Deltek INSIGHT ❯ 2019

CP-29:

How to Merge a $2B+ Company in Less than Seven Months

Virginia Rice/Lisa Lynch, SAIC

Kelly Nighland/Jami Benson, Lexell Blue

Agenda

- Introductions
- The challenge
- The conversion tools
- Considerations for mapping/rules
  - Primary focus on billing and revenue
- Validation
- Conclusion

Who we are....

SAIC and Lexell Blue Consulting

SAIC
Redefining Ingenuity

Introductions – Speakers

**Virginia Rice,
Business Analyst, SAIC**

Experience:

- 39 years at SAIC

**Lisa Lynch,
Data Architect, SAIC**

Experience:

- 30 years at Engility/TASC

**Jami Benson, Partner
Lexell Blue, LLC**

Experience:

- 16 years at Deltek
- Over 29 years of Costpoint / GovCon experience

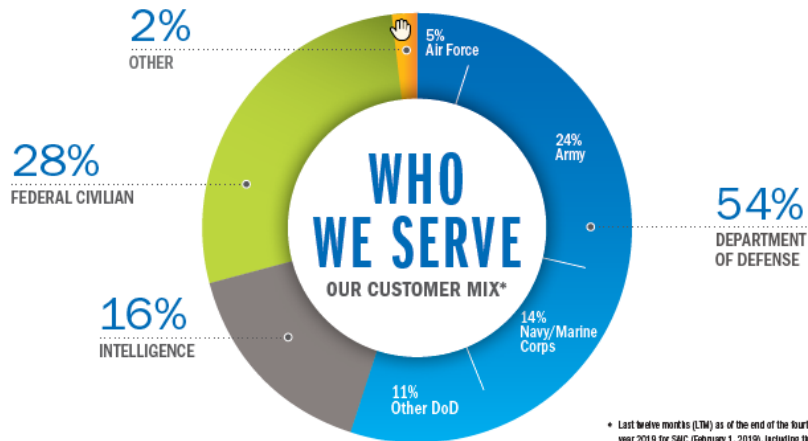**Kelly Nighland, Partner
Lexell Blue, LLC**

Experience:

- 11 years at Deltek
- Over 22 years of Costpoint / GovCon experience

http://www.lexellblue.com/contact.php

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SAIC After Acquisition of Engility

WHO WE SERVE
OUR CUSTOMER MIX*

- 5% Air Force
- 2% OTHER
- 28% FEDERAL CIVILIAN
- 24% Army
- 54% DEPARTMENT OF DEFENSE
- 14% Navy/Marine Corps
- 16% INTELLIGENCE
- 11% Other DoD

* Last twelve months (LTM) as of the end of the fourth quarter of fiscal year 2019 for SAIC (February 1, 2019), including the trailing twelve months of revenues from the acquisition of Engility Holdings, Inc.

SAIC AT A GLANCE

- **23,000+** EMPLOYEES
- **6,000+** VETERANS
- **60%** HOLD A SECURITY CLEARANCE
- **$6.5B** REVENUES*
- **~90%** PRIME CONTRACTS
- **3,000+** CONTRACT VEHICLES

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July 2019

REDEFINING INGENUITY®

SAIC® is a premier technology integrator solving our nation's most complex modernization and readiness challenges. Our robust portfolio of offerings across the defense, space, civilian, and intelligence markets includes high-end solutions in engineering, IT, and mission solutions. Using our expertise and understanding of existing and emerging technologies, we integrate the best components from our own portfolio and our partner ecosystem to deliver innovative, effective, and efficient solutions.

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WHAT WE DO: Our Offerings

Enterprise IT
- Infrastructure engineering and modernization
- Cloud integration
- Infrastructure services (includes XaaS)
- Service desk
- Personal compute services
- Service management
- Transformation services

Software
- App modernization
- DevSecOps and software acceleration
- Mission and enterprise software
- Intelligent software
- Cloud native applications

Cyber
- Advanced cyberspace Operations
- Next-generation domain name systems (DNS)
- Cyber Security Edge™

Advanced Analytics & Simulation
- Data frameworks and environments
- Data management processes and toolkits
- Modeling and simulation
- Mission applications and tools

Engineering, Integration, & Logistics
- End-to-end digital engineering
- Systems engineering and integration
- Platform integration and support
- Integrated logistics and product support

Training & Mission Solutions
- Training delivery
- Training asset development
- Training and infrastructure support
- Program operations and business services

WHO WE ARE

OPERATING MODEL

Civilian Markets Group | Defense Systems Group | National Security Group

Solutions & Technology Group

VISION
Serve as the premier technology integrator in our market by making a profound difference supporting our customers' missions, engaging the best talent in industry, and providing strong shareholder returns.

CORE VALUES
Integrity | Mission Understanding | Empowerment | Creativity

LOCATIONS

- Southwestern Indiana
- D.C. Metro 7,000+ employees
- Virginia Beach
- San Diego Metro
- Charleston
- Huntsville
- Oklahoma City

○ 500+ employees

SAIC also has employees deployed in 40+ international countries in support of our customers' missions.

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Lexell Blue

- Lexell Blue, LLC, founded in 2013, headquartered in Northern Virginia

- Comprised of four partners and a team of over 30 consultants with extensive experience with the Deltek GovCon suite of products

- Costpoint consulting services
  - CP / TESS Implementations including Project Manufacturing
  - Data Migration and Restructures
  - M&A Integration and Divestitures
  - Costpoint Health Check / Process Review
  - Web Services, Extensibility & Interfaces
  - Cognos Report Development
  - Costpoint Training

Deltek MVP Awards Winner

Deltek 2017 Global Consulting Partner of the Year

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The challenge....

Overview of Conversion

- SAIC $4.5B + Engility $2B – 45% increase in company size
- Both companies used Costpoint, but with differences

Function	Engility	SAIC
Projects, Revenue	Costpoint + GovWin	Costpoint + other system
Billing, A/R	Costpoint (custom formats) + other systems	Costpoint + other systems
Procurement, A/P	Costpoint + other systems	Costpoint + other systems
Reporting	Customized Data Warehouse	Costpoint + Cognos + other systems
Contracts	GovWin	Other system
Customers	Costpoint	Other system
Core HR	Costpoint	Other system

- Mid-year conversion / different calendars
  - Engility closed their FY19 at our mid-year conversion and came into SAIC's FY20 (everything that converted was considered prior year)
  - On a go-forward basis, Engility was folded into our org and pool structures (no surviving Engility orgs or pools)

S A I C   P R O P R I E T A R Y

Costpoint Conversion

TIMELINE

1/14/19– DEAL CLOSED

- Gap analysis
- Requirements definition
- Conversion strategy
- Build x-walks, rules, load files
- Unit testing of conversion
- Review/Update/Revise
- User acceptance testing
- Review/Update/Revise
- Mock conversion
- Review/Update/Revise

8/3/19 – GO LIVE

GOALS

- Pay our employees and vendors based on valid P/A/O and PLCs
- Perform "out of the box" billing using standard formats for go-forward and retro rate changes
- Provide valid base for ongoing revenue recognition, project management/reporting, external reporting

HURDLES

- Account structures, PAGs
- Customized billing vs OOTB/standardized
- Unclosed rate years
- PLC/workforce strategies
- Quality and volume of prior conversion data
- Project hierarchies and formula/ceiling levels
- Harmonization of business processes

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Tables Needed for Go-Forward and Retro Billing

- The following is a partial list of tables that may be required (doesn't include setting screens, basic foundational tables, and some more specialized billing tables)
  - Billing/Project setup and master data
    - PROJ, PROJ MOD, PROJ BILL INFO, PROJ BILL INFO SCH, PROJ CUST SETUP, BILL LAB CAT, PROJ LAB CAT, PROJ LAB CAT RT SC, PROJ EMPL RT SCH, PROJ VEND RT SCH, TM RT ORDER, BILL GRP, BILL GRP USERS, BILL REMIT ADDR, CEIL BURDEN CST, CEIL DIR CST, CEIL DIR HRS, CUST, CUST ADDR, EMPL CEIL, VEND CEIL, OVRIDE FEE ON BURD, OVRIDE FEE ON DIR
  - Billing formats
    - BILL FRMT, BILL FRMT LN, BILL FRMT LN ACCT
  - Accounts, Orgs, Pools
    - ACCT, ACCT GRP CD, ACCT GRP SETUP, ORG, POOL ALLOC, POOL BASE ACCT, POOL INFO, POOL RT TABLE, ORG ACCT, ALLOC APPLIC
  - Billing history and OBD
    - AR DETL HS, AR HDR HS, BILL INVC HDR HS, BILL SHEDULE, BILLING DETL HIST, BILLING SUM, MANUAL BILL HS, PROJ BILL HS, OPEN BILLING DETL

- *Lesson learned: This is not for the faint of heart! But the payoff is huge!!*

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Tables Needed for Go-Forward Revenue Recognition

- Many of the same tables required for billing are also required to support ongoing revenue recognition (e.g., mods, ceilings, overrides, PLCs, TM rate order, etc.) plus PROJ REV SETUP
- Additionally, you need the applicable history tables
  - PY history
    - PSR PY SUM, PSR PY BURD SUM, PY PROJ LAB HS, REV ADJ HIST
  - And if you are bringing data into the current year
    - PROJ SUM, PROJ BURD SUM, LAB HS
  - General Ledger is optional - we chose not to bring over General Ledger for a variety of reasons, including calendar confusion

- *Lesson learned: Make sure that your history tables are in sync – clean up prior to conversion*

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The conversion tools

Lexell Blue Data Conversion Methodology

- **Create Table Handling Plan**
  - Define a conversion rule for each source Engility Deltek table - No table left behind!
    - Costpoint and T&E
    - Include a "Do Not Convert" rule
    - Leveraged as the master list for validation process and artifacts
- **Define Load Groups**
  - LG1 – Master Data
  - LG2 – Purchasing, Fixed Assets
  - LG3 – GL, Project Billing and Labor History
- **Define the data conversion table plan group**

TABLE_NAME	CONVERT FLAG	APPROVED FOR GOLD (FOR PR(	CONVERSION GROUP	CONVERSION SUBGROUP	PROD EGL RULE (REF SEPARATE TAB IN WORKBOOK IF NEEDED)	Cumulative Rule	Table Converted and Ready to Validate for Prod	IT Business Analyst
ACCT	GOLD	YES	GOLD	GOLD	No change (except Load is from GOLD)	* Load file (GOLD) and x-walk * Note overrides for "go-forward" (PO's) and overrides for history (shown in x-walk file) * If account is invalid, change to 714-SU-SU-SP0-0000 and change project to A09313.SUSP.EGL - rule is in x-walk	N/A	Virginia
BILL_EDIT_DETL	NO				No change	NO CONVERSION	N/A	Virginia (Verify)
PROJ_BILL_INFO	YES		LOAD GROUP 1	MSTR-4 (PROJ)	No change (except script to update LAST BILL NO after Load 3 will be required)	* Convert if project converts, applying all x-walks * PROJ BILL tab has PROJ_BILL_INFO rules by field * Run script to update LAST BILL NO	YES	Virginia

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Lexell Blue Data Conversion Methodology

- **Data Conversion Process**
  - **Load tables from source**
  - **Rules**
    - Captured by phase and then cumulative rule
  - **Crosswalks (XW)**
    - Extract from source
    - SAIC team completes the mapping in the XW file
    - Validate the completed XW file for duplicates and existing SAIC values
    - Perform integrity checks
    - Apply the XW to the stage table
  - **Overrides**
    - Project required flag flipping between source and target
    - PLC, Org, Account overrides
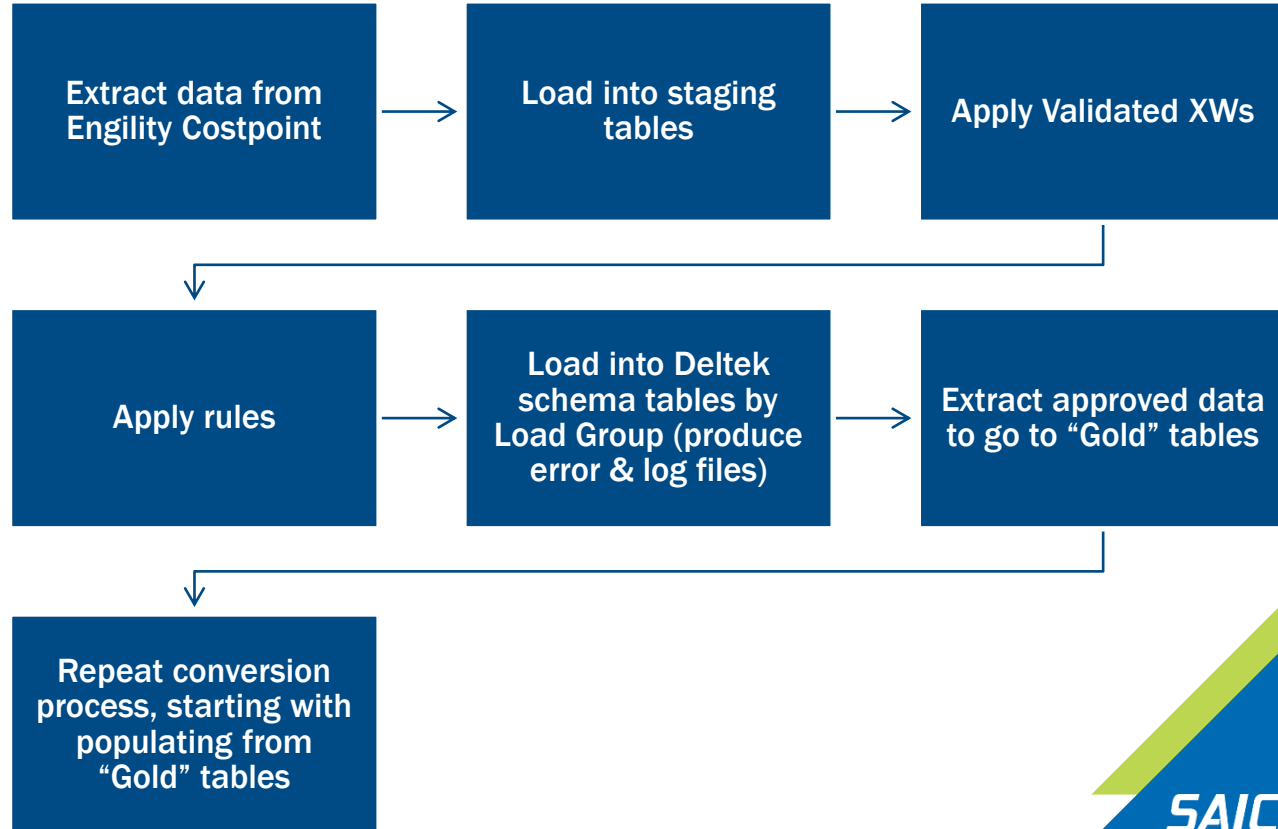   - Multiple business process specific overrides

We just need to migrate the data from these systems to fit into that hole over there...

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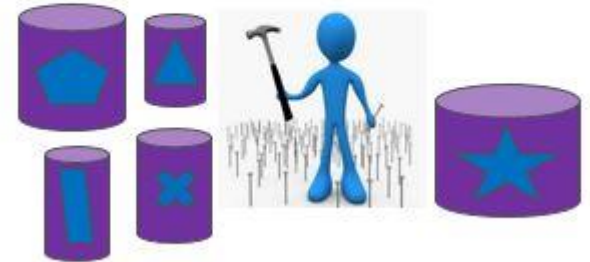
Lexell Blue Data Conversion Methodology

- **Data Conversion Process**
  - **Sequencing of synthetic keys**
  - **Staging Tables**
  - **Gold Tables**

```
Extract data from          Load into staging          Apply Validated XWs
Engility Costpoint    →     tables              →
```

```
Apply rules           →     Load into Deltek     →     Extract approved data
                            schema tables by           to go to "Gold" tables
                            Load Group (produce
                            error & log files)
```

```
Repeat conversion
process, starting with
populating from
"Gold" tables
```

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Lexell Blue Data Conversion Methodology

Gold Table Process

"Gold" tables in Lexell schema created with the structure of selected Deltek tables that will eventually be loaded to production (e.g., new accts, new orgs, new PAGs)

Post Testing, approved datasets moved to "Gold" tables in Lexell schema then under change management

Populate DELTEK tables in next test environment from "Gold" tables in Lexell schema

Repeat post testing "Gold" process for approved datasets after each test

Populate DELTEK tables in production environment from "Gold" tables in Lexell schema

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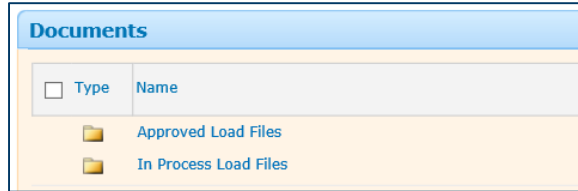*Redefining Ingenuity*

Lexell Blue Data Conversion Methodology

- **Leveraging SharePoint**
  - **In Process and Approved folders**
    - Mapping
    - Load Files
    - Rules
  - **Issues List**
    - Owner identified
    - Email routing workflow
    - Disposition documented

Documents

	Type	Name
☐		
	📁	Approved Load Files
	📁	In Process Load Files

EGL to SAIC Costpoint Conversion Issues Tracking ▸ All Issues ▾

☐	📎	Issue ID	Title	Description	Issue Type	☐ Reported by	Date Reported	☐ Assigned To	Issue Status	Priority	Application	Module	Due Date	☐ Resolved By	Resolved Date	Comments	Related Issues
		75	Final Bill Flag converted incorrectly	PROJ BILL INFO rule for final flag was changed for UAT from "convert as is" to "N" Invoices can't be calculated	Data Conversion	Rice, Virginia A.	6/14/2019	Nighland, Kelly Benson, Jami M. Hicks, Wesley W. Lynch, Lisa	Closed	(2) Normal	Costpoint	Projects	6/17/2019 12:00 AM	Nighland, Kelly	6/17/2019	View Entries…	
		82	Remap ESUP06 Supporting Schedule to SSF10	Update the x-walk to map ESUP06 to SSF10.	Xwalk Update	Rice, Virginia A.	6/17/2019	Rice, Virginia A. Smallwood, Lisa R. Meuse, Sandra J. Hicks, Wesley W.	Closed	(2) Normal	Costpoint	Projects	7/7/2019 12:00 AM	Rice, Virginia A.	6/27/2019	View Entries…	
		90	Funding source for DNB nodes	Funding source should be NONE on DNB nodes.	Rules Update	Rice, Virginia A.	6/20/2019	Rice, Virginia A. Brunet, Dawn K. Hicks, Wesley W.	Closed	(2) Normal	Costpoint	Projects	7/7/2019 12:00 AM	Rice, Virginia A.	7/5/2019	View Entries…	

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Lexell Blue Data Conversion Metrics

Data Element	Mapped Volume	Loaded Volume
Projects	609k	478k
Accounts	5k	1k
Orgs	2k	2k
Employees	29k	6k
Customers	5k	interface
Vendors	65k	11k

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Lexell Blue Data Conversion Metrics

Data Element	Mapped Volume	Loaded Volume
POs	44k	9k
PSR	1.4m	800k
Vouchers	800k	120k
Billing History	28m	27m
A/R Invoices	1m	631k
Labor History	9.8m	4.8m
Pool base	7.4m	3.8m

Lexell Blue Data Conversion Metrics

Data Conversion	Volume
Load Files	36
Rules	By Table
Crosswalks	59
Overrides	By Org, Account, Proj
Overall Tables Loaded	341

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Considerations for mapping/rules

Projects

- Goal was to keep Engility direct project structure as intact as possible, while converting to SAIC convention and hierarchy
  - Generally, replaced Engility L1 project segment with new SAIC project segment (a Contract Record Number generated by our Contracts System)
    - Example: 8E0EF.AH.01.01.001 → 803581.AH.01.01.001
  - Master Agreement DO's were separated into individual projects, each with their own new L1 project
    - Needed to be careful about MA L1 settings (PLC rates/TM sequences, billing, overrides, etc.)
  - We were able to reserve a range of L1 project segments in our Contracts System so that converted projects were easily isolated and recognizable (very helpful for running computations, report updates, etc.)
  - Engility project IDs (and prior conversion project IDs) were brought forward in Notes field at all project levels for easy reference

✓	Project	Project Name
	805511.03.06.04.002	

Modifications   Rev Info   Proj Bill Info

Identification > Notes

8E0DT.03.06.04.002-101349.0007.0060.05.002

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Projects

- Options for mapping project structures
    - X Manual (wouldn't work with our volume or time constraints)
    - X As part of the conversion (rules were too complex and needed iterative review)
    - > Separate scripted process to create load and mapping files (our solution)
- Our process for identifying, mapping and preparing projects for conversion
    - Defined rules for which projects would convert (e.g., close-out not complete, remaining GL balances)
    - Defined conversion scenarios – We ended up with about 10-12 scenarios and a number of special rules
    - Set up tracking system on the legacy side
        - Review each contract to determine whether it converts based on the defined rules
        - Review each contract to determine what its contractual structure (scenario) should be
        - Code each converting project with scenario(s) applicable to each level of the project
    - We had consultant support from Kinetek to script mapping of the Engility projects to new project structures based on the scenarios and rules, and transform some of the other data elements
    - For each test (and between test cycles as desired) new L1 projects and new structures were assigned and fed back to the legacy tracking system to support review by the data owners in a format they understood

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Projects

- **Freezing of project structures**
  - We selected a cutoff date where project structures were frozen and the final project numbers assigned (new projects could be added)
  - This was essential to support other downstream mappings/conversions that relied on assigned project numbers

- *Lesson learned: Start project cleanup on the legacy side early in the process*
- *Lesson learned: It's important to have the right people engaged in analyzing the contracts early to define the right scenarios so that conversion methodologies and structures are appropriately reviewed in testing*
- *Lesson learned: Need to be flexible as new scenarios emerge*

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Billing

- **Resolve any differences in billing practices**
  - Level of billing setup
    - SAIC calculates billing at the customer invoice level and uses detail level bills as support
    - Engility calculated and posted billing at the revenue/funding level of the project to support their custom unbilled analysis, and sent a consolidated invoice to the customer
    - We considered moving billing up to the customer invoice level on the converted projects, but there were too many obstacles (differing fee rates, invoice numbers, etc.) and too little time
  - Sources of information for invoice – make sure you can capture the needed information
    - We had differences in the sources of bill-to customers/addresses and differences in practice of the displayed bill-to customer
    - Engility used UDEFs to store invoice contact information, various certifications, CLIN identification required on invoice
    - Billing instructions were in GovWin, Costpoint and offline (integrated via reporting)
  - Billing User Groups and Cycles
    - SAIC and Engility used these in different ways and we had to come up with logic for our conversion rules to keep a single contract from being split between billing organizations (with only partial visibility)

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Billing

- Billing formats
  - Engility had 22 generic billing formats which we consolidated into the standard 1035 or one of our 2 generic formats
  - We added 1 new generic billing format
  - We queried billing history tables and OBD to limit the accounts and pools required for the updates to our generic billing formats
- Due to changes in project hierarchies, we needed to consider potential orphan data that might be created (e.g., TM rate sequences, PLC rates, or L1 billing)

- *Lesson learned: Finalizing account and pool mapping early is important because of the downstream impacts on billing formats (changes are PAINFUL) and other areas*
- *Lesson learned: You can't test too much – make sure all key scenarios are reviewed*

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Revenue

- While our practices were similar and didn't require any changes to existing project revenue formulas, we did have some differences:
  - Engility didn't use revenue redistribution and had ceilings below revenue; SAIC uses redistribution and therefore doesn't allow ceilings below revenue
  - Many of the previously converted Engility projects did not have funding/value (and no ceilings)
  - Conversion fixes we used
    - We updated project RBA codes to enforce total funding ceilings for revenue (with no change to the ceilings for billing)
    - For inactive projects, we enforced funding ceilings, but used Allow Revenue To Exceed (ARTE) functionality to keep historical revenue intact
    - For active projects, we enforced funding ceilings and required review of any "lost" revenue with appropriate actions taken post conversion

- *Lesson learned: If updating project RBA codes, be careful about the timing (revenue/billing computations before you have loaded your history will update numeric codes)*
- *Lesson learned: Be clear about where projects should be fixed (in source or via conversion) to avoid conflicting actions*

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Accounts

- Accounts were a challenge to map because of our requirement to support retro billing
  - ~1,000 direct (and associated indirect) accounts to be mapped to SAIC account structure (and to existing accounts where possible)
  - 46 direct PAGs to be mapped to 6 SAIC direct PAGs
  - 49 pools with application rates required for retro billing
- Lots of constraints in mapping

Do accounts that are combined and mapped to a single SAIC account have the same pool profiles over all 10 years of history?

Are the old and new accounts in the same PAGs?

Do the old and new accounts have the same project-required status?

Old Acct → New Acct

Do the old and new accounts have the same function codes in each PAG?

Do the old and new accounts have different account entry groups? Does the business process change?

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Accounts

- We used separate mappings (x-walks) for history and for go-forward usage (and conversion of POs)
  - When we wanted to combine multiple accounts with different pool profiles into a single account, we used inactive "HIST" accounts for history that were the same for the first 3 segments of the account, but varied at Level 4 (this was important for roll-up of accounts in project ceilings/overrides)
  - Example:

Engility Acct Id	History Mapping	Go Forward Mapping
41-20-01-01	552-67-000-0000	552-67-000-0000
41-20-07-01	552-67-000-HIST	552-67-000-0000
41-20-08-05	552-67-000-HST1	552-67-000-0000

- We used mapping overrides when we needed one Engility account to be split into 2 SAIC accounts based on the Engility PAG (primarily based on labor/non-labor function code)
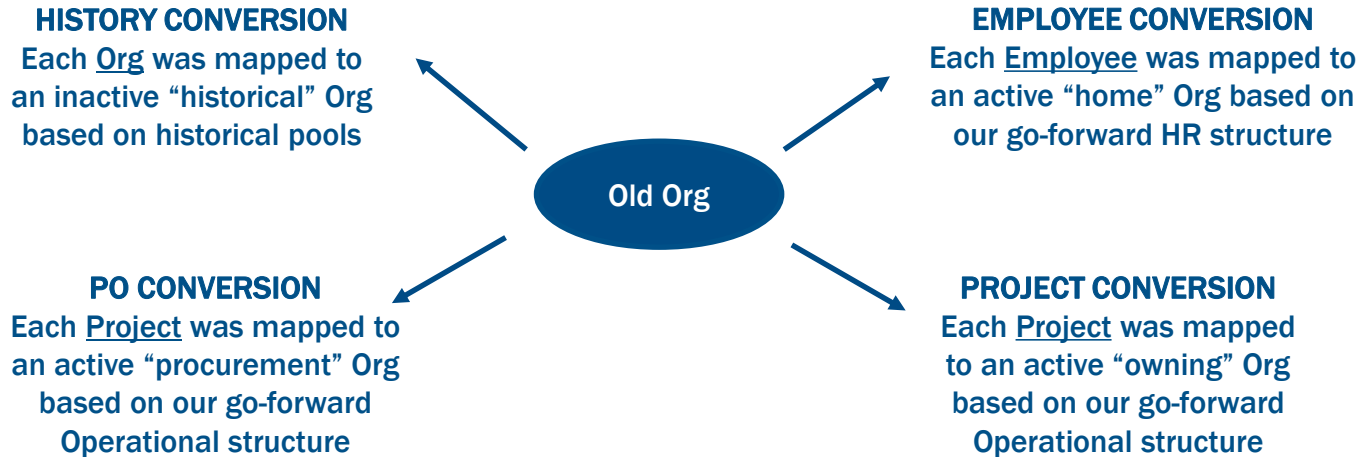 - Example:

Engility Acct Id	History Mapping	Override (for History and PO Conversion)
43-10-01-01	541-72-190-0000	RULE: Map to 542-72-090-0000 if EGL PAG is NTE, NTI, NOE, UNB, UB4, UB3, UB6

- *Lesson learned: Consider cost fee overrides, direct cost ceilings early in the account mapping process (especially mapping of parent level accounts)*

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Orgs

- There were about 2,000 Engility orgs
  - Engility moved into our existing Org structure for go-forward activity
- We used several mappings related to Orgs

HISTORY CONVERSION
Each Org was mapped to an inactive "historical" Org based on historical pools

EMPLOYEE CONVERSION
Each Employee was mapped to an active "home" Org based on our go-forward HR structure

Old Org

PO CONVERSION
Each Project was mapped to an active "procurement" Org based on our go-forward Operational structure

PROJECT CONVERSION
Each Project was mapped to an active "owning" Org based on our go-forward Operational structure

- *Lesson learned: Make sure "Org Mapping" is properly communicated*

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Org Account Links

- Inactive ("HIST") accounts and inactive orgs were created for the conversion with the intent to not use them on a go-forward basis
- End dates on both the inactive accounts and inactive orgs were used to prevent go-forward transactions (which carried through when org account links were created)
  - This prevented entry (not posting) of new transactions to inactive accounts or orgs, but allowed items to be taken off of hold in OBD without manual intervention

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Pools

- **Pools were divided into two categories**
  - Pools that required full setup on the base side (no pool cost requirements) and rates by FY that could support calculation of retro rate changes
  - Pools that had no setup, no rates, and were just converted to support labelling of historical burdening on invoices
- **All pools were mapped one for one, using a separate range of pool numbers**

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PLCs/Workforce

- There were a number of differences between the two systems
  - Engility used Workforce (WF) on all of their projects; SAIC uses Top Level Workforce (TLWF) to restrict which PLCs can be used on a project
  - Engility used effective dates on PLC rates; SAIC uses separate project and/or PLC for different rates
  - Engility T&E defaulted in the PLC based on the workforce setup, so employees did not need to select their PLC
- We decided to retain SAIC's practices for the conversion and remediated the projects in conversion
  - To make the transition easier for the Engility employees, we populated T&E favorites with the mapped direct project IDs and PLCs that the employee had used in recent timesheet periods

- *Lesson learned: Keeping the direct project structure exactly the same below the new L1 project ID (in most cases) made it easier for employees to identify their projects*

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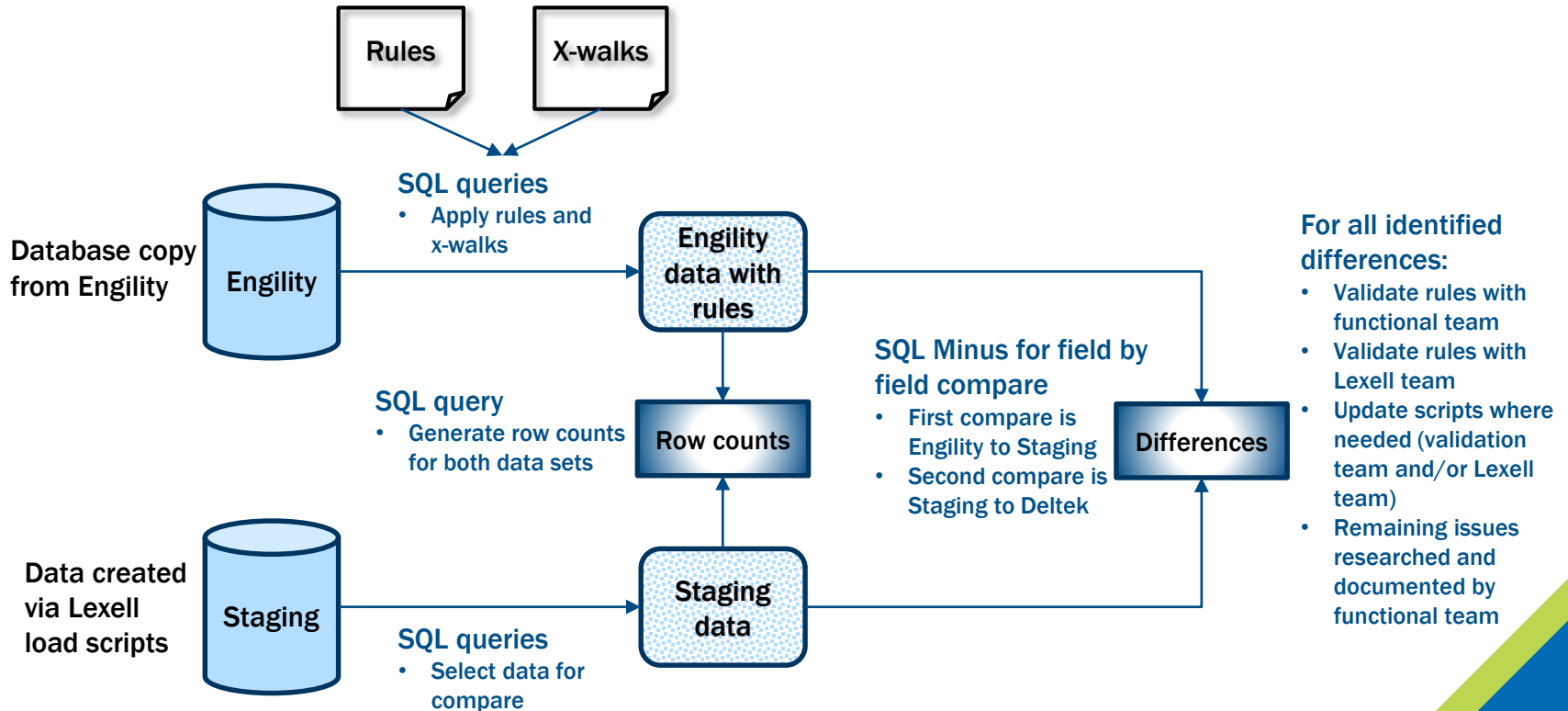
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Calendar

- **Our FY calendars did not line up**
  - SAIC's FY ends at the end of January
  - Engility's FY was calendar year based and included multiple reporting periods for FY19 to facilitate integrated reporting to SAIC prior to the conversion
    - 1/1/19 – 1/14/19 – Pre-acquisition
    - 1/14/19 – 2/1/19 – Consolidated with SAIC FY19
    - 2/2/19 – 8/2/19 – Consolidated with SAIC FY20
- **After a lot of discussion, we decided to convert Engility based on the FY "number" vs aligning by time period**
  - This gave us a clean cut-off for their FY19 (converted as PY history in Costpoint)
  - It avoided confusion on overlap with previously consolidated results
  - It also put us in alignment with Engility FY rates for billing purposes

- *Lesson learned: Getting buy-in from affected stakeholders on this decision early was critical*
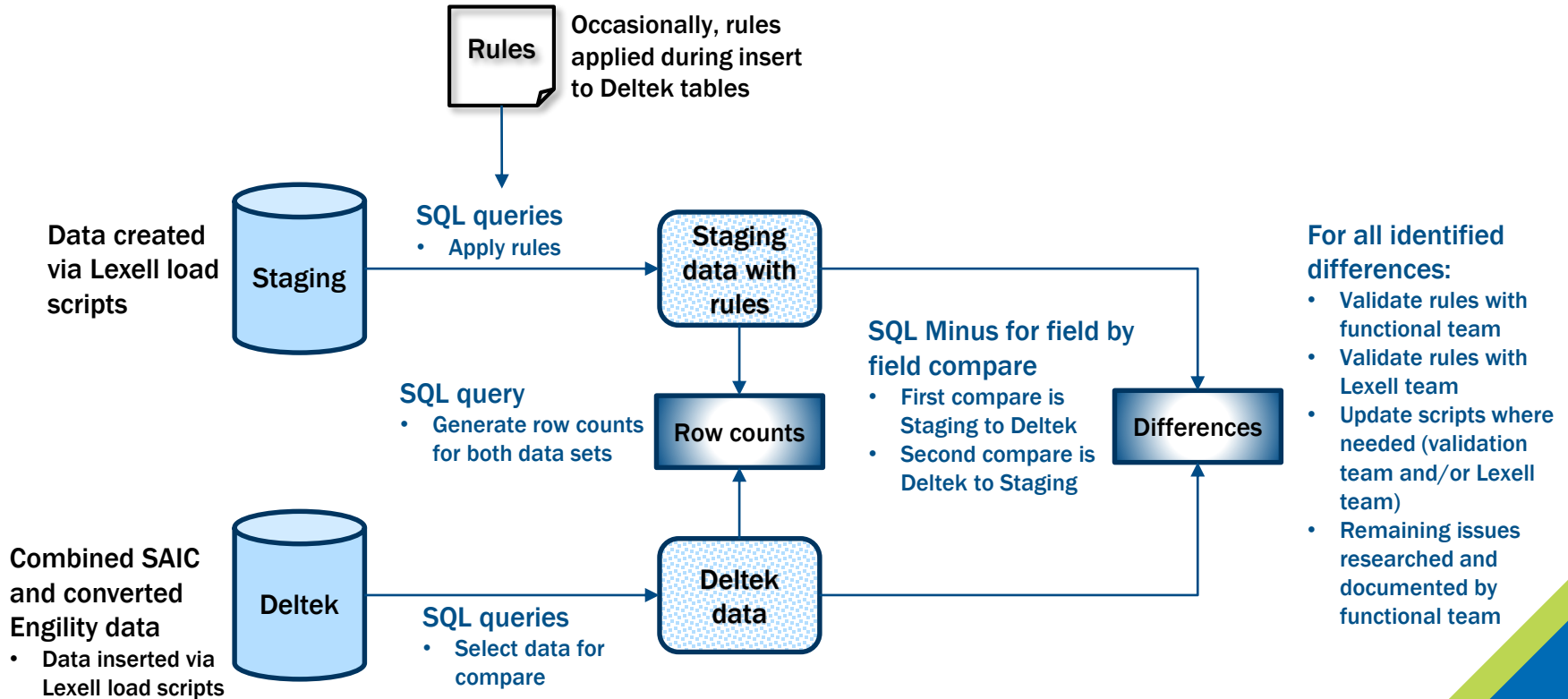
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Validation

Validation Overview

- Purpose
  - Compare conversion results at the table and field level
  - Verify that the conversion rules were correctly interpreted and applied for every field
  - Verify that what was supposed to be converted was actually converted
  - Scope to include all tables marked as convert in the table handling plan
  - Independent verification of rule and x-walk application
  - Provide comprehensive audit documentation

- Approach
  - Compare data in Engility tables to the staging tables
  - Compare data from staging tables to the final Deltek tables
  - Load files will compare staging tables to Deltek tables only

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Validation Approach – Engility to Staging

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Validation Approach – Staging to Deltek

Rules

Occasionally, rules applied during insert to Deltek tables

Data created via Lexell load scripts

Staging

SQL queries
- Apply rules

Staging data with rules

SQL query
- Generate row counts for both data sets

Row counts

SQL Minus for field by field compare
- First compare is Staging to Deltek
- Second compare is Deltek to Staging

Differences

For all identified differences:
- **Validate rules with functional team**
- **Validate rules with Lexell team**
- **Update scripts where needed (validation team and/or Lexell team)**
- **Remaining issues researched and documented by functional team**

Combined SAIC and converted Engility data
- Data inserted via Lexell load scripts

Deltek

SQL queries
- Select data for compare

Deltek data

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Validation – Details Recap

– Compare row counts expected from Engility tables with row counts in staging tables
– Compare row counts in staging tables with row counts for data loaded into Deltek tables
– Using SQL tools, apply crosswalk and rules identified in the table handling plan to Engility data
– Perform a field by field comparison using Oracle MINUS function to identify differences or missing records between Engility table and staging table
– Perform a field by field comparison using Oracle MINUS function to identify differences or missing records between staging table and Deltek table
– Perform the compare in both directions in order to ensure extra records are not created or missing
– Any differences are researched:
  • Rules validated with the functional team and the development team
  • Validation scripts are updated if needed
  • Lexell development team updates scripts if needed
  • Any remaining discrepancies are turned over to the functional team for additional research or documentation
– Used a script tracker file to identify what tables are included in the verification, whether the script has been updated for any rule changes, result of script execution and resolutions to identified issues

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Validations - Output

- Output
  - Results of each script executed are written to an output log and posted to the artifacts folder
  - Naming convention of the output log (e.g., ESG1 – CEIL_BURDEN_CST Output):
    - Engility to staging compare – ES prefix
    - Staging to Deltek compare – SD prefix
    - Next 2 characters denote the load group from the table handling plan (e.g. G1 load group 1, G3 load group 3)
    - Name of the Deltek table
  - Sections of the log:
    - Record counts with script and output
    - Compare of Engility to Staging (or Staging to Deltek) with script and output
    - Compare of Staging to Engility (or Deltek to Staging) with script and output
    - End of script tag
  - *Lesson learned: Coordination between the validators and the people writing (and updating) the rules is really important*
  - *Lesson learned: Automated validation doesn't completely eliminate the need for basic manual review of the converted data*

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Conclusion

Conclusions

- We were firm about sticking to our primary goals (put "nice-to-haves" in the parking lot)
  - Pay our employees and vendors based on valid P/A/O and PLCs
  - Perform "out of the box" billing using standard formats for go-forward and retro rate changes
  - Provide valid base for ongoing revenue recognition, project management/reporting, external reporting
- We made it – on time!
  - Everyone got paid
  - We've been able to invoice active contracts, have successfully submitted a retro bill, and customers are paying (minimal push-back on standard formats)
  - Revenue is computing and project data is available for reporting
  - Lots of ongoing change management

- *Lesson learned: An outstanding team (including your consultants) makes all the difference*
- *Lesson learned: Dedicate time to "stabilization"*
- *Lesson learned: Just say "no" (repeatedly) when people ask for scope increase and you are on a tight schedule*

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