Comerica Bank: Delivering Modern, Customer-Centric Applications in the Cloud

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Comerica Bank

Comerica Bank

Est. 1849

Honored by more than **10** top organizations for employer Of choice for minorities and innovation

160 YEARS of
RELATIONSHIP BANKING

OVER **150** applications migrated to the cloud to provide more secure, cost effective and efficient data storage

122K cases

27% of Comerica uses Pega

FINANCIAL

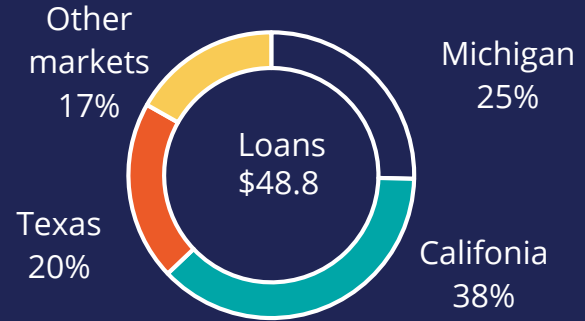$avings

Reduced Hardware and system footprint.

#1 Commercial Lender
Based on % of total assets and % of total loans

Raise your expectations

Diverse Geography
($ in billions; 4Q18 Average)

Other markets 17%

Michigan 25%

Loans $48.8

Texas 20%

Califonia 38%

Wealth | Business | Retail

7 Business Units

Expectations for this session

Objectives

- Comerica Vision

- Comerica Pega Journey

- Share insights around understanding what it takes to get Pega from zero to adopted as a platform of choice

- Discuss Organizational and user readiness considerations

- Provide guidance from experience on how Comerica built and are building customer-centric applications on the Pega platform

- Review challenges and how we overcame them

- Key Takeaways

At the center of Comerica's technology transformation is Tech Vision 2020...

Breaking the mold by transforming the technology assets to become the leading **digital provider of choice** for internal partners and external customers, leading to **customer delight,** while ensuring effective risk management and raising customers' willingness to pay.
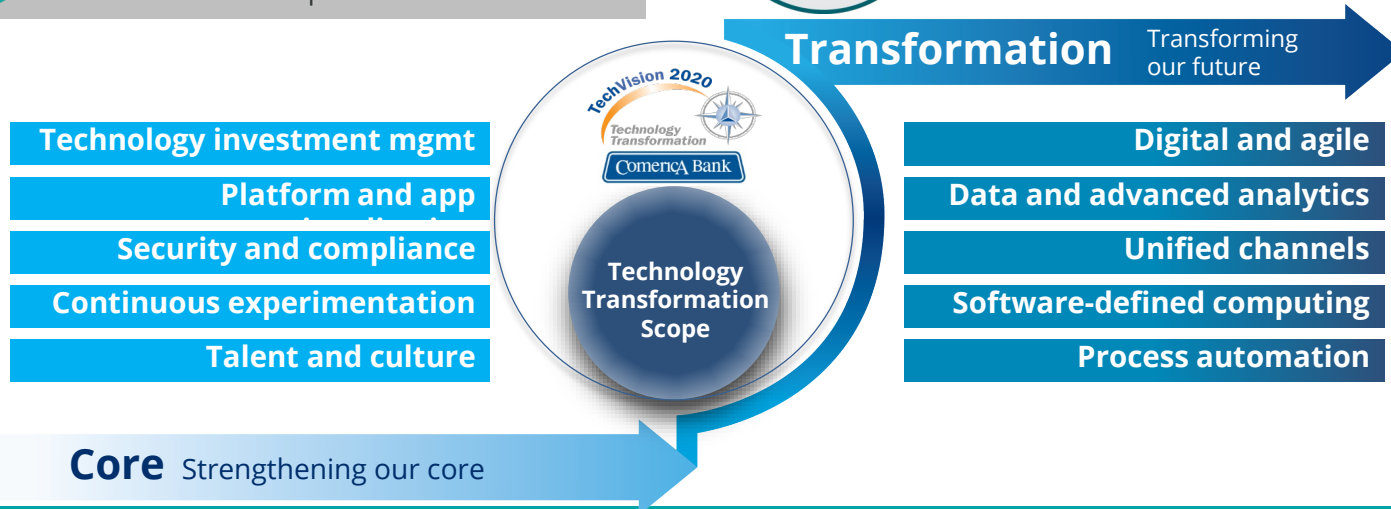
Key Performance Indicators:
- High net promoter score
- On time and on budget
- Right the first time for the "minimally viable product"
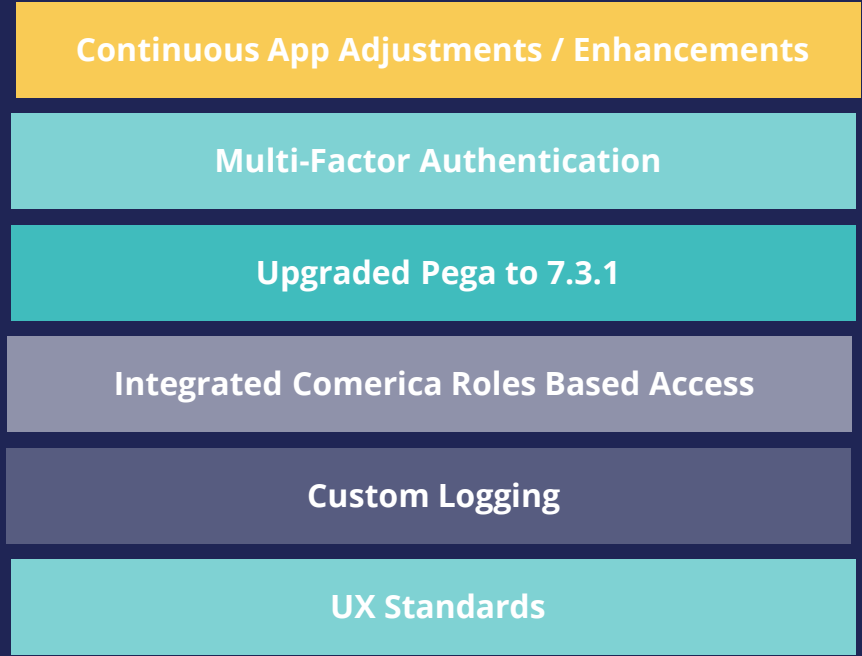- Secure and compliant

Outcomes:
- Revenue growth and commercialization
- Quicker time to market
- Cost optimization
- Customer service and loyalty

Transformation Transforming our future

TechVision 2020
Technology Transformation
Comerica Bank

Technology Transformation Scope

- Technology investment mgmt
- Platform and app
- Security and compliance
- Continuous experimentation
- Talent and culture

- Digital and agile
- Data and advanced analytics
- Unified channels
- Software-defined computing
- Process automation

Core Strengthening our core

Comerica Journey with Pega began in December 2017

July '17 — Pega Cloud Selected

Aug '17 — Vendor and Business Engaged

Sept '17 — First Proof of Concept Rolled Out

Dec '17 — First Production app on Pega goes live!

~Every 40 days — Roll out Pega Application

10+ — non-compliant systems decommissioned

7+ — Enterprise Integrations

122K — Cases handled

In that same timeframe we implemented...

- Continuous App Adjustments / Enhancements
- Multi-Factor Authentication
- Upgraded Pega to 7.3.1
- Integrated Comerica Roles Based Access
- Custom Logging
- UX Standards

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Why the need to move so fast?

Learning and innovation go hand in hand. The arrogance of success is to think that what you did yesterday will be sufficient for tomorrow.

William Pollard

Forces exerting pressure upon Comerica

Comerica

- Information Management
- Cloud Strategy
- Fintechs
- Regulatory Risks TLCM
- Integration APIs
- Security risks
- Technology Debt
- Changing customer expectations (Mobile)
- Several disparate Case solutions at bank
- Cost Reduction & Containment
- Skill shortages due to multi-COTS solutions
- Slow to deliver solutions
- Inefficiency and lack of automation

Key Enablers for Pega success...

Embrace Cloud

Standards and Architectural Agility

Enterprise Platform Approach

Integrations APIs

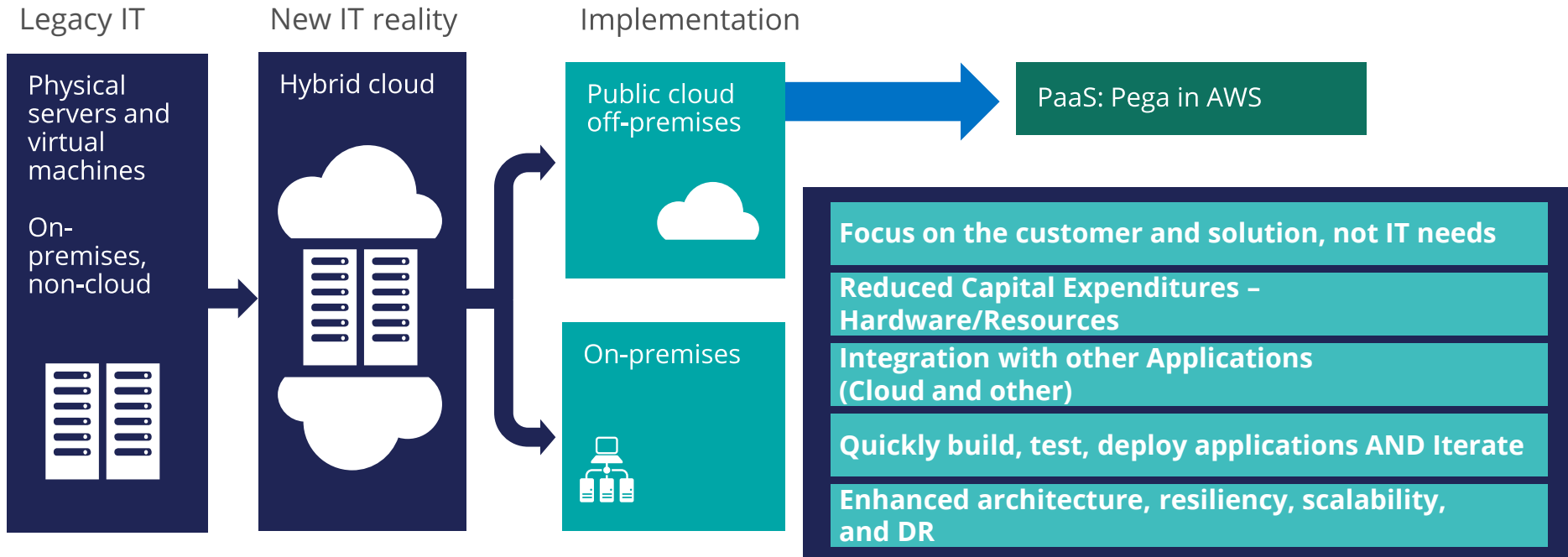Secure, Compliant Applications

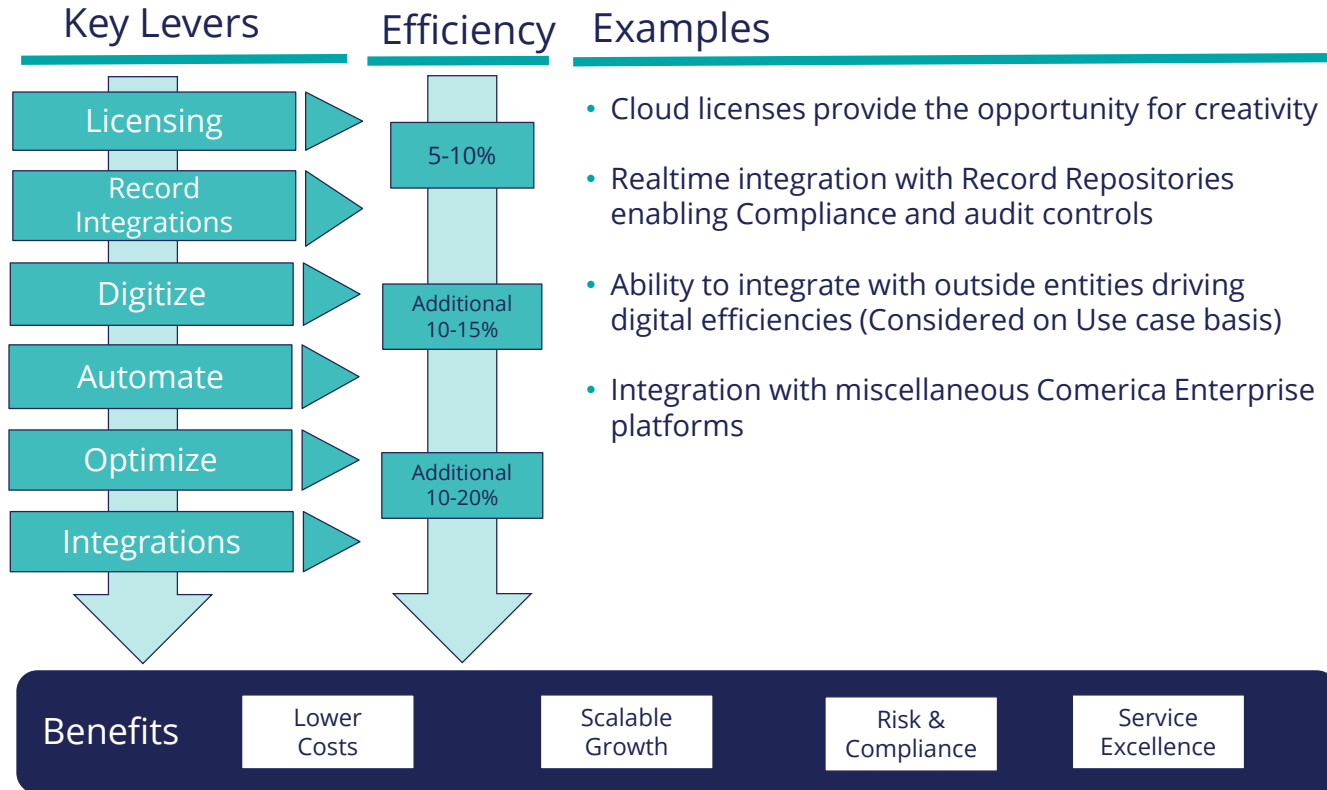Client Collaboration 2IB (SI)

Digital Process Automation

Corporate Sustainability Goals

# Comerica had to first align & evaluate Pega cloud with our "Cloud First" strategy

Legacy IT

New IT reality

Implementation

Physical servers and virtual machines

On-premises, non-cloud

Hybrid cloud

Public cloud off-premises

PaaS: Pega in AWS

On-premises

Focus on the customer and solution, not IT needs

Reduced Capital Expenditures – Hardware/Resources

Integration with other Applications (Cloud and other)

Quickly build, test, deploy applications AND Iterate

Enhanced architecture, resiliency, scalability, and DR

We then quantified the Pega Platform Benefits

Key Levers

- Licensing
- Record Integrations
- Digitize
- Automate
- Optimize
- Integrations

Efficiency

- 5-10%
- Additional 10-15%
- Additional 10-20%

Examples

- Cloud licenses provide the opportunity for creativity
- Realtime integration with Record Repositories enabling Compliance and audit controls
- Ability to integrate with outside entities driving digital efficiencies (Considered on Use case basis)
- Integration with miscellaneous Comerica Enterprise platforms

Benefits

- Lower Costs
- Scalable Growth
- Risk & Compliance
- Service Excellence

Our customer data is of paramount importance so we ensure that we Secure and Protect it!

Risk and Controls
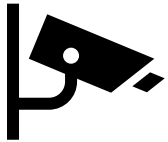
- Monitoring
- Logging Events
- Cybersecurity

- Multi-Factor Authentication
- Roles based Access

- Securing the cloud
- Secure the data of our customers
- Secure third parties

Protect the bank and our customers

For application development we applied an all Agile Methodology to our application creation
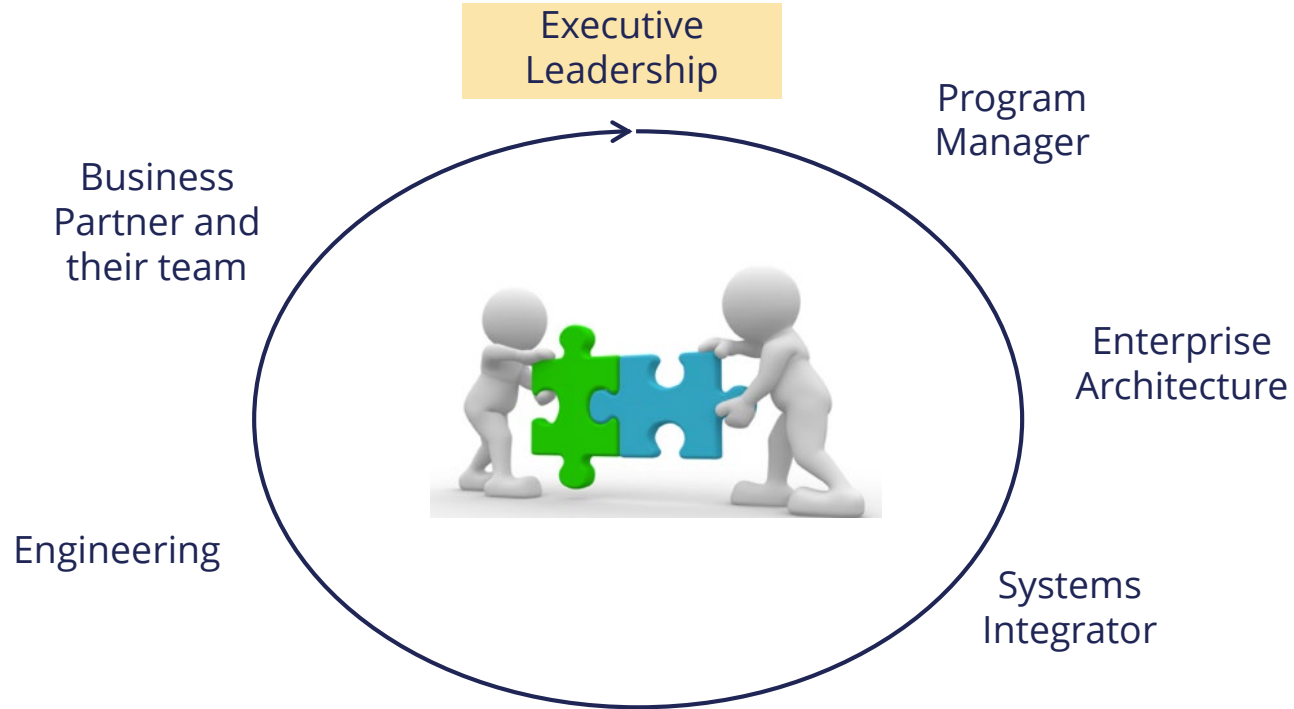
Sprints - Iterations

Minimal Viable Product
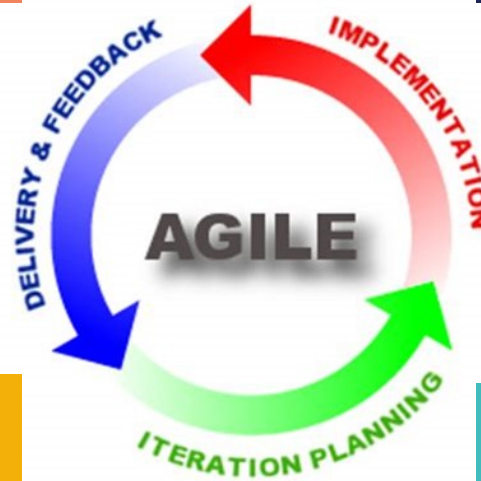
Shifting Mindsets Digital Experience

Developers and business Working together

Most importantly, at Comerica, we implemented a collaborative engagement (2-in-a-box) model!
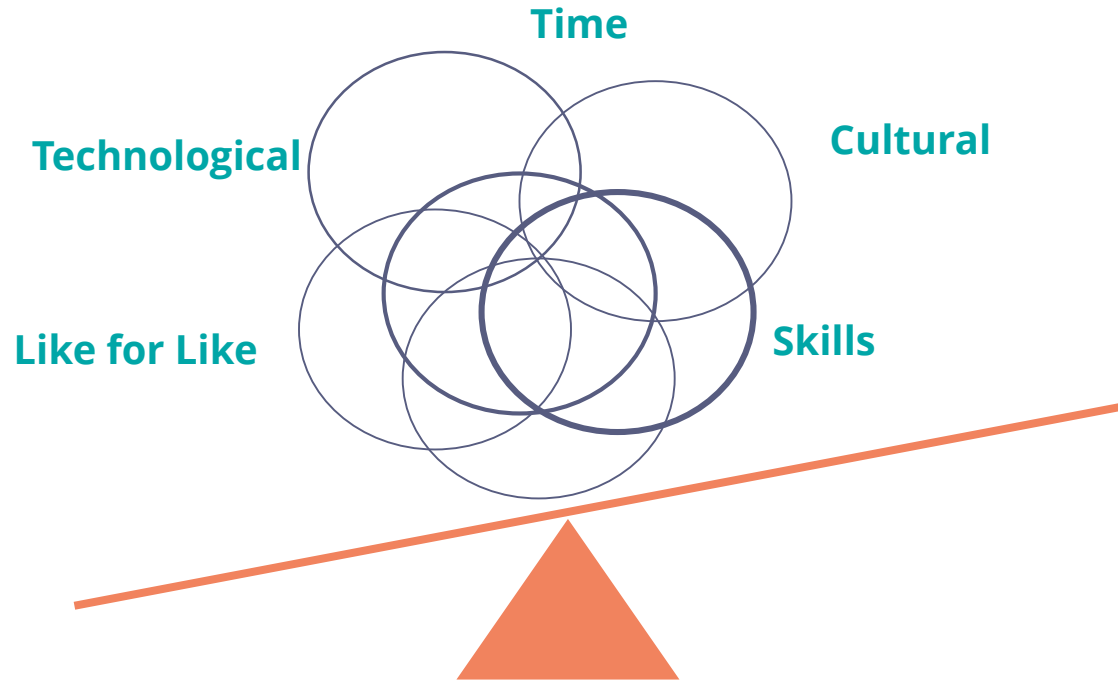
Executive
Leadership

Program
Manager

Business
Partner and
their team

Enterprise
Architecture

Engineering

Systems
Integrator

ALIGNMENT

Comerica's Digital Process Automation Competency Center ensures governance of apps built on Pega

1. Define and Develop

2. Examine and Exploit

3. Measure and Market

4. Guide and Govern

5. Stabilize and Support
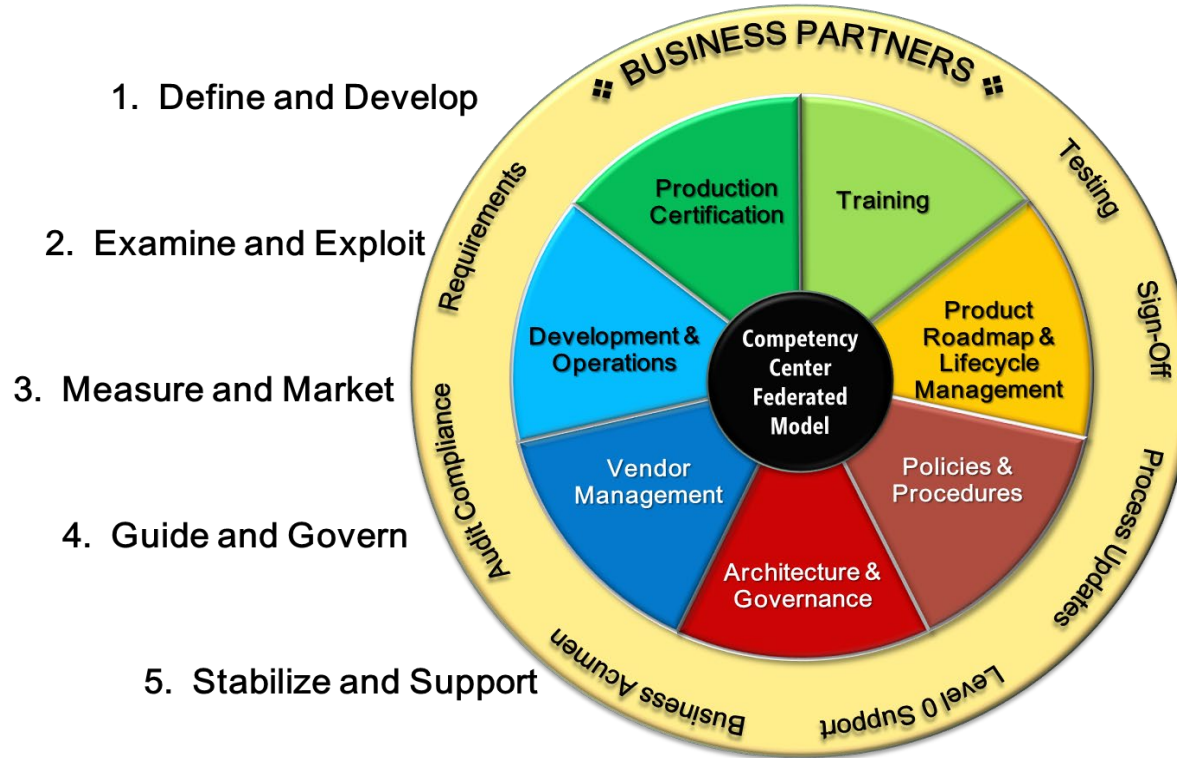
In this journey we did encounter challenges
(How we overcame them)

Time

Cultural

Technological

Like for Like

Skills

Technological

- Moving from on-premise to the cloud
  - Understanding how Pega fits in the AWS cloud
  - Environments (Dev, Staging, Prod)
  - Connectivity
  - Security
  - Disaster Recovery
  - Resiliency
- Developer model
  - Browser based
  - Disparate teams, vendors, employees
- Code reuse layer and how that possible affects multiple applications on the platform

There is no magic in getting past understanding the cloud. Understand Amazon and how Pega carves out its niche.

Understand who your development teams vs support teams. Come up with a strong governance model on who is working where and when. This is a strong potential for teams to touch the wrong code.
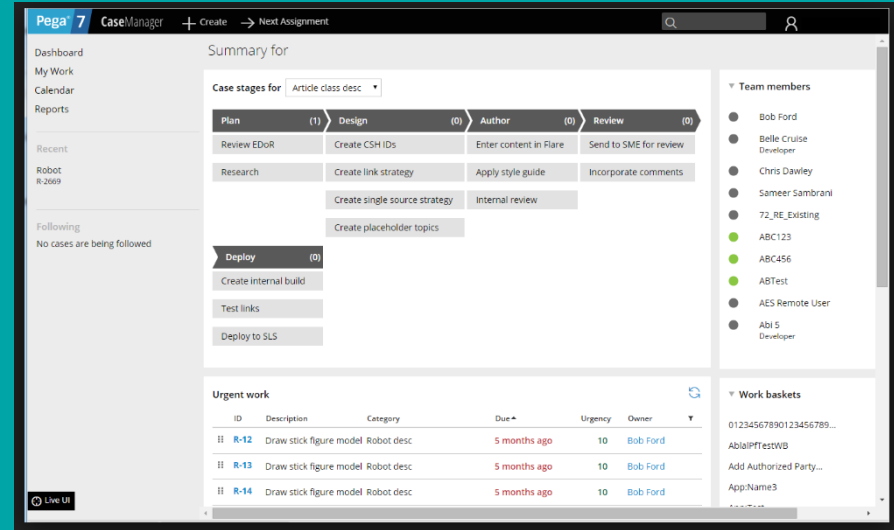
Code reuse is one of the platform advantages. Ensure this is being architected properly so as not to affect other applications on the platform.

The promise and challenges with "Like for Like"
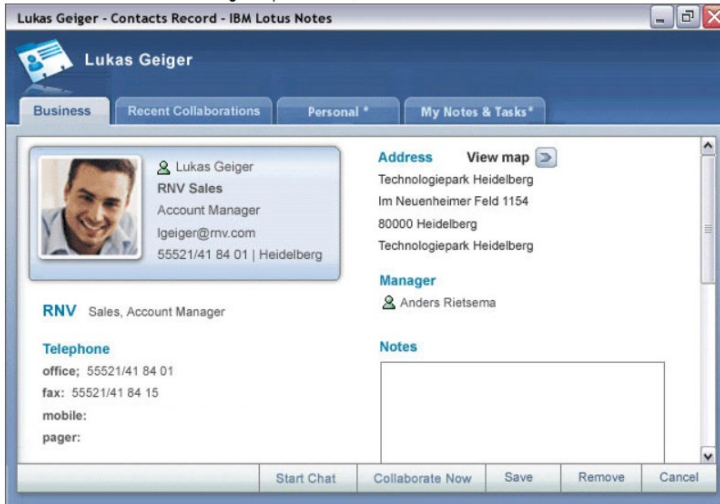
- Legacy Systems
- Outdated Interfaces
- Outdated Architecture
- PC Based environments

- Responsive Design
- Web-based development
- APIs / Integration

NOT ALWAYS APPLE TO APPLES

NOR SHOULD IT BE

Skills

- Pega is not the easiest skill for developers to come up to speed.

PEGA Academy

- Pega works with companies to integrate the Pega learning curriculum in alignment with yours. This is what Comerica did.

- There are many on-demand lessons at https://academy.pega.com

- Other forms of training are available, work with your account representative.

Cultural: Processes & People

- People don't change overnight. Resistance is normal but they have the best interest of your customers in mind.

- Shadow IT is prominent.

- Pega and moving to the cloud is more than a technical change. You have to educate your co-workers on the benefits.

- People and change are not one size. Be willing to adapt and approach challenges creatively but collaboratively.
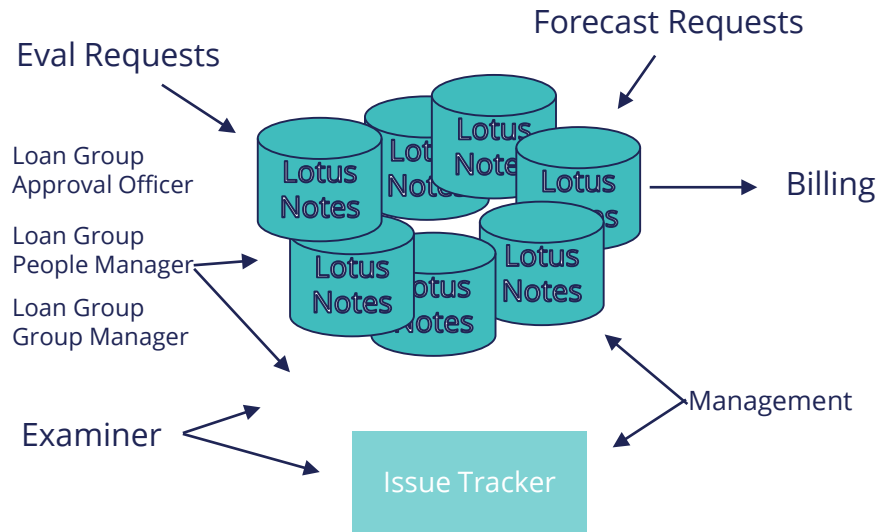
BUILD A COE CENTERED ON PEOPLE, PROCESS, AND TECHNOLOGY
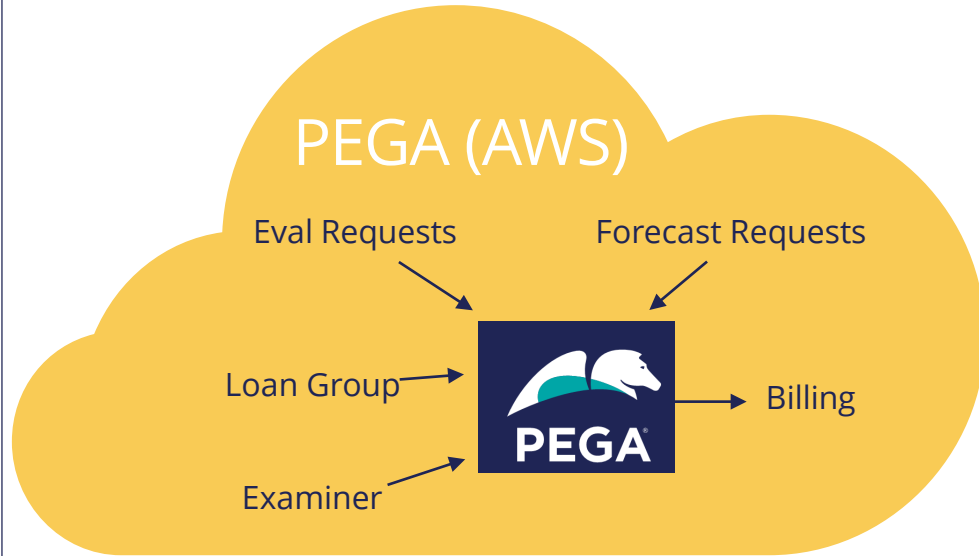
COMERICA IMPLEMENTED IN JULY 2018

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User Story: Example of how we used Pega for Digital Process Automation

Commercial Evaluation Request Management

Existing Process – per Market (7)

Eval Requests

Forecast Requests

Loan Group Approval Officer

Loan Group People Manager

Loan Group Group Manager

Lotus Notes

Billing

Examiner

Issue Tracker

Management

New Process – National

PEGA (AWS)

Eval Requests

Forecast Requests

Loan Group

Examiner

PEGA

Billing

Commercial Evaluation Request Management Optimizations

- Single Integrated Workflow

- Consolidated system for all markets

- Critical issue tracking integration

- Reporting Automation

- Enhanced search

- Custom dashboards

- National view for leadership

- Reduced technical debt
  - Lotus notes
  - 7 separate databases

Lessons learned

Build a standard communications structure	Define a communications framework (Cadence, 2IB, Executives)	Create the value proposition
Educate leadership, stakeholders, clients	Work from the mindset of security in all facets of the implementation	Utilize multiple channels to reach audience
Target your messaging	Measure deployment and communication satisfaction	Prepare and Lead change

Summary

Key Takeaways
- Cloud and Digital Process Automation (DPA) go hand in hand and should not be looked at separately   - Organizational Change Management is crucial for the success of transformation programs.   - Pega, Cloud, DPA are not just technology play. Technology and your business partners readiness, planning, and implementation have to happen in collaboration