

Application Modernization

Workshop

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Agenda

- Introduction
- Current situation
- What's new?
- Modernization approach
- Assessment
- Hands-on
- Evaluation

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**“No need to modernize,
we’re doing just fine...”**

**Probably that means this is the
best time to modernize...”**

Potential Tactical Pains – Day-To-Day Issues

User Interface

- UI may need refreshment and is often complicated
- Unable to quickly mobile-enable your application

Integration

- Not easy to share data with 3rd party systems
- Difficulties to offer expose Business Logic as Service

Productivity

- User time needs to be optimized
- Functional changes take too long to implement

Reliability & Availability

- Deployment requires too much downtime
- Cloud deployments increases scalability options

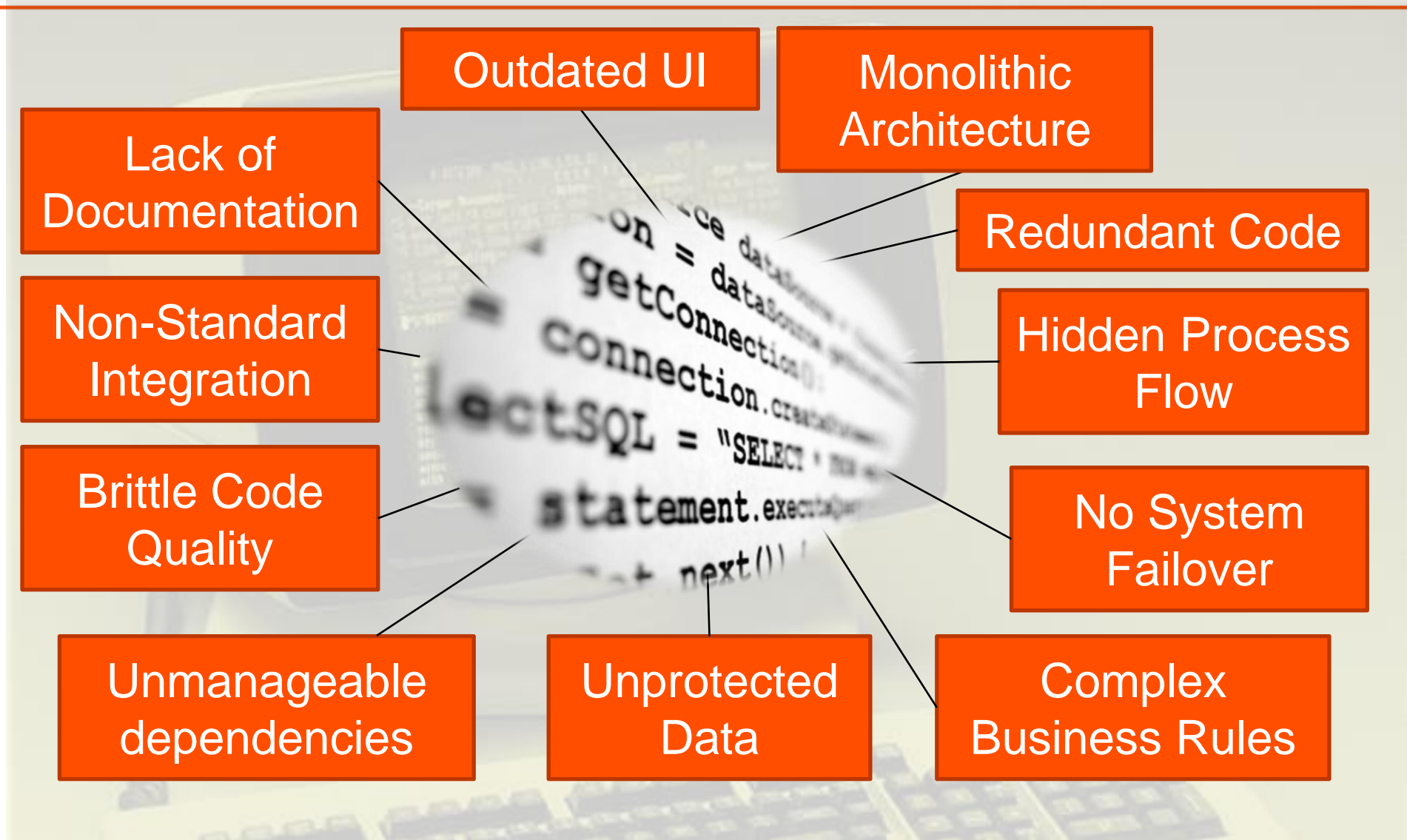
Security & Compliance

- Slow to comply with changing Security requirements
- Encryption is tough to implement

Skills & Resources

- New graduates are familiar with OO techniques
- Easier to motivate new people on newer techniques

Common Technical Root Causes



Potential Consequential Pains – Business Impact

Revenue	<ul style="list-style-type: none">■ Deals lost to competition■ Only restricted opportunities can be pursued
Costs	<ul style="list-style-type: none">■ High cost for development of new functionality■ Increasing cost of support and maintenance
Customer	<ul style="list-style-type: none">■ Increasing complaints & declining satisfaction■ Declining relationships with customers
Legal	<ul style="list-style-type: none">■ Fines for non-compliance■ Liabilities of security breaches
Future Growth	<ul style="list-style-type: none">■ Time-to-market for new releases is too long■ Hits to market reputation

Raise of Hands ...



2013 Progress OpenEdge Capabilities

OpenEdge Platform Themes for 2013



Mobility

- Deliver highly productive tools for creating phone and tablet applications that run on any device
- Provide open accessibility and helper libraries to facilitate DIY approaches
- One-click app creator to create form-based apps from schemas



Productivity

- Incorporate a tightly integrate BPM to provide application workflows
- Leverage Corticon business rules to create dynamic, easily-customized logic
- Language and platform components to accelerate development and minimize operational costs



Community

- Tie together the global OpenEdge community through the Progress Arcade
- Share code, locate consultants, find new hires, search for jobs, and more
- Entrepreneur and education program to bootstrap new OE developers



Cloud and SaaS

- Provide capabilities such as multi-tenancy that optimize your SaaS business
- Unify the management tools to simplify the administration efforts
- Provide a direct path from OpenEdge to ProPaaS, for a managed operations experience

Tip 1: Modernization Is a “Journey”

Build an Operationally Efficient, Modern, and Agile Application to Delight New Customers

- N-Tier Architecture
- Mobile & Web User Interface
- Configurable Processes
- Extractible Rules
- Seamless Connectivity to Data
- Data Security
- Recoverability
- Analytics

The Journey begins with the current Application...

... and continuously assesses when you start embedding new features ...

OpenEdge Mobility capabilities

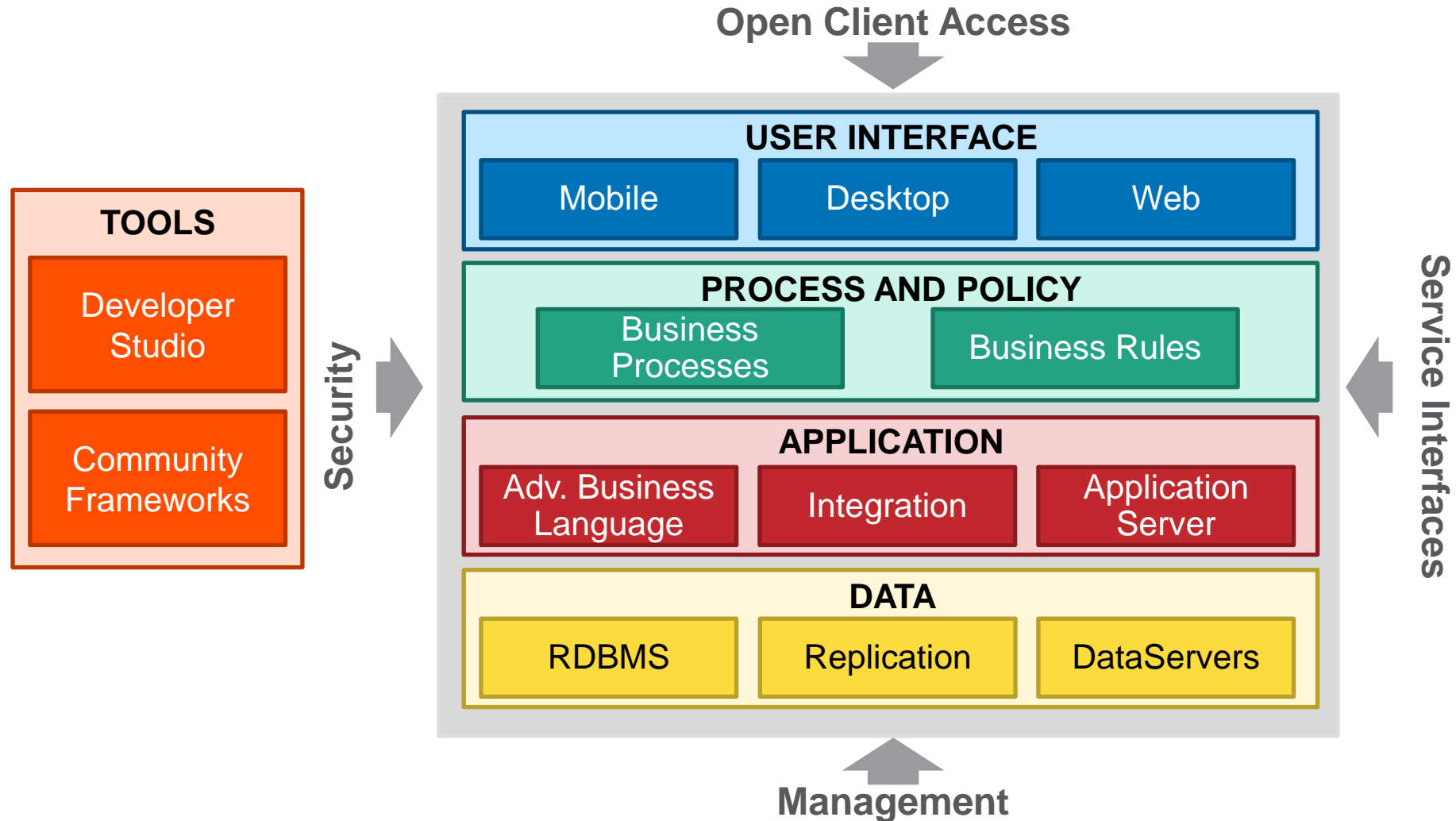
- Tools to create Mobile applications that run on any device
- Provide open accessibility and helper

OpenEdge Cloud Modules – Augment SaaS, Managed, or On-Premise Applications

- Cloud enable your application
- Connectors to Cloud data sources
- Analytics
- Community marketplace
- Innovative core features for next-gen on-premise

Tip 2: OpenEdge Reference Architecture Platform for Next Generation Applications

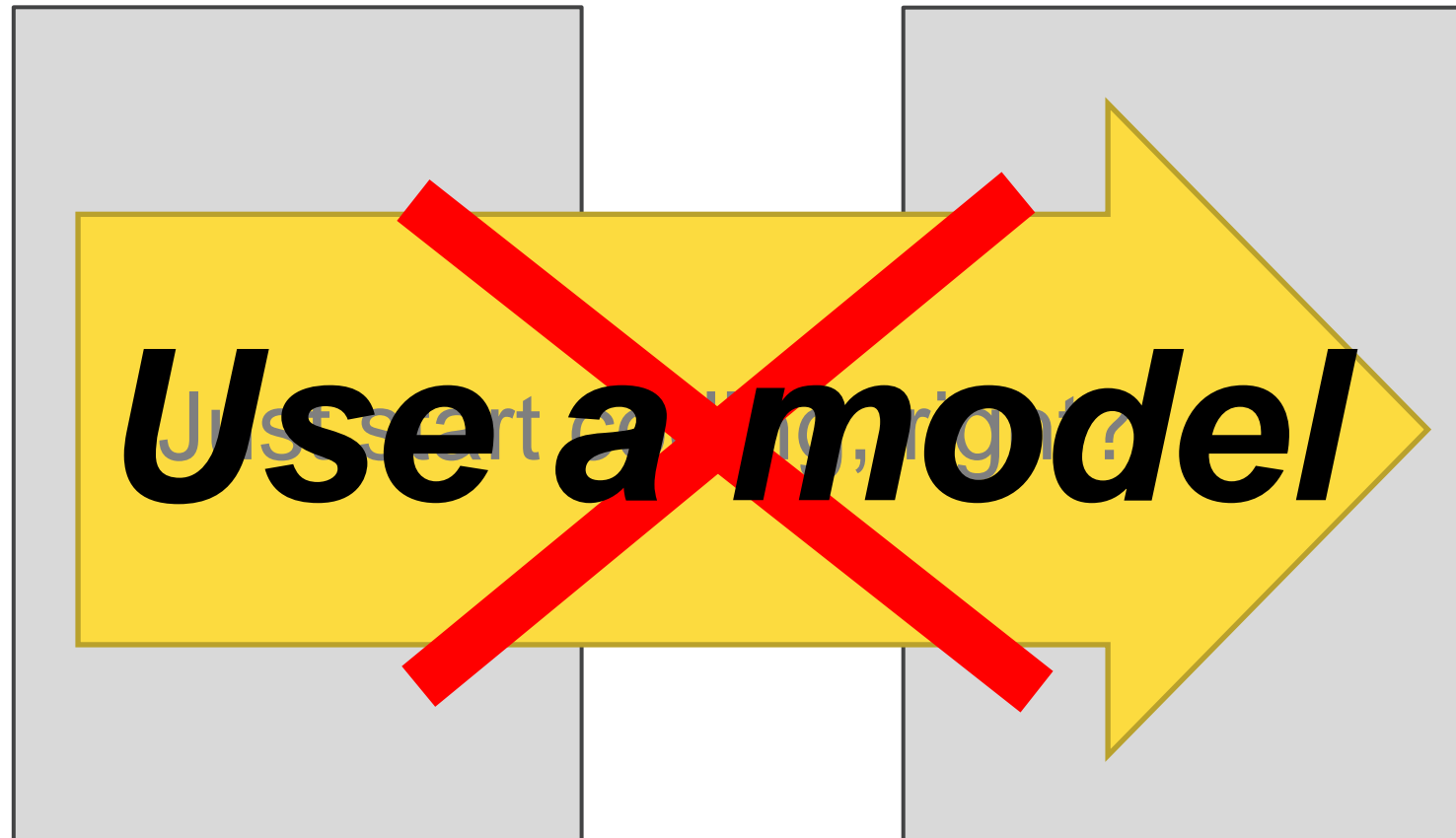
ANY PLATFORM, ANY DEVICE, ANY CLOUD



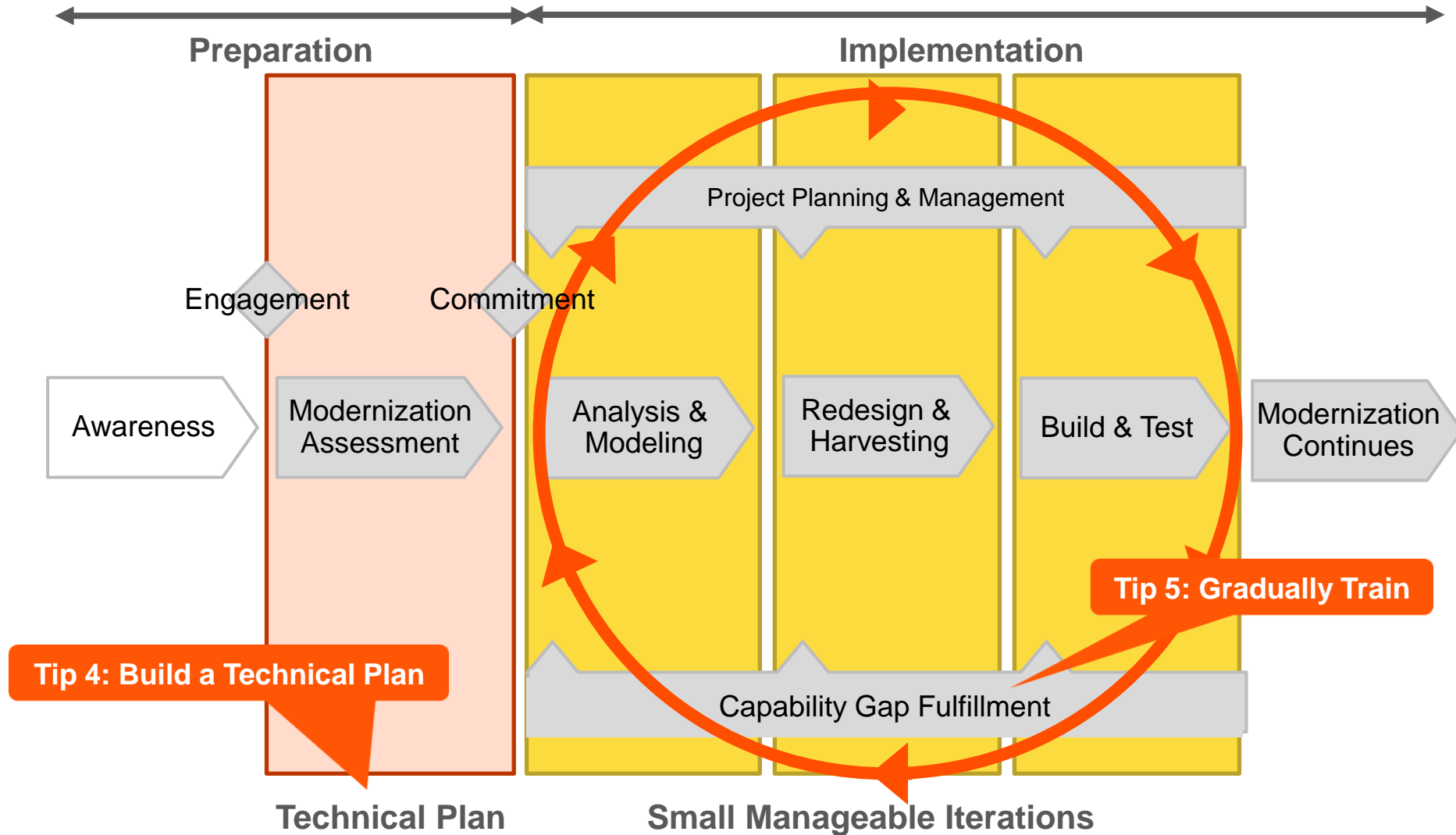
Pacific: The Tools to Implement Such an Architecture



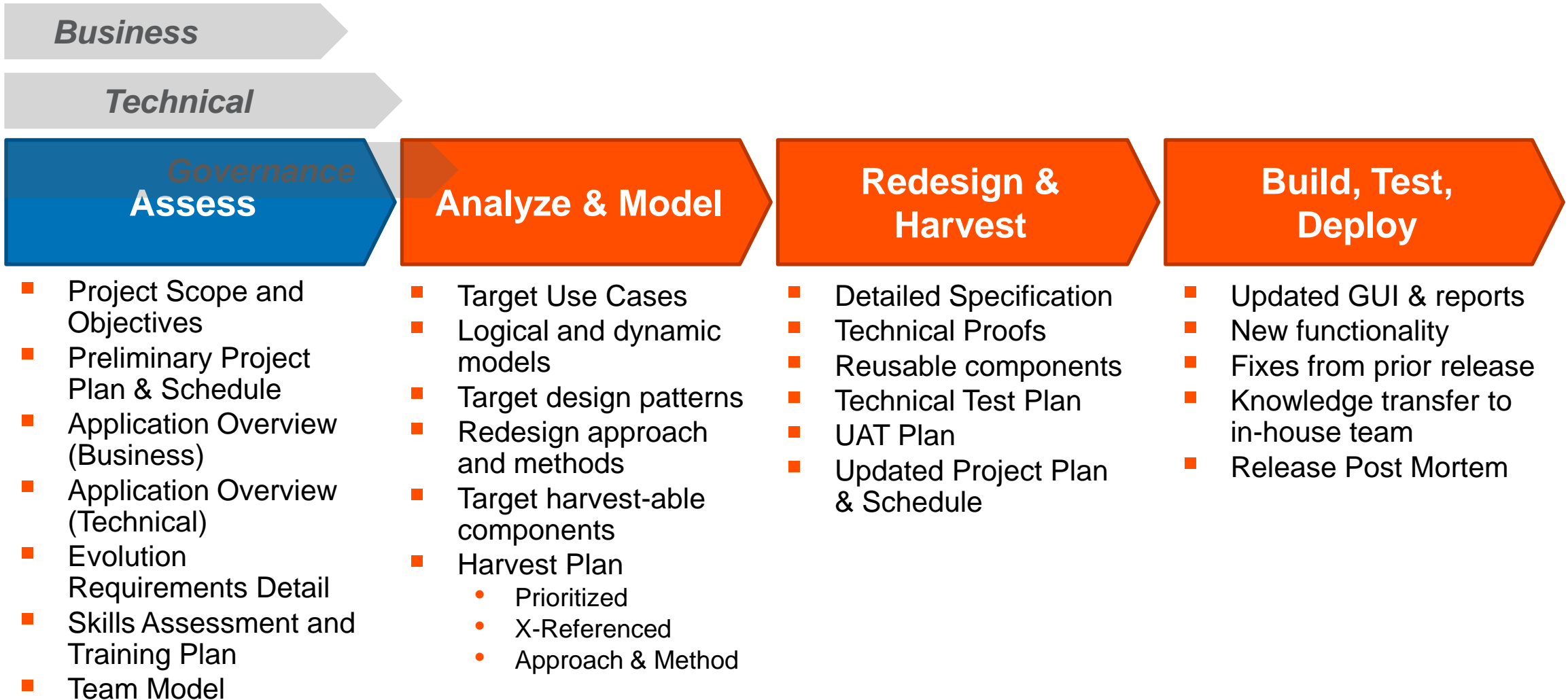
How Do You Modernize an Application?



Tip 3: Use an Iterative Approach & Methodology



Outputs by Major Phase



Modernization Top 5 guidelines

Timeline	<ul style="list-style-type: none">Discovery & Assessment prior to anything else
Technical Plan	<ul style="list-style-type: none">Build a short & long term Technical PlanCovering new Technical and Business benefits
Approach	<ul style="list-style-type: none">No big bang – Use Iterative & Agile approachSmall manageable iterations to decrease risks
OERA	<ul style="list-style-type: none">Align your application to be future-proofAlign to the Progress roadmap through OERA
Training & Assistance	<ul style="list-style-type: none">Train your staff gradually to the new capabilitiesImplement mentorship for faster adoption

How to Build a Technical Plan: Discovery & Assessment

Discovery and Assess to build a Technical Plan with Key Business & Technical Stakeholders

Capture	<ul style="list-style-type: none">■ Capture/Validate Key Business Drivers■ Capture Key Attributes of Current Application■ Capture Tactical & Consequential Pains■ Capture High-Level Desires, Future Plans, & Requirements
Clarify	<ul style="list-style-type: none">■ Clarify OpenEdge Capabilities & Benefits■ Discuss Potential Modernization Options & Approaches■ Learn from former Modernization Projects
Plan	<ul style="list-style-type: none">■ Discovery Report of Captured Data■ Outline Iterative Approach & Next Steps■ Estimated Costs and Benefits that Modernizing will bring

It all starts with the business... and a vision.

LAB

- Fill in the questionnaire
- 10 minutes

A possible approach in Retail

**The world of retail is changing.
So must we.**

Strategy

- Multi-brand
- Omni channel
- Customer intimacy

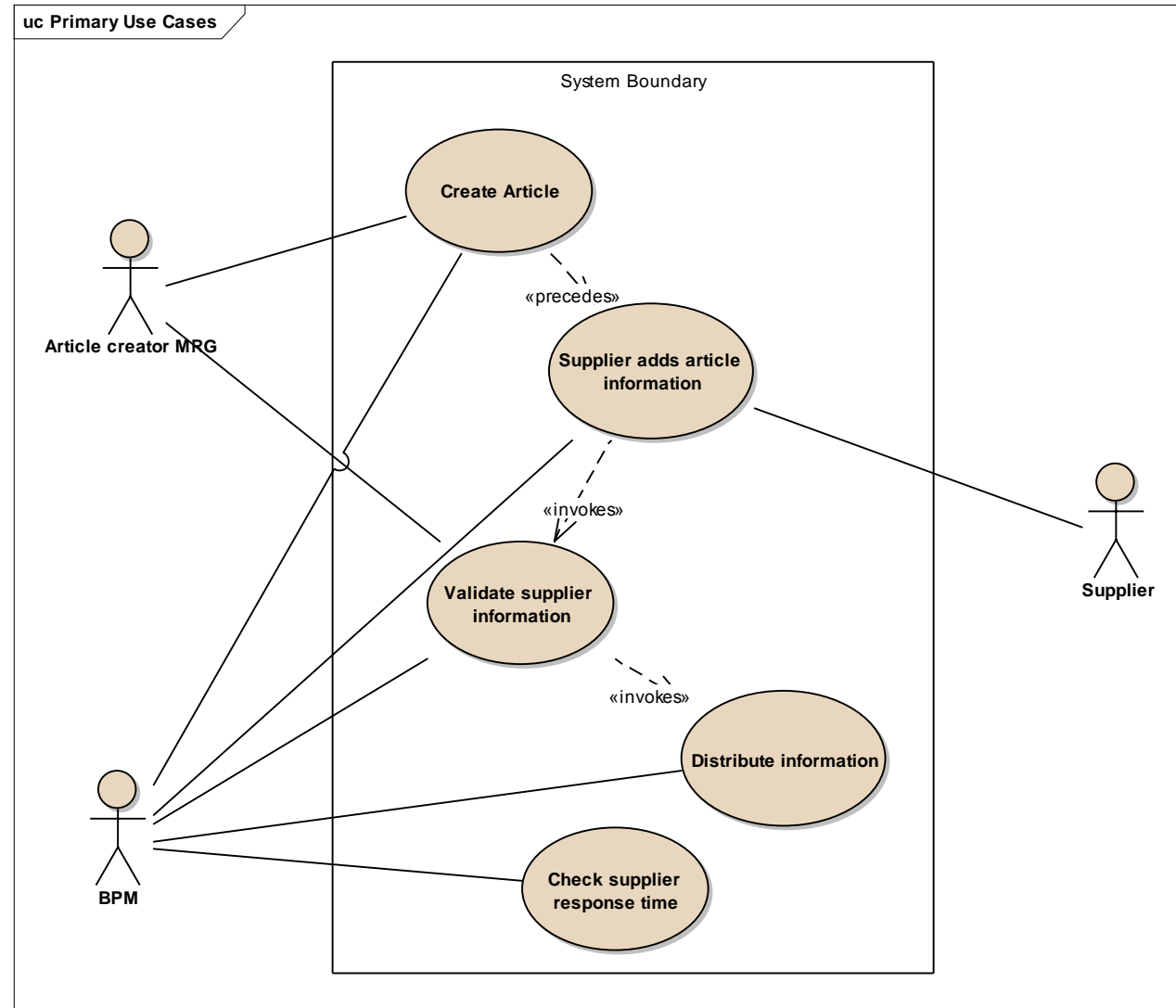
Modernization Project – Scope

- Modernize current ERP
- Keep transactional system in ERP
- Master Data Management
 - Products
 - Customers
 - Facilities

First Phase

- Prove architecture
- Prove process
- Prove tools

Functionality

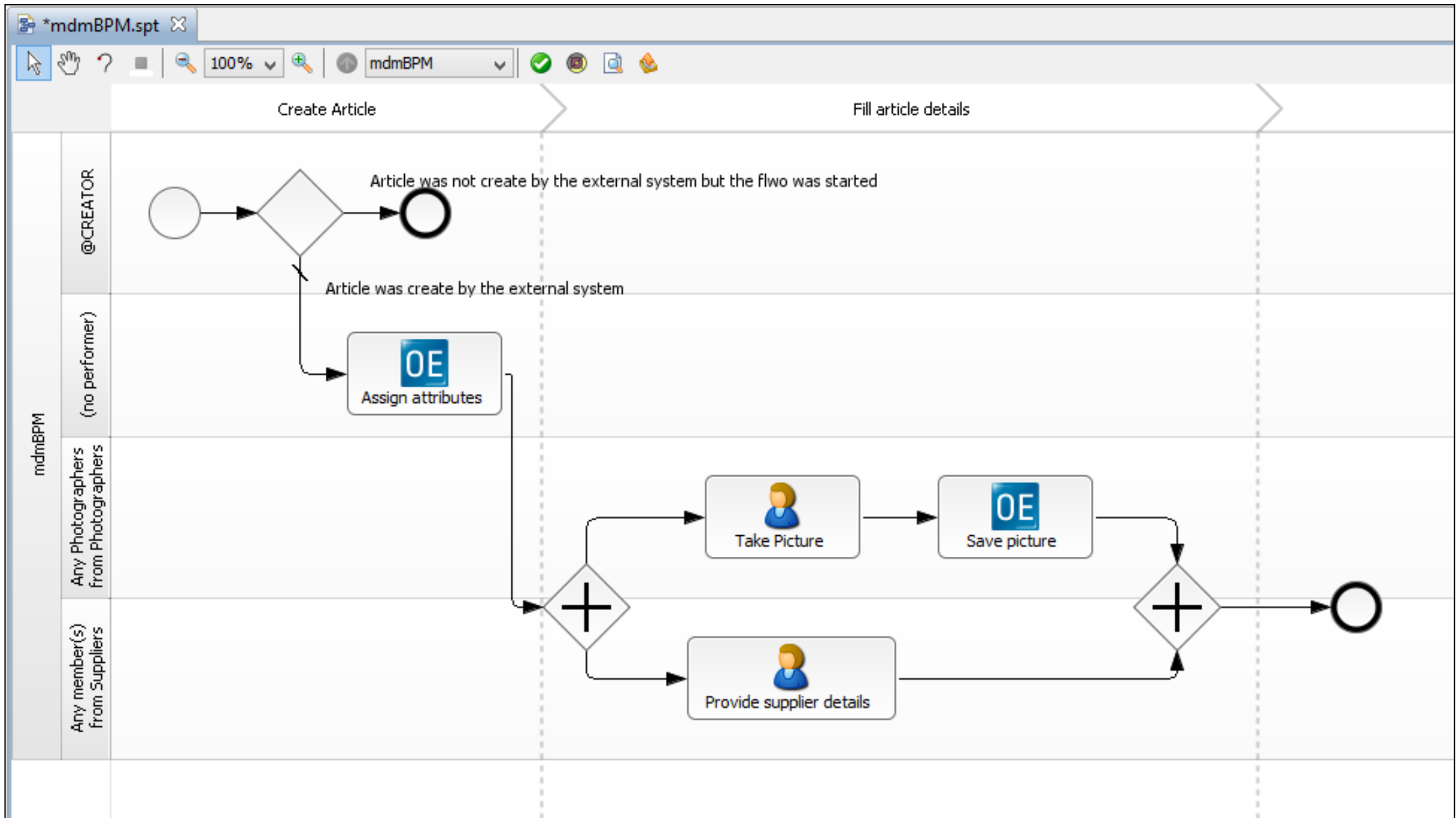


Create Article – Buyer


The screenshot shows a mobile application interface for creating an article. At the top, there is a navigation bar with a back arrow, the word "Article", and the brand name "Clarks". Below this is a "Take photo" button with a red high-heeled shoe icon. The form contains several input fields: "Supplier article number", "Supplier Colour", "Description/Reference", "Colour group" (with a dropdown menu showing "Grey"), "Brand" (with a dropdown menu showing "Emilio Luca"), and "Currency". A "Save" button is located at the bottom left of the form. A vertical scrollbar is visible on the right side of the form.

Create Article – Buyer

- Progress OpenEdge Mobile
- Business logic on Appserver
- Business Logic starts an OE-BPM process
- OpenEdge BPM creates task for Supplier: request for information



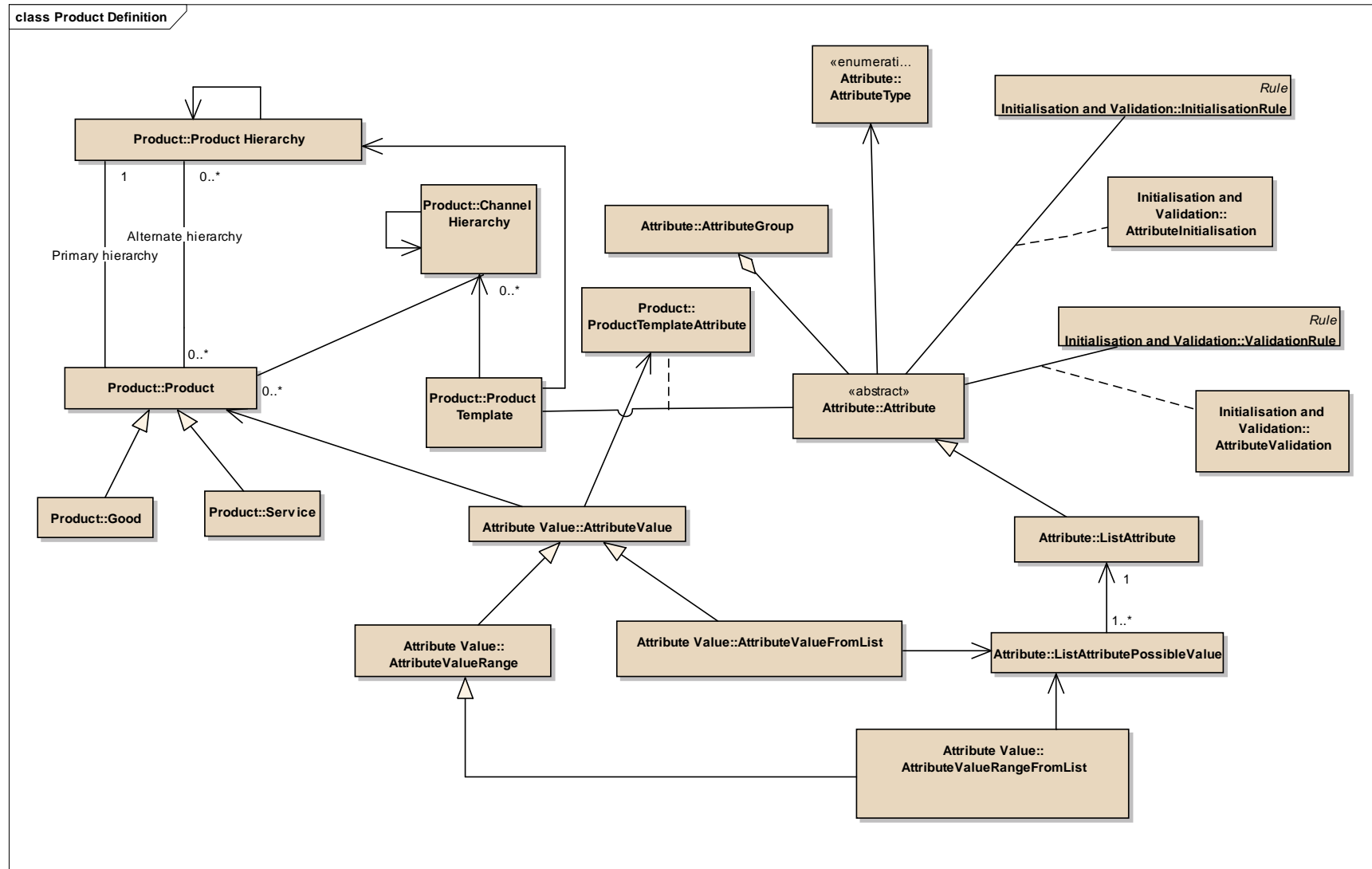
Supplier Adds Information

Article Number or string	
Article Description or string	
Supplier name or string	
Supplier Art ref or string	
Colour ref & Description	
<input type="button" value="Search"/>	
Article no & Colour	
MATERIALS	
Upper Material	Sole Material
Material ▼	Material ▼
Material Group	Material Group
Material Type ▼	Material Type ▼
Lining Material	Insole Material
Material ▼	Material ▼
Material Group	Material Group
Material Type ▼	Material Type ▼
Heel Height (mm)	Other component??
	Material ▼
	Material Group
	Material Type ▼
BUILD ATTRIBUTES	
Fastener ▼	Imitation Fur Y/N
Decoration ▼	Wide Shoe Y/N
Attribute ▼	Wide Leg Boot Y/N
	Small Leg Boot Y/N
	Removable Insole Y/N
Width (mm)	
Height (mm)	Sock Stamp (brand?)

Supplier Adds Information

- Definition of attributes per article are determined by business logic
- Results in dynamic layout of screens

Design First: A Platform Independent Model



Supplier Adds Information

- Relations between attributes are defined in Corticon
- Called from ABL

Hierarchy		
	Hierarchy, Materials	MRG
Materials		
	Hierarchy, Material group, Language	
	(Upper, sole, lining, insole, fastener), Materials, Material Groups, (Material Type?)	Format
Size Range		
	Size Type, Size Range, Fit? - UK/EUR/US conversion	Format
Labels		
	Supplier, label address (default or generic), % extra labels	Format
	Hierarchy, supplier, label types, PU label, lable multiple	Format
Commodity Code		
	Hierarchy (inc Gender), heel height, upper & Sole Materials, Commodity description	MRG

Corticon Designer - AttributeRules1.2/getSize.ers - Progress Developer Studio

File Edit Navigate Search Project Rulesheet Run Window Help

DB Navigator Git Repositor... OpenEdge Se... OpenEdge E... OpenEdge A... Corticon Des...

Project Explorer

- AttributeRules
 - AttributeRules1.1
 - AttributeRules1.2
 - getGender.ers
 - getSeason.ers
 - getSize.ers
 - getSize.ert
 - Parameter.ecore
 - mdm [mdm master]
 - ruleTest
 - CustOrder.ers
 - CustOrder2.ers
 - Test.ecore
 - Test.ers
 - test2.ecore
 - test2.ers
 - Servers
 - testMobileProj
 - JavaScript Resources
 - Mobile Apps
 - Procedure Libraries
 - AppServer
 - beCustomerOrders.cls
 - beCustOrd.cls
 - CustomerOrders.i

Scope

- ttParameter [param1]
 - Order
 - ParameterId
- ttParameter [param2]
 - Order
 - ParameterId
- ttParameter [param3]
 - Order
 - ParameterId
- ttParameterValue [pv1]
- ttParameterValue [pv2]
- ttParameterValue [pv3]
 - FlagValue
 - ValueInteger

Filters

- param1.ParameterId = pv1.ParameterId
- param2.ParameterId = pv2.ParameterId
- param3.ParameterId = pv3.ParameterId
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-

Conditions

- param1.Order
- pv1.ValueCharacter.toLower
- param2.Order
- pv2.ValueCharacter.toLower
- param3.Order
- pv3.ValueCharacter.toLower
- ttPossibleValue.ValueInteger
-
-
-
-
-
-
-
-
-
-
-

	0	1	2	3	4	5
a			1			
b		{'nike', 'reebok'}	'puma'			
c		2	2			
d		'female'	'summer'			
e		3	3			
f		'winter'	'blue'			
g		{< 30, > 43}	not {38, 40, 42, ...}			
h						
i						
j						
k						
l						
m						
n						
o						
p						
q						
-						

Actions

Post Message(s)

- ttPossibleValue.FlagValue
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-

Overrides

Rule Messages

Properties Problems Error Log Rule Project Explorer Servers Connection Info

0 items

Description	Resource	Path	Location	Type

Parameter

- ttParameter
 - DataType
 - DirectionType
 - Order
 - ParameterId
 - ttParameterValue
 - ttPossibleValue
 - FlagValue
 - Order
 - PossibleValueId
 - ValueCharacter
 - ValueDate
 - ValueDecimal
 - ValueInteger
 - ValueLogical

BPM Publishes to ERP

- BPM validates steps
- Publish new/changed products to ERP

Now do it yourself...

LABS

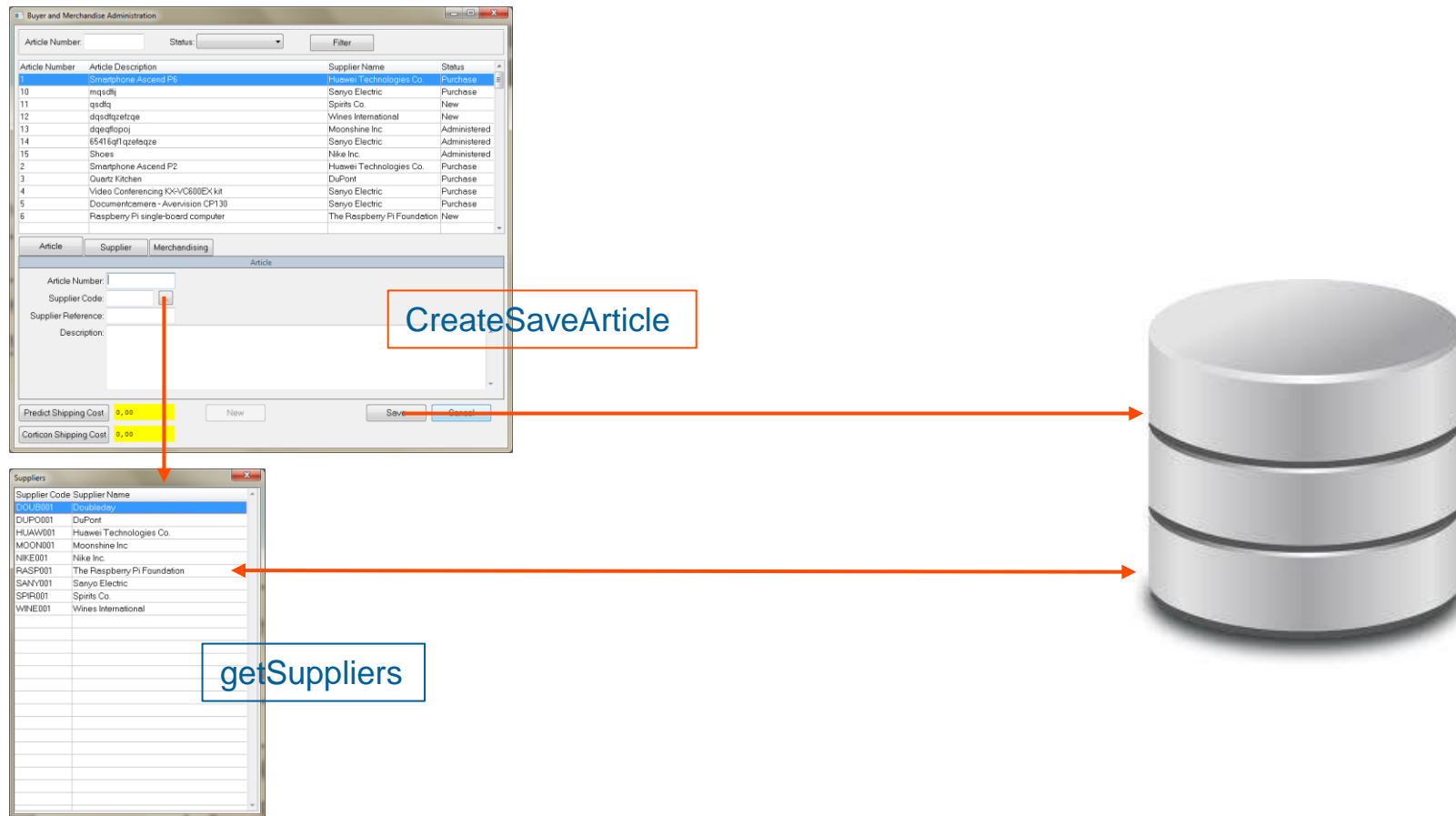
Introduction

Phase 1: Extract Business Logic from GUI

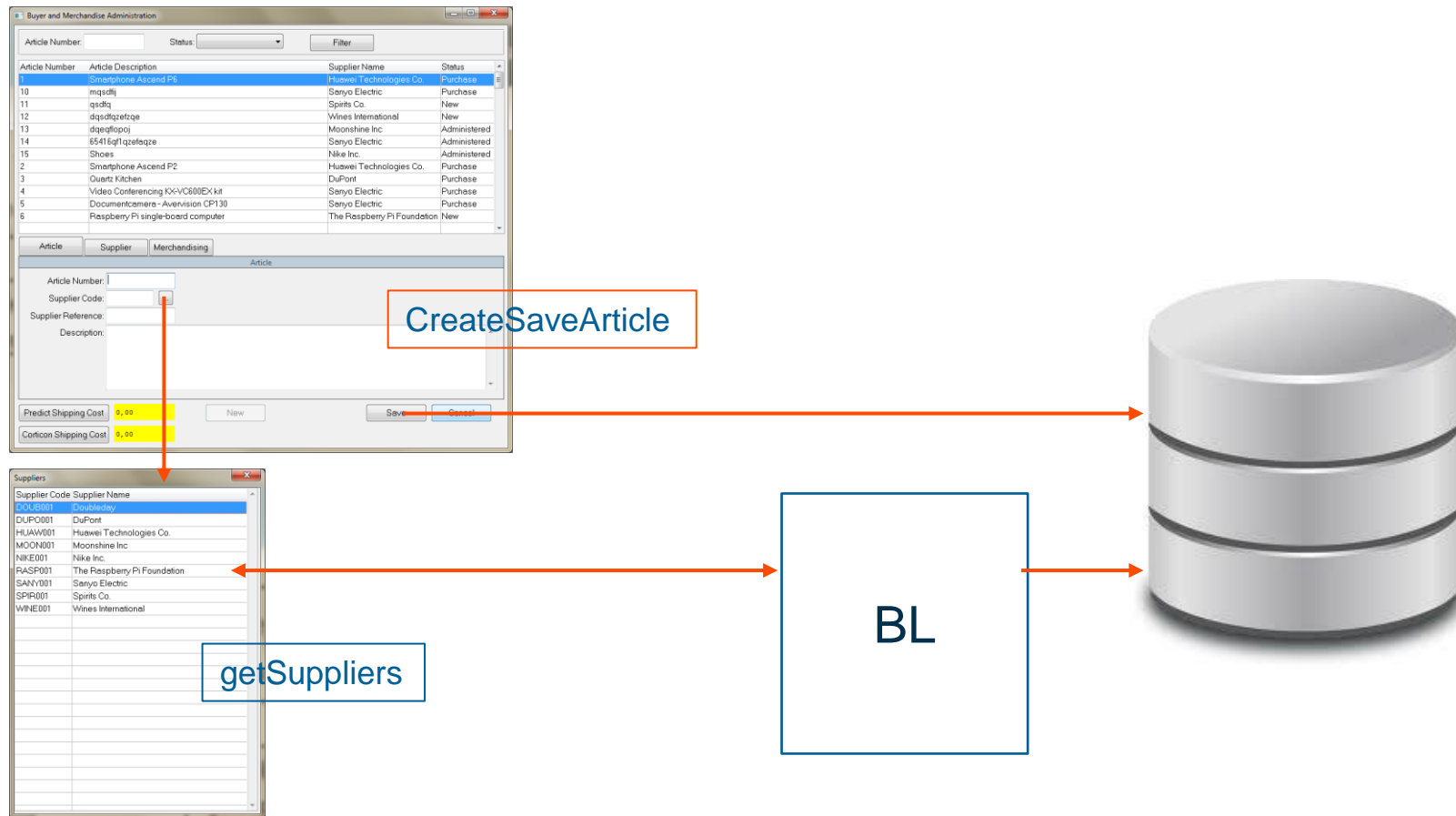
Phase 1 – Est. Time: 20 – 25 min

- In phase 1 we will remove the business logic from the GUI and put it in a back-end layer. This code is reusable by other clients. We will make a call to the back-end from the GUI to execute this code.

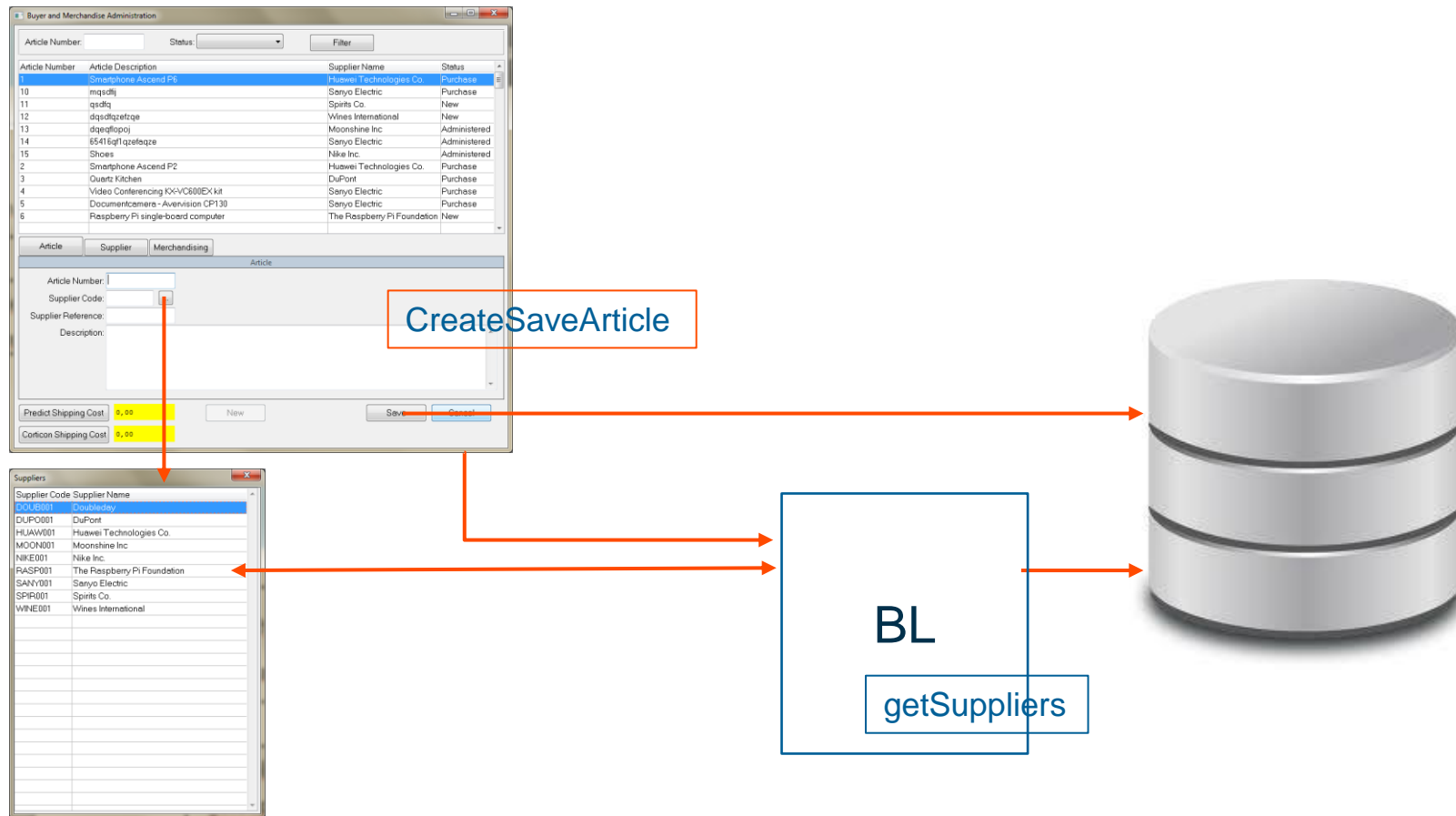
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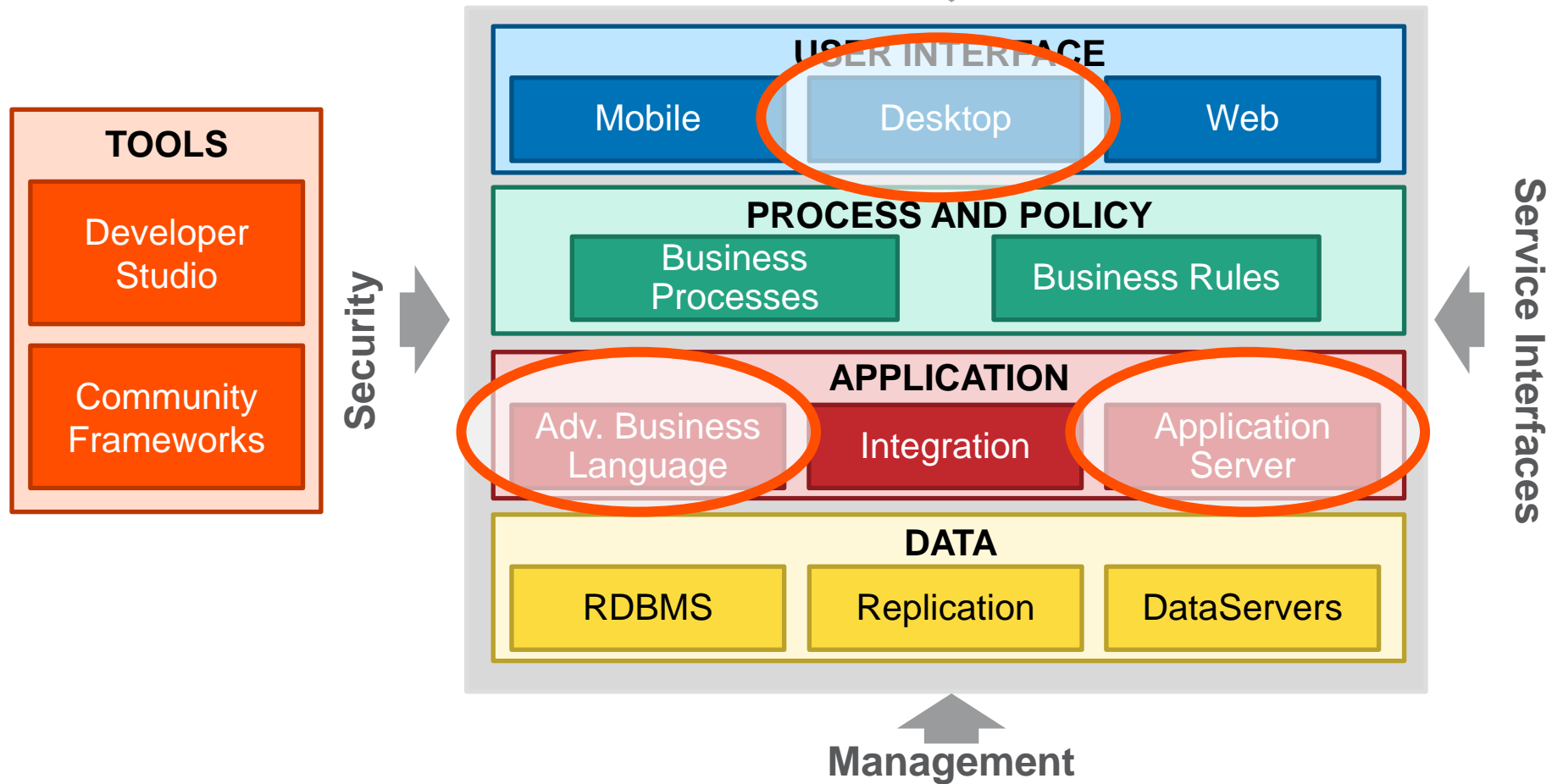


Phase 1: Extract Business Logic from GUI



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Open Client Access



Phase 1: Extract Business Logic from GUI

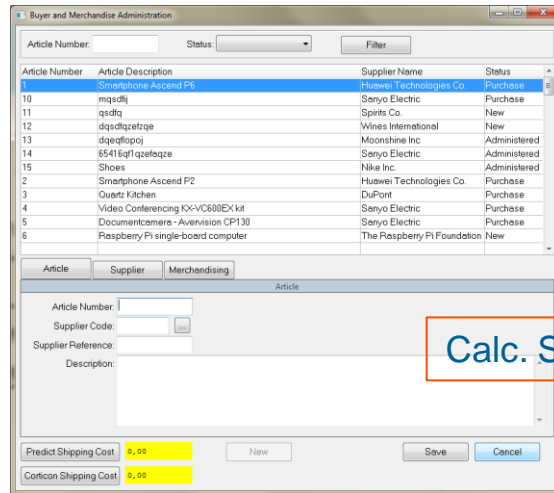


Phase 2: Extract Rules and Calculations from the GUI Client

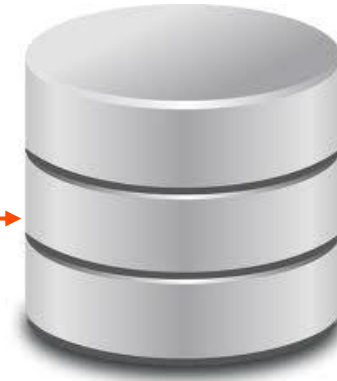
Phase 2 – Est. Time: 20 – 25 min

- In this phase we will extract the calculate shipment cost logic from the back-end and add a new rule to the corticon rules engine. After we added the rule we will be able to call this rule and calculate the shipping cost based on the conditions set in the rule sheet.

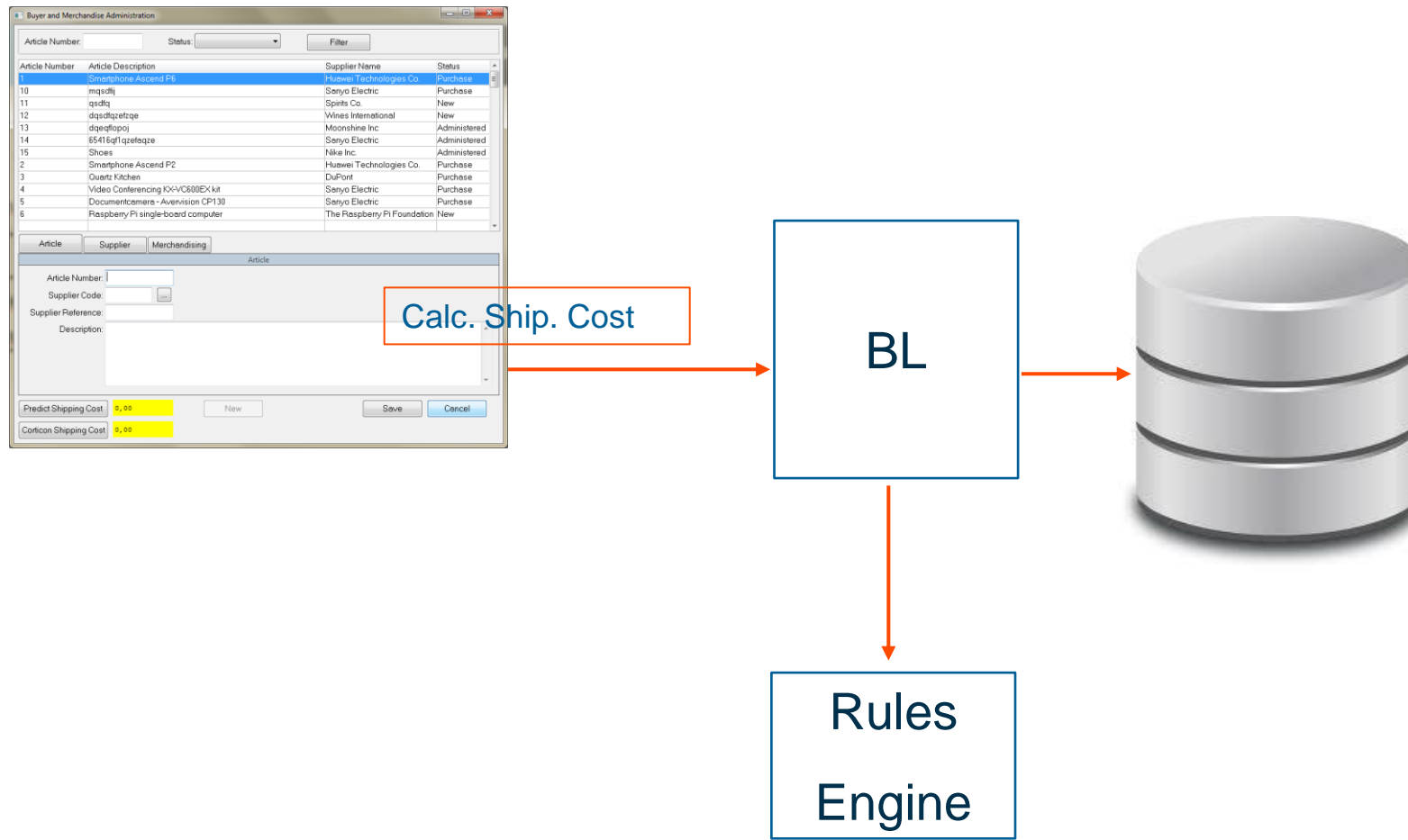
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Calc. Ship. Cost

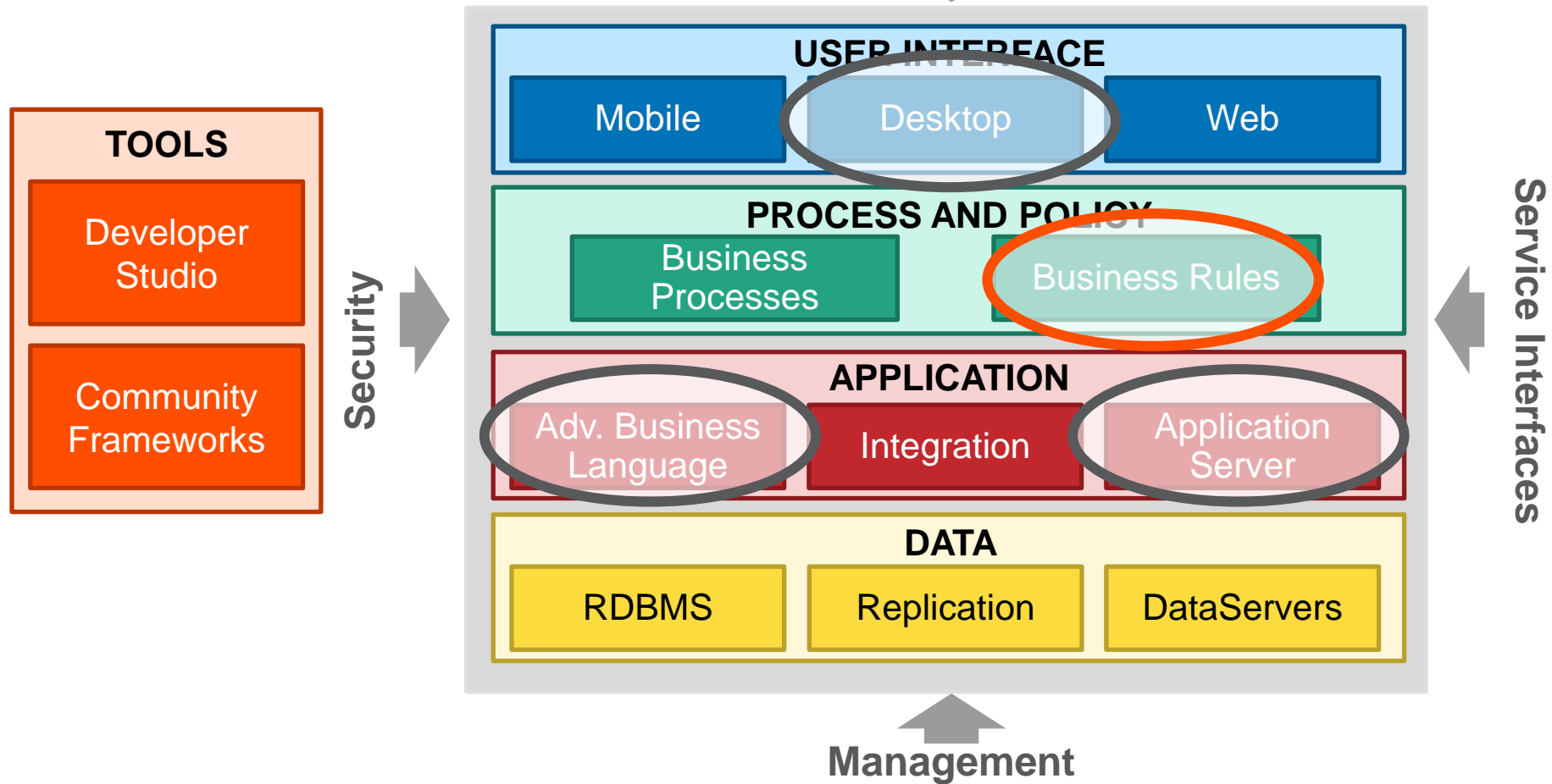


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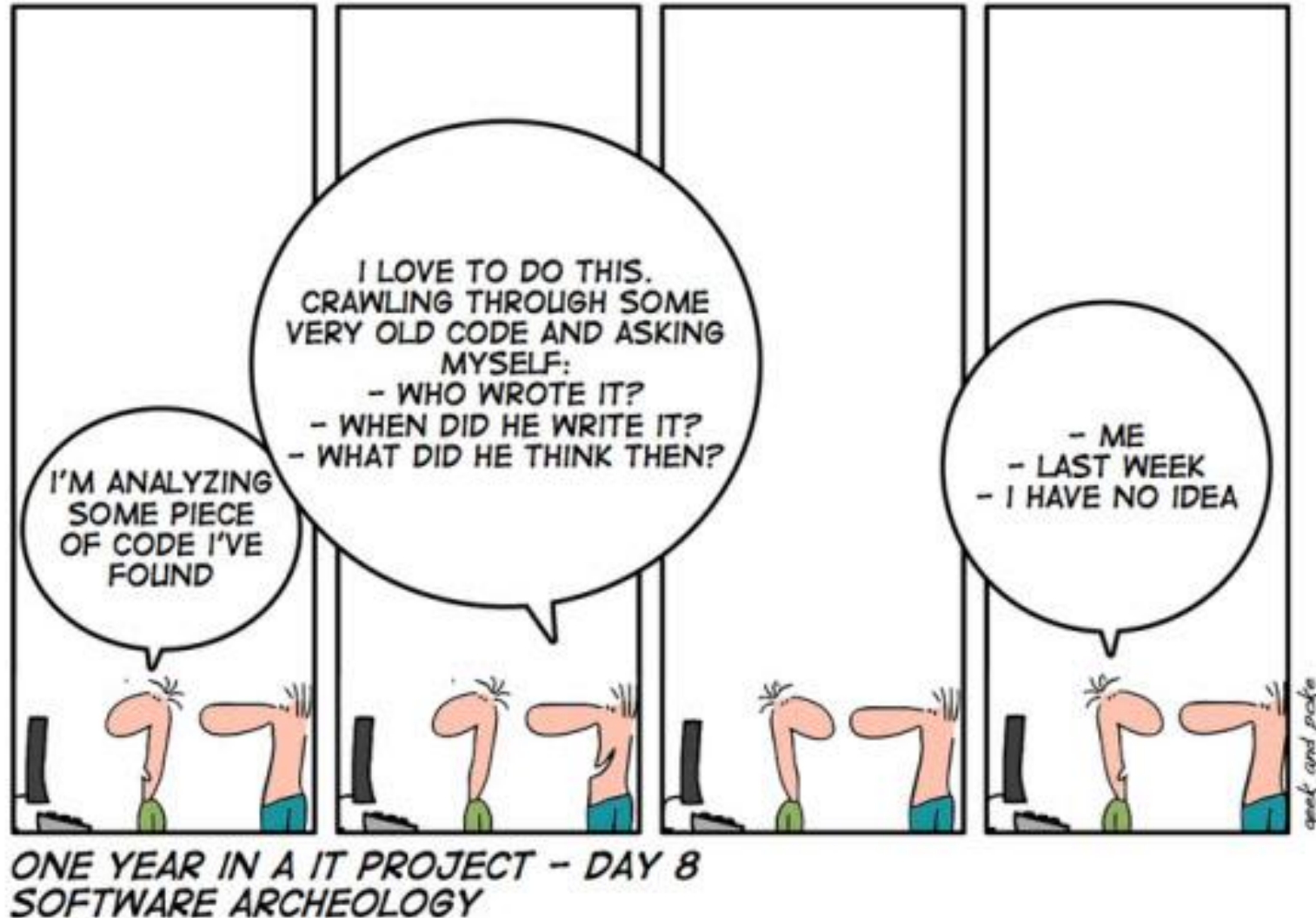


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Phase 2: Extract Rules and Calculations from the GUI Client

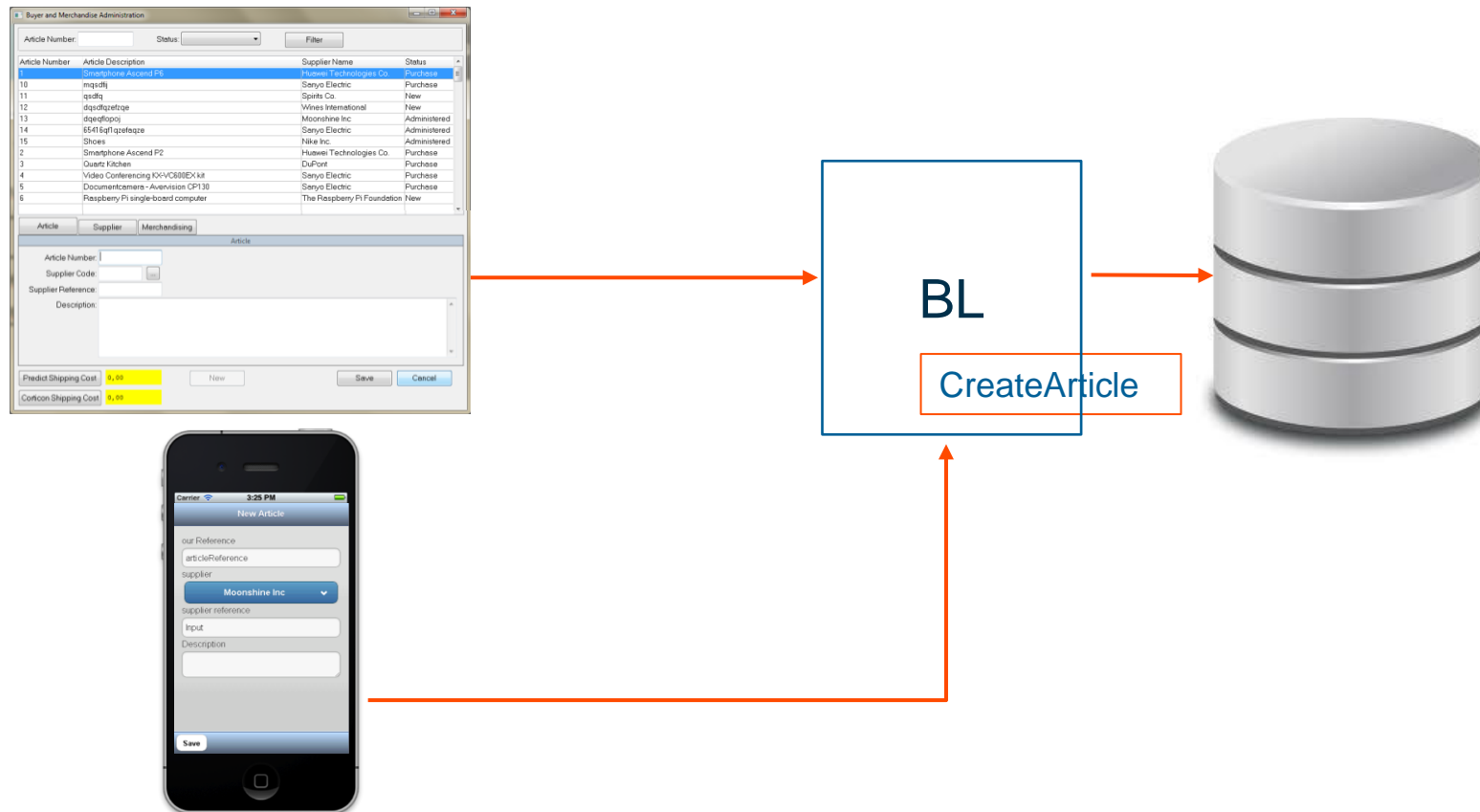


Phase 3: Mobile Buyer App

Phase 3 – Est. Time: 25 – 30 min

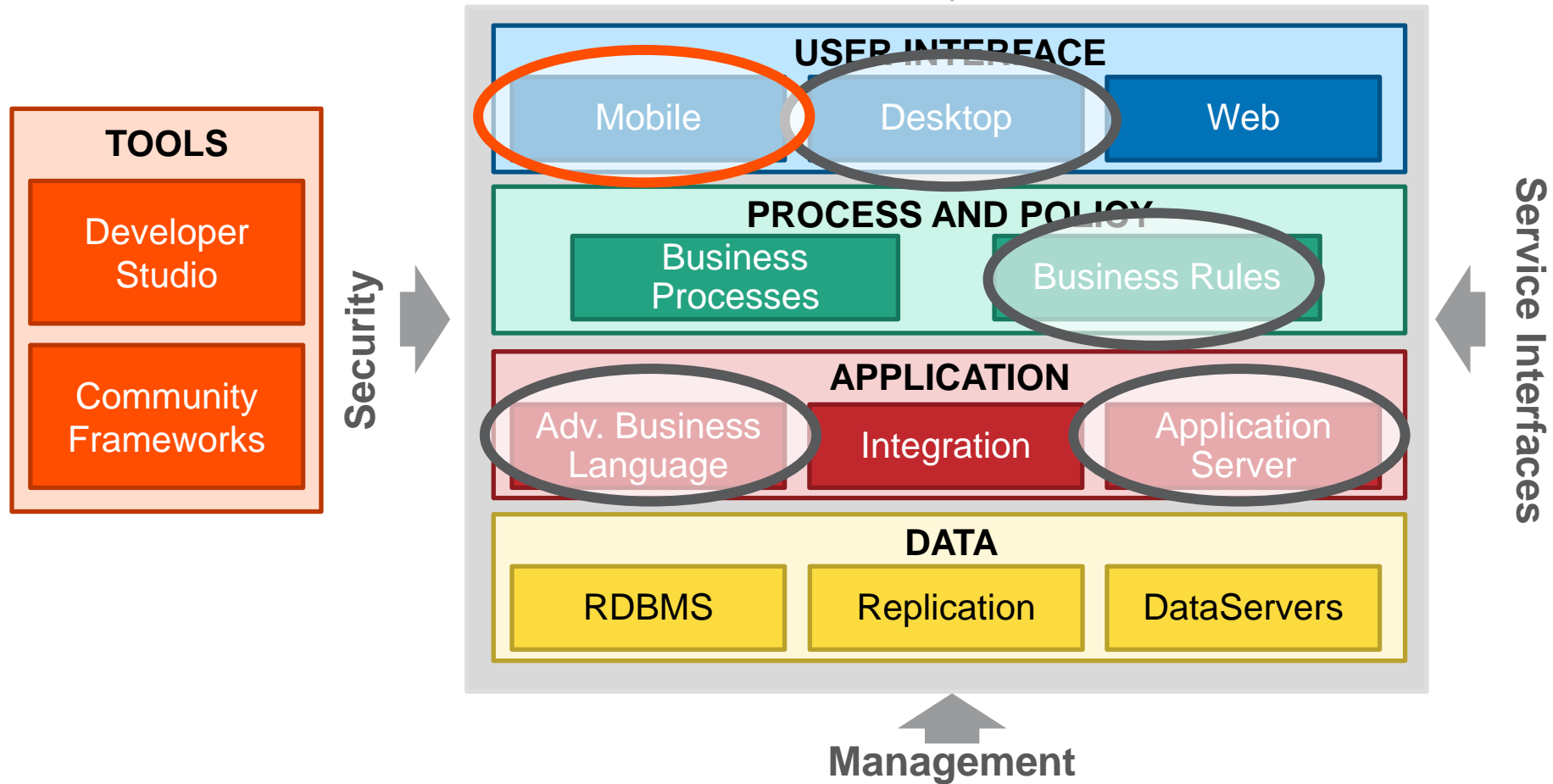
- In this phase we will make a Mobile app for the buyer. This App will use the same back-end code as the desktop GUI. This screen is only used to create new articles.

Phase 3: Mobile Buyer App



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Phase 3: Mobile Buyer App

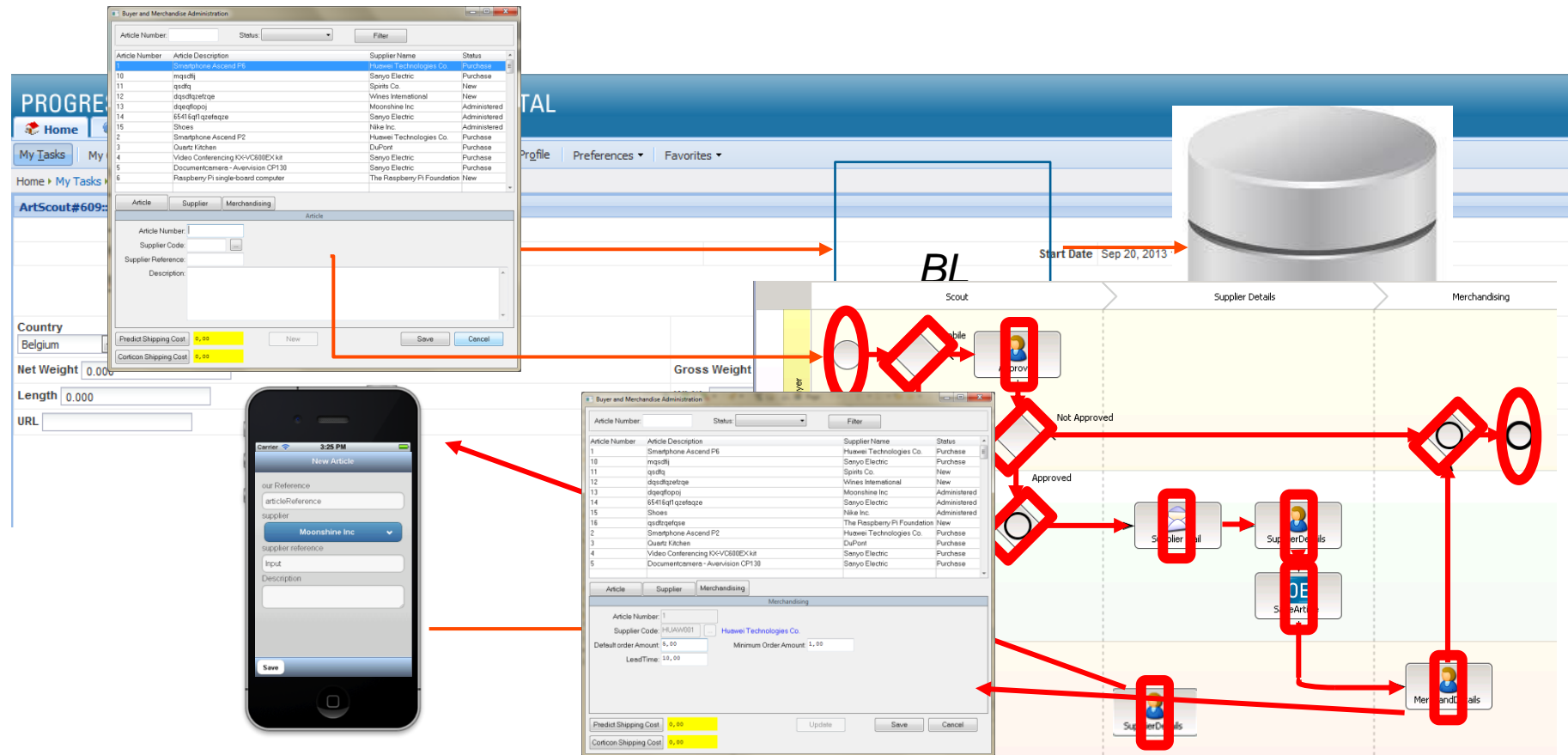


Phase 4: Build BPM process and Supplier Webscreen

Phase 4 – Est. Time: 25 – 30 min

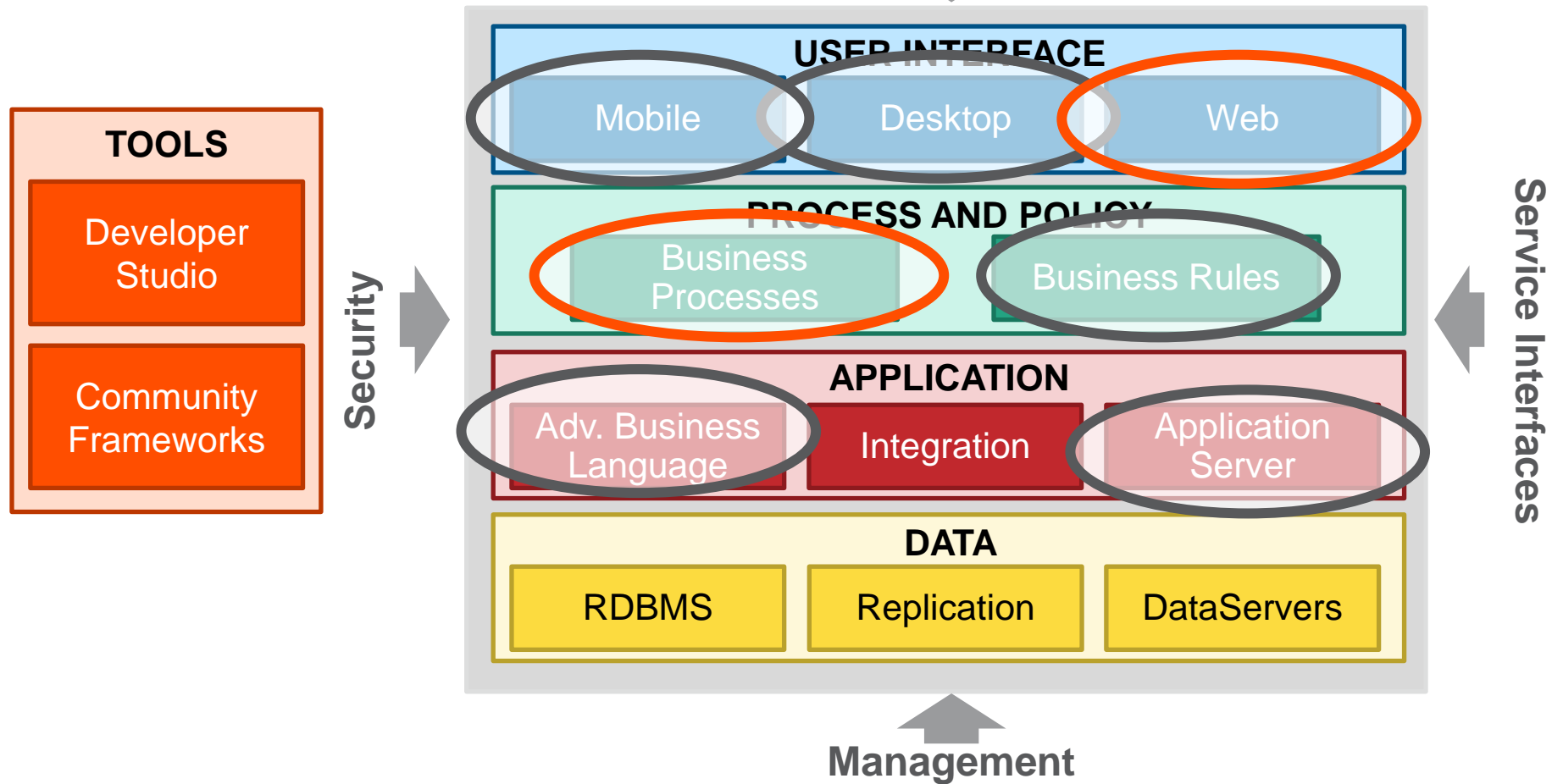
- In phase 4 we will add a BPM process, this process will be started from the GUI or mobile app which both use the same back-end logic. We will also make a web form for the supplier where he can fill in his article details. The supplier will automatically be mailed once he is required to fill in this web form.

Phase 4: Build BPM process and Supplier Webscreen

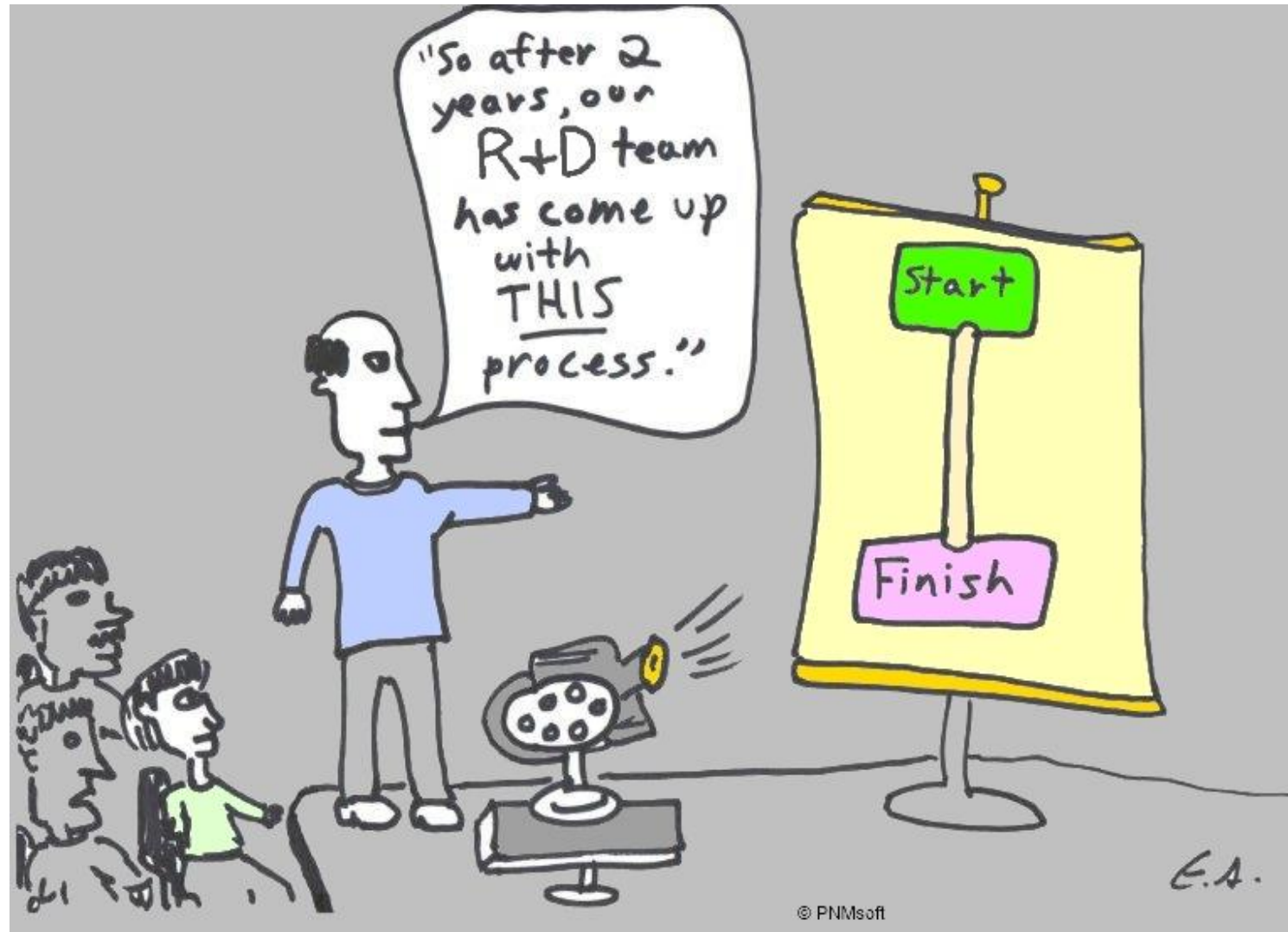


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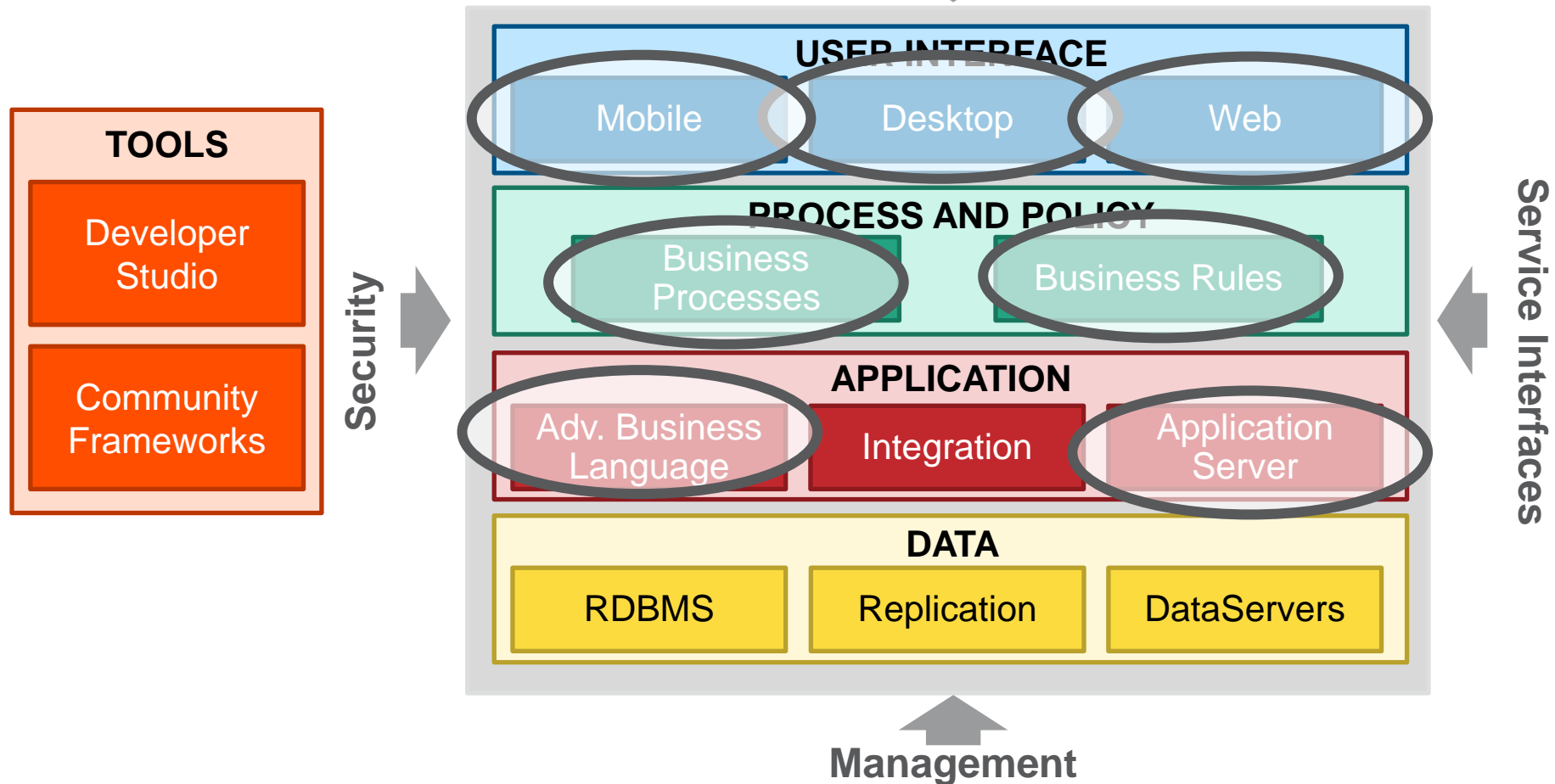
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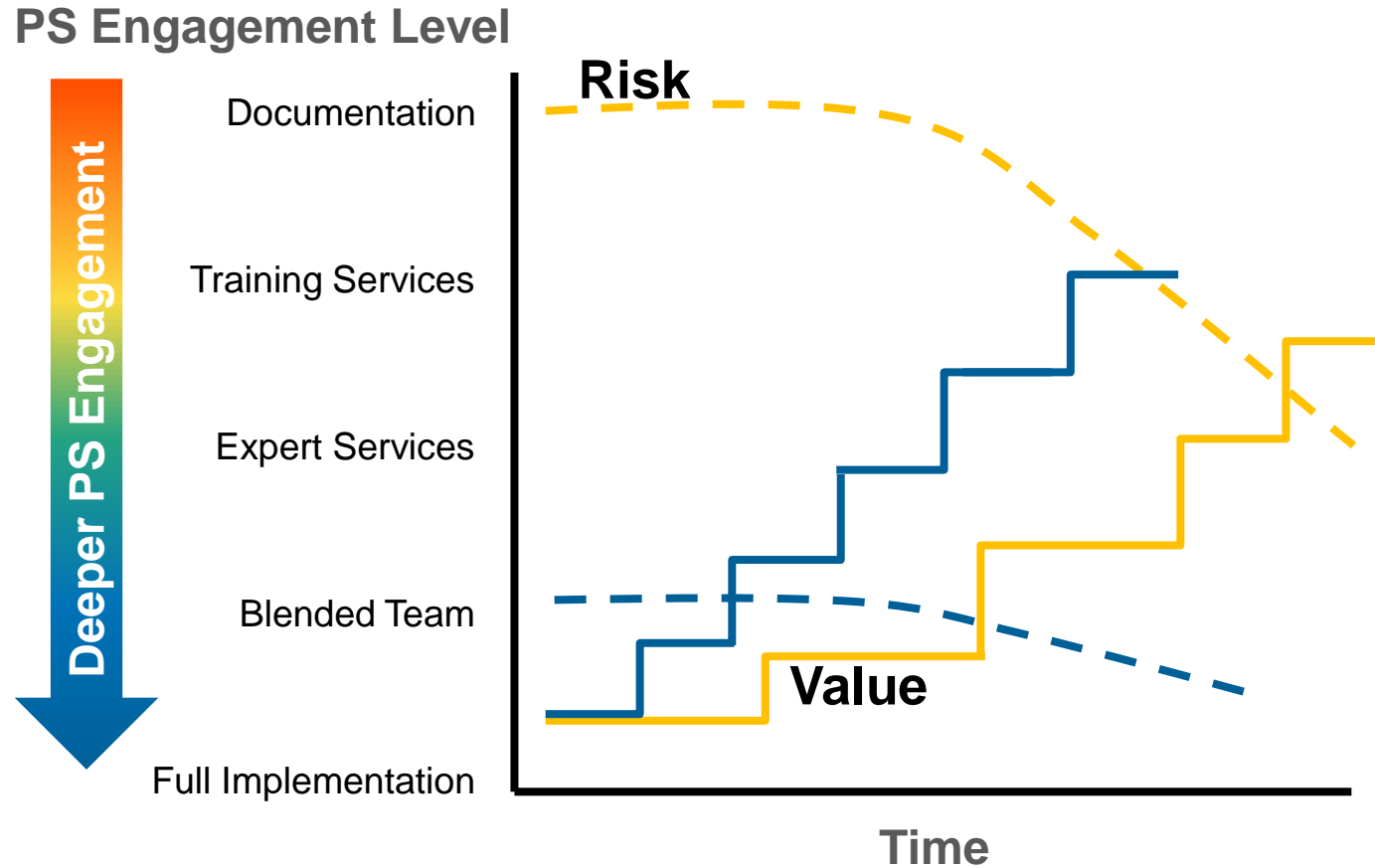
Wrap-up

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Open Client Access



Time to Value & Risk Improve With Deeper Engagement





Questions



PROGRESS