

LUMEN

THE PLATFORM FOR AMAZING THINGS

ASUG Colorado Chapter Meeting @ Lumen – 6 October 2023

Project Checkpoint: Lumen's active ECC upgrade to S/4 BRIM

LUMEN®



Michael La Torre

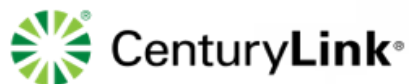
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LUMEN®
THE BEST RUN 

Revolutionary Evolution = Family of ERPs and Tech Debt



2020

Network Expansion, Cloud Management and CyberSecurity



2015

SAP, Data Sciences and Resource Orchestration



Virtualization and Cloud Management

2013



2011

Data Center Expansion



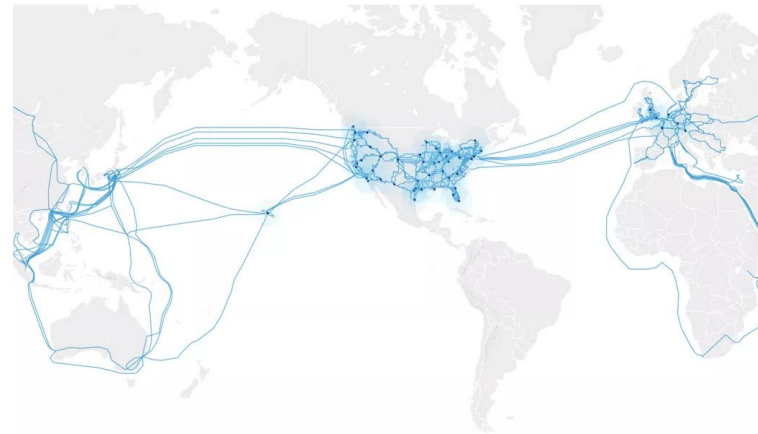
2009

Network Expansion



Lumen Profile

- NYSE - **LUMN**
 - SAP Platinum Partner #10 of 10
 - 38,000 Global Employees
 - Founded 1968 in Monroe, LA
 - One of the **largest, most connected and most deeply peered networks** in the world
 - ~400K route miles of fiber
 - ~160K on-net fiber locations
 - Runs ~70% of world's internet
 - SAP Customer since 1999
 - ~1,300 SAP / ~3,200 Managed Services
-
- Our Purpose: Furthering human progress through technology.
 - Our Mission: To digitally connect people, data and applications—quickly, securely and effortlessly.



Why Lumen for Public Sector?

- Lumen has mind-share in the C-Suite at Federal agencies
 - **We protect .gov and .mil from DDoS attacks**
 - DISA Indo-Pacific award for \$1.5B August 2022
 - We provide the vast majority of the fiber in DISA DISN - \$223 million 2023 contract from the U.S. Defense Information Systems Agency (DISA)
 - Recent EIS awards include \$1.2B at both USDA and DOI
 - We are partnered with the GSA on EIS, Networx, WITS3, MAS 70 and other vehicles
 - Lumen manages all of NASA's voice traffic and provide fast, secure network connectivity to NASA's more than 15 space centers and regional research facilities.
- **Lumen is one of only two providers of ECS data to DHS CISA**
- **Lumen is finding and taking down C2 (bad actors) on the Internet daily**
- Lumen has one of the largest IP footprints in the world, **we are THE network and security experts**
- Lumen has partnerships with specialists with targeted skills within Public Sector to augment our portfolio: Low Code/No Code, Augmented Reality, Free Space Optics
- Lumen has an extensive portfolio of **disruptive networking capabilities launching now**: Polymorphic Networking, AI/ML, SASE, Diagnostics as a Service, **Network as a Service (NaaS)**
- **Lumen's Managed & Professional Services sells, deploys and supports SLED (State Local Government Education) SAP clients**



Lumen Panel



Bill Marcinko

VP, Financial
Intelligence &
Operations



Kerry Youngblood

Director, Process
Improvement CFS



Ben Merkel

Director, Financial
Strategic
Transformation



Durga Gorle

Director, Software
Engineering

Lumen's ERP: SAP

- The ERP ecosystem (4 ERP's and ~600 satellite systems including Billers) is 20+ years old and our fragmented architecture consists of numerous custom legacy applications.
- The legacy SAP data model does not support Lumen's needs for fast, efficient and complete reporting, analysis and operations.
 - US GAAP is *not* the Primary ledger
 - Not leveraging Profit Centers correctly
 - Highly dependent on data warehouses/lake to combine data sources
 - Location, Product, Customer

Approach

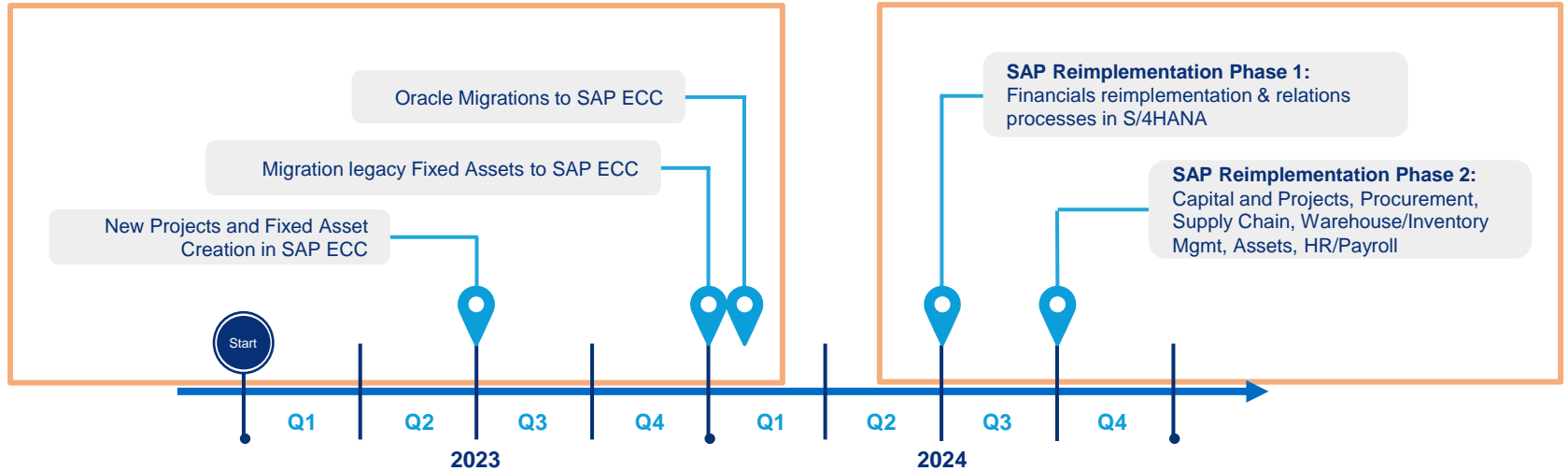
Greenfield implement of SAP's S/4 HANA and retire over 100 satellite and supporting systems over ~2 years in 2 Phases:

1. Financials, Consolidated Accounts Receivables & Collections
2. Supply Chain, Procurement, Inventory Management
HR & Payroll

ERP Transformation Program Journey

Consolidate to
current SAP ECC

Migrate to
S/4HANA



ERP Transformation Program Benefits



North Star
Priority

ERP
Transformation
Program
Enabler

Business
Benefit
Highlights

	1	2	3	4	5
	Develop Customer Obsession	Innovate and Invest for Growth	Build a Reliable Execution Engine	Radically Simplify our Company	Further Develop our Culture
	<ul style="list-style-type: none"> Combine Product and Customer data together with transaction details, leading to fewer disputes for invoice issues 	<ul style="list-style-type: none"> Refine and adopt streamlined business processes Simplify master data and improve data quality Move from fully on-prem to a cloud system landscape Automate testing 	<ul style="list-style-type: none"> Align to standard, best practices from SAP and IBM With SAP NS2, we will receive support managing our systems directly from SAP 	<ul style="list-style-type: none"> Simplify the technical landscape – reducing the number of managed systems 	<ul style="list-style-type: none"> Improve the employee experience by adopting more standard business processes, enabled by technology More efficient and accurate data insights that provide clarity
	<ul style="list-style-type: none"> Improved linkage for understanding Customer behavior Matching customer payments to invoices! Simpler billing processes 	<ul style="list-style-type: none"> Compounding innovation – simplifying processes will allow Lumen to more quickly make future enhancements More quickly enhance systems by going to the cloud Reduced business need to participate in Hot Pack regression testing cycles 	<ul style="list-style-type: none"> Easier adoption of system enhancements SAP will facilitate enhancements and updates; continuous alignment with industry best practices 	<ul style="list-style-type: none"> Have 30+ fewer applications to support, integrate, manage, and audit 	<ul style="list-style-type: none"> More streamlined experience to manage work responsibilities supporting a growth mindset

Finance Standardization and Simplification

Quad-A	BPH Count	%
Add	7	1.8%
Adjust	220	55.7%
Adopt	168	42.5%
Grand Total	395	100%

- Lumen Guiding Principal is maximum 20% customizations (Adds). Less is better.
- Phase 1 Add (customizations) is currently 1.8%
- Adjust are minor modifications to functionality. Most are driven by BRIM which is not part of the IMPACT model.

ERPT - Finance Master Data Scorecard:

	Before	After	Percentage Reduction
Company Codes	305	191	37%
GL Accounts	11300	1300	88%
Cost Centers	7800	2100	73%
Allocation Accts	800	33	96%
SKF's	37	10	73%
Allocation Cycles	1300	4	100%

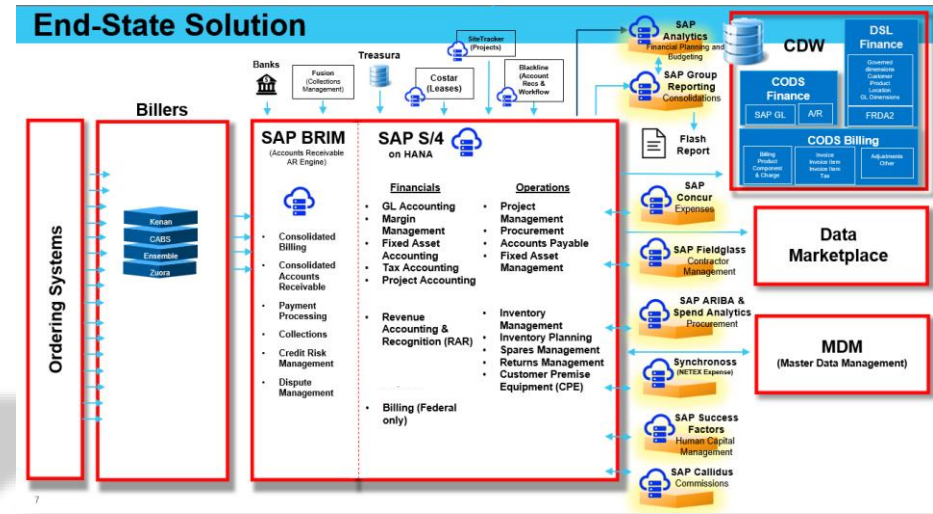
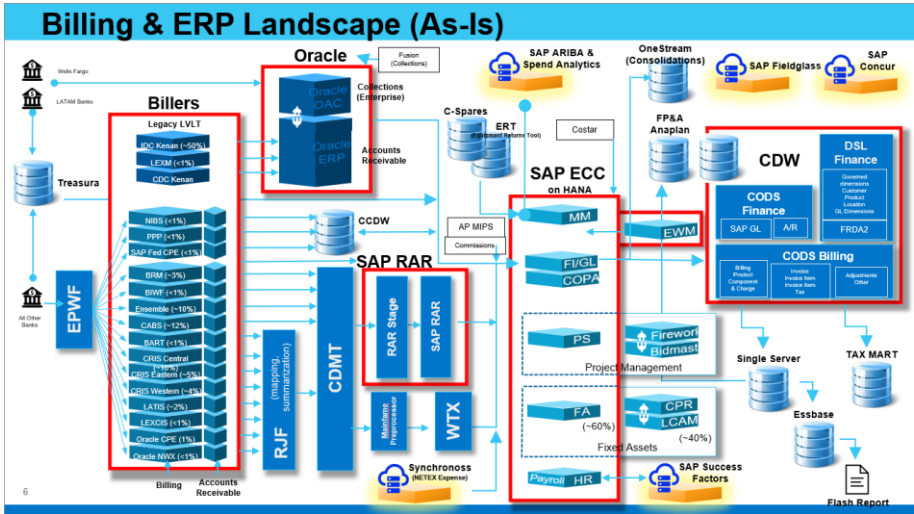
- Source 1: “The reduction in G/L accounts and allocation accounts are impressive.”
- Source 2: “The figures below look good, good to show them, and they indicate savings in commodity transaction processing or [ability] to produce information to make decisions; that is how I would measure success.”
- Source 3: “These metrics are very contextual but at a high level, simpler is often better and this is a simplification. I do think the data you provided looks good.”

As-Is Landscape vs. End-State Solution

Billers-SAP-Datawarehouse Ecosystem

We need to **radically** simplify our Company.

Kate Johnson
Lumen CEO on 2023 Core
Priorities for Lumen
North Star Call
Jan 18th, 2023

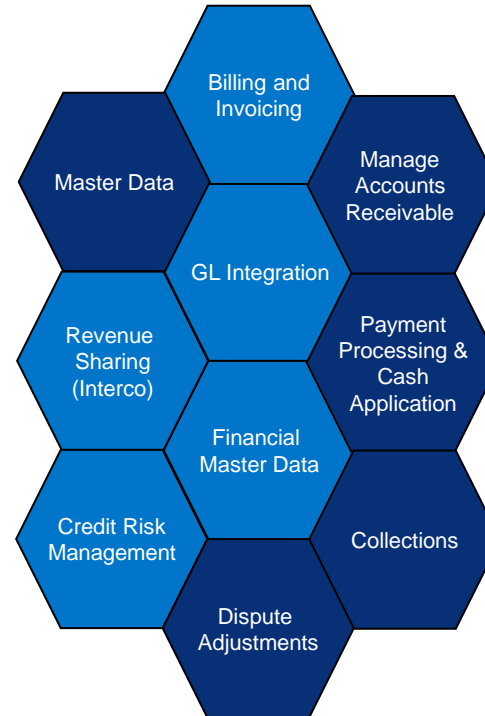


Our payroll processes will be on Employee Central Payroll Cloud (separate SAP instance)

Impacts to the business (People, Processes, Technology)

BRIM focuses on invoicing, consolidated accounts receivable, collections, payment processing, dispute adjustments, and credit risk management.

Assessing Change Impacts	
High (H)	Complex business change, large audience, several actions may be needed for successful implementation
Medium (M)	Moderate business change, may require a few additional actions beyond training and communication
Low (L)	Minimal business change, easy adoption with training and communication



BRIM

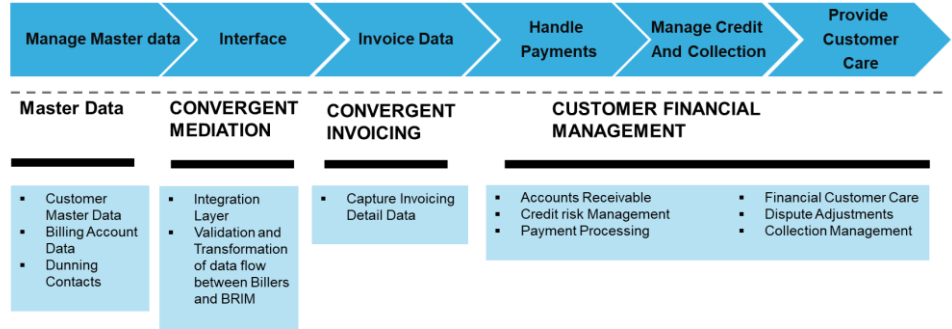
Billing Revenue Innovation Management

- Consolidated AR
- Consolidated Invoicing
- Comprehensive Credit Risk Management
- Transform Payment Applications with Machine Learning and AI

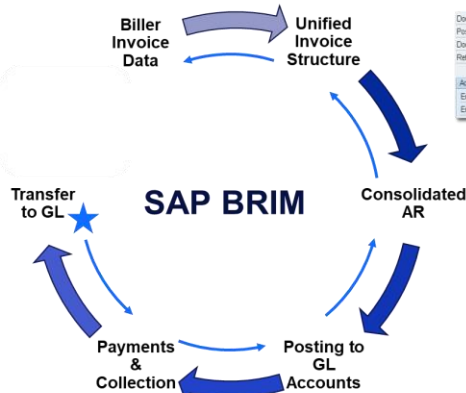
BRIM Overview

SAP Billing and Revenue Innovation Management (SAP BRIM) will enable Lumen to consolidate Accounts Receivables information and simplify how we handle payments and provide customer care.

BRIM Scope:



Traceability of Invoiced details data from GL



GL Document

Sub Ledger Posting Document

Invoicing Document

Invoice Detailed Data

Biller Invoice Data to Sub ledger data flow

- Biller Invoice data Prep
- Unified Invoice detail data in BRIM
- Generate Biller Invoice data document
- Create Consolidated AR (Open Items)
- Payment Processing
- Unidentified / Clarification processing
- Dunning and Collections
- Transfer to GL

Questions?



Thank you for your time!



13