



Southern California Edison's Journey to C/4HANA and S/4HANA

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Session ID #82830

About the Speakers

Dave Khuong

- Assoc. VP, HCL
- Dave has over 30 years of industry experience in utility, mining, aerospace, oil and gas and consumer products. He has both functional and technical leadership in the areas of: Finance transformation S4 HANA, CRM, AMI, EAM, Data Governance, and SAP integration/Testing strategies.

Key Outcomes/Objectives

1. Think Business Not Technology
2. Involve and maintain alignment with executive leadership and influencers
3. Engage partner eco-system early and often
4. Challenges – new platform with quarterly updates
5. Business Benefits
 1. Functionality, Usability, and Product Adoption
 2. Operational Performance & Upgrades
6. Consolidated Platform – ability to consolidate disparate solutions
7. Supports Cloud First Philosophy
8. Rigorous Testing is Mandatory
9. Co-Innovation Works!

Agenda

- SCE Customer Service Re-Platform Program
- Journey To C/4HANA Service Cloud
 - Our Analysis
 - Decision Criteria
 - Expected Benefits
- Where We Are In Our Journey
- Partnership & Co-Innovation
- Wrap-Up

CSRP - Our Transformation Program

About Southern California Edison

Southern California Edison (SCE), an Edison International company, is one of the nation's largest investor-owned utilities.



SCE generates about **16%** of the electricity it provides to customers, with the remaining **84%** purchased from independent power producers.

SCE's service territory includes about **430** cities and communities with a total customer base of about **5 million** residential and business accounts.

The company serves nearly **14 million** people in a **50,000-square-mile** service area within Central, Coastal and Southern California.

SCE is regulated by the California Public Utilities Commission and the Federal Energy Regulatory Commission.



SCE maintains more than **103,000** miles of transmission lines.

SCE's service territory contains approximately **1.4 million** electricity poles.



Based in Rosemead, Calif., the utility has been providing electric service in the region for more than **120** years.



During the past five years, SCE's energy efficiency programs have helped customers save enough energy to power **1.2 million** homes for a year.



In order to continue powering California's growing population and economy, SCE plans to invest up to **\$13.5 billion** over the next three years expanding and strengthening its electric system infrastructure.



If you were to lay down the wires that makeup SCE's extensive transmission and distribution network end to end, they would traverse the United States approximately

40
times.

SCE was founded on **July 4, 1887.**



In 2014, SCE handled more than **15 million** phone calls in **7** languages.



In 2014, Edison employees donated more than **192,000** volunteer hours.



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Customer Service Re-Platform Program

Strategic Alignment



Helping customers make cleaner energy choices



Achieving operational and service excellence

Schedule

Go-Live: April 2020

Benefits

Reliability: Replaces mainframe-based system

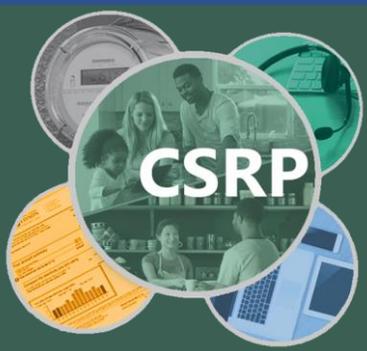
Fewer failures and impacts, eliminates 70% of existing customer systems

Efficiency: Streamlines processes

Reduces worked process time and lower maintenance costs

Customer: More relevant, satisfying experience

More secure, faster delivery of new products



BY THE NUMBERS

5M
Customer
Accounts

4,200
Users

150
Systems to be
replaced
(70% of total)

84
Business Process
Design
Documents

Up to
8B
Records to be
migrated

Build/Test
PHASE



628 SAP Development
Objects (RICEFW)

120 Training Course
Outlines

900

Change Impacts

Over
1500

Over
400

Testing
Scenarios

Team
Members

INTEGRATION

222 Interfacing systems

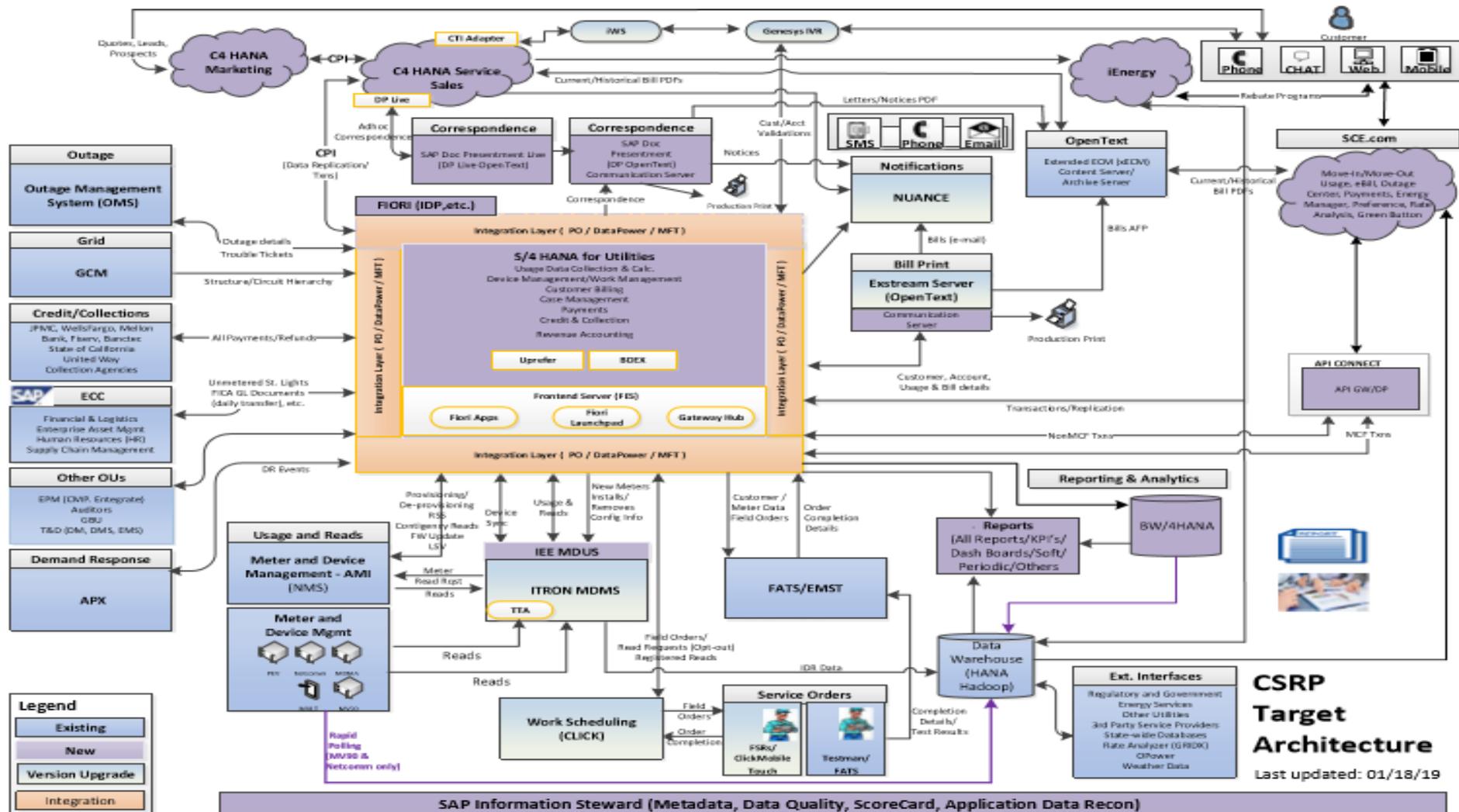
102 Require remediation

376
Third
Parties

- C/4HANA Roadmap
- S/4HANA
- SAP Co-Development for Products & Programs

- OpenText
- Customer Preference
- iEnergy Bolt-On

The Technical Landscape at SCE is Complex



Why Move to the Cloud?

SCE's Cloud Assessment



Why Cloud?

- Continuous technology innovation
- Greater security and resilience
- Rapid elasticity or ability to expand the business

What Considerations?

- Does functionality meet business requirements?
- How mature is the product within the utility industry?
- How secure is customer data?

How to Assess?

- Develop an 8 criteria Cloud assessment framework
- Seek input from internal and external stakeholders (e.g. business units, IT, finance, Cloud provider etc..)

SCE's Cloud Assessment

ID	Criteria	KPI
1	Business Case	Nominal and present value of cost and benefits
2	Functionality & Usability	Alignment of C4C functionality to SCE requirements
3	Data Protection & Control	Security of customer data
4	Proof of Technology	System performance for the four call types
5	Change Management	Impact on project team and end users
6	Parallel Initiatives & Dependencies	Impact of parallel initiatives on the Hybris/C4C Implementation
7	Product Adoption	Confirmed clients (utility and other industries)
8	Operational Performance & Upgrades	System availability and on-going upgrades

What Our Own Analysis Showed

When comparing on-premise CRM (scenario 1) to C/4CHANA (scenario 2), **C/4HANA exceeded or matched every relevant criteria** of our key stakeholder groups.

	On-Prem CRM	C/4HANA
Scenarios	1	2
Total Score	45	67

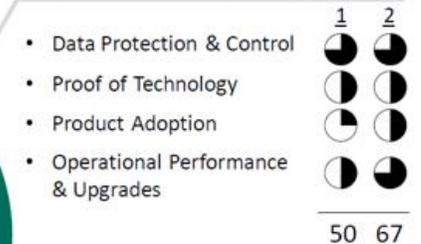
Five Key Stakeholder Groups Relevant Criteria & Summary Scores

Scenarios	1	2
Total Score	45	67

Customer Call Center (CCC)



Information Technology (IT)



Customer



CSRP Leadership



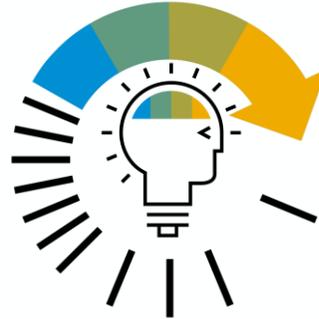
Finance



Benefits of C/4HANA Service Cloud

Speed of Innovation

- Quarterly updates of new capabilities
- Improved analytical capabilities
- Agile configuration



User Experience

- Fiori Applications
- Streamlined Processes

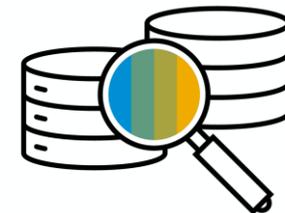
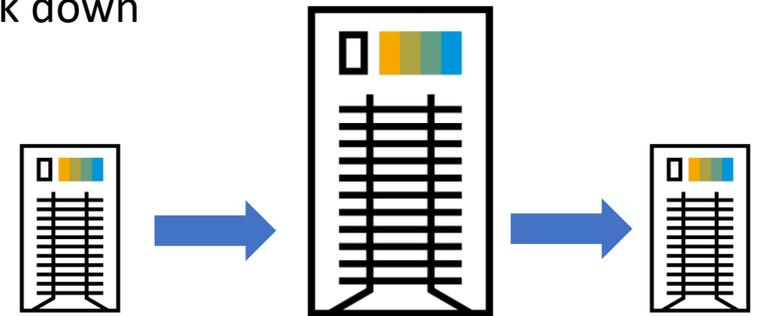


Reduced Costs

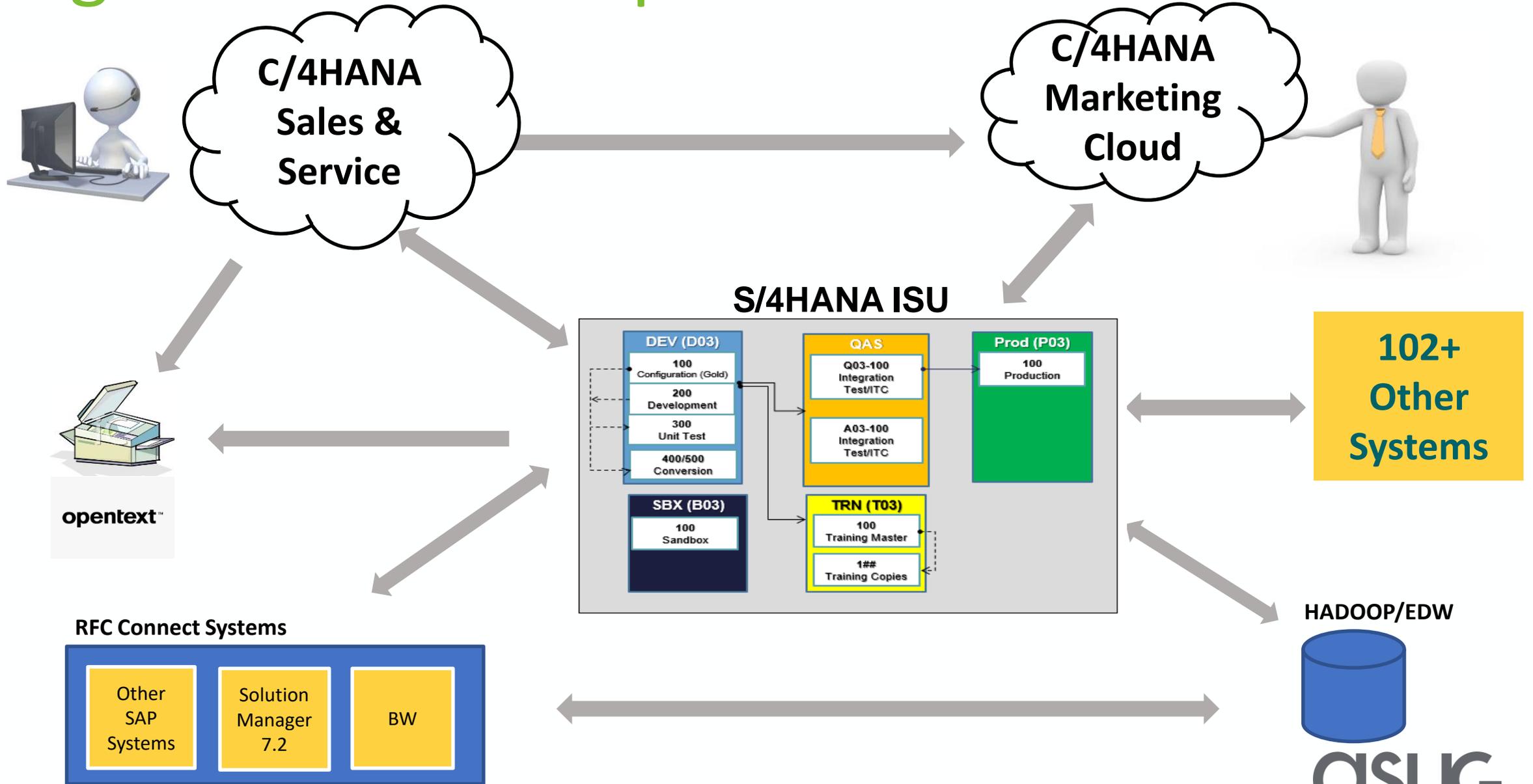
- System and hardware upgrade costs reduced
- Continue shift of SME focus to operational expertise

Scalability

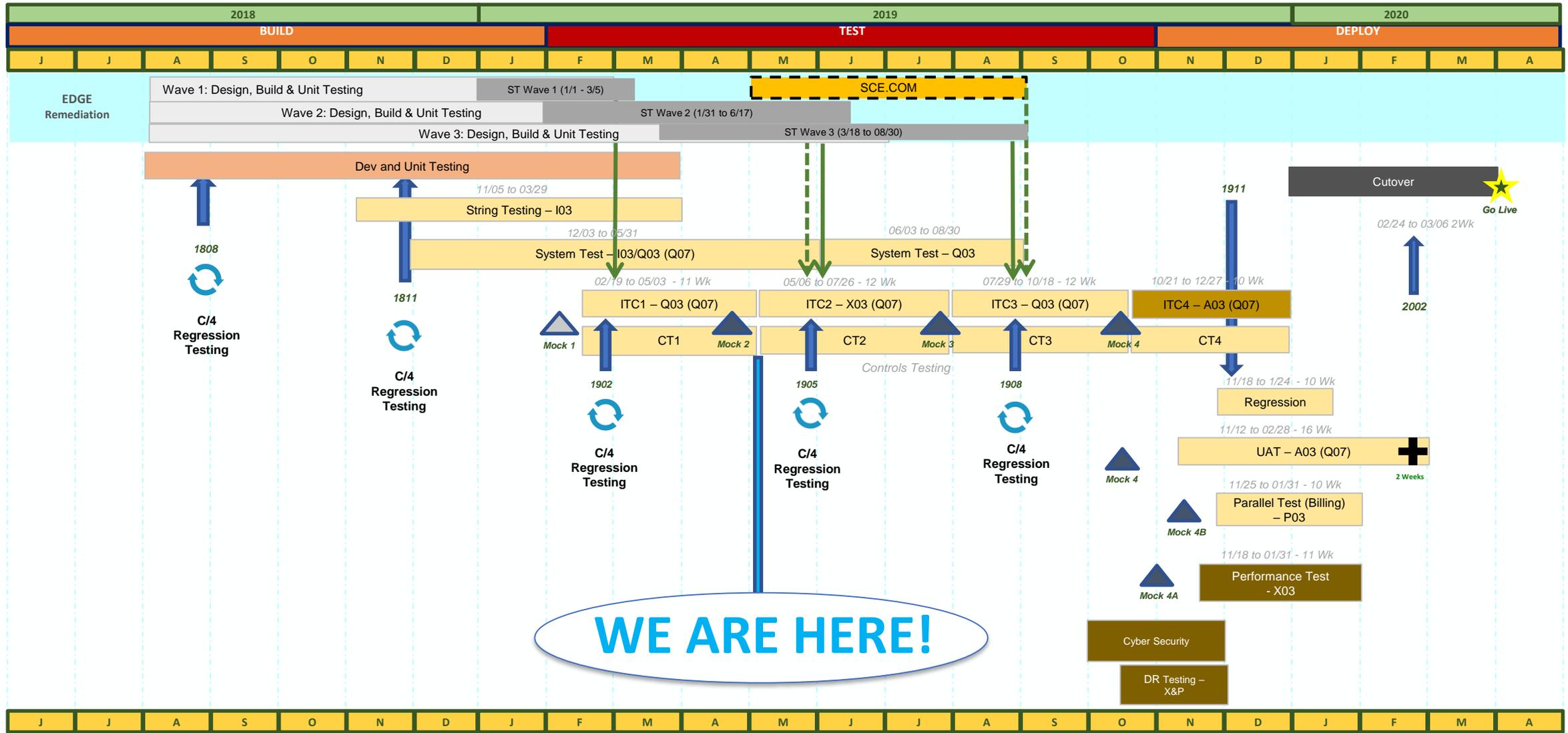
- Scale up in times of peak call center demands (outages) and back down



High Level Landscape



Testing Schedule



Legend

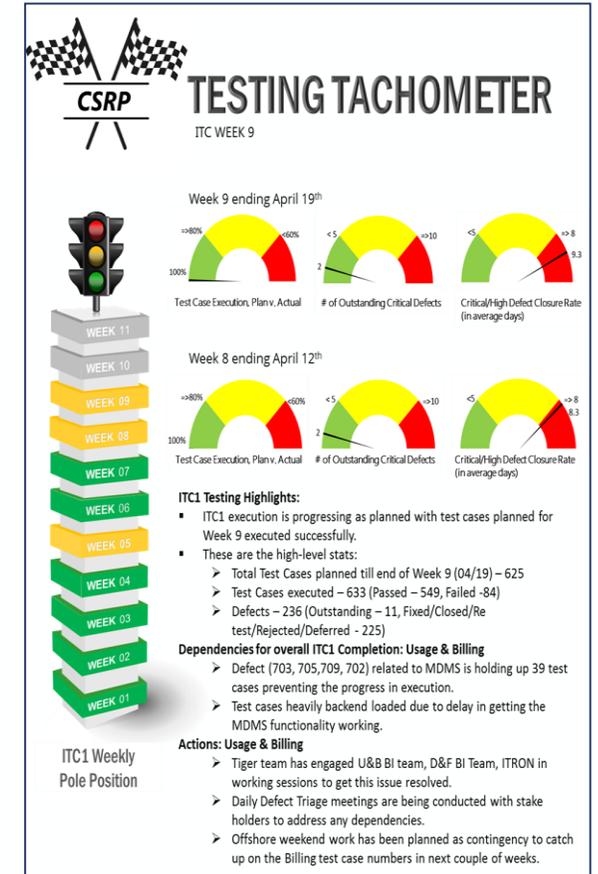
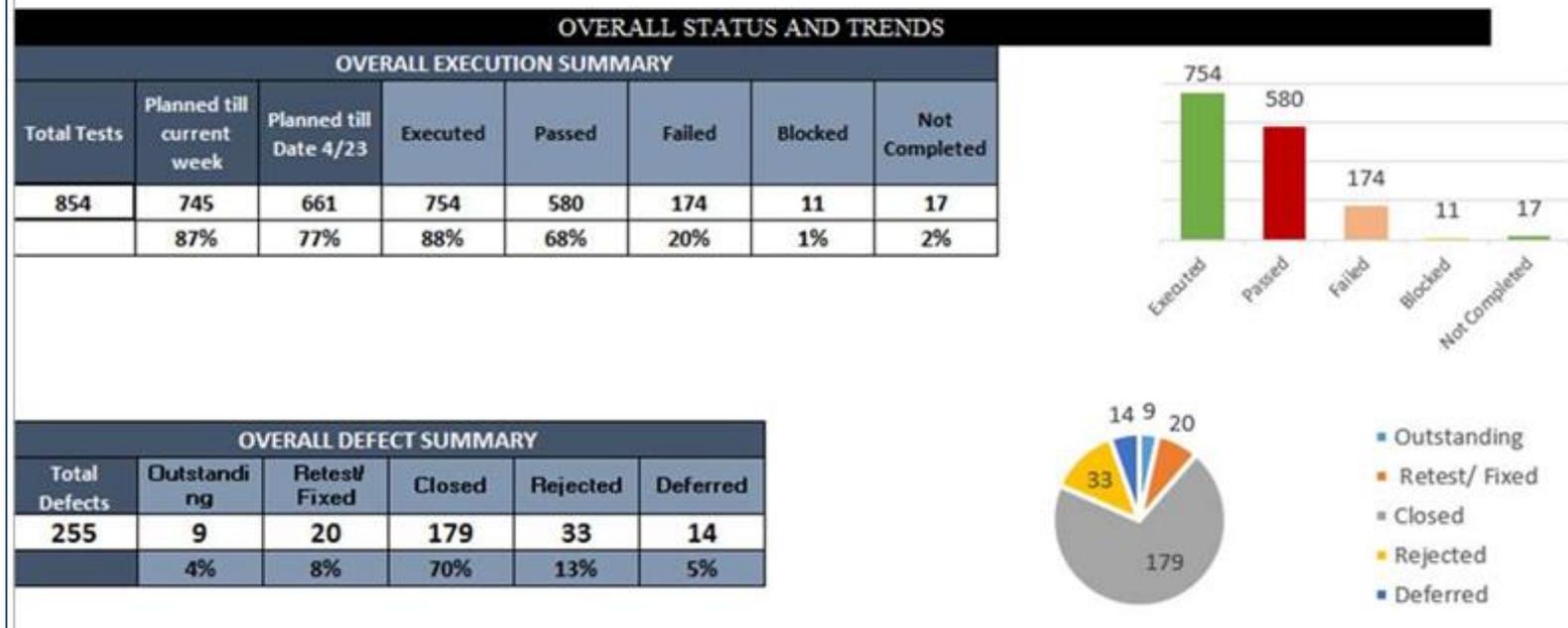
- Partial Mock Data Cutover (Blue triangle)
- Full Mock Data Cutover (Dark blue triangle)
- C/4 HANA Marketing/Sales Releases (Blue arrow)
- Functional Test Execution (Yellow box)
- Non Functional Execution (Dark yellow box)
- Contingency (+)
- Go-Live Preparation (Grey box)

Integration Test Cycle 1 – A Point in Time

Highlights:

- Overall 754 Test Cases executed out of 661 Test cases planned till today.
- Test Execution for CIM, D&F, U&B, FI, Payments and CC is In Progress.
- Overall 255 Defects are logged. 9 outstanding defects are being triaged.

Overall Execution & Defects Summary:



On The Cloud - What's different ?

- **Dynamic scaling** of environments based on needs
- **Performance validation**
- **Infrastructure Responsibilities shift from SCE to SAP**
 - Can validate performance on Cloud Monitoring Center
 - Notifications sent for outages, etc.
 - Utilize Solution Manager Services to Monitor On-Prem and Cloud Solutions
- **Public Cloud**
 - Updates Automatically Pushed to All Clients on Tenant
 - Ability/Need to Regression Test
 - Ability to turn features on/off
- **Challenges with S4/HANA & C/4HANA Compatibility & Release Timings**
- **Freeze Point** – need to align C/4HANA, S/4HANA and Testing Schedule

Cyber Security Infrastructure: On-Prem vs Cloud

- Engage Cyber Team Early
- Understanding SAP's Cloud Data Security
- Cyber challenges with validating with cyber team to ensure we are compliant with current SCE standards
- Data Encryption Required for SCE, need to utilize S4 HANA Data Encryption leads to challenges, need to identify which tables and columns to encrypt
- Model Company – recommend implement On-Prem due to Cyber Security Concerns



Partnership & Co-Innovation

Partnering with HCL

→ Leaders Quadrant with Gartner for SAP Application Services

→ Almost 50% of all CR&B Implementations in US

→ SAP GSSP Pinnacle Award for 2018

→ Over 25 Years Utilities Experience and Prime SI for 22 CIS

Implementations

→ 25 Active Utilities in North America with > 21 Million Customers

→ 37 CIS replacement and upgrades in North America

→ 600+ SAP Utilities Consultants in North America

→ 3000 consultants globally supporting > 25 utilities



**Global Track Record of
Success**

Partnering with SAP

Professional Services –

- Provided **industry expertise and advocated for capabilities** in C/4HANA and IBSO co-innovation efforts
- **Expedited resolutions**. Example – 1809 MPM release. Resolved in 5 days vs 70+ days.
- SAP/HCL team worked for **continuous improvement of design** (leverage standard, improve UI, simplify enhancements)

Max Attention -

- Provided **expertise and recommendations** for all **technical architecture** aspects of CSRP scope: HANA, Integration, Analytics, Data Migration, Security and Fiori.
- **Solution Manager 7.2 capabilities** leverage to help CSRP with Solution Documentation and End-to-End system and business processes monitoring.
- Quick access to **expertise-on-demand**. Ex.: Model Company upgrade support.

Need for Co-Innovation

Problem Statement:

- C/4HANA solution was relatively new with limited industry specific functionality
- CSRP Team saw **opportunities** to work with SAP to provide **Industry Specific ideas for functionality** to be incorporated into the product

Solution:

- CSRP Team **partnered with** SAP's C/4HANA ISU team
- **Design sessions** held at SCE and SAP's Palo Alto sites
- **SDGE participated** in these design sessions



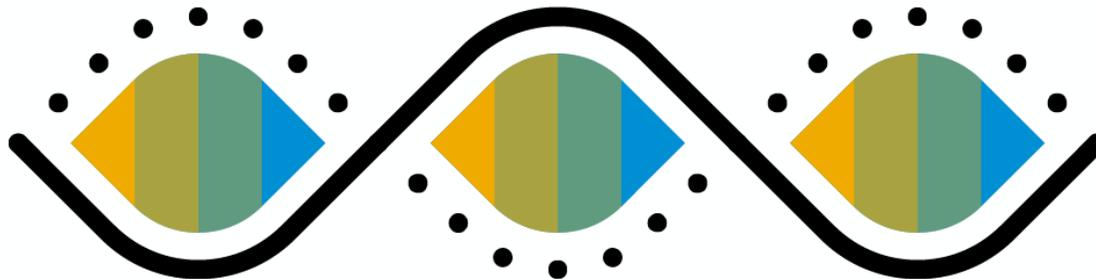
The Co-Innovation Process

1. SCE/HCL/SAP PSO identified and **prioritized** approximately **20 key functional gaps**
2. HCL/SAP PSO jointly **composed functional overviews**, including integration points with core IS-Utilities
3. Conducted two **co-innovation workshops** to detail and agree upon functionality and release alignment
 1. Workshop 1 - 1805/1808; Workshop 2 - 1811/1902
4. After each sprint, **updates were provided**
5. Pre-release **reviews and demonstrations** of new functions

1. Prioritize Gaps

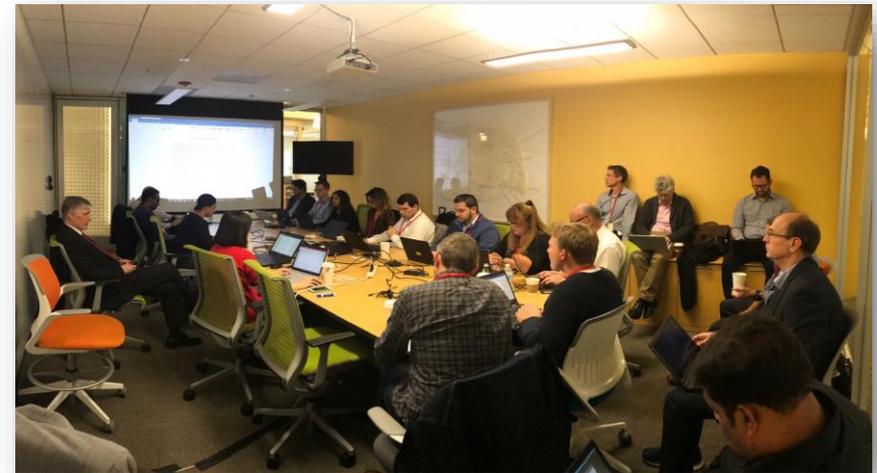
3. Conduct Co-Innovation Workshops

5. Release Reviews/Demos



2. Compose Functional Overviews

4. Sprint Status Updates



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Innovation Initiatives

Automation Input/Outputs

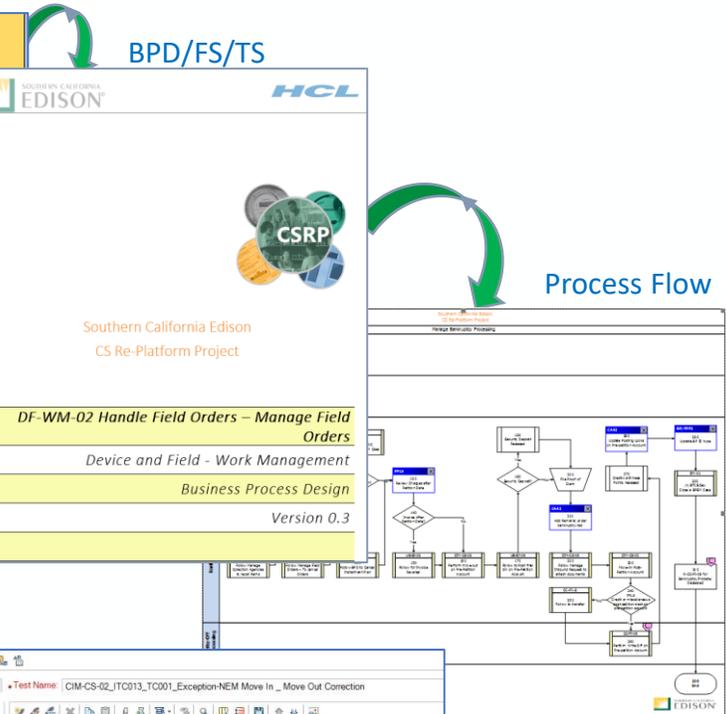
Reduce risk to project go-live by automating manual tasks.

HCL reviewed and prioritized 318 exceptions on the following dimensions :

- Expected Volume (H,M,L)
- Complexity (H,M,L)
- Effort (H,M,L)
- What Tool should be use to prevent/resolve the exception

BPEM

Workstream Grouping	Status	Case Category #	Case Type Description	User Exception Scenario / Description	Possible Resolution(s)	Volume	Complexity	Effort	Tool	Comment
Billing	Pending Technical Information	BI02	Special Billing EZE	Verify High Bill: Ability for the system to perform a high bill validation against the account's specific billing history and create an exception or outlier if validation fails. The validation shall look at 12 month billing history and determine if current bill amount exceeds established validation threshold. For example, if the threshold is 10	1) Verify High bill is correct, note account that it has been reviewed 2) Cancel/Rebill account since high usage is incorrect, contact CCC/BCD for customer contact 3) Issue service order to the field to	Medium	Low	Low	RPA	Weather data - change in o
Billing	Pending Technical Information	BI03	End to End Group	Water Meter Estimated Bill -When a water metered account will result in an estimated bill, create a user exception for resolution, estimated bills are not allowed on water metered accounts	1) Issue order to the field to Pick Up Read 2) Issue meter test/meter change	Low	Low	Low	RPA	Low volumen of water meter
Billing	Pending Technical Information	BI04	End to End Group	Billing Error Mass: BPEM case is created to identify any errors generated during the billing process, that have prevented the account from proceeding to invoicing. The errors logged may be due to the following: -Reading/Billing Determinants Missing -No Read Obtained	User will analyze the account to identify the reason for the error and: (1) estimate (Based on Guidelines) (2) issue an order to the field (3) update technical master data (4) update the usage in EZE	Medium	Low	Low	RPA	Monitor in Parallel and post determine characteristic for
Billing	Pending Technical Information	BI05	End to End Group	Review Billing Determinants: Upon receipt of the billing response from MDMS, if the required billing determinants (i.e. TCU usage) are not present, the billing system shall create a BPEM Case	Validate MDUS response for missing bill determinants and investigate why the billing response from MDMS failed: (1) Correct Rate (2) Correct Usage (3) Correct Meter Program	Medium	High	High	Abap/Busines Process	Prevention measures to pre
Billing	Pending Technical Information	BI06	End to End Group	Create a BPEM case anytime all expected master data required for billing (i.e. factor, price, installation fact) are not received from the applicable system (could be SAP or any other interface) or are otherwise missing.	Analyze missing parameter (1) update the installation facts (2) correct rate (3) reverse rebill	Medium	High	High	Abap/Busines Process	Prevention measures to pre



Training Material

The screenshot shows the 'Overview of Centric Customer Hub' interface. It includes a 360-degree view of the customer, showing real-time views of related open work and exceptions, past interactions and the history of completed work. It is essential for users to utilize CCH for all BPEM Case investigations for efficient case resolution and productivity/performance tracking.

The screenshot shows an ITC Test Case with the following steps:

Step Name	Description	Expected Result
1	Login to SAP C4C system with valid credentials	Login to system should be successful
2	Go to Individual customer work centre view from under Customer work centre which is from CCA territory	New Business Partner page opened in C4C
3	Now move to the search box located in upper right side, then search for and confirm an existing BP	Existing Business Partner get Confirmed
4	Click on BP name.	New page for BP get opened

ITC Test Case



HCL's PEGA Practise Overview



550+ PEGA Consultants
40% Certified Consultants



10+ years of existence
20+ Active Programs
Gold Sponsor at Pega World 2017



What Makes us Different?



HCL's Differentiated Approach through Competency Center

- **Workforce Productivity** - Cognitive capability of human mind can be automated by robots to perform mundane and monotonous work.
- **Platform Centric Approach** inline with 21st CE AD vision
- **Incubation Center for Disruptive Innovation** [R&D wing]
- **Containerization of Pega Solutions** to scale the implementation [BPM-DevOps]
- **Design Thinking** - Better way of Process Engineering than Traditional ways of Impl.
- **ALMSmart** - Gold Standard ways of Agile project execution
- BPM Cookbook Patterns, PathFinder Process Repo. & BPM Blue Printing Methodology
- Well rounded BPM Approach – **Skill Ace Academy**

Key Customers



Key Solutions



Award Winning Solutions for:

- Insurance FWA management
- Customer Engagement for Health Insurance



- Robotic Process Automation and Cognitive Learning for addressing **Workforce Productivity/ Intelligence** and developing "Self-Healing" processes



- Customer Decision Hub for enriching **Customer Experience**. Providing the Right Offer to the Right Customer at the Right Time via the Right Preferred Channel



- CDaaS (Continuous Delivery as a Service) Pipeline (Pega DevOps blueprint) for **Operational Excellence** Application Development and **WATERFALLish** approach of Release

Patents

- 15+ patents in the areas of systems

SOFTWARE PARTNERS

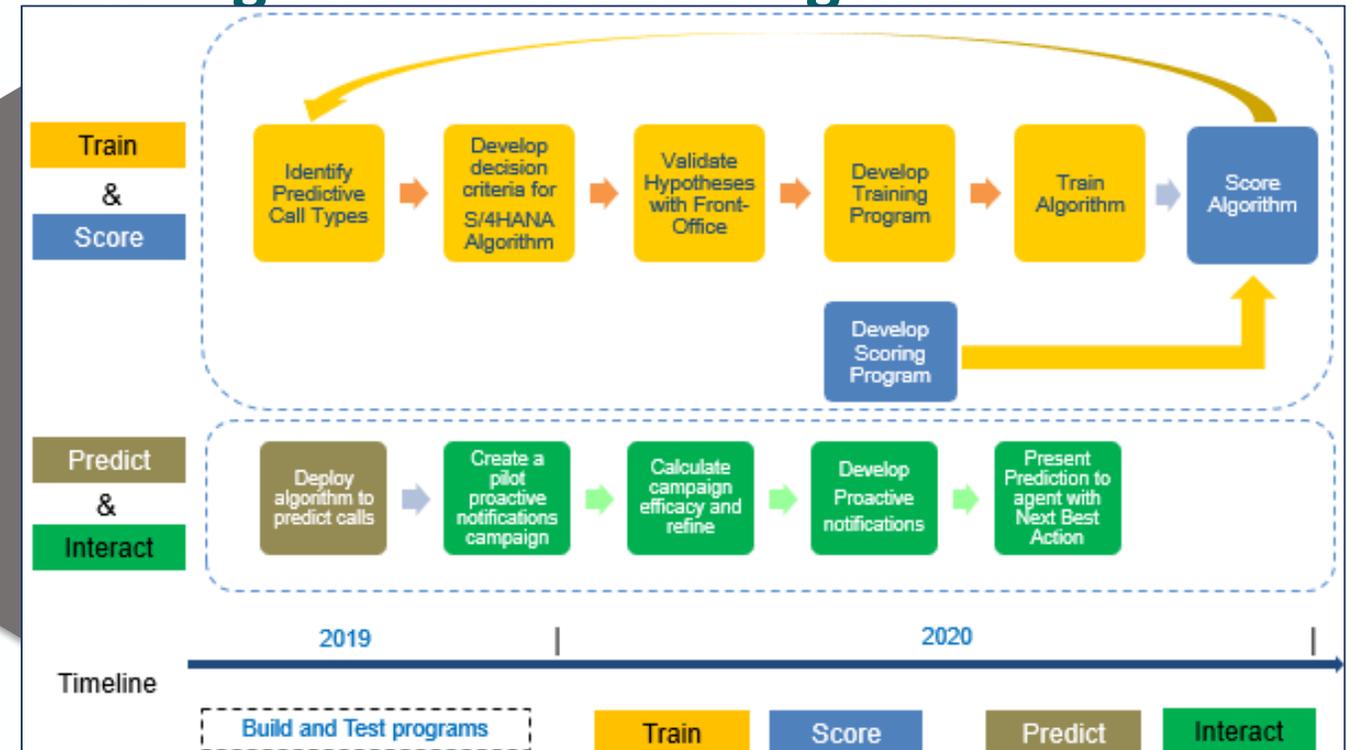


Using Predictive Analytics to Predict Customer Behavior

Using predictive analytics, a SCE can:

- Prevent live agent calls by proactively communicating with the customers
- Present proactive interaction based on the Predictive Engine's Best Next Action

Building the Predictive Engine



Wrap-Up



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 us at dave.Khuong@hcl.com

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