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Legacy System Modernization

- Imperatives
- Challenges
- Approach
- Case Studies
- Considerations

PA TechCon

May 4, 2017

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Imperatives

DEFINING LEGACY MODERNIZATION – WHAT IS IT?

The *VERY OLD*

- Assembler
- 8086
- Natural
- Old COBOL
- Hierarchical Database

The *RECENT OLD*

- Newer COBOL
- PowerBuilder
- Network Database
- Client Server

NEW… but getting OLD

- New COBOL
- COM+ & VB
- EJB Java
- Web HTML
- C
- Relational Databases

THE WORLD KEEPS ON SPINNING…

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Imperatives

WHAT ARE THE IMPERATIVES – WHY AND WHY NOW?

COSTS

AGILITY

EFFICIENCY

RISK

LEGACY SYSTEM BRAIN DRAIN

REPORTING

INTEROPERABILITY

SECURITY

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Imperatives

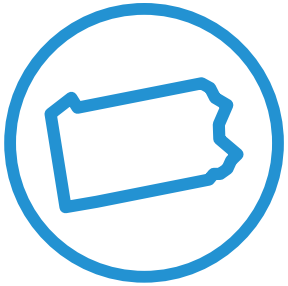
SIGNIFICANT INVESTMENTS IN LEGACY TECHNOLOGY

Mainframe & COBOL

- $2 Trillion dollars
- 300 Billion+ lines of code
- 100 Million added each year
- 85% of global business transactions

Non-Mainframe Legacy investment

- 100 Billion lines of code
- 20 Million added each year



PA Specific Stat

- 494 mission critical applications out of 2100 applications defined as “declined”, “obsolete, or “hardware >9 years”
- 78% of the inventory “do not have a modernization plan”

THE MORE MONEY YOU PUT INTO OLD, THE LESS YOU HAVE FOR NEW

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Imperatives

DEMANDS ON IT BEYOND SUPPORTING LEGACY SYSTEMS

BUSINESS OF IT

IT organizations must balance driving efficiencies within their own operations against enabling the business

DIGITAL

Quickly evolving digital capabilities are enabling unprecedented engagement with customers, suppliers, and other key stakeholders

CORE RENAISSANCE

Leveraging existing core systems at the heart of the business to form strategic foundations, driving growth and modernization

CLOUD

Cloud capabilities are redefining the speed, capacity, and reach of infrastructure, functions, services, and products

ANALYTICS

Harnessing standard & non-standard information in analytics offers tremendous insights for faster, more effective decision making

Cyber Security

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Challenges

WE NEED TO MODERNIZE, BUT IT COMES WITH SOME CHALLENGES

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MULTIPLE INCREMENTAL APPROACHES TO LEGACY SYSTEM MODERNIZATION

Approach

Legacy System Modernization

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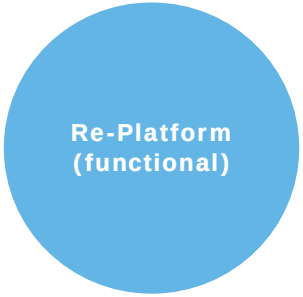
MULTIPLE INCREMENTAL APPROACHES TO LEGACY SYSTEM MODERNIZATION

Approach

- Business Driven
- End to End Functionality
- Point to Point Integration



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MULTIPLE INCREMENTAL APPROACHES TO LEGACY SYSTEM MODERNIZATION

Approach

- Business Driven
- End to End Functionality
- Point to Point Integration

Re-Platform (functional)

Re-Platform (technical)

- Product or Tool Driven
- Multiple Lines of Business
- Drive Licensing and Platform Deals

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Legacy System Modernization

Revitalize

- Limited Changes
- Slower Pace
- Mix of technical and business impact

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Legacy System Modernization

- Full Replacement
- Multi Year – Multi Release Phases
- Full Scale BPR and Transformation

Replace

Revitalize

- Limited Changes
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GOVERNANCE

Approach

Agile Based Project Delivery

Application Lifecycle Management (ALM)

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PLATFORM | DATABASE | CYBER-SECURITY | ANALYTICS | TOOLS

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GOVERNANCE

Approach

Agile Based Project Delivery

- Business Driven
- End to End Functionality
- Point to Point Integration

GOVERNANCE

INCREMENTAL

HIGH VALUE

CONTINUOUS

LOW-RISK

USER IMPACT

- Product or Tool Driven
- Multiple Lines of Business
- Drive Licensing and Platform Deals

- Full Replacement
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Application Lifecycle Management (ALM)

PLATFORM | DATABASE | CYBER-SECURITY | ANALYTICS | TOOLS

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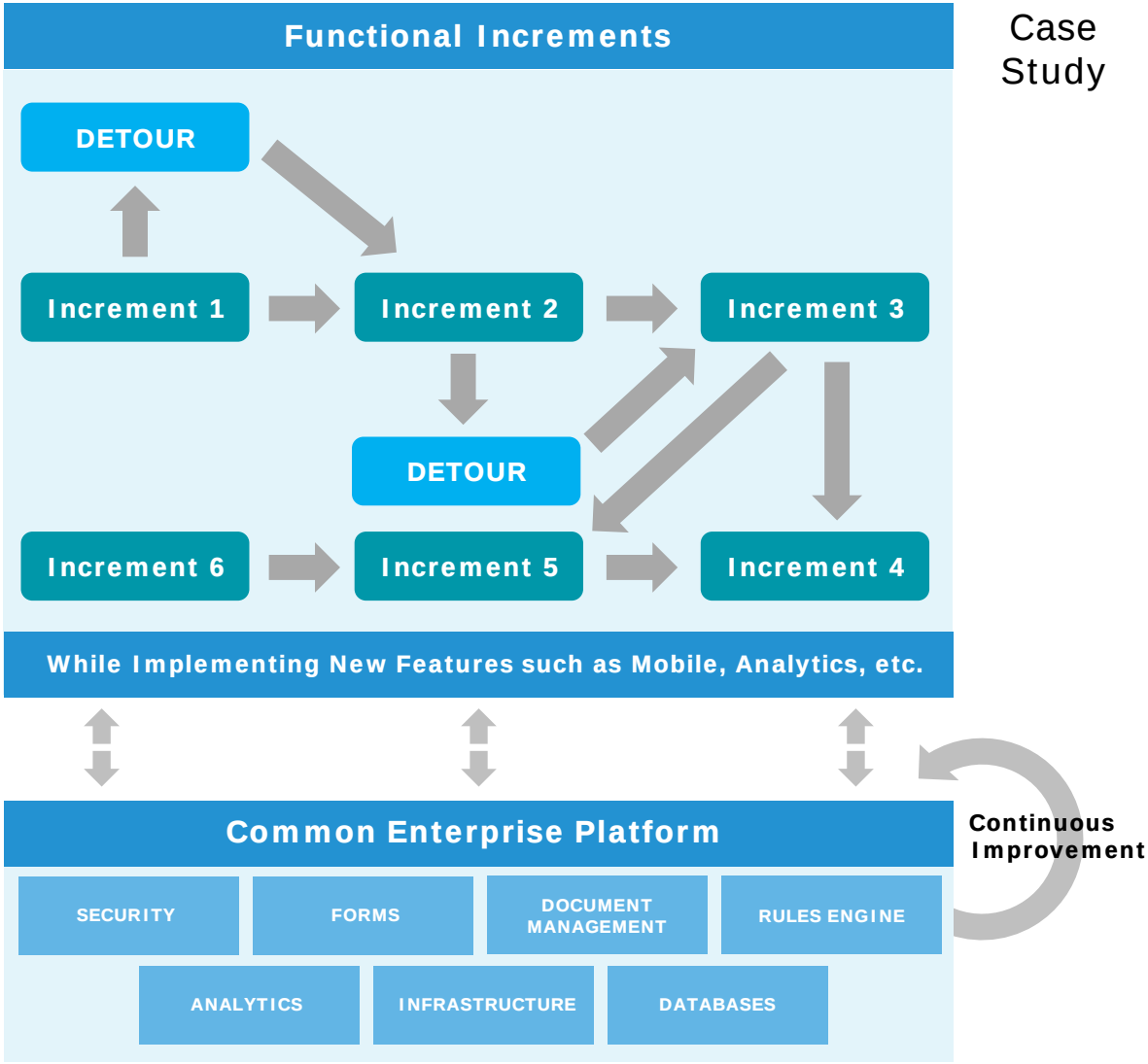
CASE STUDIES – FUNCTIONAL & TECHNICAL

Case Study



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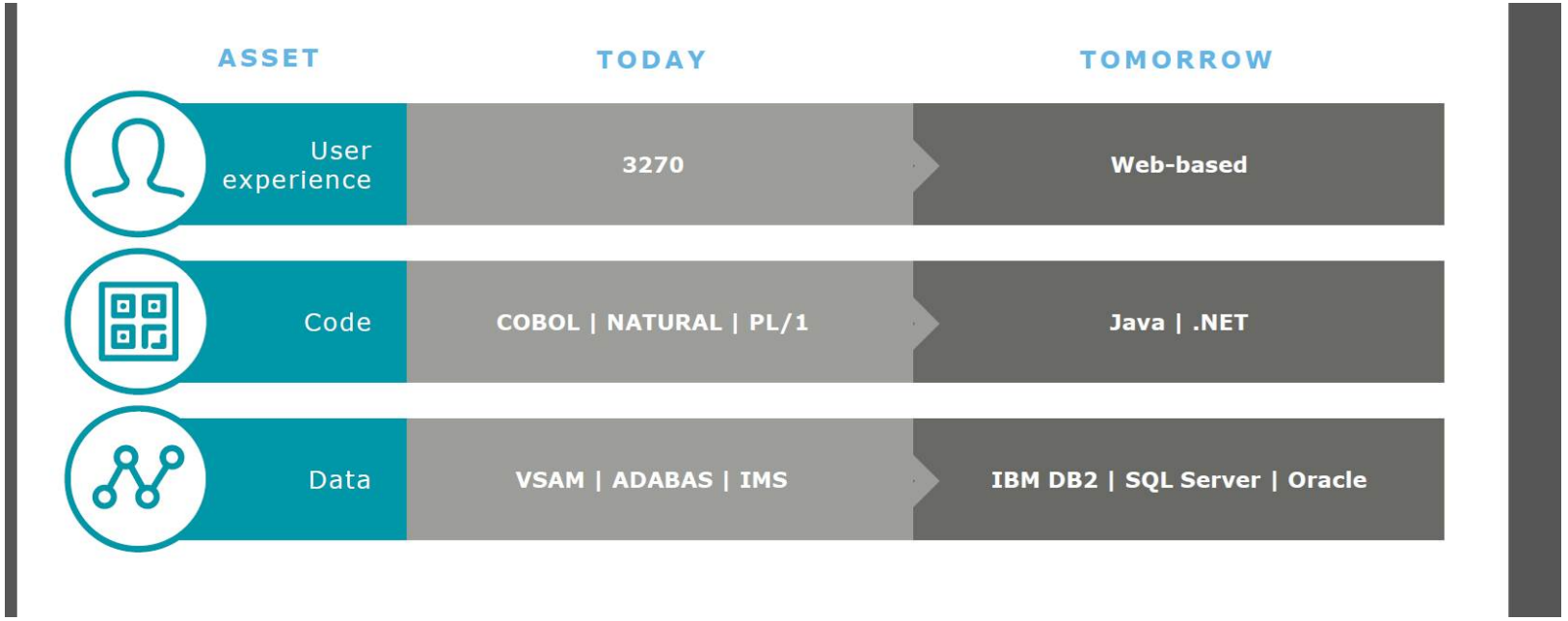
Case Study

CASE STUDY – LARGE STATE GOVERNMENT CLIENT REPLACE WITH REFACTIONING



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CONSIDERATIONS FOR SUCCESS

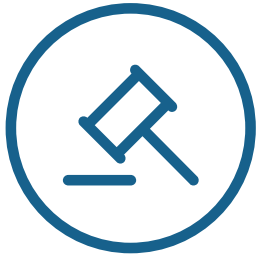
Considerations

Culture

Agility

Talent

Sourcing



Accountability

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