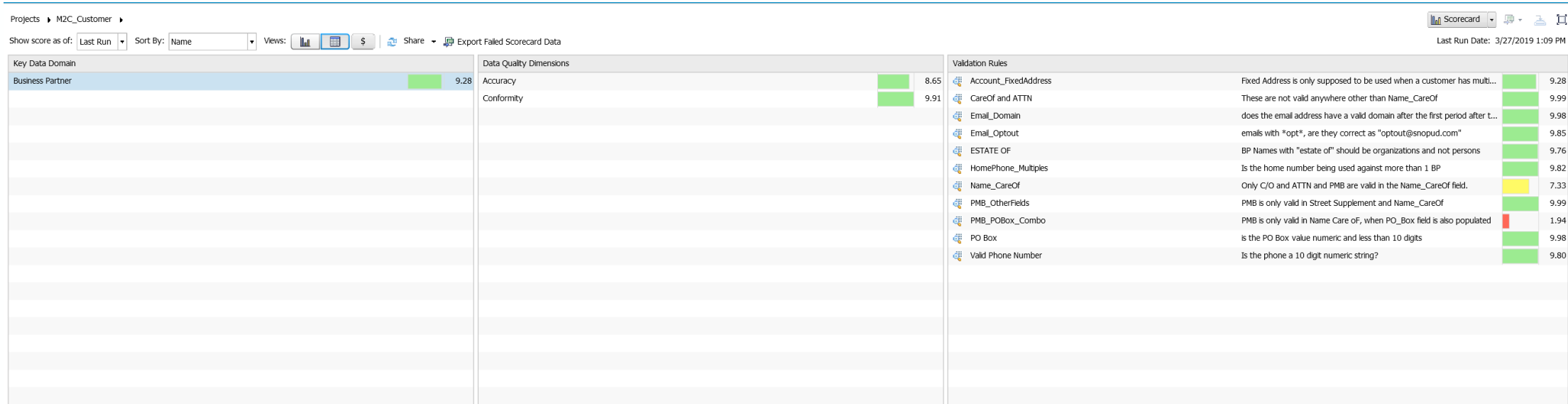
Save all failed data to: Include Source

Task options:

	Name	Max input size	Input sampling rate	Max sample data size	Ignore null
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_ADDRESS_CAREOF	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_ADDRESS_CAREOF_PMB	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_ADDRESS_STDFIX	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_ADDRESS_STDFIX_POBOX	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_EMAIL_ONLY	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_EMAIL_OPT	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_PHONE_HOME_MULTS	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_PHONES_ONLY	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BP_SINGLEACCT_INFO	All	1	100	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> STG_Database.dbo.M2C_CUST_BPNAME_ESTATEOF	All	1	100	<input type="checkbox"/>

Information Steward

5. Review the scoreboard



6. Monitor trending of Data Quality scores over time.

Questions

- Format: Panel Discussion Q&A
- State your name and your company
- Wait for the microphone to be handed to you

Take the Session Survey.

We want to hear from you! Be sure to complete the session evaluation on the SAPPHIRE NOW and ASUG Annual Conference mobile app.



Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>

Q&A

For questions after this session, contact any of our panelists

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