

Next-generation Banking: Combining Process and Technology to Achieve Agility

An Oracle White Paper
May 2008

ORACLE®

FINANCIAL SERVICES

Next-generation Banking: Combining Process and Technology to Achieve Agility

Throughout history, redefining processes have changed the business landscape. For example, when Henry Ford introduced the assembly line, he redefined manufacturing completely by making production flow the core of the manufacturing process. Frederick Taylor's Scientific Management introduced the systematic analysis of workflows, and as Peter Drucker comments, 'all the productivity gains of the twentieth century can be explained by the work Taylor set in motion at the century's beginning'.

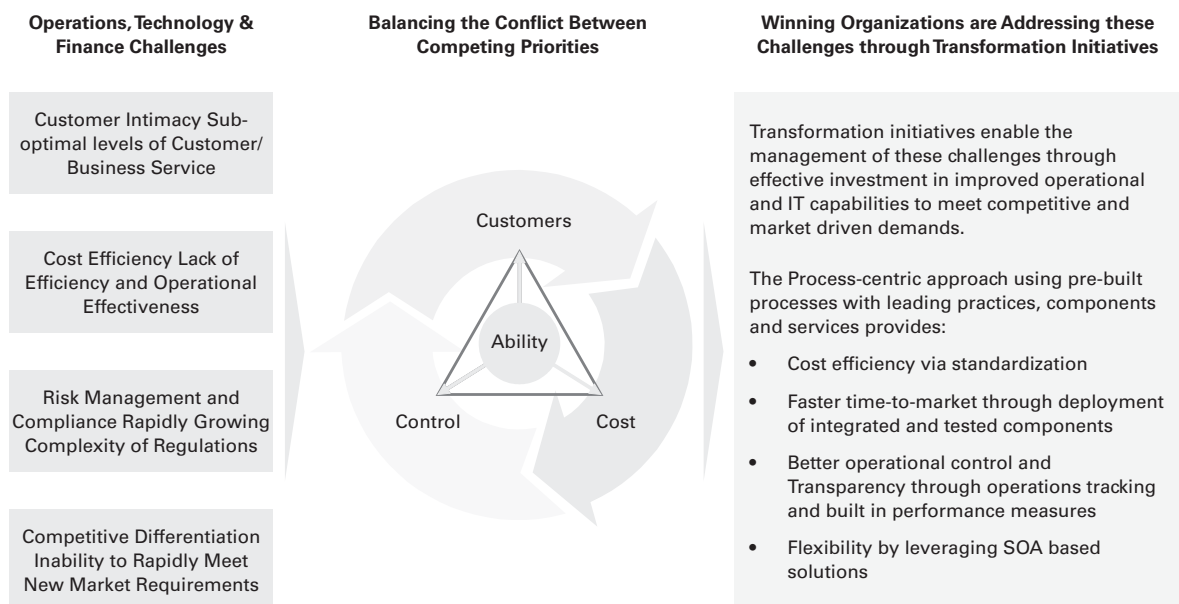
Toyota Motors consolidated the total quality management movement, just-in-time manufacturing, and lean production into a competitive edge that pushed European and U.S. carmakers into a decade of retrenchment and catch-up. Wal-Mart began, and Dell took forward, a total transformation of logistics processes. Over 20 years, this reduced the percentage of gross domestic product in the USA, tied up in supply chain management costs, by over 40 percent.

Process is now a key concern for business managers and technology architects. It is now a critical requirement in the financial services industry.

PROCESS MOVES CENTER-STAGE

Process is now a key concern for business managers and technology architects, and not just for work study experts or auditors.

Figure 1: Banking Industry Challenges



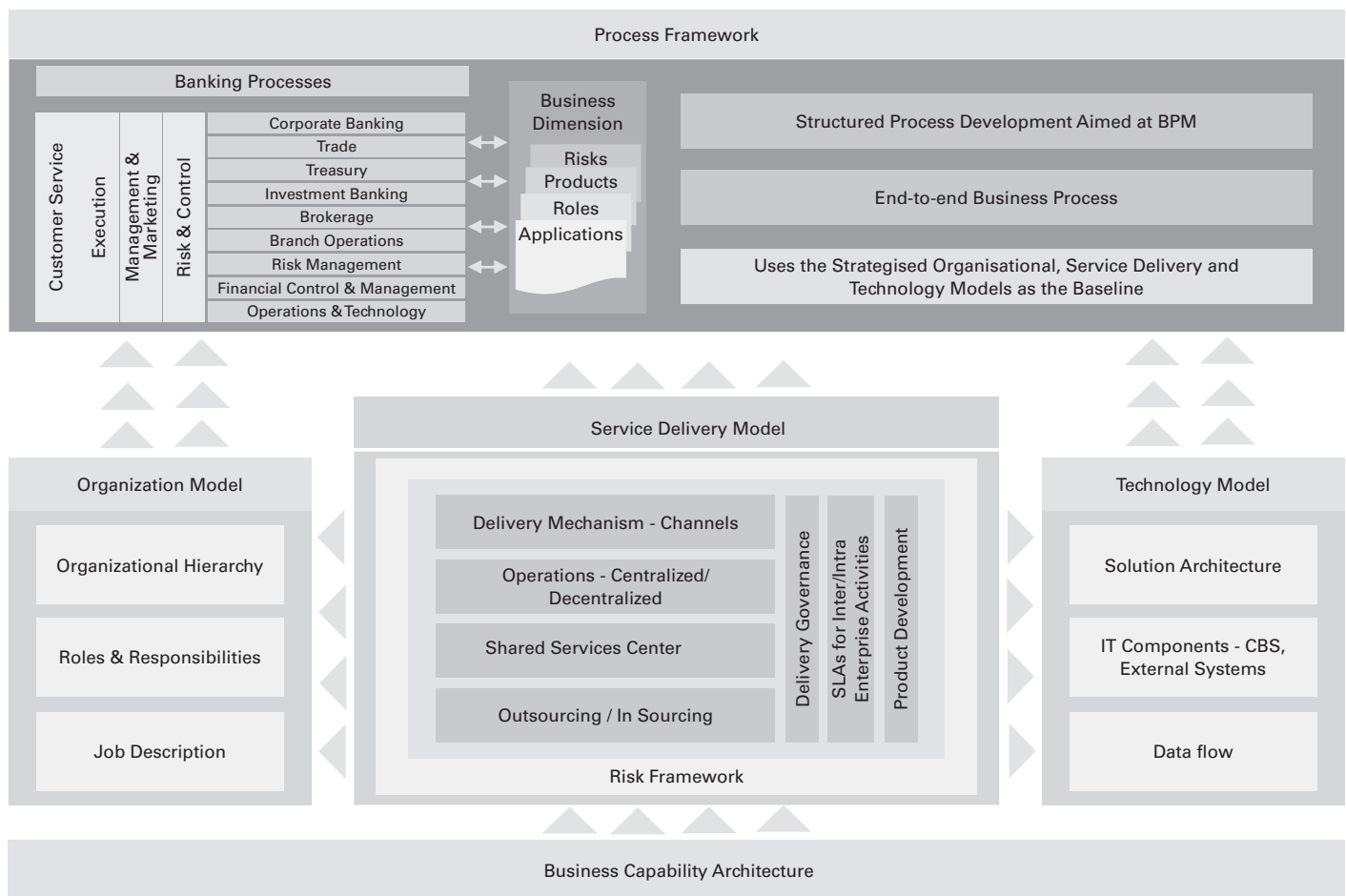
Banking must respond with agility and flexibility to customer demands; operations and technology must be responsive to rapid changes.

Arguably, it is much easier to define and implement processes in manufacturing, rather than service industries, though this view is now being challenged. In manufacturing, a product's inputs and the output remain fairly uniform, regardless of where it is produced. In service industries such as banking, the service is much more variable, depending on where it is offered and by whom. Even so, we may still ask why the banking industry has been so slow to use process management, when other industries have adopted it enthusiastically and to good effect.

Ironically, the culprit is the success of previous strategic initiatives and the technological infrastructure these created. Believing that the road to success was paved with new products, banks organized their business units around products like lending, savings accounts, and mortgages. Every time banks needed to adapt to market and business demands, they created new applications to automate specific departmental requirements.

This approach led to a silo architecture, which actually interfered with a clear examination of how a business process, such as opening an account for a new

Figure 2: Mapping Processes to Operating Models



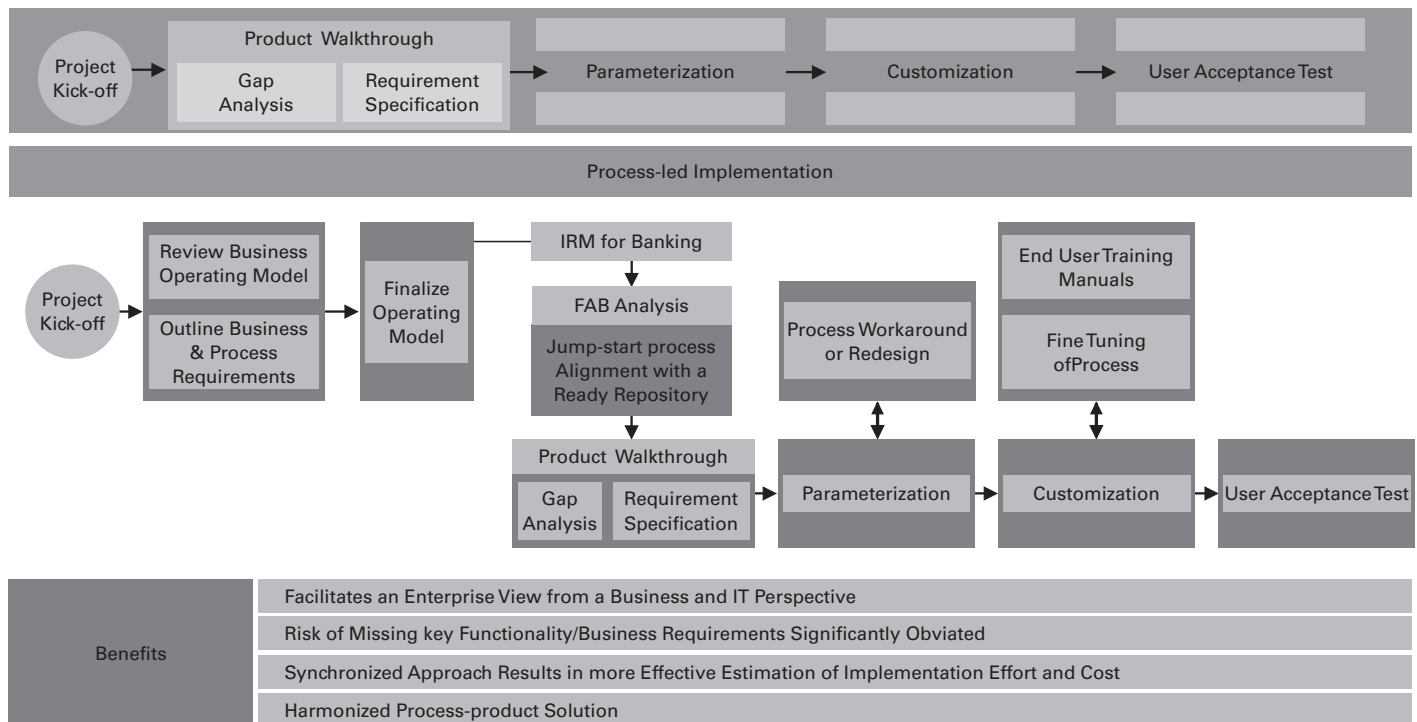
Process maps, duly enriched, can capture both business-critical dimensions and the key technical metadata that systems need to execute on the overall vision.

customer, functioned across departmental lines. Still, silo architecture mattered little, since there were no easy-to-implement standards for the interoperability of applications. Therefore, different development efforts were not dependent on one another.

Unfortunately, the downside of such an approach was that applications were not designed with a larger process in mind. The evolution of web services provided the technological underpinning for a critical shift. In a crucial distinction, while earlier attempts at distributed computing like CORBA focused on application program interfaces, web services focused on standardizing message exchange patterns, making interoperability amongst different applications easier. It also became simpler to map a business process to the underlying technology executing it, making effective process management possible.

As a result, process is no longer of interest only to time and motion aficionados, audit authorities or Six Sigma experts. It is now a critical requirement in the banking and financial services industry. Initially driven by compliance demands from the Sarbanes-Oxley regulation, process documentation and design has slowly moved center-stage. In our view, process models are becoming the preferred medium for capturing and expressing those elements critical to business transformation. Whether it is the roles required to complete a process, or the associated time, cost, or risks, a good process map can depict them all in a way that is clear and easy to read.

Figure 3: Typical Core Banking Implementation



A complete process map should be able to provide a current view of the organization's structure, with information about the tasks each person or department performs. It should also be able to map, by business process, the application services required to successfully automate and complete a banking process. A services directory organized in this manner can be an invaluable guide for the move to a Service-Oriented Architecture, which is the Holy Grail for information technology. Thus, as banking services become rapidly commoditized, the ability to create and unlock value in processes is increasingly becoming a bank's competitive differentiator.

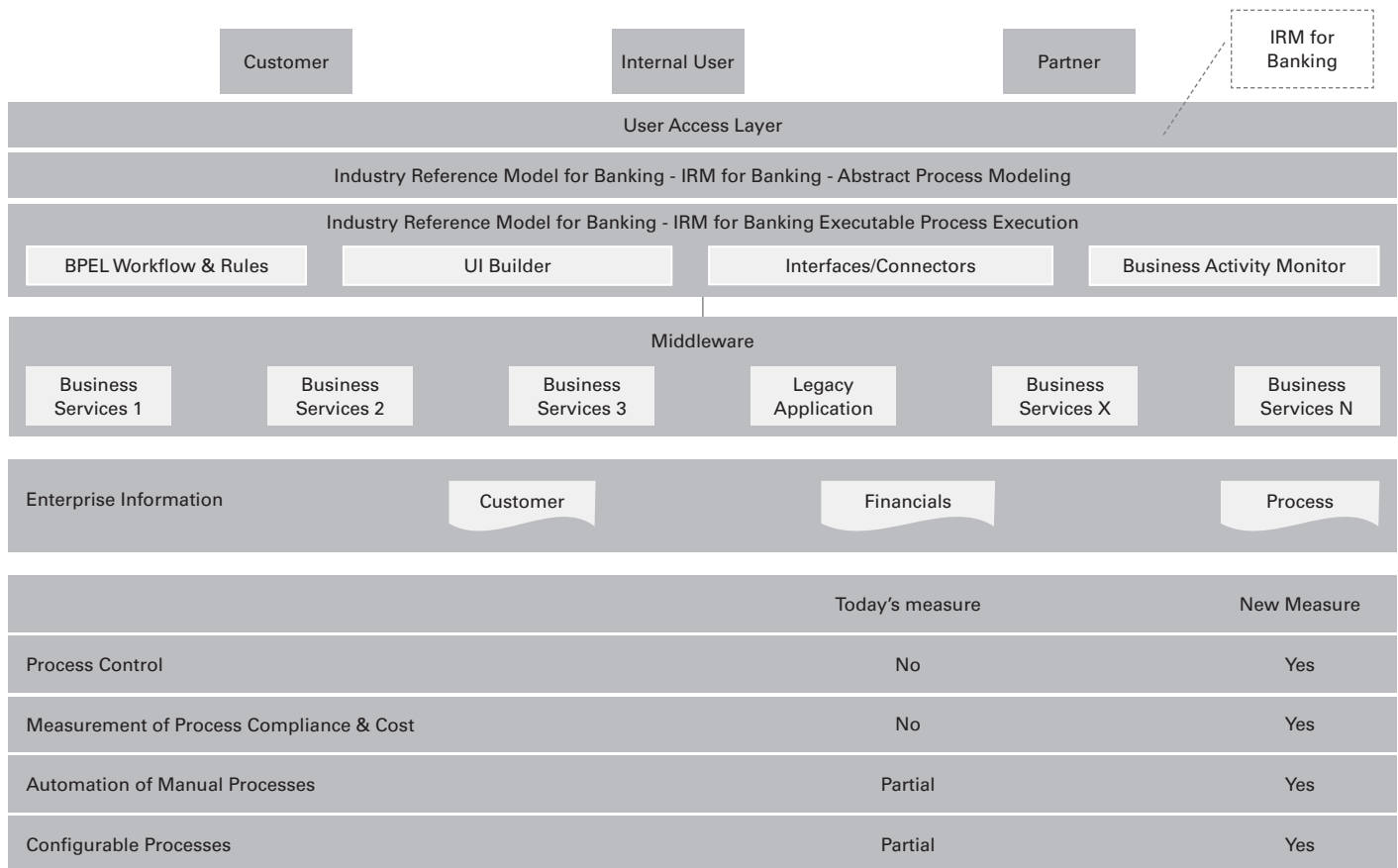
Next-generation banking means interconnected applications and flexible orchestration, driven by business needs, and without a long intermediation cycle.

THE CHANGING FACE OF BANKING TODAY

Banking must respond with agility and flexibility to customer demands; operations and technology must be responsive to rapid changes.

Today, the banking industry is faced with greater challenges than ever. Outside interlopers such as automobile companies or retail chains are setting up bank-like companies and services. There is an onslaught of regulatory requirements in an increasingly risk-aware environment. Both markets and customer requirements are

Figure 4: IRM for Banking at the Heart of a Process-centric Architecture



changing rapidly. To face these types of challenges, banks must be flexible and agile in both strategy and operations.

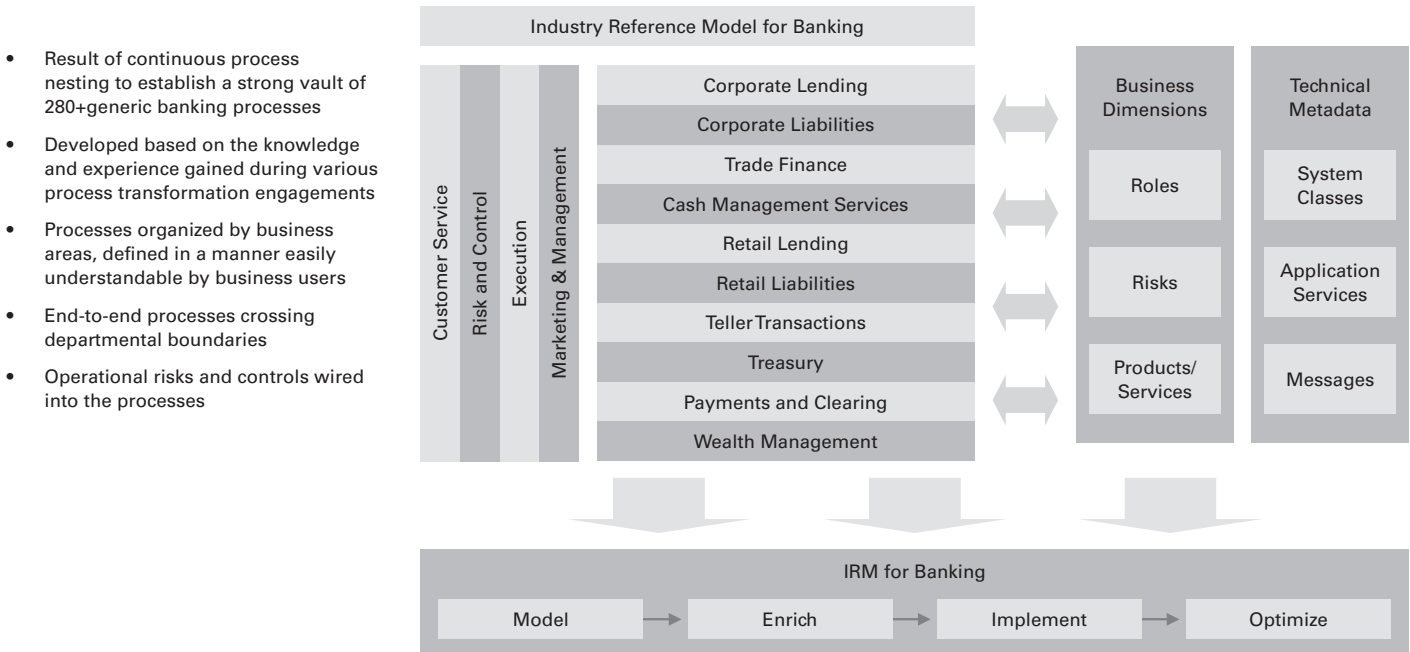
Meanwhile, the IT departments of banks have their own challenges, such as enabling consistent information and customer experiences across channels, ensuring seamless straight-through payments processing, and providing a single view of customers and their transactions and exposures across all entities. Managements are closely scrutinizing returns on technology investments, the time to market, and the success in addressing business requirements. All technology teams now feel the pressure to deliver successfully, which means within budget and to schedule. To respond adequately to their collective challenges, business and technology teams must collaborate more closely.

PROCESSES THAT DEFINE

Process maps, duly enriched, can capture both business-critical dimensions and the key technical metadata that systems need to execute on the overall vision.

The secret of successful collaboration is being able to communicate effectively within and across teams. Is there one language that both technology and business can use to talk to each other? This language especially needs to address a few concept pairs that encapsulate the key challenges that banks are grappling with as they seek to establish themselves in this new world: - manual, automated; risk, control; global, local; standardized, customized; and, technology and operations. The goal is to develop a common area to address these concepts and perhaps link them together, in terms that all participants can clearly understand.

Figure 5: Fast-tracking Process Orientation using IRM for Banking



This, then, is the power of multi-dimensional, detailed, comprehensive process models with best-practice type knowledge built in. Such models can provide a powerful platform for transformation. The way forward is to develop and use process maps where both business and technology can find the information they need, expressed in the terms and the detail each needs. These will be the maps that chart the emerging face of next-generation banking. For example, is it possible to attach operating risks to a process along with the controls that will mitigate the risk? Or, can we define the application services that technology systems should provide to enable the completion of a given business process?

This is a new world, where there is transparency; where both the intent and requirements of all the stakeholders are clear; where business and technical information is captured and depicted on the same drawing board; and, where the chances of missing/mis-communicating requirements are eliminated or significantly reduced.

WHAT THIS MEANS FOR BANKING TECHNOLOGY

Next-generation banking means interconnected applications and flexible orchestration, driven by business needs, and without a long intermediation cycle.

This new banking world calls for seamless connectivity across systems and operating units. It asks for the ability to reconfigure technology and operations quickly

Figure 6: The Benefits of a Process-centric, Service-Oriented Architecture

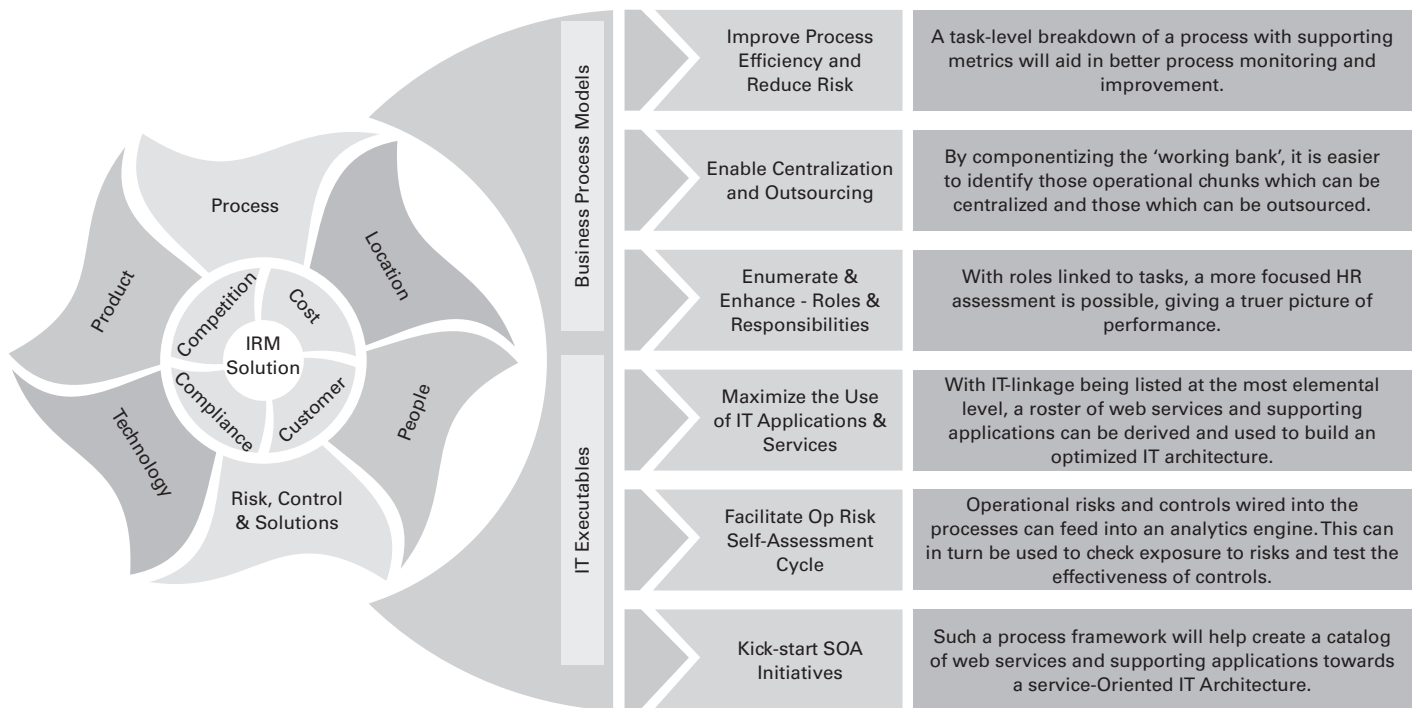
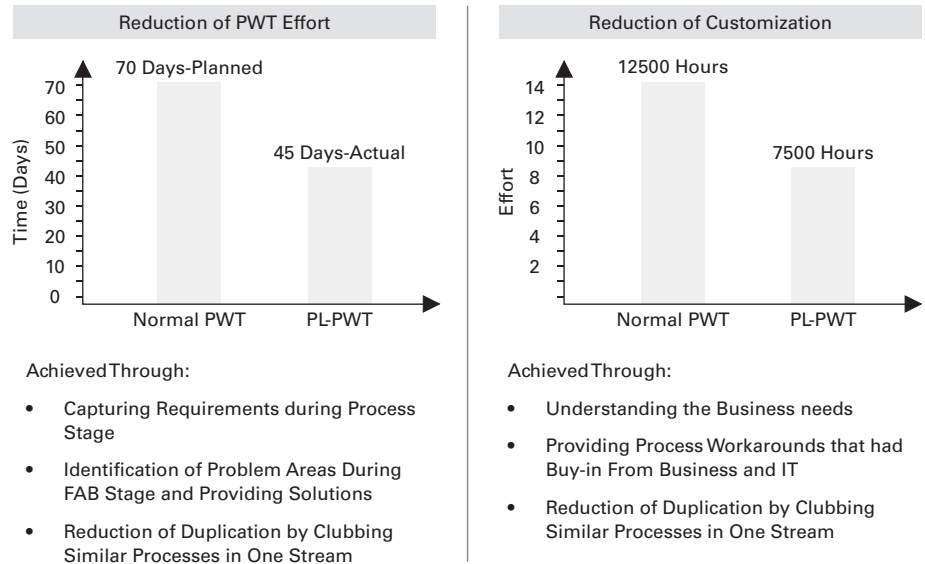


Figure 7: Case Study - Country Rollout for a Nordic Bank



and flexibly, to meet the changing demands of customers and the environment. It demands that all this be achieved with costs absolutely under control. The technology that will support this new world must be able to incorporate all these features and more. An end-to-end process is one way to leap the boundaries set up by different operating units, application systems, and entities. A typical process may need to move from the operations and technology of customer service units, through risk teams, to operational units, before going into accounting and reporting.

In this context, Service-Oriented Architecture (SOA) truly begins to make sense. Process orientation and decomposition help fit services clearly into a business context, and to unleash the power of such an approach. The challenge for next-generation banking technology is to be business-user friendly, seamless, and able to integrate. The responses to these separate issues converge into a single answer - a process-centric, Service-Oriented Architecture.

CRITERIA FOR A PROCESS-CENTRIC ARCHITECTURE

A process-centric, middleware-driven integration backbone can seamlessly connect different specialized applications and support multiple operating units to deliver products and services to customers.

What does a process-centric architecture look like? The heart of the architecture is a process backbone consisting of both the abstract (modeling) layer and the executable (workflow and integration software) layer. This backbone must have the capability to orchestrate and integrate the complex suite of applications that normally make up a bank's IT infrastructure.

Standards-based development and interoperability are the building blocks for such an architecture. A clear process definition layer that is business-user friendly will enable business users to interact, both by defining their requirements and by responding in terms that are familiar to them. This is the key component, because the success of a technology program depends on how far business can be an integral part of the software process. If organizations can pull all these elements together to successfully re-orient and manage their processes, they can once again change the landscape of both business and technology.



Next-generation Banking: Combining Process and Technology to Achieve Agility
May 2008

Author: Vijay Alexander

Author: Eapen Thomas

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:

Phone: +1.650.506.7000

Fax: +1.650.506.7200

oracle.com

Copyright © 2008, Oracle and/or its affiliates. All rights reserved.

This document is provided for information purposes only, and the contents hereof are subject to change without notice.

This document is not warranted to be error-free, nor is it subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

Other names may be trademarks of their respective owners.