

Course Guide

Business Analysis for Agile BPM Process Transformation

Course code WB825 / ZB825 ERC 2.0



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Course description

Business Analysis for Agile BPM Process Transformation

Duration: 3 days

Purpose

This course teaches you agile methods to approach business process analysis for business process management (BPM) implementations.

The course focuses on demonstrated business process transformation analysis approaches for delivering process transformation projects by using an agile methodology and the extensive IBM knowledge base collection of IBM Systems Solution Implementation Standard (ISSIS) artifacts. ISSIS represents an agile methodology that the IBM Cloud Services organization uses to maximize client return on investment. It provides IBM technology and product-specific suggested practices and BPM artifacts that are derived from hundreds of project implementations.

The course begins with an overview of business process management and change management concepts. You learn about managing upstream and downstream process transformation impacts, and the cross-functional importance of business processes to the overall objectives of an organization. The course then explores the agile business process analysis methods and supporting project tasks and work products that make a process transformation project successful. It covers concepts and activities such as process analysis, process improvement, working with As-Is and To-Be processes, Business Process Model and Notation (BPMN), and identifying and working with key performance indicators (KPIs).

This course also introduces you to IBM Blueworks Live, which is software as a service (SaaS) that can help organizations quickly document and improve business processes by enabling collaboration and process automation in a secure, Cloud-based environment. Blueworks Live represents one approach to collecting process transformation information that is required to create appropriate BPM deliverables such as user stories for each process task and process participants.

Throughout the course, you participate in hands-on demonstrations and predefined case study exercises that are designed to reinforce the concepts and skills that are covered in the lectures.

Audience

This course is designed for all project team members who are involved in the analysis and definition of organizational processes.

Prerequisites

This course has no prerequisites.

Objectives

- Describe business process management (BPM) and its benefits to an organization
- Describe agile business process analysis methods and supporting project tasks and work products that are used in a process transformation project
- Document business process and decision management opportunities and attach relevant references to clarify project goals and requirements for the process transformation
- Define detailed business requirements as user stories within the process context
- Create a macro design with Design Thinking
- Map high-level activities and participants in a business process by using Blueworks Live
- Generate and refine a detailed process diagram by using Blueworks Live
- Establish a change management plan to garner acceptance and buy-in for process improvement initiatives
- Document detailed processes through validation and enhancement of blueprints, with key inputs and outputs and known issues and impacts
- Create process user stories for project task estimation and prioritization
- Describe DevOps and how it affects development projects
- Explain the difference between BPM projects and other IT implementation projects
- Facilitate process discovery sessions
- Identify key performance indicators (KPIs) for a process
- Identify next steps for process improvement initiatives
- Describe the tools that are available in the IBM Systems Solution Implementation Standard (ISSIS) repository and how they can be used for business process and rules analysis
- Describe the working relationship between the business analyst, subject matter experts, solution architect, and development team

Agenda

**Note**

The following unit and exercise durations are estimates, and might not reflect every class experience.

Day 1

- (00:15) Course introduction
- (02:00) Unit 1. Introducing the process transformation methodology
- (02:00) Unit 2. Using the agile process transformation methodology
- (00:45) Exercise 1. BPM assessment
- (02:00) Unit 3. Introduction to Blueworks Live
- (01:00) Exercise 2. Case study and Blueworks Live setup

Day 2

- (02:00) Unit 4. Exploring the business process management analyst role
- (02:30) Exercise 3. Analyzing a process to create the As-Is process model
- (02:00) Unit 5. Improving business processes
- (02:00) Exercise 4. Improving a process
- (01:30) Unit 6. Discovering the IBM Systems Solution Implementation Standard (ISSIS)

Day 3

- (01:00) Unit 7. Business analysis practices
- (00:45) Exercise 5. ISSIS and user stories
- (01:00) Unit 8. Ensuring a smooth transition
- (01:00) Exercise 6. Playback Zero
- (00:30) Unit 9. Course summary

Unit 1. Introducing the process transformation methodology

Estimated time

02:00

Overview

This unit provides an overview of the process transformation methodology that process analysts use to model, analyze, and ultimately improve organizational processes.

How to check online for course material updates



Note: If your classroom does not have internet access, ask your instructor for more information.

Instructions

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Figure 1-1. How to check online for course material updates

Unit objectives

- Describe business process management (BPM) and its benefits to an organization
- Describe the process transformation methodology
- Identify common characteristics of a process-centric pattern
- Describe process transformation roles and work streams

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Figure 1-2. Unit objectives

Topics

- Business process management (BPM)
- Why business process management (BPM)?
- Business process management goals
- Managing the business process management process
- IBM's cognitive business operations and process transformation platform

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Figure 1-3. Topics

1.1. Business process management (BPM)

Business process management (BPM)

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Figure 1-4. Business process management (BPM)

What is business process management? (1 of 3)

- Business process management (BPM) is a method of efficiently aligning an organization with the needs of clients
- BPM is a holistic management approach that promotes business effectiveness and efficiency while businesses are striving for innovation, flexibility, and integration with technology
- As organizations strive for attainment of their objectives, BPM attempts to continuously improve processes – the process to define, measure, and improve your processes – a “process optimization” process
- A business process represents a discrete series of activities that can span multiple people, applications, business events, and organizations

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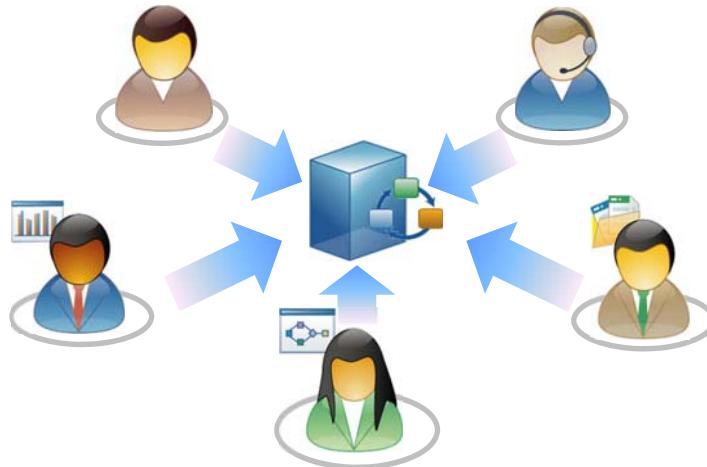
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Figure 1-5. What is business process management? (1 of 3)

Business process management (BPM) is a systematic approach to making an organization's workflow more effective, more efficient, and more capable of adapting to an ever-changing environment. A business process is an activity or set of activities that accomplish a specific organizational goal.

What is business process management? (2 of 3)

- By applying technology, BPM software can activate the process, and orchestrate the people, data, and systems that are involved in the process
- It gives the business managers a view into how the process is operating and where bottlenecks are occurring
- It highlights possible process optimizations



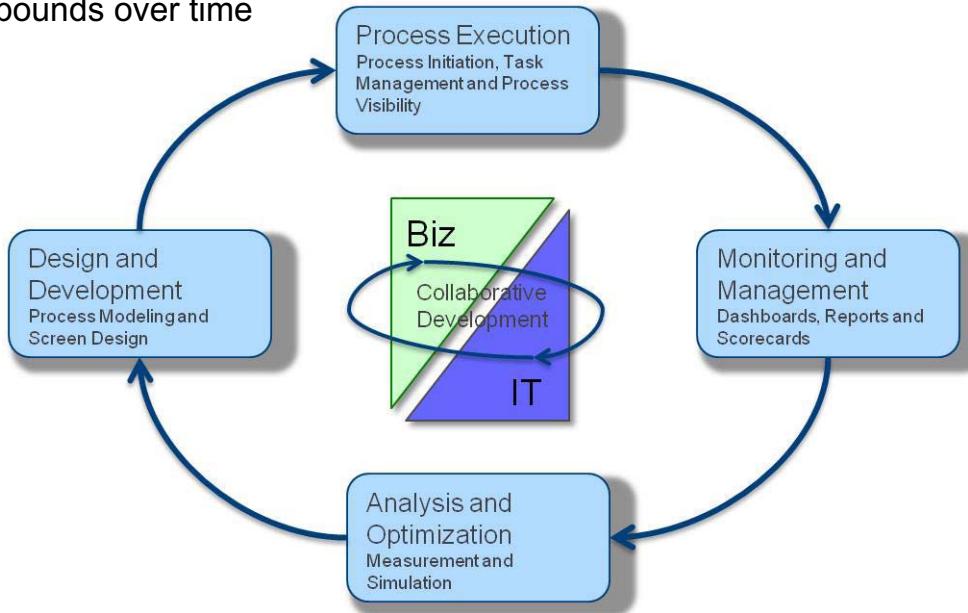
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Figure 1-6. What is business process management? (2 of 3)

What is business process management? (3 of 3)

- Business process management is a holistic management discipline that promotes business agility, visibility, process improvement, and business innovation
- By coupling the BPM discipline with enabling technologies, the value of BPM compounds over time



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Figure 1-7. What is business process management? (3 of 3)

Business process management is a business discipline. Unlike its predecessors (TQM, Six Sigma, Lean), BPM couples the business discipline with enabling technology, allowing your business to directly link process models and business rules to **execution**.

Business process management is based on the following fundamental concepts:

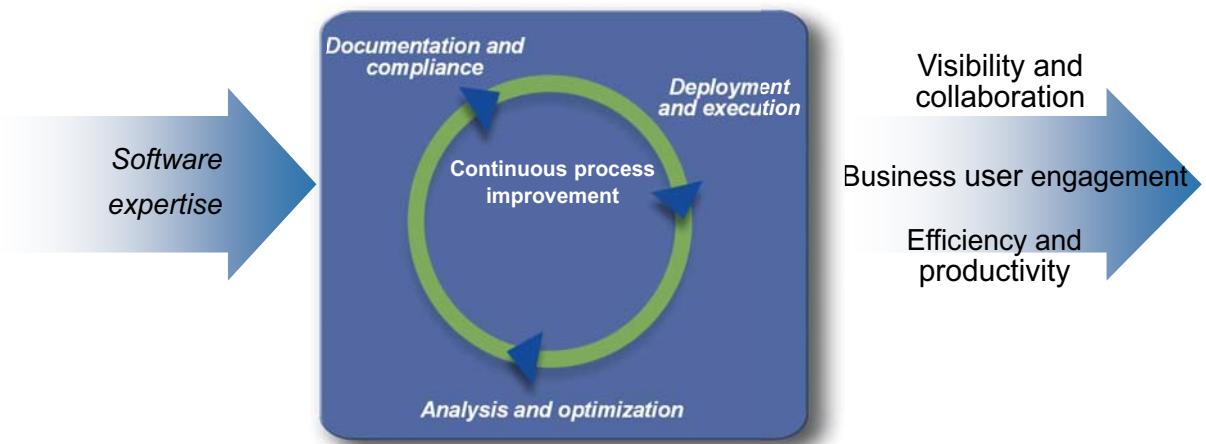
- Collaborative development: Drives development efficiency and creates a greater sense of ownership for business partners
- Iterative lifecycle: Delivering tangible value in 4 – 8 week increments
- Continuous process improvement: Development priorities based on returning maximum business value, regular review of process and decision metrics to drive process improvement, optimization “what if” tools to empower business innovation

When the business sponsors a BPM initiative, it is committing to a process improvement lifecycle. BPM creates agility so that you can quickly evolve to meet the needs of the business.

The BPM lifecycle is shown, based on a collaborative environment between IT and the business.

Business process management explained

- Aligns an organization's key activities into business processes
- An integrated approach that involves expertise and technology
- Enables customers to discover, model, execute, rapidly change, govern, and gain end-to-end visibility



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Figure 1-8. Business process management explained

BPM provides a way for business and IT to collaborate and continuously optimize business processes across the process lifecycle that supports robust governance and compliance.

BPM is a discipline that consists of software and expertise to improve the performance, visibility, and agility of business processes and facilitate business innovation. The key point is that "BPM" must be more than just software. Your expertise, an industry partner that works with you, or integrators and consultants such as IBM Global Services (most likely a combination of more than one) are critical to success. Successful business outcomes come only with the involvement of the business expertise with IT expertise.

At its heart, business process management is about continuously optimizing business processes. This continuous optimization means working to improve business processes throughout the process lifecycle. The process lifecycle spans three steps:

- Model and simulate where business process improvements are documented and tested before deployment
- Deploy, run, and change where new or improved processes are deployed in an automated, repeatable fashion with flexibility for rapid change

- Model, analyze, predict, and act where deployed processes are closely monitored and measured in real time to enable rapid response to emerging business situations and to identify new process improvement opportunities

Underpinning this cycle of continuous process improvement is the need for robust governance and compliance to ensure that business processes are operating consistently and are complying with internal policies, external regulations, and controls. Processes are also most effective and efficient when they are enabled with broad reuse of service-enabled IT assets.

Optimizing end-to-end business processes across the flexibility processes and underlying systems allows the organization to embrace change and achieve a dynamic business network. Business process management provides the means and the tools to facilitate this collaboration.

The lifecycle requires participation and collaboration between business and IT. Business and IT leaders must work together to develop business processes across the process lifecycle.

1.2. Why business process management (BPM)?

Why business process management (BPM)?

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Figure 1-9. Why business process management (BPM)?

Organizations often seek ways to improve their organization to increase productivity, reduce costs, and increase revenues. The challenge organizations face is that change is inevitable in business because of various factors, like market dynamics. To keep up with the climate of change in business, organizations must rely on efficient and effective business processes.

Many organizations try to implement different strategies to accomplish change management of processes with little to no disruption of customer service and employee productivity. But many times, those efforts fail outright or accomplish only a portion of the process improvement because organizations do not measure performance.

Why business process management (BPM)?

- Applications for complex processes for humans and systems
- Orchestration across multiple departments and systems
- Real-time performance management and visibility
- Keep pace with changing business requirements
- Collaborate effectively between business and IT
- Make process a source of competitive advantage



CONTINUOUS PROCESS IMPROVEMENT

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Figure 1-10. Why business process management (BPM)?

The hallmarks of BPM projects are shown. A BPM software suite can be used for these things and a lot more. The slide shows the ones that provide the greatest chance of success, and the greatest opportunity to realize the promised benefits of BPM.

New forces are changing how organizations operate

Big data

90

Percent of the data
that is created in the
last two years alone

Mobile

1



Billion (plus) smart
devices that are
shipped in 2013 alone

Social

81



Percent of customers who
depend on social sites for
purchasing advice

Cloud

62



Percent of total workloads
that are in the Cloud by 2016

Internet of Things

75



Billion devices that are connected
to the internet by 2020

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Figure 1-11. New forces are changing how organizations operate

Over the last half century, technology played an ever-increasing role in improving the way business is done. And while this change was rapid and continual, the road experienced a few major inflection points, which are significant transformations that affect every business.

In the late 1950s, mainframes revolutionized the back office.

By the 1980s, PCs brought vastly improved capabilities, revolutionizing worker productivity.

Barely a decade later, the internet and e-business revolutionized the way businesses work with customers, suppliers, and partners.

Today's major transformation brings new technologies. Intelligence, interaction, and agility take a giant leap forward.

As with any market inflection, the time is short to seize competitive advantage.

CIOs need better business decisions and processes

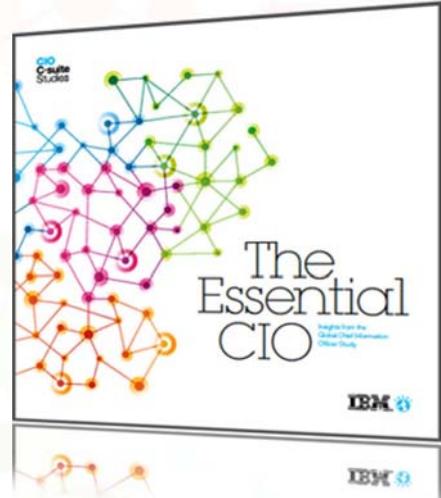
Based on interviews with over 3000 CIOs

99%

Of CIOs with mandates to transform the business are looking to “drive *better internal collaboration processes*”

95%

Of CIOs with mandates to transform the business are looking to “drive *better real-time decisions*”



Source: *IBM Global CIO Study*

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Figure 1-12. CIOs need better business decisions and processes

To better understand the challenges and goals of today's CIOs, the IBM Institute for Business Value met face-to-face with 3018 of them. Between November 2010 and February 2011, IBM interviewed this group, who represented different sizes of organizations in 71 countries and 18 industries.

In the previous CIO study, the analysis was centered on CIO results in terms of financial performance. IBM looked at profit before tax (PBT) growth to associate organizations with one of three growth levels: High, Medium, or Low. For this study, IBM looked at how respondents assessed their organizations' competitive position. CIOs told IBM what CIOs in higher performing organizations aspire to do. CIOs who selected “substantially outperform industry peers” were identified as top performers, while those CIOs who selected “somewhat or substantially underperforming industry peers” were grouped as lower performers.

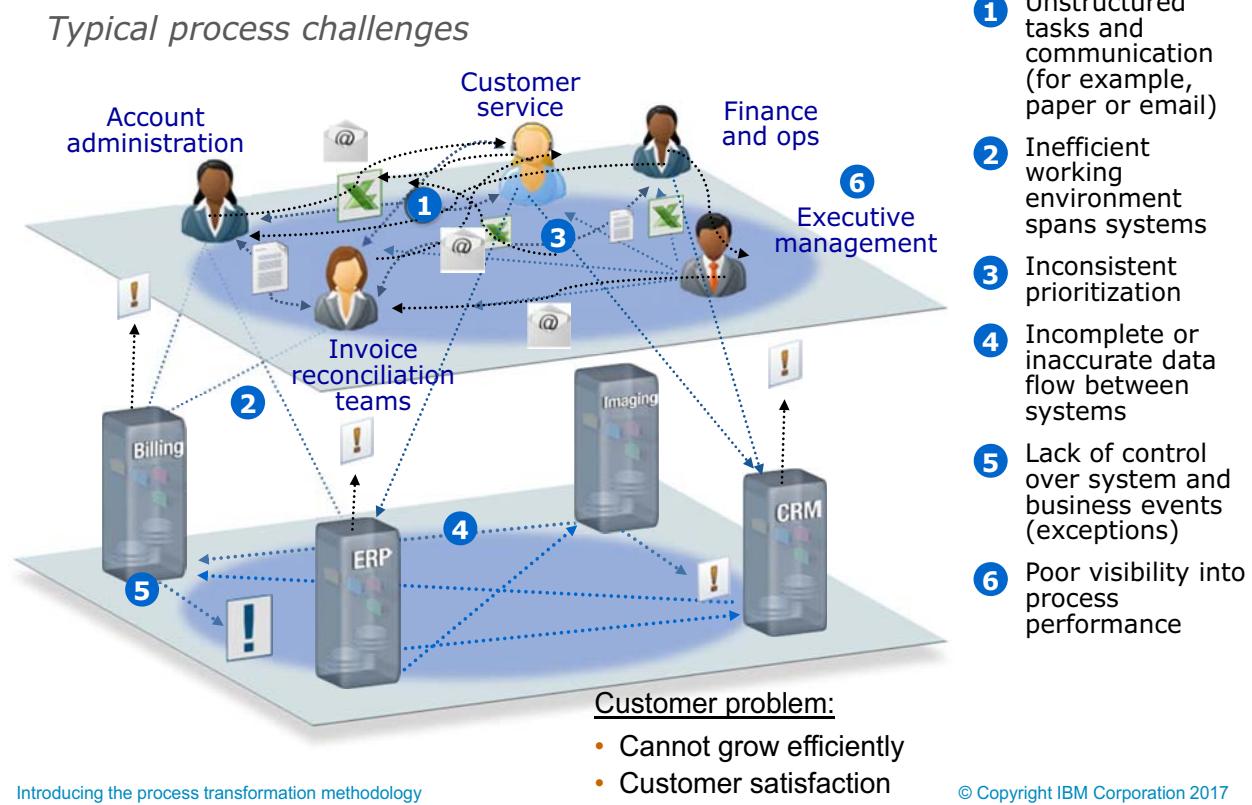
In addition to these financial criteria, IBM also used iterative cluster analysis, including state-of-the-art statistical and textual analysis of CIO responses. It revealed typical response patterns to a series of four questions. It led to the discovery of the four “CIO mandates.” Each mandate is associated with a distinct approach to IT leadership that stems from the specific needs and objectives of that particular organization. To simplify the terminology in this report, these mandates are based on the primary expectation that a business has for its IT function:

- Leverage: These organizations view IT as a provider of fundamental technology services. Their CIOs are asked to leverage IT to streamline operations for greater organizational effectiveness.
- Expand: This widespread mandate includes organizations that expect CIOs to manage a balanced set of responsibilities that range from fundamental to visionary. Their CIOs lead IT operations that help expand organizational capabilities by refining business processes and enhancing enterprise-wide collaboration.
- Transform: Organizations with this mandate see IT primarily as providers of industry-specific solutions to change the business. These CIOs are called upon to help transform the industry value chain by enhancing relationships with customers, citizens, partners, and internal clients.
- Pioneer: Here, organizations view IT predominantly as a critical enabler of the business or organizational vision. This group of CIOs is invited to help pioneer or radically reengineer products, markets, and business models.

Presenting the findings in terms of these mandates offers CIOs a way to consider what their own organizations need most from IT to achieve the highest success.

IBM Training

Why traditional applications cannot completely solve the business process problem



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Figure 1-13. Why traditional applications cannot completely solve the business process problem

Process problems are inherent in today's business environment. Typical process problems lead to many issues that business process management can solve.

To better understand how business process management can reduce complexity and boost growth, take a deeper look at the problems that cause process management problems.

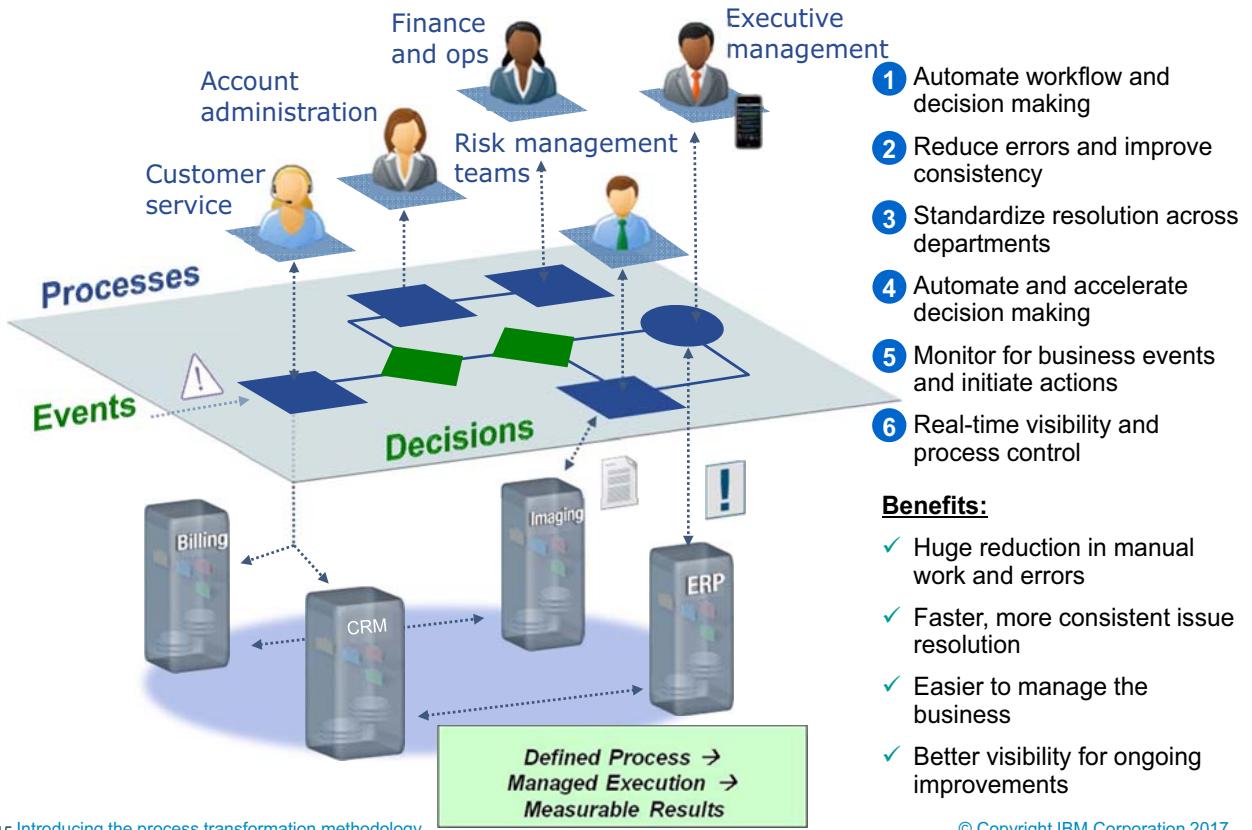
- Yes, you have systems. But they typically solve only part of the process.
- At the human level, the problem is that work is not controlled.
- Finally, organizations have no end-to-end visibility into the process that spans humans and systems.

These problems lead to replication of efforts and inefficient processes, lack of control over system and business events, incomplete and inaccurate data flow between systems, inconsistent prioritization, unstructured tasks, and poor visibility.

These issues lead to unstructured tasks, inefficient working environments, inconsistent prioritization, incomplete data flow, lack of control over systems and business events, and poor visibility into process performance.



IBM Process Transformation brings order to the chaos



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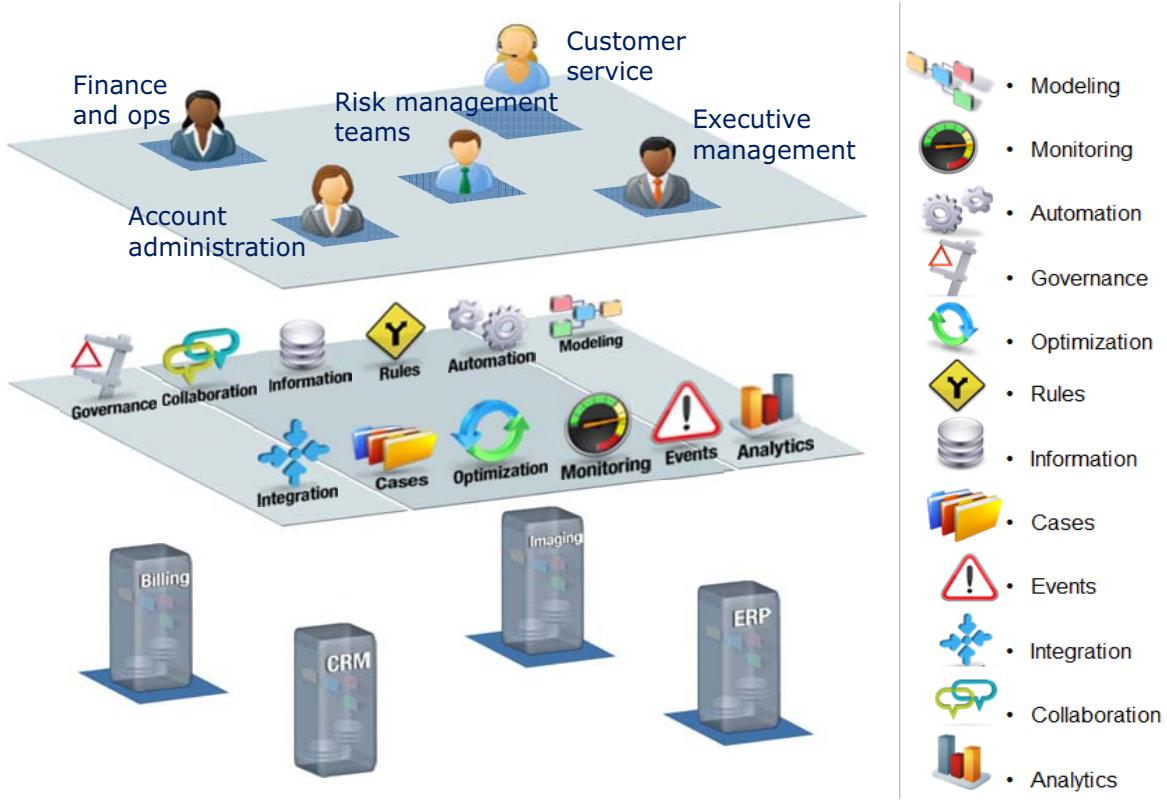
Figure 1-14. IBM Process Transformation brings order to the chaos

IBM Process Transformation helps in automating workflow and decision making, improving the consistency and standardizing the resolution across departments of an organization.

You can have real-time visibility into your processes and ongoing improvements.



The essential business process management capabilities



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Figure 1-15. The essential business process management capabilities

This chart shows the various capabilities that are imperative for BPM. On the right, you see all the capabilities that are included in a BPM suite to address process-centric needs from a customer's point of view. The slide demonstrates a robust linkage to key criteria to enhance performance and scalability with seamless integration and actionable insights.

1.3. Business process management goals

Business process management goals

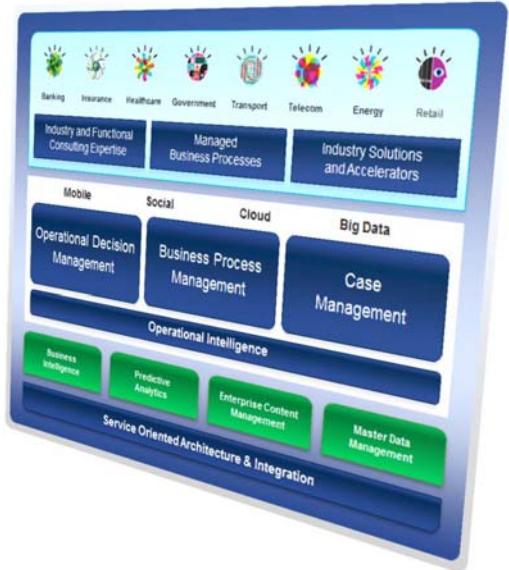
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Figure 1-16. Business process management goals

Reinvent business operations with process transformation

- Process transformation approach with the **goal** of reinventing business operations:
 - To enable greater customer-centricity
 - In the age of mobile, social, Cloud, and big data
 - While driving efficiency and optimization into end-to-end processes



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Figure 1-17. Reinvent business operations with process transformation

By bringing together traditional BPM with newer capabilities like Operational Decision Management, analytics, and big data, organizations are able to reinvent business operations with process transformation.

Common characteristics of a process-centric pattern

- Operational improvement is the overall goal
 - Improving efficiency and effectiveness through a mix of both structured and ad hoc activities
- Process automation is required
 - Use strong system integration and straight-through processing
- You need built-in process visibility, analytics, and optimization
- Scaling process-driven operational improvement from project to program, with centralized governance and change control
- Using existing Business Process Manager technology and skills to build line-of-business applications

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Figure 1-18. Common characteristics of a process-centric pattern

It is important to understand the specific cases when business process management is part of a process-centric pattern. The key characteristics of a process-centric pattern are typically around the core areas of operational improvement, process automation, process visibility, analytics, and optimization. It also helps in driving the point of view of “start small, scale fast” as a methodology. It is evident with organizations that adopt the project to program to transformation approach. Clients are also using BPM and skills to build out line of business-focused applications. This expertise is driven through consulting engagements and services that are suited to process-centric patterns that are observed for a customer.

New capabilities require new business management skills (1 of 2)

- The goal of business process management is to go beyond modeling and improvement to true process thinking, monitoring, and management of the business
- These four business principles allow for a complete understanding of the business's process management requirements
 - Process thinking
 - Looking at a business as a suite of processes, not as activities
 - Developing process measurement and visibility mechanisms
 - Managing in real time, not in a delayed mode
 - Real-time management
 - Monitoring events and process performance, not just transactions
 - Simulation of alternatives to advance and accelerate processes
 - High-end analytical techniques result in easy-to-use real-time reporting

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Figure 1-19. New capabilities require new business management skills (1 of 2)

Business process management is more than technology. It must be based on the principles of **management**. BPM systems bring a massive number of capabilities, which allow a complete understanding of the business. This understanding eventually leads to a new way of thinking about business: proactive and real-time management versus reactive response to new business situations. BPM systems provide many capabilities to include measurement, instrumentation and reporting, simulation, optimization, and collaborative process definition that can provide a true business advantage.

New capabilities require new business management skills (2 of 2)

- Four business principles (continued):
- Collaboration, team building
 - Consensus building through information sharing and visibility
 - Prototyping and modeling of alternatives to determine improvement paths
- Empowerment
 - Coaching to improve business performance
 - Better (fact-based) decision making in real-time mode
 - Individual, team, and process performance measurement to identify bottlenecks

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Figure 1-20. New capabilities require new business management skills (2 of 2)

The four business principals include process thinking, real-time management, collaboration with team building, and empowerment. BPM systems provide many capabilities to include measurement, instrumentation, reporting, simulation, optimization, and collaborative process definition that can provide a true business advantage.

Typical business process management hierarchy

- A typical business process management hierarchy would include these steps:
 - Identify the business, program, and process goals
 - Identify the decisions and the decision makers
 - Identify supporting data and key performance indicators (KPIs)
 - Define scoreboards, reports, and service level agreements (SLAs)



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Figure 1-21. Typical business process management hierarchy

Find the decision makers and identify the decisions. With the decisions for change, the KPIs and other metrics that are required to decide become obvious. The reports and SLAs are a natural extension of the decisions and metrics.

1.4. Managing the business process management process

Managing the business process management process

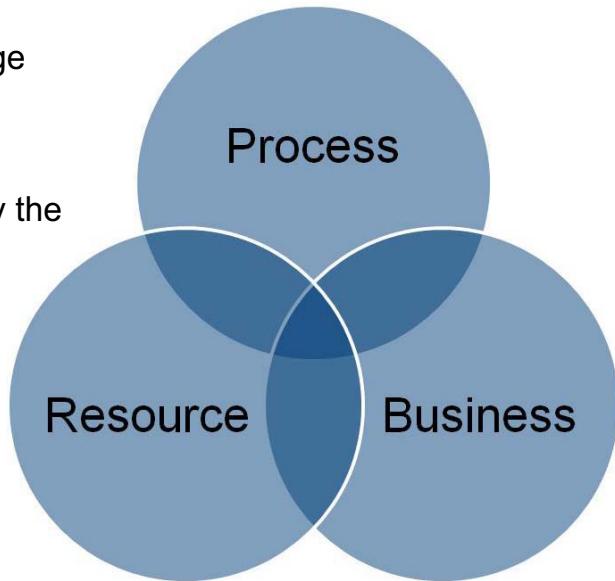
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Figure 1-22. Managing the business process management process

Managing the process: Putting the “M” in BPM

- How do you put the “M” (management) in BPM?
- The “M” requires **visibility**
 - You expose opportunity for change (business, process, resources)
- The “M” is in the **decisions**
 - Find the decision makers; identify the decisions
- Prepare for **change**
 - KPIs, SLAs, EPVs
 - Reports and scoreboards
 - Simulation and optimization



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Figure 1-23. Managing the process: Putting the “M” in BPM

Leaders and decision makers in the organization regularly usher change into the organization. From the board level down to the shift supervisors, all of these decisions in your organization effect change in one or more of the following categories:

- Resource changes (human resources and non-human resources)
- Process changes (add or remove an activity, change a decision gateway, raise or lower a threshold)
- Business changes (add or remove products and services, add or remove markets)

Recognizing that “managing” a process can be more astutely characterized as making changes in one or more of these three categories often makes it easier to identify those metrics and KPIs needed for decision making.

“It is worth noting that the metrics that are used to track process efficiency and effectiveness might differ significantly from the data that is used to maintain the state of the process.”

Typical entry points for business process management

Product development

- Reduce time to market of new products and services
- Streamline production procurement source

Go-to-market

- Dynamic pricing to respond to market conditions
- Use customer insights for target marketing

Order to cash

- Account opening process automation
- Automated order processing and fulfillment



Insurance

- Automated processing of claims
- Improved fraud detection



Banking

- Reduced loan processing times
- Financial risk and regulatory compliance



Healthcare

- Improved patient care
- Personalized fitness and nutrition



Government

- Customs and border control
- Improved public safety



Energy and utilities

- Power grid management
- Energy consumption management



Travel and transportation

- Online ticketing and reservations
- Travel and hotel pricing management



Retail

- Retail distribution supply chain automation
- Customer loyalty programs



Manufacturing

- Manufacturing production quality and control
- Reduced manufacturing production time

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Figure 1-24. Typical entry points for business process management

BPM is suited for almost every industry and organization. Typical entry points for business process management include:

- Product development
- Go-to-market
- Order to cash

1.5. IBM's cognitive business operations and process transformation platform

IBM's cognitive business operations and process transformation platform

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Figure 1-25. IBM's cognitive business operations and process transformation platform

Businesses can radically impact their organization by using cognitive operations. Operational weak spots represent a heavy drain on revenue and other resources, and are opportunities for applying the transformative potential of the new cognitive era.

Business operations and transformations with cognitive

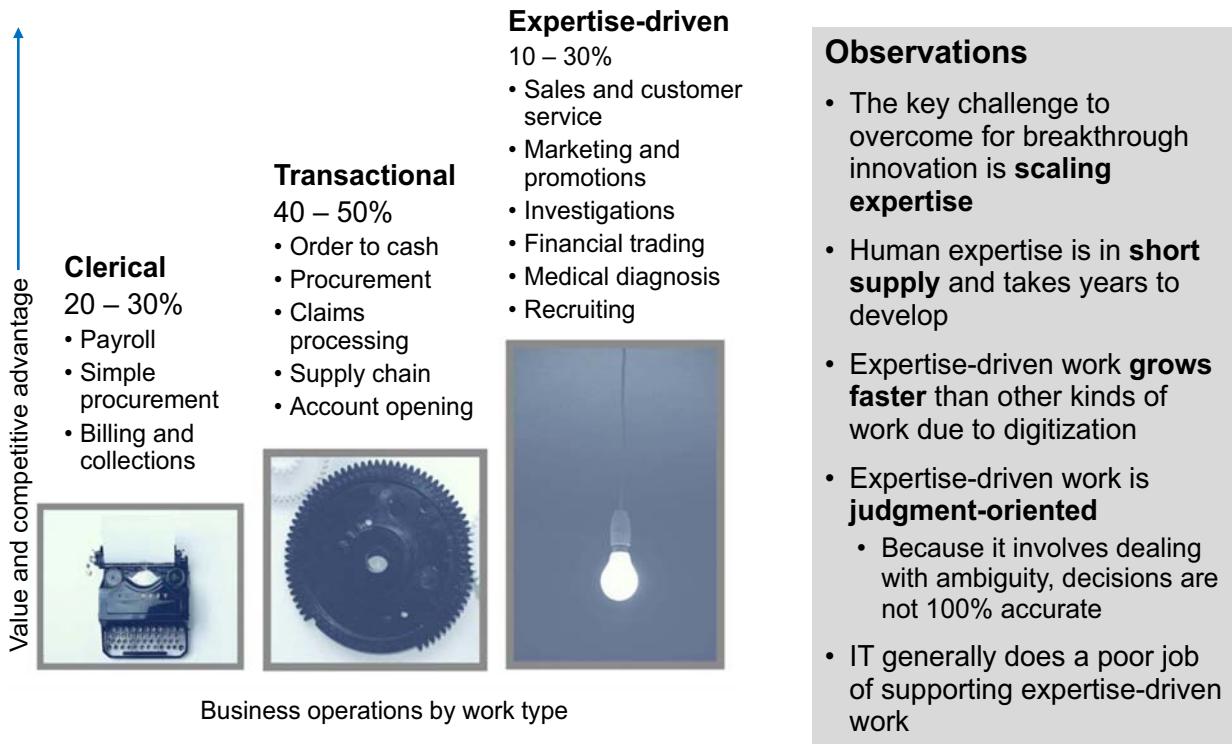
- Business operations are in the midst of massive transformation
- The convergence of technologies to include mobile, social, Cloud, predictive analytics, and the Internet of Things (IOT) helps organizations compete and disrupt by becoming digital businesses
- Bringing the cognitive component to business operations accelerates business transformation
- Operational weak spots represent a heavy drain on revenue and other resources, and are opportunities for applying the transformative potential of the new cognitive era
- Digital business is converging with digital intelligence
 - Cognitive capabilities are real and accessible, ushering in a new era of business and technology

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Figure 1-26. Business operations and transformations with cognitive

Business operations are made of three kinds of work



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Figure 1-27. Business operations are made of three kinds of work

Operational weak spots represent a heavy drain on revenue and other resources, and are opportunities for applying the transformative potential of the new cognitive era.

Cognitive business operations present an opportunity to strengthen or entirely eliminate those weak spots by enabling knowledge workers to focus on performing work that adds value to the business. Three key and interrelated dynamics power cognitive business operations:

- Rising customer expectations: Customers have high expectations for simplicity, speed, and value from every interaction. They are looking for robust self-service capabilities and expect employees in service-related functions to be empowered, efficient, and understanding of their particular needs.
- Increasing amounts of data: Eighty percent of the vast and growing amounts of data that is collected from social networks and connected devices is unstructured, and existing systems cannot interpret it.
- Shortage of skilled knowledge workers: The worldwide shortage of highly skilled knowledge workers is projected to reach 40 million by 2020. Organizations need to find a way to augment the knowledge of all their employees to make everyone, regardless of experience, perform at the level of the best and most experienced workers.

Why traditional application software does not work well for knowledge work

\$8 billion
in market value lost¹

2.5 Exabytes
of data is created per day

- Too much data in too many places and it is “dark data”
 - This data is 80% of the data that cannot be accessed
- Disconnected from business operations, leading to ineffective work and duplication of work
- Not enough expertise
 - What are the questions you should be asking?
 - Turnover, retirement, long training time

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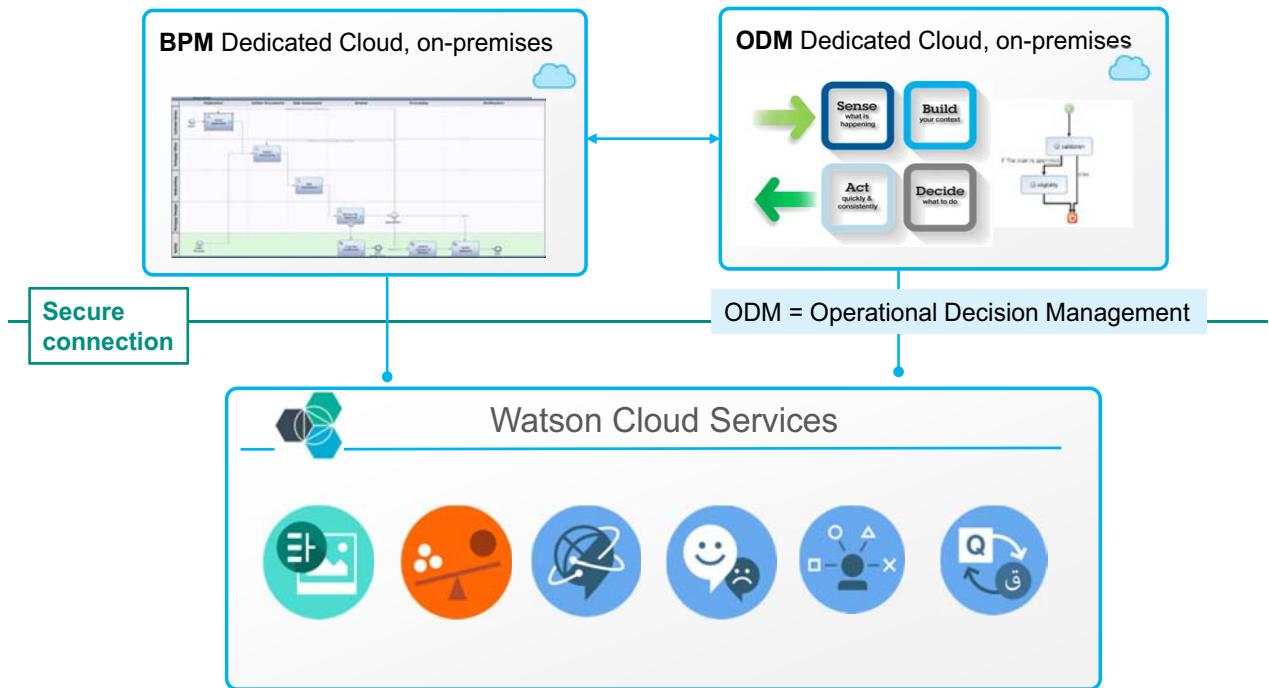
Figure 1-28. Why traditional application software does not work well for knowledge work

For more information, see Forbes Magazine on “The Massive Tax Of Satisfaction On Knowledge Work”:

<http://www.forbes.com/sites/valleyvoices/2016/02/03/the-massive-tax-of-satisfaction-on-knowledge-work/#494276811fe5>

Cognitive business operations

Infuse cognitive capabilities into your processes and decisions



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Figure 1-29. Cognitive business operations

Cognitive business operations are processes and decisions that can sense, respond, and learn. These processes and decisions can learn from structured and unstructured data to improve the quality and consistency of decisions, and the aptitude and effectiveness of knowledge workers to deliver exceptional customer experiences. Harnessing formerly undiscoverable insights, you can identify and resolve issues that your organization was previously unaware of, while shortening the path to decision and action. As a result, your business operations, processes, and decisions get smarter the more you use them.

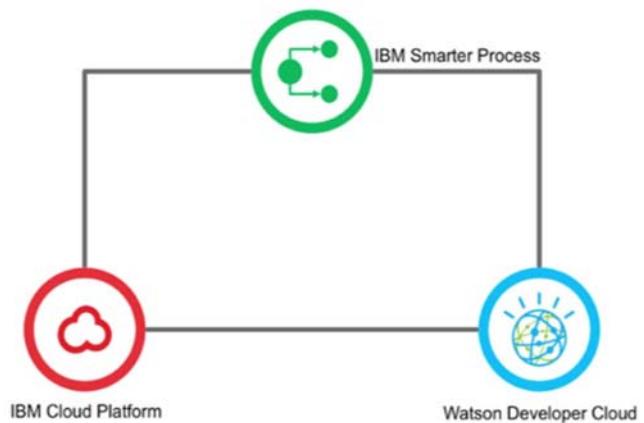
IBM Operational Decision Management (ODM) is a tool that businesses can use to realize much greater value from their business rules-based application and transform business expertise into a key competitive advantage.

Current Watson cognitive capabilities are as follows:

- Visual recognition
- Tradeoff analytics
- Dialog
- Tone analyzer
- Personality insights
- Language translation

Cognitive capabilities change the game

- How weather impacts service schedules for equipment in the field
- Using breaking news to automatically adjust financial trades
- Personality profiling from social media to improve hiring decisions, give better customer service
- Improving response to customer complaints
- Detecting and acting on life events in your customer base
- Helping firefighters work with data more easily while they are fighting a fire
- How you can save lives with better prediction and notification of flu outbreaks



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Figure 1-30. Cognitive capabilities change the game

Cognitive computing can also provide a competitive advantage by helping organizations to anticipate demand signals by combining internal and external data such as news, weather, social and events, extracting emerging patterns, and formulating evidence-based hypotheses. It allows brands to get a precise, holistic, micro-view to create detailed, actionable consumer recommendations.

Case study: A major international bank



- **Scenario**

- The bank's customer service department receives over 10,000 emails per month
- Each email is read and categorized manually and sent to the appropriate department for resolution
- A response might take up to 48 hours

- **Problem solved**

- Improve customer service: Automate complaint intake and routing
- Rerouting allows quicker response for high severity complaints and consolidation of messages on the same topic

- **Benefit to client**

- Reduce offshore full-time equivalent employees by 30 – 50%
- Savings of \$1 – 15 M per year + 30 – 50% improvement in response time

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Figure 1-31. Case study: A major international bank

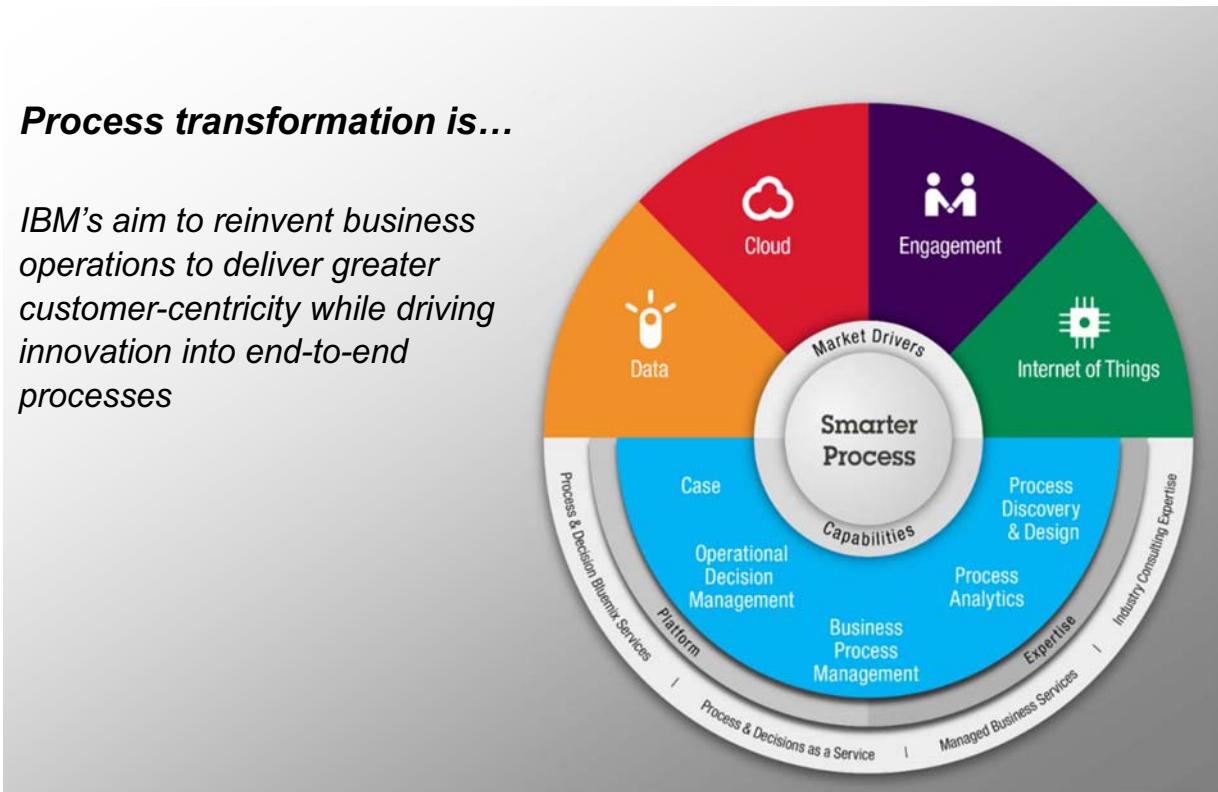
For the banking industry, cognitive computing and the potential to revolutionize the financial services industry are enormous.

Cognitive systems with the power to unleash a new era of innovation and growth are already helping institutions provide better customer service, uncover new insights, and improve the quality of timely decisions.

What is process transformation?

Process transformation is...

IBM's aim to reinvent business operations to deliver greater customer-centricity while driving innovation into end-to-end processes



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Figure 1-32. What is process transformation?

Business process transformation describes the act of radically changing the series of actions that are required to meet a specific business goal. It involves an examination of the steps that are required to achieve a specific goal to remove duplicate or unnecessary steps and automate as many actions as possible. Compliance regulations and changes in the economy often drive business process transformation. IBM's solution for reinventing business operations helps to deliver greater customer-centricity while driving innovation into end-to-end processes.

Process transformation accelerates customer engagement

Customers touch your business in many ways, with a wide set of expectations



	Customer expectation	Work style
“I need a quick insurance quotation for the new car”	Expect a full online quotation on the website in real time	Straight-through automation
“I need a custom policy that covers the boat-house and the 1910 vintage car”	Expect a quick approval on a custom policy	Guided workflow
“I need to reassess my financial situation and protect my wealth”	Expect thorough and personalized research	Knowledge and judgment work

Customer engagement comes from *consistently delighting a customer across multiple interactions and channels including mobile*

Thrive across a wide spectrum of work

A customer who is fully engaged represents an average 23% premium in terms of share of wallet, profitability, revenue, and relationship growth compared with the average customer.

~Why Customer Engagement Matters So Much Now, Gallup Business Journal, July 2016

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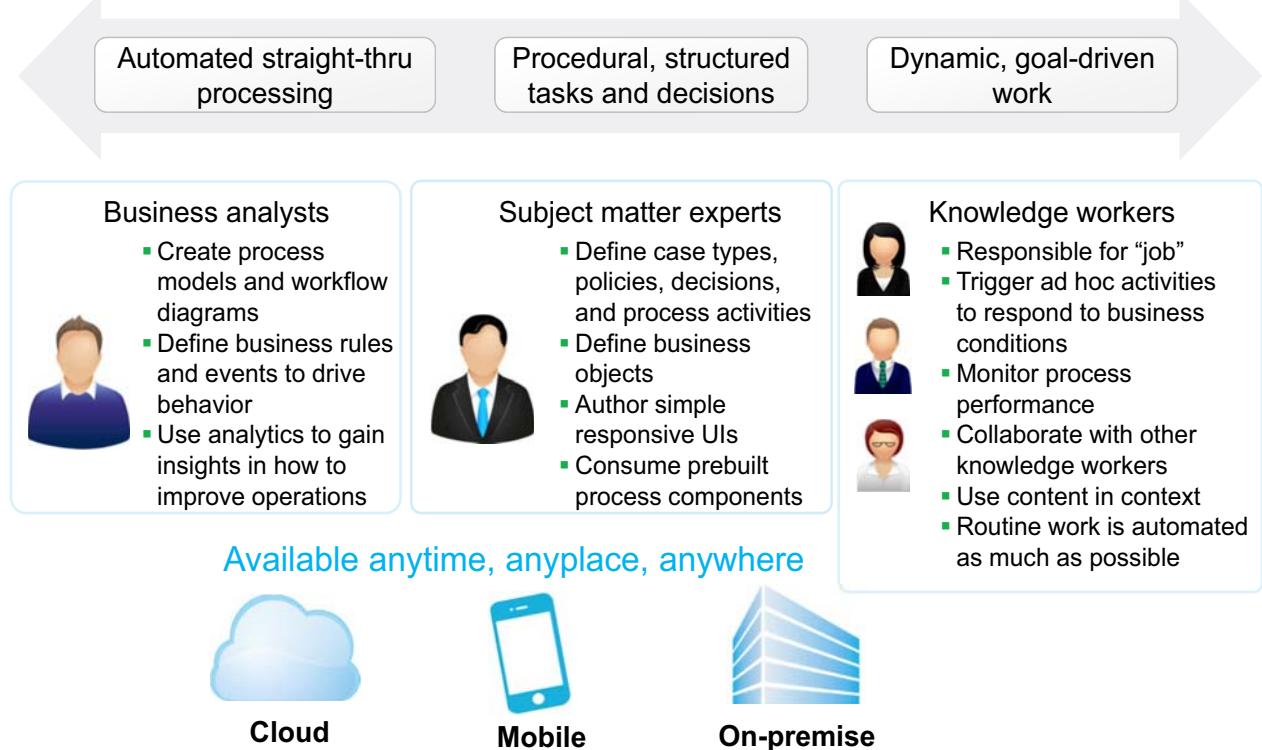
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Figure 1-33. Process transformation accelerates customer engagement

Today, customers touch business in many ways, and they have a wide set of expectations each time they interact with businesses. Sometimes it is a quick request that they expect to be fulfilled in real time, like requesting an insurance quote while on a website. At the other extreme, customers need a trusted advisor to provide thorough research and counsel on the best way forward. For example, customers move into a new age bracket and suddenly need to reassess their entire financial situation. Mobile becomes an important part of this strategy, so customers have a seamless experience as they interact with you across these work styles.

To fulfill these expectations, organizations need to excel at a wide variety of work styles as a business. From personalized straight-through processing for those real-time actions, to a guided workflow to handle custom requests, users must work more effectively than ever before. Then, organizations can create true customer engagement by consistently delighting the customer across all interactions.

Process transformation supports the full spectrum of work patterns



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Figure 1-34. Process transformation supports the full spectrum of work patterns

Digitization is rapidly changing the nature of how individuals and organizations interact: the result is an individual-centered economy. This paradigm shift to individual-centered economy is driving customers to expect more from a company. Customers are not just demanding tailored products and services; they are also demanding better customer service.

If knowledge workers are to lead the process change that results in enhanced customer centricity, organizations need to prioritize investments on tools that enable them to be more effective in their jobs. Some examples are goal-driven process management, case management analytics, decision management, mobile processes, and collaboration.

The tools should be able to support the high-value, semi-structured work patterns between standardized processes and social interactions. One goal is to be simple, intuitive. If the process has events, allow users to fully keep them, dynamically correlate them, and bring in advanced analytics.

Process transformation supports the full spectrum of work types, from automated straight-through process to procedural task-based work to ad hoc case management.

Unit summary

- Describe business process management (BPM) and its benefits to an organization
- Describe the process transformation methodology
- Identify common characteristics of a process-centric pattern
- Describe process transformation roles and work streams

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Figure 1-35. Unit summary

Review questions

- 
1. True or False: Major hallmarks of BPM projects are as follows:
 - Applications for complex processes for humans and systems
 - Orchestration across multiple departments and systems
 - Real-time performance management and visibility
 - Keep pace with changing business requirements
 - Collaborate effectively between business and IT

 2. Which of the following options is **not** a process transformation characteristic?
 - A. Automate workflow and decision making
 - B. Provide secure business-to-business connectivity
 - C. Reduce errors and improve consistency
 - D. Real-time visibility and process control

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Figure 1-36. Review questions

Write your answers here:

1.

2.

Review answers



1. True or False: Major hallmarks of BPM projects are as follows:

- Applications for complex processes for humans and systems
- Orchestration across multiple departments and systems
- Real-time performance management and visibility
- Keep pace with changing business requirements
- Collaborate effectively between business and IT

The answer is True.

2. Which of the following options is *not* a process transformation characteristic?

- A. Automate workflow and decision making
- B. Provide secure business-to-business connectivity
- C. Reduce errors and improve consistency
- D. Real-time visibility and process control

The answer is B.

Unit 2. Using the agile process transformation methodology

Estimated time

02:00

Overview

This unit covers the Agile principles and the Playback methodology for business process transformation.

Unit objectives

- Create a macro design with design thinking
- Describe Agile principles and the Playback methodology

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Figure 2-1. Unit objectives

Topics

- Macro design with Design Thinking
- Agile principles and the Playback methodology
- BPM methodology: Project planning, timelines, and teams

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Figure 2-2. Topics

2.1. Macro design with Design Thinking

Macro design with Design Thinking

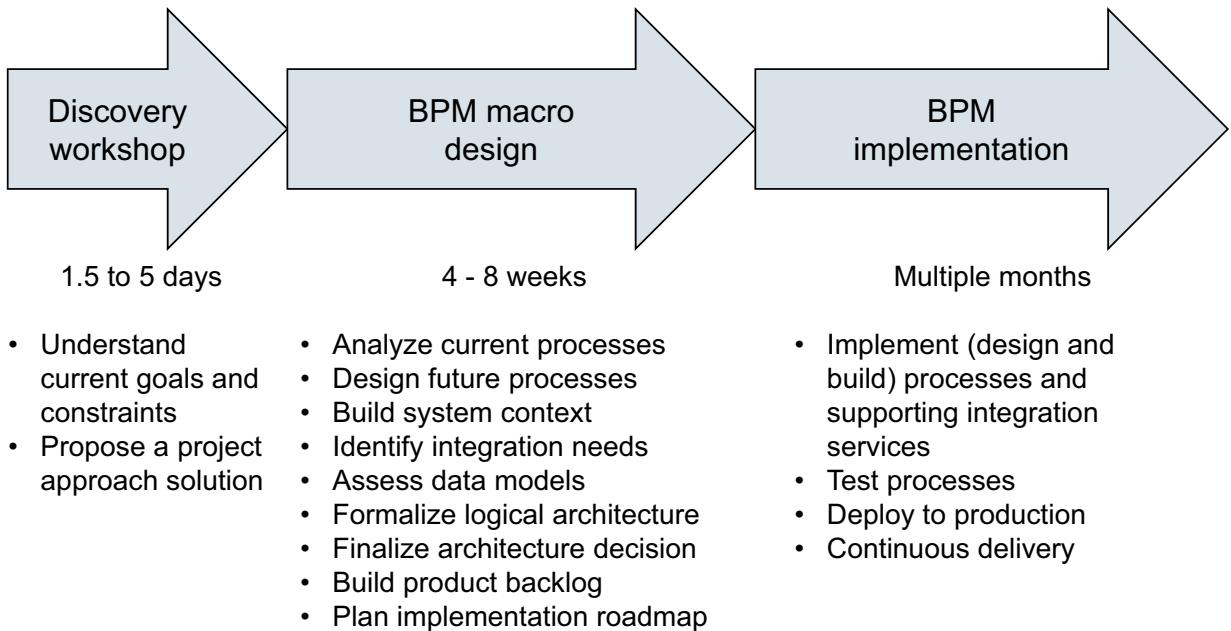
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Figure 2-3. Macro design with Design Thinking

Macro design within BPM implementation

BPM implementation approach



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Figure 2-4. Macro design within BPM implementation

The BPM implementation approach consists of three major phases: discovery workshop, BPM macro design, and BPM implementation.

Macro design approach

- The macro design is the inception phase of the project
- The macro design phase aims to understand the scope and goals of the project in more depth and concludes with Playback 0
- The team is formed and the environment installed
- This phase should help the BPM users answer the following questions:
 - What is the detailed scope for the project?
 - What are the budgetary costs?
 - What are the expected benefits?
 - What are the main risks?
 - What is the product backlog?
 - What are the architectural challenges and decisions?
 - What is the high-level design, so developers are pointed in the right direction?

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Figure 2-5. Macro design approach

This slide shows typical questions that BPM macro design answers.

Project objectives for a macro design

Goal:

The intention of the *<Project Name>* macro design project is to create a macro design for the following processes: *<names of processes, or business area>*.

Scope:

- Design “to-be” processes, including:
 - Screens (coaches)
 - Major data that is required for each screen
 - Source of the data for each screen
 - Key performance indicators (KPI)
 - Data capture points in the process for the KPIs
- Document requirements, including:
 - User stories for *<processes>*
 - Identification of system interfaces to and from *<CUSTOMER>* systems
 - Method to be used for integration
 - Definition of business dashboards for process monitoring and improvements
- Define a data model for the processes

Deliverable:

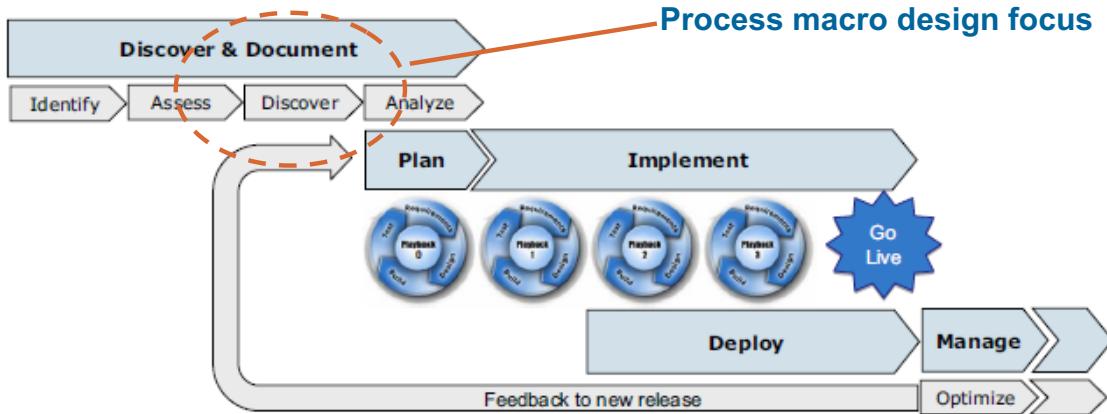
- Design document

Figure 2-6. Project objectives for a macro design

This slide shows the typical BPM project objectives: goals, scope, and deliverables.



BPM project lifecycle



- **Iterative** method for project delivery
- Each iteration ends in a **Playback** to gain consensus, sign off, and feedback
- Process and decision **discovery, analysis, and design in IBM Blueworks Live**
- Process and decision **implementation in Process Designer, Rule Designer, and Integration Designer**
- **Continuous improvement approach** feeds new enhancements and defects into each iteration
- **Feedback** from metrics in running solution that is **used to improve** solution in following releases

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Figure 2-7. BPM project lifecycle

This slide shows the composition of the typical BPM project lifecycle.

Process design: Objectives

- ***Design* of To-Be processes, process flow activities, participants, inputs, and outputs related to:**
 - <process or business areas>
 - ...
- ***Requirements that are* captured as User Stories:**
 - Process activities
 - Coaches (screens) – including data requirements for each coach
 - Process monitoring
- ***Integration Points* identified, including decision points:**
 - Process activities
 - Systems
 - Method of integration
 - Data model

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Figure 2-8. Process design: Objectives

This slide shows the typical BPM Process Design objectives.

BPM roles

Project Roles	Responsibility
Solution Architect	Technical lead for the solution architecture and design. Need to able to work through Process, Integration, and Decisions.
Process (BPM) Architect	Responsible for the design of the process application. Needs to know Process and Integrations.
Decision (Business Rules) Architect	Responsible for the design of the decisions.
*Integration (ID) Architect	Responsible for the design of the integration components.
*Process Analyst (BPMA)	Responsible for the discovery and analysis of the overall solution.
*Cloud Architect	Responsible for the cloud infrastructure. Validate that the technical designs are appropriate for cloud environment.
Program Manager	BPM skilled resource who with project manager to manage the overall project risks and resources. Prepares release plan and estimates.

- Project SMEs and BPM SMEs collaborate to design the overall solution

* As required

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Figure 2-9. BPM roles

This slide shows are the roles that are involved in a typical BPM project. These roles can be supplemented by using IBM BPM consulting experts.

Line of business roles

Project roles	Responsibility
Sponsor	Business lead for solution. Provides business direction, requirements, constraints, and final design approval.
Business SMEs (users and managers)	Main source of business expertise and requirements. Provide input to and validation of design.
Solution architect	Technical lead for the application implementation.
Application architect	Main source of input for the design of the current applications.
*Application developers	Secondary source of input for the current applications.
*Application administrator	Secondary source of input for the infrastructure of the process application.
*Data architect	Main source of input for the current information model.
Database administrator	Main source of input for the current and future database constraints, requirements, and design.
Infrastructure architect	Technical lead for the infrastructure design (hardware, network). Validate that the technical designs are appropriate for customer's long-term environment.
Project manager	Works with program manager to manage the overall project risks and resources. Manages day-to-day project issues.

* As required

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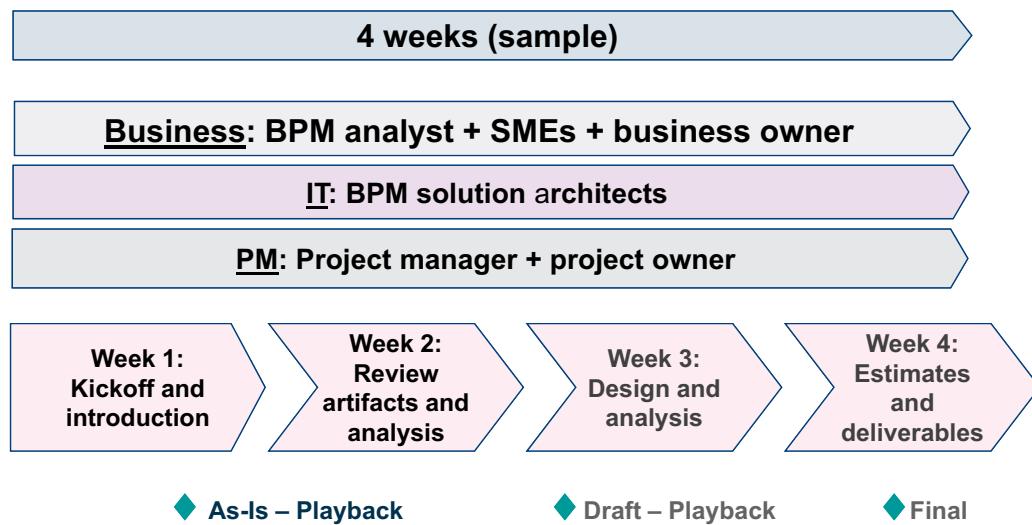
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Figure 2-10. Line of business roles

This slide shows typical roles for the line of business. These roles must come from the business and are responsible/accountable for the tasks that are assigned to their role in the project.

IBM Training 

Macro design lifecycle



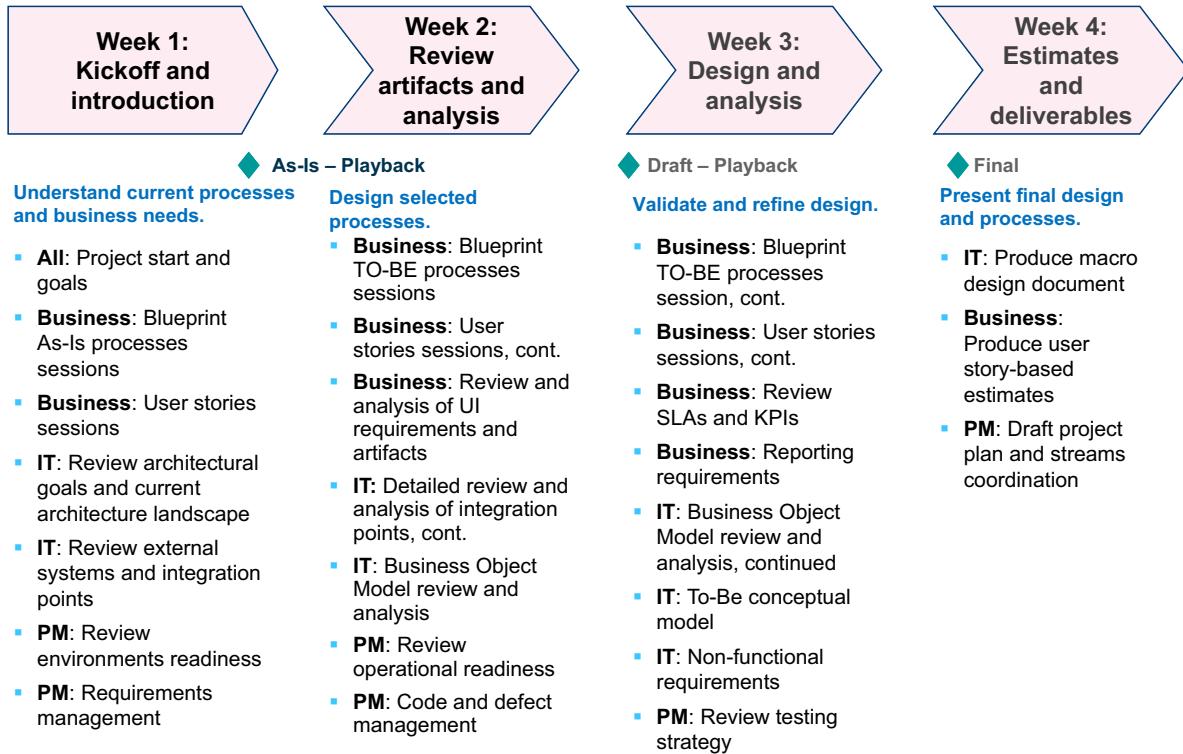
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Figure 2-11. Macro design lifecycle

This slide shows a typical 4-week BPM macro design lifecycle with the themes of each week.

Macro design weekly details



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Figure 2-12. Macro design weekly details

This slide shows the details for the typical BPM Macro Design Lifecycle during the different weeks.

Macro design deliverables

Architectural decisions

- Topology
- System of record
- Components view
- Technology choices

Macro design documents

- System context
- Interface catalog
- Business entity model
- Coach inventory – if possible, wireframe
- Reference data access

Product backlog

- User stories
- Iteration 1 plan
- Release plan
- As-Is processes in BlueworksLive or other process modeling tool
- To-Be processes in Blueworks Live or other process modeling tool
- Budgetary estimation
- Top 10 risks

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Figure 2-13. Macro design deliverables

This slide shows the details for the typical BPM macro design lifecycle during the different weeks.

IBM Design Thinking (1 of 2)

- IBM has a company-wide framework that is called IBM Design Thinking, which is optimized for the fast moving world of cloud, mobile, analytics, social, and more
- It brings together specialists in business, technical, and design
 - These specialists collaborate to understand, explore, prototype, and evaluate with a razor focus on the problem spaces to address and achieving market outcomes
- IBM Design Thinking focuses on three core practices to help solve a number of well-known issues during product delivery: hills, sponsor users, and Playbacks

Hills	Sponsor users	Playbacks
 Invest for market outcomes	 Envision for user experience	 Collaborate, align, engage
Hills focus your project on significant problems and outcomes for users, not just a list of feature requests	Sponsor users help you design experiences for real target users, rather than imagined needs	Playbacks align your team, stakeholders, and clients around the user value you deliver, rather than project line items

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Figure 2-14. IBM Design Thinking (1 of 2)

This slide represents an overview of the IBM Design Thinking and its three core practices.

IBM Design Thinking (2 of 2)

- Design Thinking is about making the user the center of your BPM Solution
- An approach for leaders to guide their teams to achieve market outcomes
- An approach for project teams (business, design, and technology) to develop exemplary solutions
- An approach to transform companies into becoming client-centered, aligned with success measurement, and constant solution improvement



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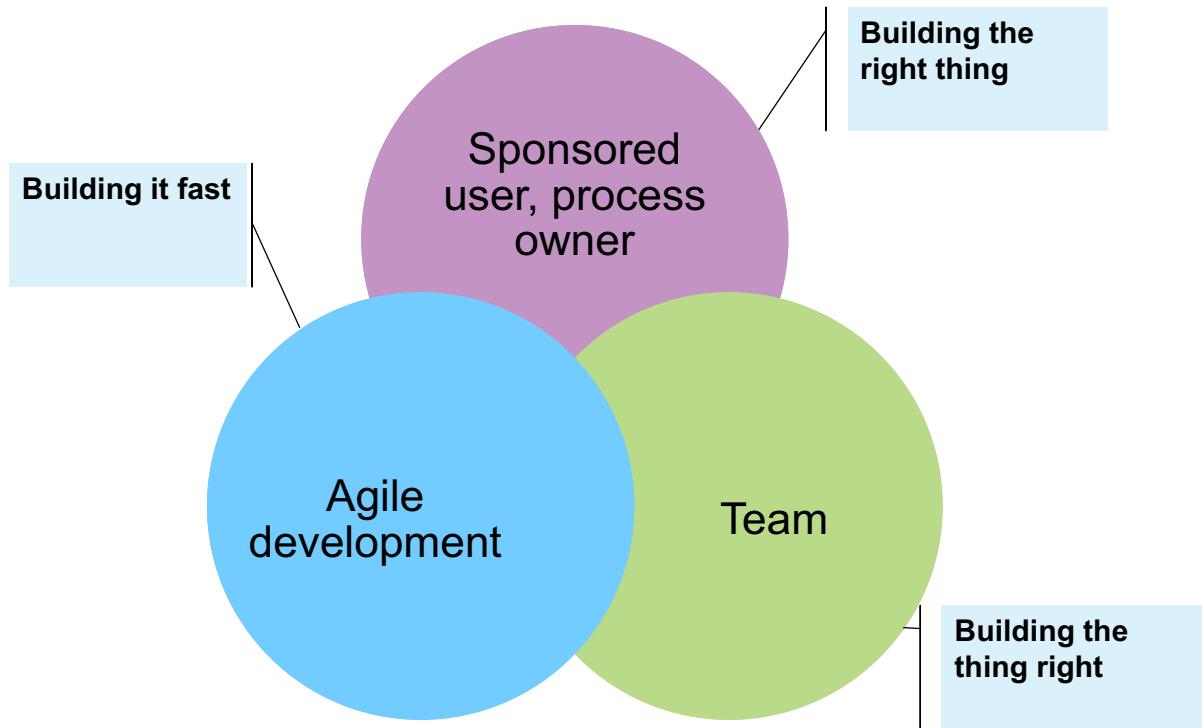
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Figure 2-15. IBM Design Thinking (2 of 2)

This slide highlights that the user is the focus of the IBM Design Thinking and defines its approach.



Macro design with Design Thinking approach



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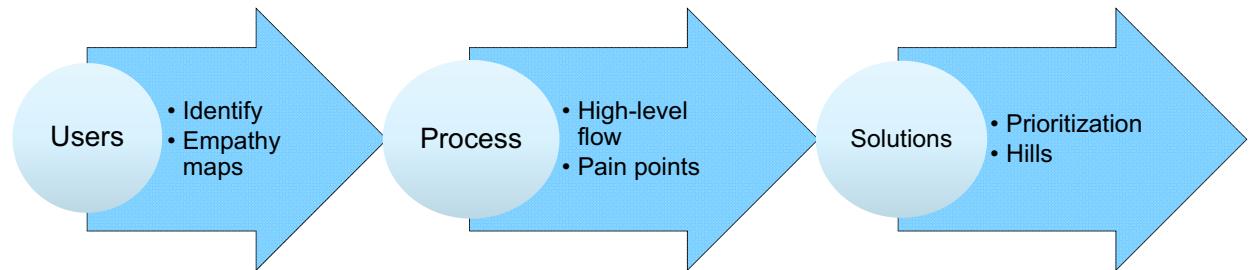
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Figure 2-16. Macro design with Design Thinking approach

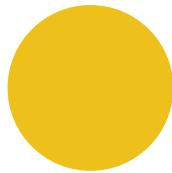
This slide represents an overview of the BPM macro design association with IBM Design Thinking.



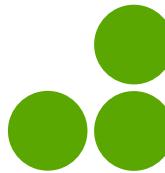
Roadmap: Macro design activities



Design Thinking focus while in macro design activities



A focus on user outcomes



Multidisciplinary teams



Restless reinvention

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Figure 2-17. Roadmap: Macro design activities

This slide shows an overview of the BPM macro design roadmap and highlights the focus on the IBM Design Thinking principles while in the macro design BPM project phase.

2.2. Agile principles and the Playback methodology

Agile principles and the Playback methodology

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Figure 2-18. Agile principles and the Playback methodology

Two major software development methodologies

Most commonly used software development methodologies for project development:

- Waterfall = Sequential (non-iterative) design process
- Agile = Iterative process (in iterations with Playbacks)

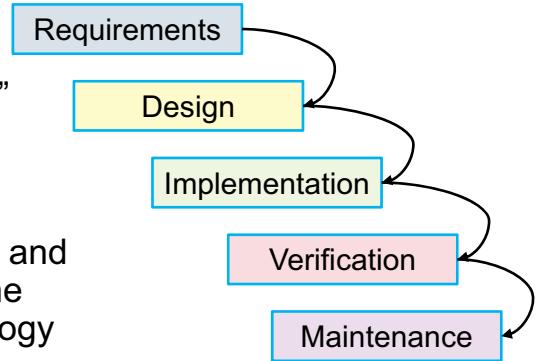
Figure 2-19. Two major software development methodologies

The two major software development methodologies are waterfall and agile.

Waterfall model

Sequential model with little to no iteration between phases

- Siloed teams based on discipline and components
- Large batch sizes
- Minimal customer interaction
- Counterproductive measures of “success”
 - Test cases are completed, defects found, pages of user-documentation produced
 - Leads to a “you versus them” mentality
- Popular in government, defense projects, and shrink-wrap software are often used as the archetype of the worst possible methodology
- Pros:
 - Yields more predictable cost
 - Simple and disciplined approach
 - Emphasis on documentation promotes independence from particular teams members
- Cons:
 - Practically impossible for one phase to be perfected after moving on to the next
 - Ignores requirement changes
 - Ignores implementation difficulties that warrant design changes



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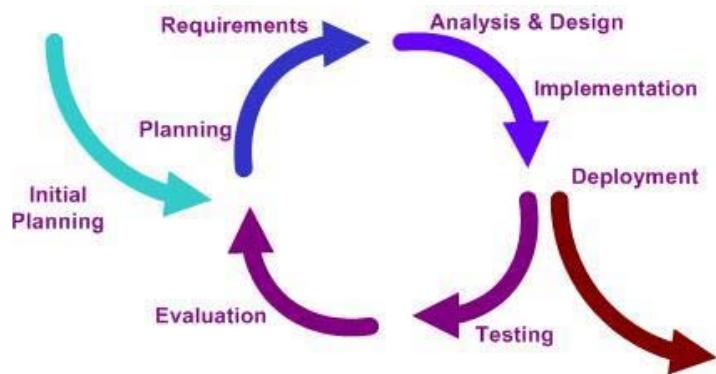
Figure 2-20. Waterfall model

This slide shows the major characteristics of the waterfall software development methodology.

You might hear an argument against agile development methods, and thus be partly in favor of the waterfall model. In agile methods, team members mentally store project knowledge. Should team members leave, this knowledge is lost, and substantial loss of project knowledge might be difficult for a project to recover.

Iterative model

1. Initialization step: Start small and simple
 2. Iteration step: Add new functional capabilities and design updates
 3. Project Control List: Learn from previous development cycle and system use
- **Pros:**
 - Each step can be perfected (next cycles)
 - Welcomes requirement changes
 - Accommodates implementation difficulties that warrant design changes
 - **Cons:**
 - Usually requires seasoned developers



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Figure 2-21. Iterative model

This slide shows the major characteristics of the iterative (agile) software development methodology.

Pros:

- Inverse of waterfall cons
- Close to how software engineers perform their work

Cons:

- Stakeholders must have the skills of a seasoned software developer to participate (for example, in XP)

Software development methodology comparison

Waterfall methodology	Concept	Agile methodology
Sequential (non-iterative) design process	Phases	Iterative process (in iterations with Playbacks)
Extensive	Documentation	Barely good enough
Significant design upfront	Philosophy	Release early, release often
Heavy in the beginning	Owners involvement	Continuous
Rigidity	Focus	Agility

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Figure 2-22. Software development methodology comparison

This table shows a comparison of the two major software development methodologies.

Agile principles

- The highest priority is to satisfy the customer through **early and continuous delivery** of valuable software
 - Welcome requirement changes
- **Deliver executable software frequently**
 - Build projects around **motivated** individuals
 - Give them the environment and support they need, and **trust** them to get the job done
- **Working** software is the primary **measure of progress**
 - Business people and developers must **work together daily** throughout the project
- Agile processes promote sustainable development
 - The sponsors, developers, and users should be **able to maintain a constant pace** indefinitely
 - Continuous attention to **technical excellence** and good design enhances agility
 - Simplicity, the art of maximizing the amount of work that is not done, is essential
- The best architectures, requirements, and designs emerge from self-organizing teams
 - At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior

Source: <http://www.agilemanifesto.org/principles.html>

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Figure 2-23. Agile principles

These sentences come from the agile manifesto that defines agile principles.

Playback

- A Playback (PB) is a focused demonstration of a partially implemented process application, which is delivered to the business and IT communities for discussion, consensus-building and approval
 - Iteration (I) plan defines the set of user stories to be demonstrable
 - The business users should run the Playback
 - Each Playback provides validation that the process or solution is headed in the correct direction
 - Fosters business ownership, expectations, and sponsorship of the solution
 - Create questions and suggestions that feed into subsequent Playbacks
- With each milestone reached and each Playback exercise that is completed, the business participants play a stronger role in the development
- They become more familiar with the solution and contribute to the outcome

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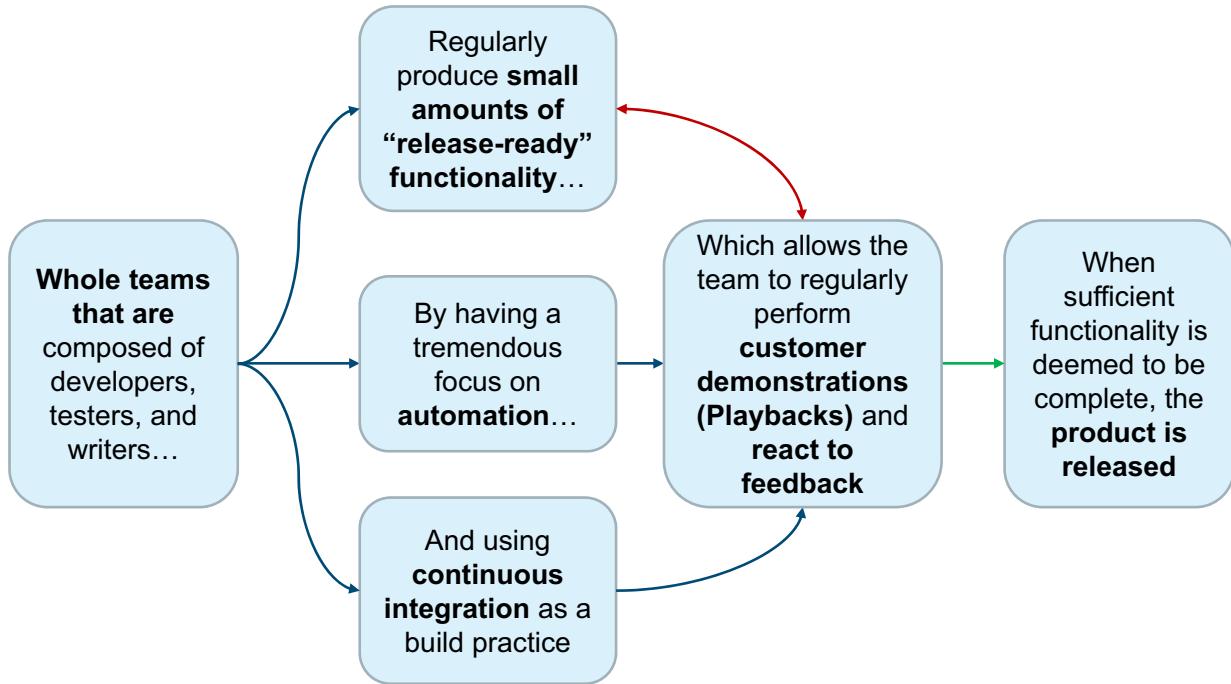
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Figure 2-24. Playback

This slide defines the Playback concept that the agile methodology uses.



Agile at a high level



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Figure 2-25. Agile at a high level

This slide defines the agile methodology lifecycle at the high level.

Agile with business process management

- Developing a BPM solution fits agile principles:
 - Assess business improvement ideas and requests
 - Focus on delivering business values by using a modern middleware platform that is centered around IBM Business Process Manager products
 - Model the process with business users, subject matter experts (SMEs), and process owners
 - Use the right tools, right notations, and right techniques
 - Integration and process automation are part of the business process implementation, playing a role from the start
 - Define a product roadmap plan by iteration, which is defined, and assign user stories
 - Continuous delivery and continuous feedbacks through Playbacks

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Figure 2-26. Agile with business process management

This slide shows how a BPM solution fits agile principles.

- Using the right tools, right notations and right techniques, and by using them in the right way, are keys to a successful first project.
- Integration and process automation are part of the business process implementation, playing a role from the start. This role becomes more prominent as processes mature.

2.3. BPM methodology: Project planning, timelines, and teams

BPM methodology: Project planning, timelines, and teams

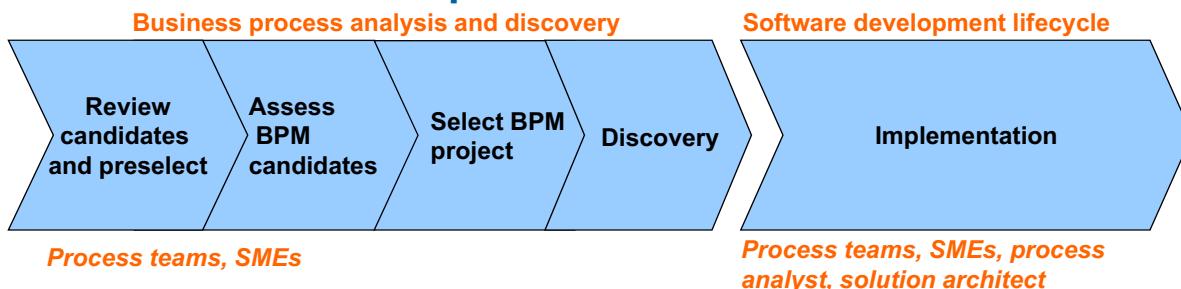
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Figure 2-27. BPM methodology: Project planning, timelines, and teams



BPM from idea to implementation



- Build the Business Process Design Team, which is composed of a business process analyst, business owners, and subject matter experts (SMEs)
- Review the existing business process improvement opportunities to select the best for BPM fit and potential value
- Document business use case and justification with expected return on investment
- Create a high level As-Is process diagram (Blueworks Live or other modeling tool): milestones, activities, happy path, pain points, expected measures of success

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Figure 2-28. BPM from idea to implementation

This slide shows the typical BPM project phases and activities that BPM analysts work on, with the goal of identifying the product backlog for the BPM development team.

Macro design details:

- **2 – 3 days per process**
 - Low-level analysis (details)
 - As-Is process diagram
 - Pain points
- **1 – 4 weeks per process**
 - Build To-Be process
 - Process diagram
 - User stories
 - Wireframe
 - Estimation and planning
- **1 week per process**

- User story estimate
- Prioritization
- Prepare for Playback (PB) Zero
- Conduct Playback Zero in IBM Business Process Manager

BPM from idea to implementation: Macro design

- Initiate macro design phase of the BPM project
- Identify product backlog for the BPM solution as a result of the process discovery
- Product backlog = use cases + user stories + non-functional requirements (NFR)
- BPM Product Implementation backlog is decomposed in release backlogs

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Figure 2-29. BPM from idea to implementation: Macro design

The macro design phase sets the stage for the rest of the project. Even in the early stages of the project, it is important to establish the product backlog and add to it throughout the development phases. Throughout the many iterations of the project, the product backlog should always be kept up-to-date.

Product backlog (1 of 2)

- Each release includes an iteration plan
- User stories, use cases, and project tasks are assigned to the iteration as work items to build an iteration plan
- Carefully manage the product backlog release plan, and prepare for continuous improvement
- Releases can be complete as soon as enough business value can be implemented



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Figure 2-30. Product backlog (1 of 2)

The BPM product backlog is broken into iterations for the development efforts in several releases and iterations.

Concepts

- Product backlog = use cases + user stories + NFR (non-functional requirements).
- Is decomposed in release backlogs.
- Each release includes iteration plan.
- User stories, use cases, and project tasks are assigned to iteration as work items to build an iteration plan.
- Release can be complete as soon as enough business value can be executed.
- Releases are discreet units of functionality that are deliverable within a 60 – 90-day window.
- Business processes can use “swivel chair” on first release.
- Use existing tool for tracking and planning of backlog, sprint, iteration plan, work item list, and workload estimated.

Product backlog (2 of 2)

- Process owner, subject matter experts (SMEs), and technical resources contribute to product backlog and release planning
- Product backlog contains features that are assigned to separate backlog teams
- Team backlogs contain user stories and other team work items
- Examples of user stories:
 - As a relationship manager, I need to input key data so a credit check can be run
 - As a system, I need an integration with the credit score system so I can pass the information and receive the results
- Non-functional requirements might be in either backlog

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Figure 2-31. Product backlog (2 of 2)

This slide shows examples of the user stories that are the major component of the BPM product backlog.

Continuous delivery for the BPM solution



- BPM solution is delivered continuously throughout the project lifecycle
- As soon as the business process application scope is defined, it is broken into releases for each project work stream
- Define scope for each Playback
- Use Playback scope for formal demonstration of the working solution
 - Subject matter expert or process owner drives the Playback
 - Demonstrates process flow, user interface, integration, happy path, and exception paths
 - Capabilities are planned and built incrementally
 - Each iteration has a specific goal clearly agreed upon

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Figure 2-32. Continuous delivery for the BPM solution

This slide highlights the continuous delivery concept of the BPM project.

Concepts

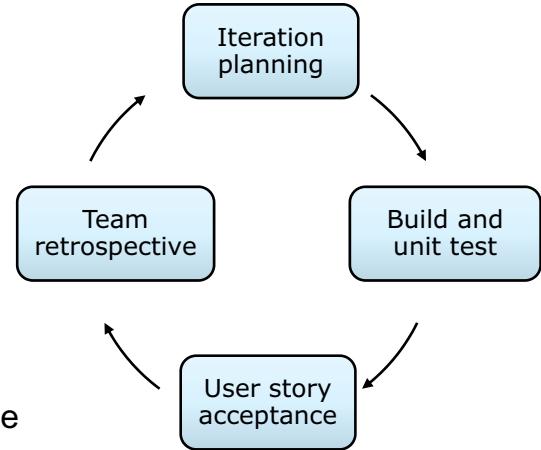
- From process inventory, select and define the business process application scope.
- Playbacks are the formal demonstration of the working solution.
 - A subject matter expert (SME) or the process owner drives the Playback, not the developers.
 - Demonstrates process flow, user interface, integration, happy, and exception paths.
 - Capabilities are planned and built incrementally.
 - Each iteration has a specific goal clearly agreed upon.
- Bigger projects can have multiple process applications that are developed in parallel.
- BPM projects consist of several work streams:
 - Architecture work stream
 - BPM work stream
 - Integration work stream

- Project management
- Continuous deployment to staging and production.
- Transition integrates: functional test, UAT, performance tests, non-regression tests.



Project planning:

- Product backlog is broken into team backlog
- Each team backlog is working on the defined iteration within a release lifecycle:
 - Iteration planning
 - Build and unit test
 - User story acceptance by SMEs
 - Team retrospective on release deliverable



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Figure 2-33. Medium-sized project timeline example

This slide is an example of how the project timeline is broken into releases with the lifecycle of the development work within each project solution release.

Release planning team consists of:

- Product owner
- SMEs
- Lead architect
- IBM Business Process Manager, IBM Operational Decision Manager, other architects
- Project manager

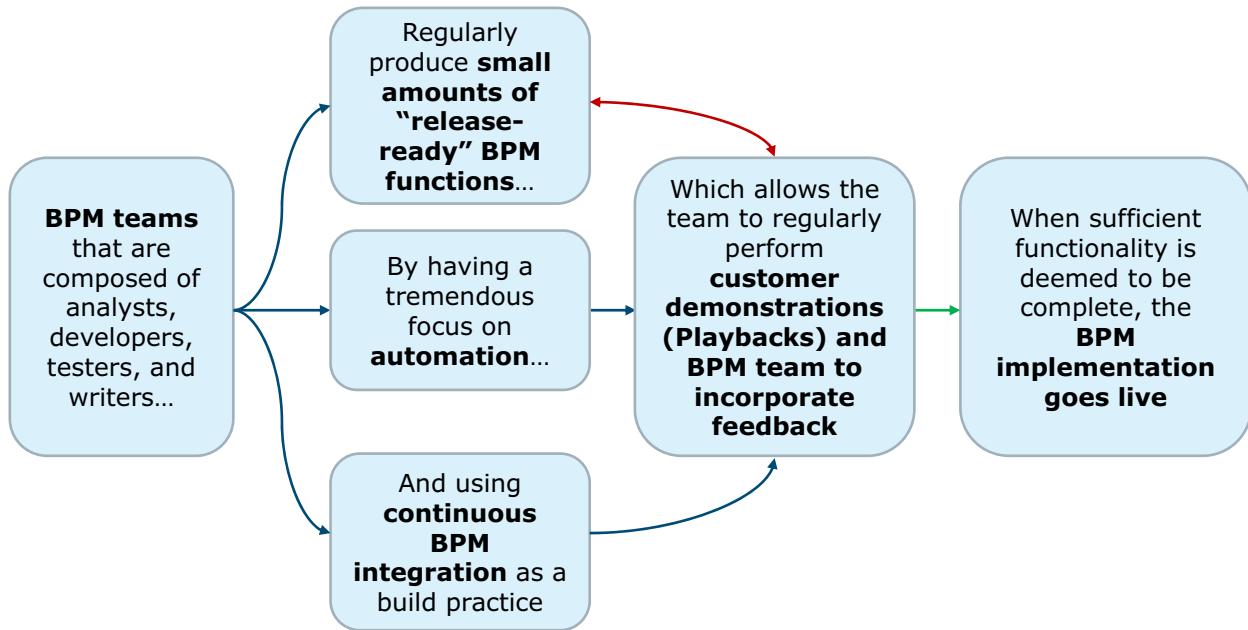
Iteration planning:

- Team architect (IBM Business Process Manager, IBM Operational Decision Manager)
- Team members
- Project manager
- SMEs

When a feature crosses team boundaries, a feature team forms. They conduct feature planning between release planning and iteration planning.



BPM Project with agile principles



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Figure 2-34. BPM Project with agile principles

This slide is similar to the high-level agile principles earlier in this unit. This slide outlines how the agile principles apply to the entire BPM project lifecycle.

Unit summary

- Create a macro design with design thinking
- Describe Agile principles and the Playback methodology

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Figure 2-35. Unit summary

Review questions



1. Which of the following options is ***not*** a macro design deliverable?
 - A. User stories
 - B. Iteration 1 plan
 - C. System integration specifications
 - D. To-Be processes in Blueworks Live or other process modeling tool
2. True or False: IBM Design Thinking focuses on three core practices: hills, sponsor users, and Playbacks.
3. True or False: One of the agile principles is to satisfy the customer only at the end of the entire solution delivery.
4. Which of these items is ***not*** true about Playbacks?
 - A. The iteration plan defines the set of demonstrable user stories.
 - B. The business users might be called upon to lead the Playback.
 - C. Each Playback provides validation that the process or solution is headed in the correct direction.
 - D. Playbacks foster business ownership, expectations, and sponsorship of the solution.

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Figure 2-36. Review questions

Write your answers here:

- 1.
- 2.
- 3.
- 4.

Review answers

1. Which of the following options is ***not*** a macro design deliverable?
 - A. User stories
 - B. Iteration 1 plan
 - C. System integration specifications
 - D. To-Be processes in Blueworks Live or other process modeling tool

The answer is C.
2. True or False: IBM Design Thinking focuses on three core practices: hills, sponsor users, and Playbacks.

The answer is True.
3. True or False: One of the agile principles is to satisfy the customer only at the end of the entire solution delivery.

The answer is False. The highest priority of the agile methodology is to satisfy the customer through early and continuous delivery of working software.
4. Which of these items is ***not*** true about Playbacks?
 - A. The iteration plan defines the set of demonstrable user stories.
 - B. The business users might be called upon to lead the Playback.
 - C. Each Playback provides validation that the process or solution is headed in the correct direction.
 - D. Playbacks foster business ownership, expectations, and sponsorship of the solution.

The answer is B. The business users do not run the Playback.

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Figure 2-37. Review answers



Exercise 1: BPM assessment

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Figure 2-38. Exercise 1: BPM assessment

Exercise objectives

- Describe BPM and how it can affect an organization
- Describe and define BPM benefits

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Figure 2-39. Exercise objectives

Unit 3. Introduction to Blueworks Live

Estimated time

02:00

Overview

This unit provides an introduction to Blueworks Live and Business Process Model and Notation (BPMN).

Unit objectives

- Apply change management tools to an organization's processes
- Describe Blueworks Live and Business Process Model and Notation (BPMN)
- Generate and refine a detailed process diagram by using Blueworks Live
- Advocate good practices for modeling in Blueworks Live
- Use process documentation in Blueworks Live

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Figure 3-1. Unit objectives

Topics

- Change management
- Change management tools
- Business Process Model and Notation (BPMN) overview
- IBM Blueworks Live
- Good practices for modeling in Blueworks Live

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Figure 3-2. Topics

3.1. Change management

Change management

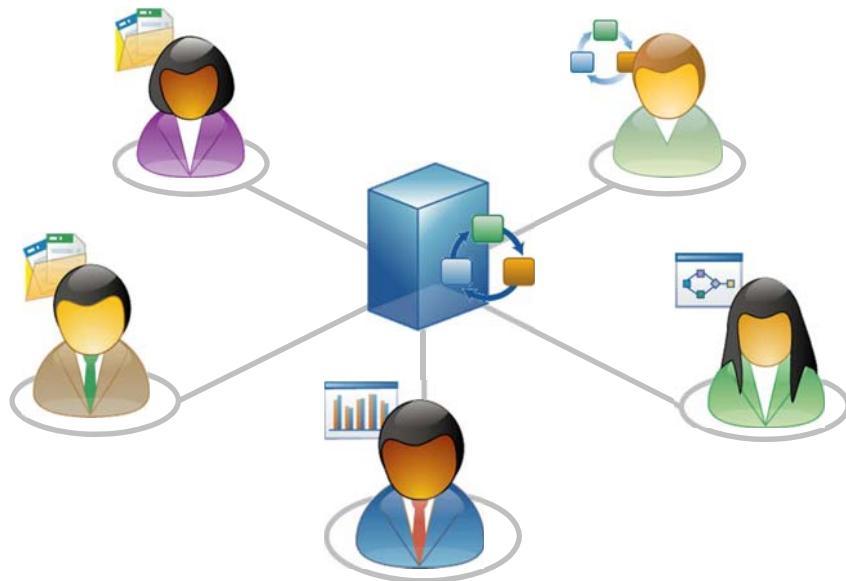
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Figure 3-3. Change management

Change management

- Change affects all members of an organization
- It reaches every member of an organization, not just the business analysts and IT staff



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Figure 3-4. Change management

In this topic, you focus on change management.

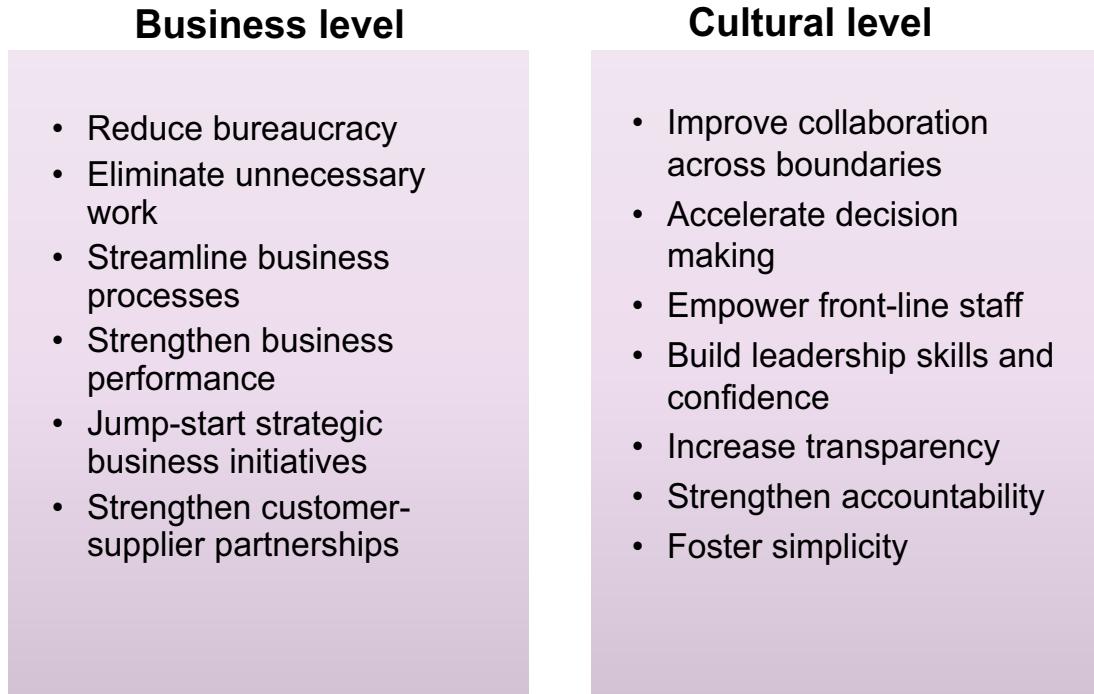
Specifically, you look at:

- The two types of change management
- A formula for change management results
- The change management tools available

So what are the key criteria for change management initiatives?

- Project has strategic and critical importance, a need-to-do, not a nice-to-do
- Project that is related to one or more corporate priorities
- Project yields a significant, measurable payoff
- Brings together leaders, managers, or process owners from multiple functions with multiple perspectives
- An obvious need to recommit, jump-start, or realign sponsors around key projects

Two types of change



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Figure 3-5. Two types of change

When you speak of change management, you are seeking to drive two types of change:

- Business level change
- Cultural level change

Formula for results

$$Q \times A = E$$

Quality X Acceptance = Effectiveness



Change acceleration process
was developed to focus here

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Figure 3-6. Formula for results

Look at this formula for results of effective change. Quality certainly is something that you strive for at the business level of all change. However, 85% of quality efforts fail from lack of attention to the people and the cultural side of change, or the Acceptance "A". The best results, or better said, most effective change happens when you pay attention to both the business level and the cultural level of all change management.

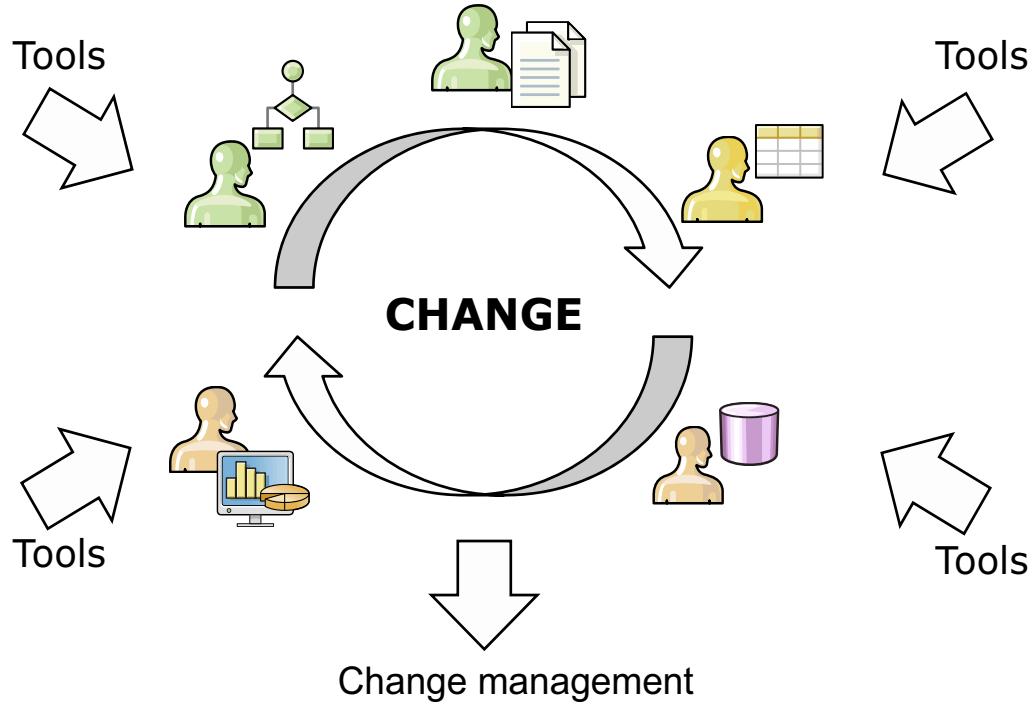
3.2. Change management tools

Change management tools

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Figure 3-7. Change management tools

Change management tools



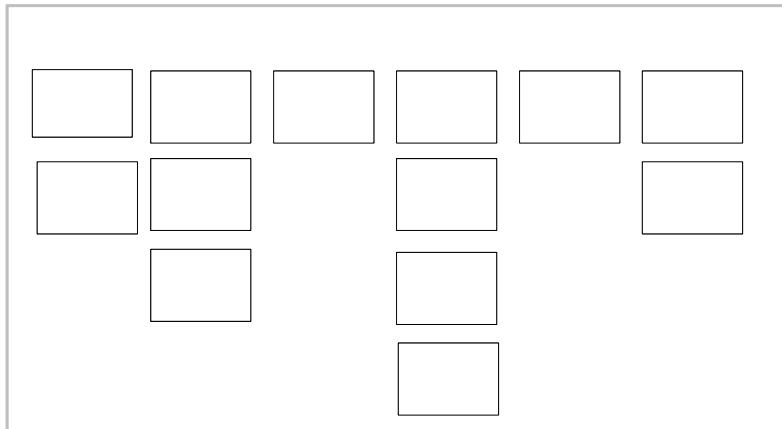
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Figure 3-8. Change management tools

The organization needs change management tools to implement a successful change management effort that touches both the business and cultural levels.

Tool: Critical success factors



- Use the critical success factors tool at the start of a project to set up a project for success
- The tool identifies the problem that is being addressed
- The tool also identifies and creates agreement on the six to eight “must-haves” that can make or break the project

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Figure 3-9. Tool: Critical success factors

The critical success factors tool is used at project initiation to set up a project for success. The purpose of the tool is to challenge the team to identify the problem and then identify and agree upon the six to eight “must-haves” that can make or break the project. In simple words: “The team cannot be successful without these critical success factors”.

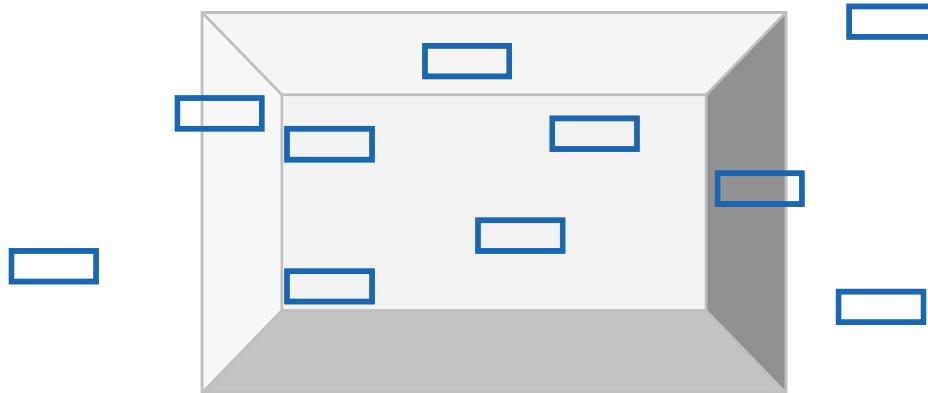
Tool benefits include:

- Identifies the potential impacts of key deliverables of the project that are critical to project’s success
- Provides an important checklist for resolving differences of opinion about resource allocation or prioritization
- Helps the team prioritize deliverables by allowing the team to focus on the tasks that have the most impact on the critical success factors

Instructions to use critical success factors tool:

If the project is to succeed, ask your group to brainstorm five critical success factors, major milestones, and indicators of progress, for example: the things that you must do and must have for success, key measurements met, critical support, or key participants. If the team agrees to these factors, then everyone is talking about the same work to be done.

Tool: In and out of frame



- Process definition: Scoping with your eyes wide open
- Use the in and out of frame tool when defining a project
- This tool helps determine where the identified tasks should be placed in relation to the scope of the initiative

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Figure 3-10. Tool: In and out of frame

Another tool that is used when defining a project is the in and out of frame tool. The purpose of the in and out of frame tool is to determine where the identified tasks should be placed in relation to the scope of the initiative.

Tool benefits:

- Provides the team with a structured visual depiction of the tasks during the discussion as to where the task falls in relation to the scope
- Allows the team to focus on the important tasks that need to be worked in the short term to execute the changes to the project
- Helps identify extra tasks that can be worked later

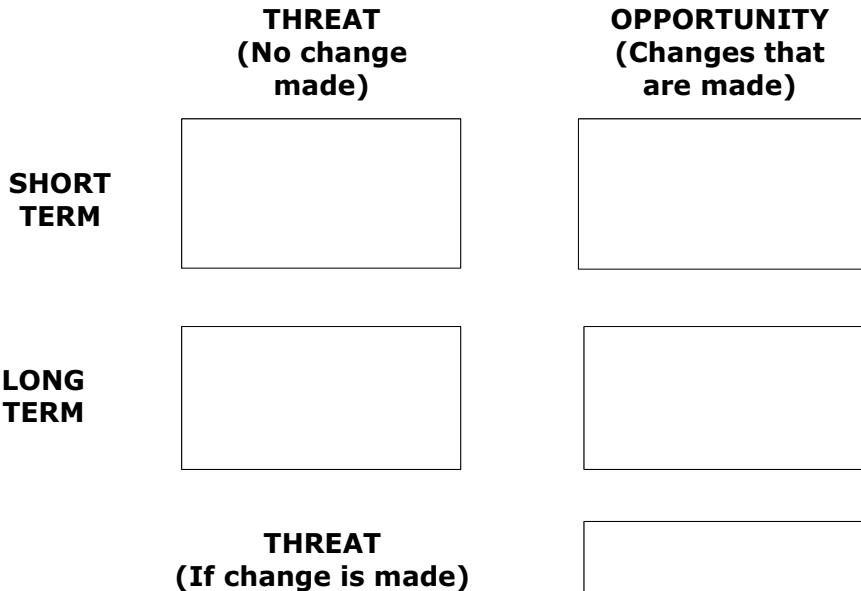
Instructions to use the tool:

Draw a large “picture frame” on a flipchart (or use tape on a wall) and use this tool to help the team identify what falls inside and outside the boundaries of the project. The items that fall inside or outside the frame can be the project scope, goals, roles, and more.

When using the in and out of frame tool, take the out of frame and scope items and place them away from items that need immediate attention. In other words, use the parking lot for these items.

For the “on the frame” items, capture the key reporting or key input that is necessary to do this project.

Tool: Threat and opportunity matrix



- Use this tool when you want to identify long-term and short-term risks that are associated with changes

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Figure 3-11. Tool: Threat and opportunity matrix

Another change management tool is the threat and opportunity matrix. This tool allows the development team to answer the question: Does the team want to make this change?

From the perspective of the people that are affected:

- If the team does not make the change, what threats are faced?
- If the team makes the change, what opportunities are realized?

Tool: 3D's matrix

Types of Proof	Have now:	Need to get:
Data, facts: <ul style="list-style-type: none"> • Numbers, trends, statistics • Graphs, financials • Benchmark, competitive data 		
Demonstrate: <ul style="list-style-type: none"> • Best practices • Visiting other organizations, panels, pilots, testimonials 		
Demand: <ul style="list-style-type: none"> • Dynamic leadership (setting high standards, accountability) • Customers, suppliers, competition (internal and external) 		

- Use this tool to track the different resources that can prove your case to various people in your organization

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Figure 3-12. Tool: 3D's matrix

The 3D's matrix: Change management is used to track the different resources that can prove the case to various people in your organization. With this tool, you can capture what data, facts, examples, and demands you have now, or what you need to get to prove the case to different constituencies.

- **Data, facts:** Refers to the degree to which internal or external sources of data frame the need for change such as facts, surveys, benchmarking or competitive data.
- **Demonstration:** Refers to a specific example you can point to such as the role that leaders are showing, role of good practice sites, or pilot projects that can play in creating the need for change.
- **Demand:** Refers to actions, behaviors, and goals set by senior leaders or others that signal a need for people to change. For example, make quality the first topic that is discussed at every staff meeting, or incorporate participation in the quality initiative part of the compensation process. It might also be the demand that the customer, competition, or internal employees are placing on the change.

Tool: Stakeholder analysis and TPC

Names	Strongly against	Moderately against	Neutral	Moderately supportive	Strongly supportive	Reasons for rating	TPC
							T % P % C _____% 100%
							T % P % C _____% 100%
							T % P % C _____% 100%

Resistance: Identifying it and dealing with it

*T = Technical
P = Political
C = Cultural*

- Use this tool to develop a detailed sense of who the key stakeholders are

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Figure 3-13. Tool: Stakeholder analysis and TPC

The stakeholder analysis and TPC tool is used to develop a detailed sense of who the key stakeholders are. The tool helps to determine how stakeholders currently feel about the change initiative, and what the reason is for this feeling. The tool can also help determine what needs to be done to ensure that the change initiative has a good chance for success.

Instructions to use stakeholder analysis and TPC are as follows:

- Identify key stakeholders (individuals, teams, departments, titles, roles), which can vary throughout exercise.
- Plot where stakeholder is regarding the specified change.
- Determine the reason why they are assumed to be there. Is it technical, political, or cultural?
- Plot where stakeholder needs to be to accomplish the specified change or for success.
- Create this tool in a spreadsheet, and track the action plan as part of the influence strategy tool.

What is TPC?

- Technical: People lack skills and resources and fear change.
 - Habit
 - Fear of the unknown

- Prior investment, sunk costs
- Political: People fear for the loss of power, influence, resources, and decision-making authority.
 - Power struggles
 - Turf wars
 - Relationships
 - Who gets to talk to whom
- Cultural: People resist because it is different from “how the team does things around here.”
 - Old cultural mindset
 - The good old days
 - Blinders
 - Afraid to let go

Focus on risk mitigation. It is okay to know the risks based on stakeholder profiles now and work to improve it.



Tool: Influence strategy

Stakeholder	Intended new behaviors (more of, or less of)	Issues and concerns (personal threats)	Identify “win / win” (personal opportunities)	What	Who	By when	Measures

Risk mitigation: Who is talking the talk and who is walking the walk

- Use this tool to plan strategy for driving new behaviors to support the vision of this change initiative

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Figure 3-14. Tool: Influence strategy

The purpose of the influence strategy tool is to plan strategy for driving new behaviors to support the vision of this change initiative.

Instructions to use influence strategy are as follows:

- Use key stakeholders from the stakeholder analysis to populate this tool.
- Plan the behaviors that need to occur more often or less often to support this new change initiative.
- What issues and concerns exist that might result in a challenge to accomplishing this change?
- What does “win/win” look like? Describe what the behavior causes or what the result of the behavior shows as.
- Assign who is responsible, when this conversation takes place, what the “ask” is, and how it is measured.

If the analysis is created in a spreadsheet, the columns can be placed on the right side of the stakeholder analysis or TPC.

Tool: Behavior change analysis

Stakeholders (from shareholder analysis)	Intended behaviors (from more of or less of)	Progress (Rate progress toward intended behaviors on scale of 1-5) 1=no change 5=intended behaviors are apparent*	Actions (review stakeholder analysis, TPC matrix, influence strategy)

*Optional: Write the actual behaviors that are observed at this stage of the project

- Use this tool to list out the intended behaviors of certain stakeholders, the actions you can use to effect change, and the progress that is made

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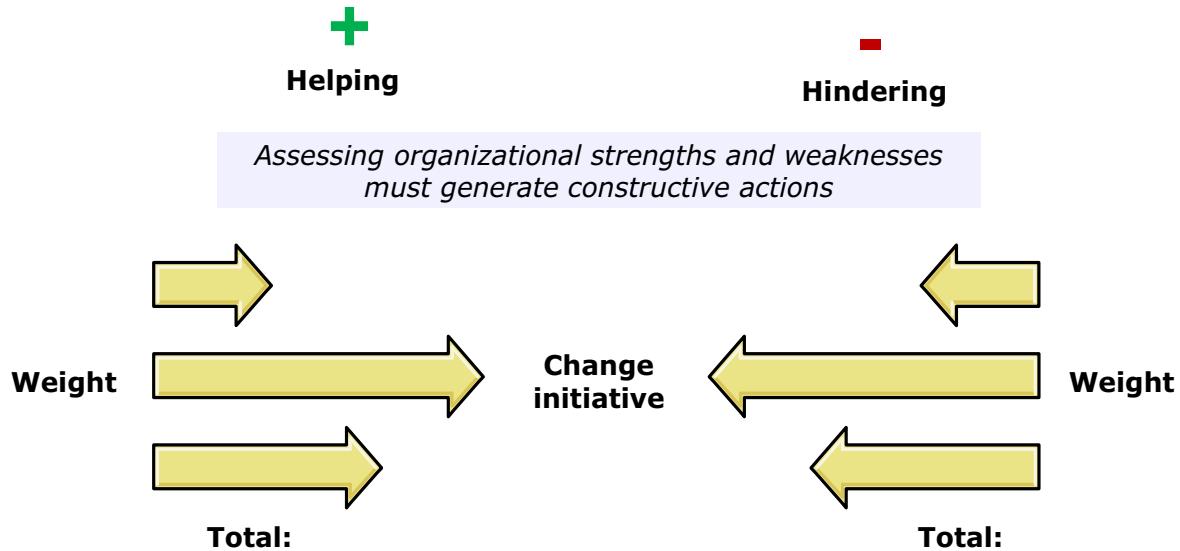
Figure 3-15. Tool: Behavior change analysis

The behavior change analysis tool consists of four data components:

- List all stakeholders.
- List the intended behaviors.
- List the progress of the project in terms of progress towards intended behavior.
- List the actions that are necessary based on a review of the stakeholder analysis, TPC matrix, and influence strategy tool.

Using this tool, the team meets and discusses whether you see any progress from a stakeholder behavior standpoint.

Tool: Force field analysis



- Use this tool to assess forces in the internal and external environment that either help make change last or make it difficult to do so

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Figure 3-16. Tool: Force field analysis

The force field analysis tool is used to assess forces in the internal and external environment that either help to make the change last, or make it difficult to do so. What forces in or around your environment is for or against the success of your project? How can the team constructively use the helping forces while constructively managing or mitigating the hindering forces?

Build an action plan to maximize helping and minimize hindering forces. Assessing organizational strengths and weaknesses generates constructive actions.

Instructions to use force field analysis:

- Use the voice of the customer.
- Categorize each item whether it helps or hinders the change that is being proposed.
- Assign a weight (1 – 5 or 1, 4, 9 for low, medium, high) for each item.
- Calculate total score for “helping” and “hindering”.
- The “helping” total score should be greater than the “hindering” total score. If not, you have a large task in front of you.
- Do not try to eliminate all items in the “hindering” list. Try to assess whether “helping” factors are more than “hindering” factors or not.

Tool: Elevator speech

Communication: Crafting a message and delivering it

Elevator speech worksheet

What the project is about (keep it simple, use simple terms):

Why it is important to do (include information about process simplification, ease of use, financial impact, CSat impact, and more):

What success looks like (acceptance by groups, compliance and metrics results, milestones, and more):

What is needed from others (support, key players, involvement, level of effort and support, communication, and more):

What you can count on from me (involvement, attendance at staff meeting, communication, and more):

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Figure 3-17. Tool: Elevator speech

The purpose of the elevator speech tool is a “reality check” to ensure that team members see the project the same way. Also, it helps ensure that the team member sends a unified consistent message.

Instructions to use elevator speech worksheet are as follows:

- Brainstorm responses with team members to complete each of the following statements:
 - “Here’s what the project is about...”
 - “Here’s why it is important to do...”
 - “Here’s what success looks like...”
 - “Here’s what is needed from you...”
 - “Here’s what you can count on from me...”
- Identify keywords from the brainstorming exercises that the team wants to include in key communication.
- Craft messages that can be used in emails, newsletters, chair drops, in casual conversations, and presentations, to share with others what the project is about. Remember, stakeholders can change the output. One size does not fit all.

Tool: Communication planning matrix

Channel	Announce the CAP project	Clarify the vision	Mobilize commitment	Monitor progress	Changing systems and structures
Written <ul style="list-style-type: none"> Newsletter Bulletin board V.P. memo 					
Spoken: One-on-many <ul style="list-style-type: none"> All employee meeting Weekly staff meeting Operating managers meeting 					
Spoken: One-on-one					
Symbolic: <ul style="list-style-type: none"> Offsite conferences Press conferences 					

Use this tool to track your communication plan

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Figure 3-18. Tool: Communication planning matrix

The Communication Planning Matrix is used to create a communication strategy that encompasses various channels.

Indicate the channels that are suitable for:

- Providing information
- Persuading
- Empowering

Include the following items in the plan:

- Audience
- Who
- When
- Where

3.3. Business Process Model and Notation (BPMN) overview

Business Process Model and Notation (BPMN) overview

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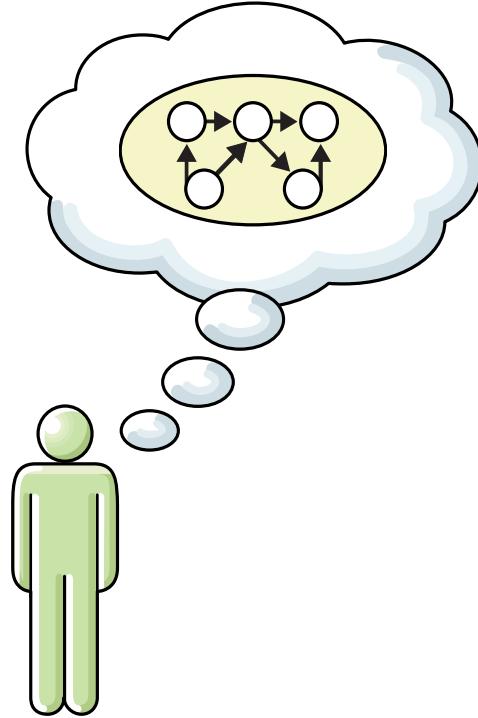
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Figure 3-19. Business Process Model and Notation (BPMN) overview

An essential aspect of BPM is to model a process. This model, or diagram, represents the business process that uses a workflow model to reflect components. The components represent activities, the roles that perform those activities, conditional branching, and the sequence of the flow of work between each activity. The Business Process Model and Notation (BPMN) standards help to create a standardized look for all diagrams.

What is a business process?

Process: A series of actions or steps that are taken to achieve a particular end



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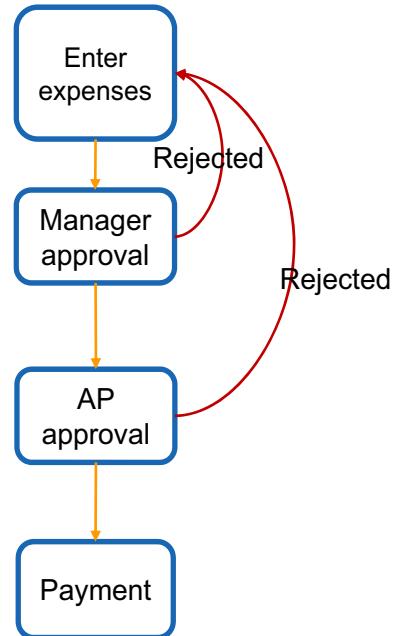
Figure 3-20. What is a business process?

What is a business process? Obviously the first word “business” means that it is related to organizations that perform a function, but what is a process? The Oxford dictionary defines a process as: “A series of actions or steps that are taken to achieve a particular end.”

Business processes can be function-specific or industry-specific and are not limited to the length or complexity of the activities.

Example process

- Expense reimbursement steps
 - Enter expenses
 - Scan receipts and attach
 - Submit for review or approval
 - Manager approval
 - If rejected, resubmit
 - Accounts Payable approval
 - If rejected, resubmit
 - Submit for payment
 - Confirm receipt of payment
 - Transfer records to archive



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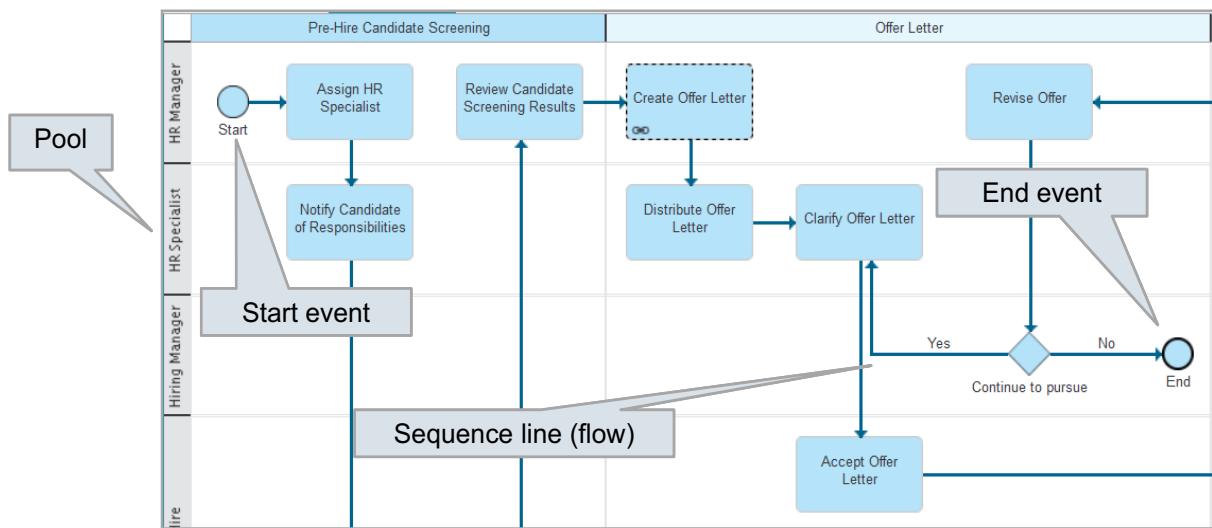
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Figure 3-21. Example process

What is an example process? Begin with an overview of some basic business process management (BPM) information by using “expense reimbursement” as an example process. The series of steps that are required for an organization to reimburse an expense to an employee might look like what is shown.

BPMN core elements (1 of 3)

- **Pool:** Represents the organization of the entire process
- **Start or end event:** Initiates and ends a process
- **Sequence flow lines:** Lines that manage the sequence of activities within a process, including exception paths



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Figure 3-22. BPMN core elements

Before learning about the specifics of Blaworks Live process diagrams, you need to review the core elements that are used in Blaworks Live for diagrams.

The core elements are known as Business Process Model and Notation (or BPMN), and they include:

- Pool
- Events
- Activities
- Sequence or flow lines (flows)
- Lanes
- Milestones, phases

To start, the top-level artifact is called the pool. Every process that you create in Blaworks Live is a single pool, and contains all the modeling artifacts that you create as part of your process.

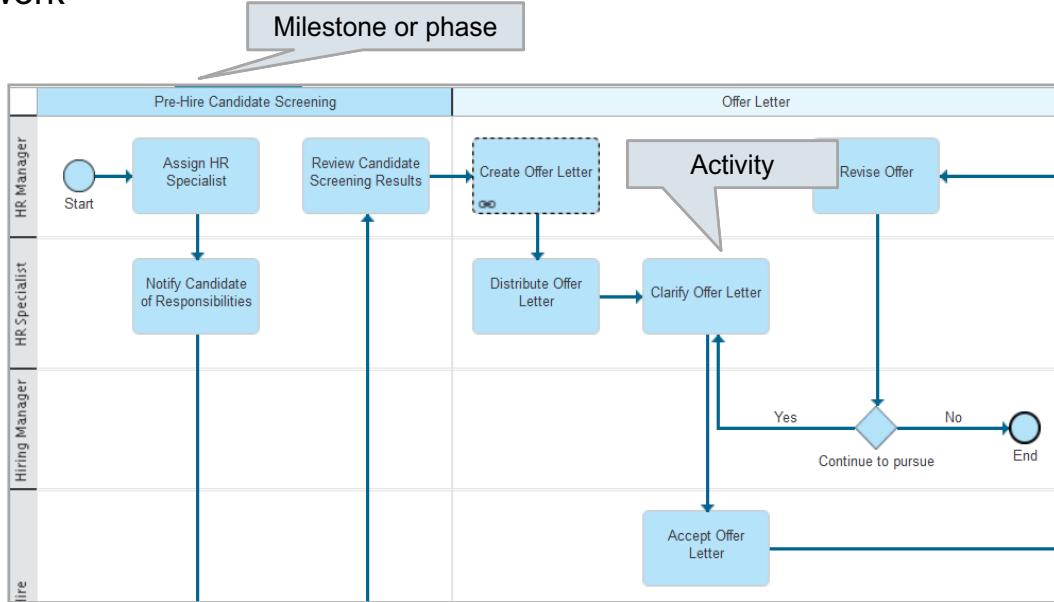
Every pool must contain at least one start event and one end event. There might be more than one of each, but you must have one. The start event initiates a process. The end event represents the end of the process. Start and end events come in many different types, and a person or system can trigger a start event or a timer. An end event can be a normal, error, or message end event.

Other types of events can be modeled as part of the sequence flow, or can be attached to the activities. Message events are events that send or receive a message. A timer event is triggered at a specified time or after a specified amount of time passes. Timer events are often used to model delays or timeouts in a process. An exceptional condition triggers an error boundary event, such as a system that is unavailable. An error boundary event always interrupts an activity, so it cannot be set to non-interrupting. Finally, an escalation boundary event passes the flow to another role or swimlane in the process, for example, to a manager, when certain conditions are met.

Sequence flow lines, or flows, create order to the process. You can drag sequence flow between activities to designate the order of activities and events in a process. Flow is always directional.

BPMN core elements (2 of 3)

- **Milestone or phase:** Represents a significant phase in the process in which a set of activities are performed or decisions are made
- **Activity:** A human or a system that executes a logical, discrete unit of work



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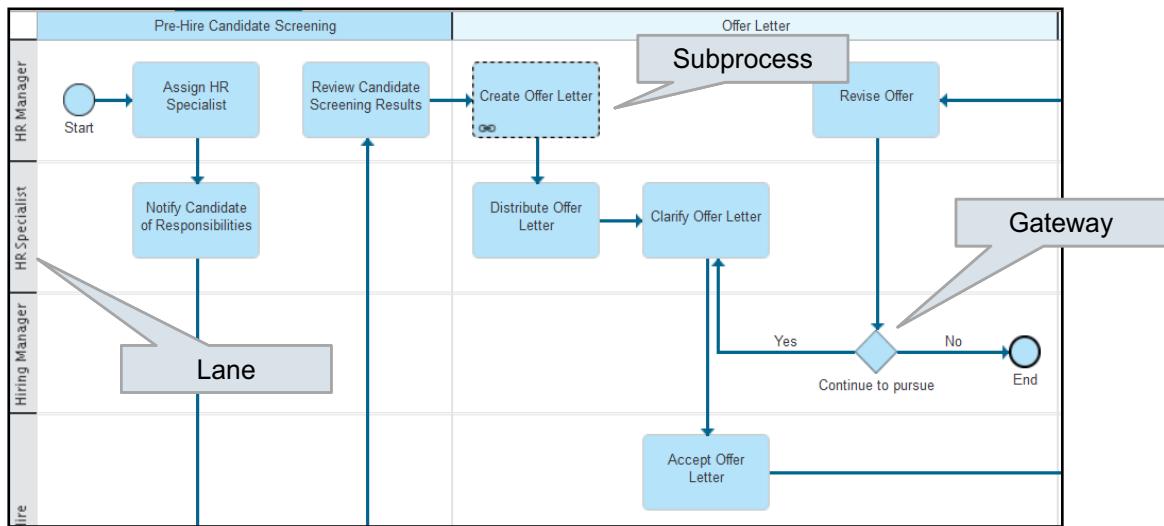
Figure 3-23. BPMN core elements

A milestone or phase represents a significant duration in the process in which a set of activities are performed or decisions are made. A milestone includes all the elements across all lanes that are located within its boundaries. Like other elements in a process blueprint, milestones can have inputs and outputs, business owners, experts and other properties, and can include attachments, documentation, problems, and can be linked to policies that your organization defines. You can drag elements to move them between milestones.

Activities represent the work that is performed in a process. A person or a computer might do the work. Each activity creates a task for the person or computer to complete. Tasks represent the smallest unit of work in your process. You can use different types of tasks that depend on the type of work that is done. The different types of tasks are: normal, user, service, and decision tasks.

BPMN core elements (3 of 3)

- **Lane:** Container for the activities and events that are assigned to a participant
- **Gateway:** Determine what path is taken through a process
- **Subprocess and linked process:** Groups or encapsulates part of a process



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Figure 3-24. BPMN core elements

Lanes, also referred to as swimlanes, visually organize the activities in your process by the role or group that performs that activity. The person or group who performs the activity is called a *participant*. Participants are defined in your account glossary. When you drag an activity to a different lane, the participant that is associated with the activity is updated to match the participant of the new lane. If you specify an activity participant that is not associated with an existing lane, a new lane is created and the activity is placed in that lane.

Gateways determine what path is taken through a process. The three different types of gateways are: exclusive, parallel, and inclusive. You can use different types of gateways, depending on how the outgoing paths from the gateway are determined.

- An exclusive gateway represents a choice between two or more paths. Only one path can be followed. An empty diamond represents an exclusive gateway, and is the default type of gateway.
- Use a parallel gateway, represented by a diamond with a plus sign in the middle, when activities on multiple paths are done in parallel.
- Finally, use an inclusive gateway, represented by a diamond with a circle in the middle, when one or more paths can be followed. All paths might be taken, but a minimum of one must be taken. When you insert a new gateway, two outgoing paths are added by default. The flows are labeled as the “Yes” and “No” paths to reflect the fact that outgoing exclusive paths typically

represent the answers to a Yes or No question. You can add labels to these outgoing paths by clicking the default label text and typing your own labels.

With subprocesses and linked processes, you can capture the right level of detail about the activities in your process without over-complicating your diagram. A subprocess groups related activities into one parent activity, while a linked process is a call to another stand-alone process. A subprocess is a group of logically related steps in a process that is marked with a broken border. At the bottom, a plus sign indicates that this artifact is a collapsed subprocess, and a minus sign indicates that the subprocess is expanded. A linked process is a step that links to, or calls, another stand-alone process. It has the same broken border as the subprocess, but it has a chain icon at the bottom.

Use a subprocess when you want to group a set of steps in your process, allowing that group to be collapsed or expanded depending on the level of detail that is required. For example, in a “security badge request” process, you might have a set of steps that are required for creating the badge. The details of these steps might be interesting to the facilities personnel who are producing the badge, but less important to other people who want to see a high-level view of the process.

Use a linked process activity when you want to call a separate stand-alone process from within your process. For example, an expense reimbursement process might call a separate funds disbursement process that is called by several other processes.

You can also convert an existing activity to a linked process activity. You can navigate between the calling process and the linked-to process by clicking the link icon on the activity element. To return to the parent process, use the breadcrumb trail at the top of the diagram area.

3.4. IBM Blueworks Live

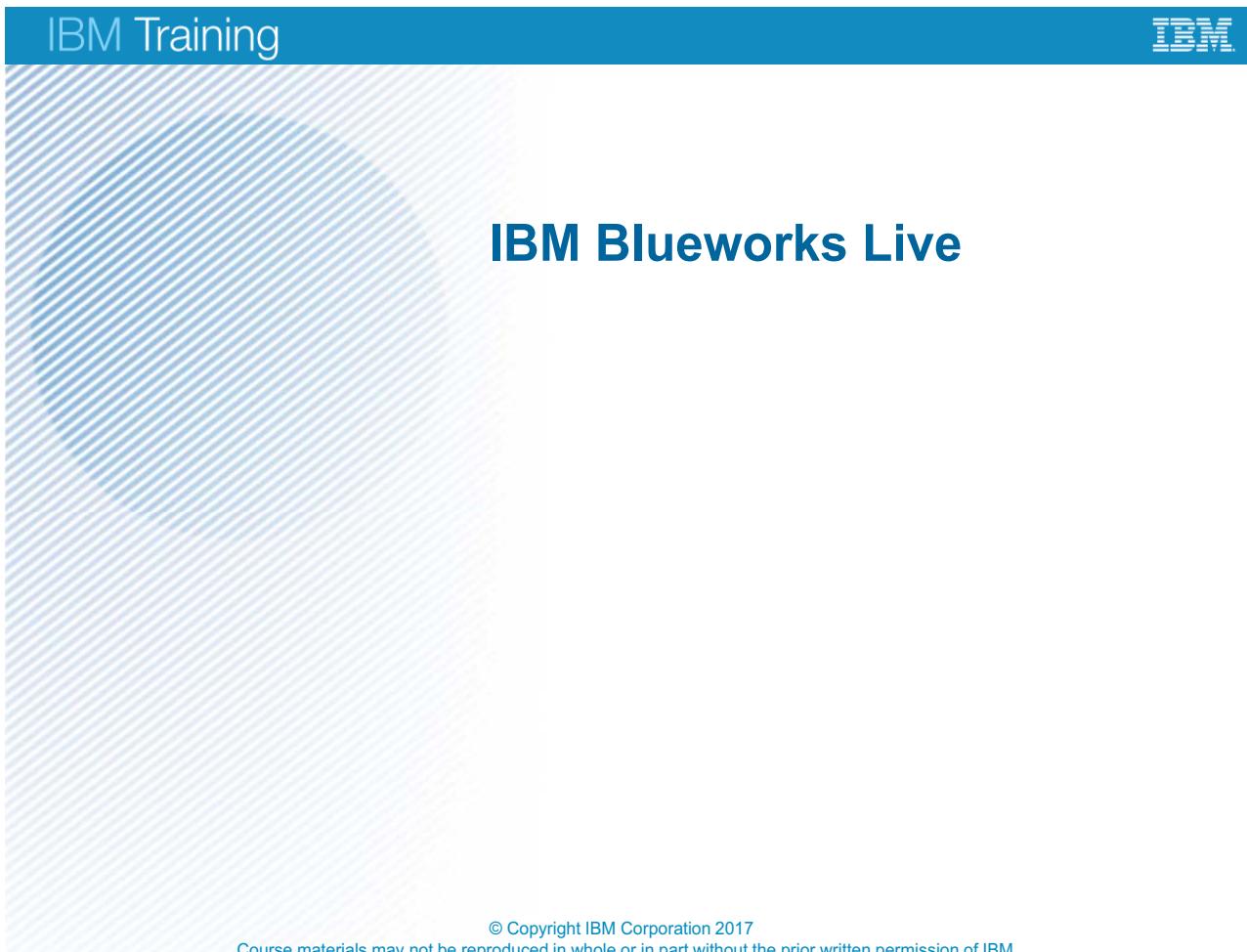
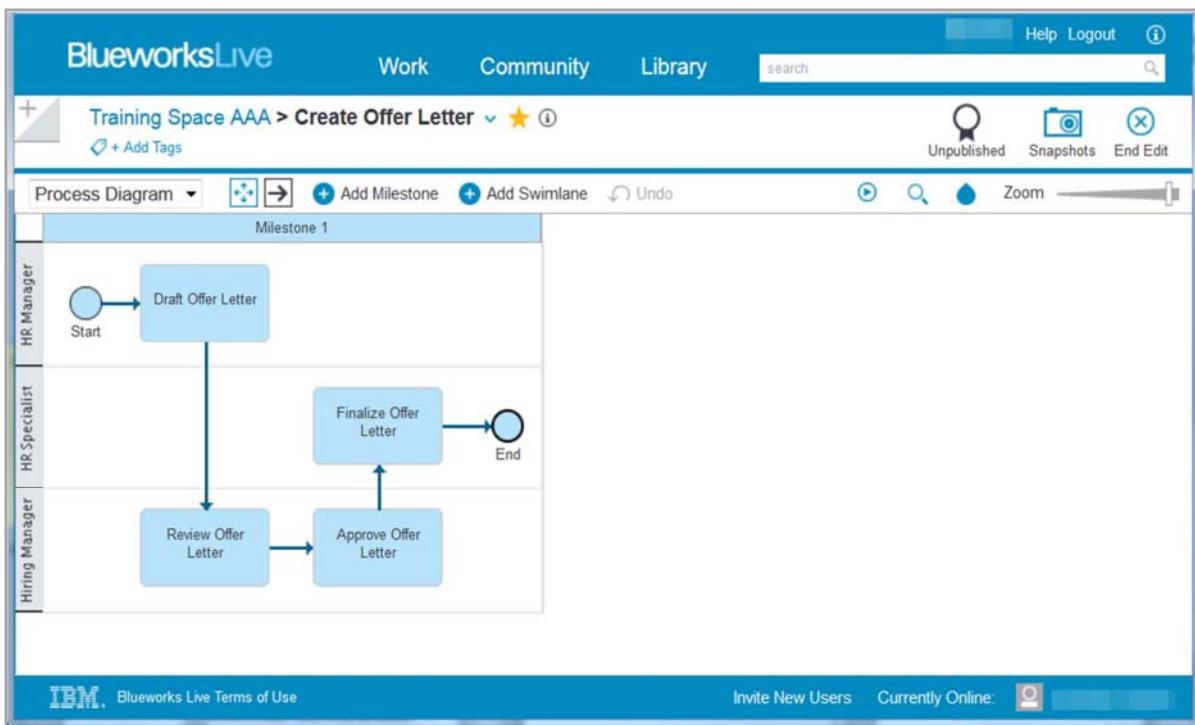


Figure 3-25. IBM Blueworks Live

IBM Blueworks Live is a software-as-a-service (SaaS) offering that gives companies and organizations the ability to discover, model, and document business processes in the Cloud. After a short sign-up process, you can immediately create an inventory of the processes in your organization, and immediately improve the processes to realize your process goals.



Documenting processes with IBM Blueworks Live



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Figure 3-26. Documenting processes with IBM Blueworks Live

It is time to map out your “As-Is” process to ensure that you have all the necessary data for process improvement: process owners, participants, customers, inputs, outputs, a detailed description of the activity within the process, and ultimately what goals you need to achieve. As an analyst, you strive to document this data and share it with project team members and stakeholders to validate the information.

You need to make the choice of what application or set of applications would help to document and maintain this data.

IBM’s powerful software as a service (SaaS) application, which is the simplest yet most powerful way to map and document your process, is called IBM Blueworks Live. IBM Blueworks Live supports Business Process Model and Notation (BPMN), the industry-standard graphical notation that is used in defining business processes. IBM Blueworks Live partially conforms to the most recent BPMN 2.0 specification to provide the most functionality, without overwhelming new users with options. As you become more familiar with the implementation of BPMN in IBM Blueworks Live, you can use more of the tool’s functionality.

Blueworks Live: Where can you get help?

- Blueworks Live docs
 - <https://ibm.blueworkslive.com/scr/docs/>
- Online tutorials
 - <https://www.youtube.com/user/BlueworksLive>
- User, developer forums
 - <https://ibm.blueworkslive.com/scr/home#!community:community.all>
 - <http://www.ibm.com/developerworks/learn/middleware/index.html>
- Twitter
 - [@BPMfromIBM](https://twitter.com/@BPMfromIBM)

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Figure 3-27. Blueworks Live: Where can you get help?

This slide shows a few of the numerous resources available to help you with Blueworks Live. You can also access the product map that is found in the Help section on Blueworks Live.

3.5. Good practices for modeling in Blueworks Live

Good practices for modeling in Blueworks Live

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Figure 3-28. Good practices for modeling in Blueworks Live

It is time to map out your “As-Is” process to ensure that you have all the necessary data for process improvement: process owners, participants, customers, inputs, outputs, a detailed description of the activity within the process, and ultimately what goals you need to achieve. As an analyst, you strive to document this data and share it with project team members and stakeholders to validate the information.

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Good practices for goal statements

Elements of a goal statement

Increase the number of produced widgets by 25% by the end of this year



Elements of an efficiency-focused goal

Reduce the amount of time to generate error-free contracts by XX minutes

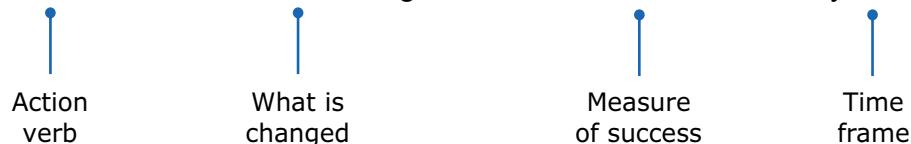


Figure 3-29. Good practices for goal statements

When starting with Blueworks Live, you should capture the high-level information, and then slowly add detailed information from there. The first might be to create a goal statement to ensure that the team understands the goals of the process transformation project that you undertake.

Good practices for creating a space

- Create a “sandbox” space or use the Training space for users to discover and play with Blueworks Live
 - Create artifacts and learn about different features without cluttering other project spaces
- Ensure that each new space is given a description and space-level goals
 - Helps new users navigate and understand the type of work that is being done
- Designate a space owner and include your contact information in the space description
- Use tags
 - Tagging spaces is an easy way to improve navigation and search in your Blueworks Live account
- Set the appropriate space-level user permissions for each space
 - Child spaces inherit parent-level user permissions by default, so be sure to check the user permissions of the child space if you do not want to inherit the parent permissions

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Figure 3-30. Good practices for creating a space

Good practices for process discovery

Always start with the discovery map

- Capture an initial run through of the entire process

Modeling notations

- Process name
 - Simple language that describes what is happening in process
 - Avoid jargon
- Milestones
 - Nouns that describe deliverables or time period
- Activities
 - Action verb followed by noun
- Decisions
 - Yes or no questions
 - Omit the final question mark because it is implied

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Figure 3-31. Good practices for process discovery

When you first create a new process blueprint, it opens in the Discovery Map view. The discovery map is easy to understand. It is suggested that you use the discovery map for *initial brainstorming or interviewing sessions* with process SMEs and participants.

In the Discovery Map view, you can drag milestones and activities onto the canvas. You can also type a list of items into the Process Outline pane and quickly create activities and milestones that use indentation to indicate the organizational relationships between the list items.

Good practices for adding documentation (1 of 2)

- Stakeholders
 - Participant: The actor on the task (RACI)
 - Business owner: Who manages the task (RACI)
 - Expert: Someone that knows how the process works (RACI)
- Inputs
 - Ask stakeholders what the inputs are
 - Inputs imply a document or organized form of information
 - The team might not know them all on first pass, but they know the main ones
 - Inputs at the second milestone should be outputs from earlier milestones
- Outputs
 - Outputs are documents or information that is significantly enhanced or during this milestone

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Figure 3-32. Good practices for adding documentation (1 of 2)

RACI stands for responsible, accountable, consulted, and informed. When performing process analysis, the RACI is one of the tools to help you create your process.

Good practices for adding documentation (2 of 2)

Adding detail: Problems

- Problems can come up at any time
- You need to capture them as they come up
- You can capture them at the process level, milestone level, or activity level
- When you are building a high-level map, add the details where the respondent says that they go – normally, it is on a milestone or activity

Severity and frequency

- Ask the group how severe this problem is (low, medium, or high) and how frequently it happens (low, medium, or high)
- You do not have to have specific standard definitions for these terms – low, medium, and high – but if the client wants to build them, it would be beneficial to agree to specific criteria
 - For example, severity is a monetary or time cost of so much for each level
 - Frequency is a certain percentage of occurrences by project for each level

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Figure 3-33. Good practices for adding documentation (2 of 2)

When you first create a new process blueprint, it opens in the Discovery Map view. The discovery map is easy to understand. It is suggested that you use the discovery map for *initial brainstorming or interviewing sessions* with process SMEs and participants.

In the Discovery Map view, you can drag milestones and activities onto the canvas. You can also type a list of items into the Process Outline pane and quickly create activities and milestones that use indentation to indicate the organizational relationships between the list items.

Good practices for process models (1 of 2)

Linked processes versus subprocesses

- Create a linked process when:
 - Activities can be reused for other processes
 - It adds too much complexity to the process drawing
- Otherwise, use a subprocess

Choosing one swimlane per activity

- Meetings or collaboration
 - Decompose steps: Break into separate tasks to get more specific about who does what
 - “Throat to choke”: Choose the person who is ultimately responsible for the deliverables of the task
 - Name the team: If the group or committee name is known, state it explicitly
 - If the previous items do not work, create a swimlane that includes both actors (not recommended)

Good practices for process models (2 of 2)

Choosing one swimlane per activity

- Either/or tasks
 - Create a swimlane that includes both actors
 - It should highlight a problem when two roles are responsible

Granularity of modeling activities is more art than science

- Generally, an activity involves a single entity (human or system) that takes an input and transforms it into an output
- The transformation steps in between can be documented, but those steps are not necessarily activities themselves
- You can model these transformation steps as a single human task or system service task

IBM good practice resources

- Process Discovery Best Practices Using IBM Blueworks Live
 - <http://www.redbooks.ibm.com/abstracts/redp5111.html?Open>
- Discovering the Decisions within Your Business Processes using IBM Blueworks Live
 - <http://www.redbooks.ibm.com/redpapers/pdfs/redp4993.pdf>

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Figure 3-36. IBM good practice resources

More external sources for good practices:

- **BP3: Blueworks Live Best Practices**
<https://www.bp-3.com/blueworks-live-best-practices/>
- **BPMInstitute.org: BPMS Watch: Ten Tips for Effective Process Modeling**
<http://www.bpminstitute.org/resources/articles/bpms-watch-ten-tips-effective-process-modeling>
- **tdwi.org: Starting the BPM Process: 10 Best Practices**
<https://tdwi.org/Articles/2013/05/14/BPM-10-Best-Practices.aspx?Page=1>
- **BATimes.com: How to Facilitate Successful Process Mapping Sessions**
<https://www.batimes.com/articles/how-to-facilitate-successful-process-mapping-sessions.html>
- **TechRepublic.com: 10 Things to Keep in Mind When Improving Processes**
<http://www.techrepublic.com/blog/10-things/10-things-to-keep-in-mind-when-improving-processes/>

Unit summary

- Apply change management tools to an organization's processes
- Describe Blueworks Live and Business Process Model and Notation (BPMN)
- Generate and refine a detailed process diagram by using Blueworks Live
- Advocate good practices for modeling in Blueworks Live
- Use process documentation in Blueworks Live

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Figure 3-37. Unit summary

Review questions

1. True or False: BPMN stands for Business Process Model and Notation.
2. The top-level artifact in Blueworks Live that represents a process is called a:
 - A. Pool
 - B. Lane
 - C. Activity
 - D. Milestone
3. The critical success factors tool aims to:
 - A. Answer the question, “If the team does not make the change, what threats will the team face?”
 - B. Identify extra tasks that can be worked later
 - C. Capture what data, facts, examples, and demands you have now or you need to get to prove the case to different constituencies.
 - D. Get the team to agree upon the six to eight “must-haves” that can make or break the project



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Figure 3-38. Review questions

Write your answers here:

- 1.
- 2.
- 3.

Review answers

1. True or False: BPMN stands for Business Process Model and Notation.
The answer is True.
2. The top-level artifact in Blueworks Live that represents a process is called a:
 - A. Pool
 - B. Lane
 - C. Activity
 - D. Milestone
 The answer is A.
3. The critical success factors tool aims to:
 - A. Answer the question, “If the team does not make the change, what threats will the team face?”
 - B. Identify extra tasks that can be worked later
 - C. Capture what data, facts, examples, and demands you have now or you need to get to prove the case to different constituencies.
 - D. Get the team to agree upon the six to eight “must-haves” that can make or break the project
 The answer is D.

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Figure 3-39. Review answers



Exercise: Case study and Blueworks Live setup

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Figure 3-40. Exercise 2: Case study and Blueworks Live setup

Exercise objectives

- Describe a use case for BPM with relevant current business process analysis
- Identify case study process milestones and activities
- Create a Blueworks Live account

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Figure 3-41. Exercise objectives

Unit 4. Exploring the business process management analyst role

Estimated time

02:00

Overview

This unit explores the skills that are required for the business process management analyst role.

Unit objectives

- Apply “process” thinking
- Define the components of a process-driven culture
- Analyze a process by using the BPM methodology
- Evaluate key inputs and outputs
- Review known issues and impacts
- Create the As-Is process

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Figure 4-1. Unit objectives

Topics

- BPM analysis
- BPM analyst (BPMA) role

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Figure 4-2. Topics

4.1. BPM analysis

BPM analysis

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Figure 4-3. BPM analysis

Process selection for BPM solution

- Typical questions for the process candidate for BPM solution:
 - Which processes result in customer dissatisfaction?
 - Which processes have obvious problems?
 - Which processes are high cost or high volume?
 - Are there significant bottlenecks?
 - Which processes require significant manual intervention?
 - Is there a shortage of knowledge workers?
 - Do knowledge workers decide manually, make inconsistent errors, or apply the wrong policies?
 - Is there compliance on revenue issues with decisions?
 - How do you measure and manage these processes?
 - Is there a process leader who will champion a workshop?

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Figure 4-4. Process selection for BPM solution

These items are the typical questions that the BPM analyst asks during the selection of the process candidate for BPM solution.

Typical BPM analysis stages (1 of 3)

Process discovery

- Identify process issues
- Identify and evaluate key players
 - These people become participants in Blueworks Live
- Define significant phases for As-Is process
 - These become milestones in Blueworks Live
- Define As-Is process steps within a phase
 - These become Activities in Blueworks Live
- Create As-Is process diagrams
 - A process diagram in Blueworks Live includes milestones, activities, participants, and other components of the process

Process discovery

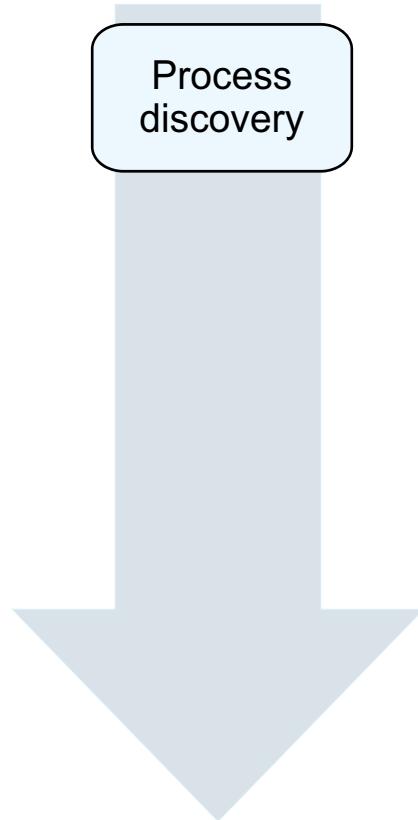
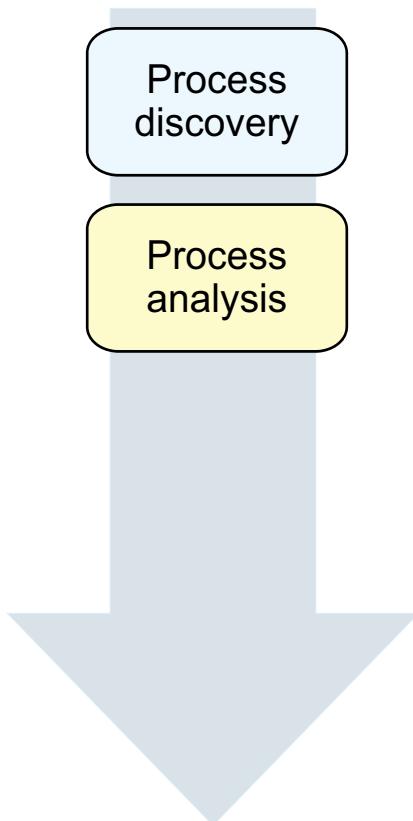


Figure 4-5. Typical BPM analysis stages (1 of 3)

This slide shows the three stages of analysis for the process diagrams creation during process discovery.

Typical BPM analysis stages (2 of 3)

- Process discovery
 - Identify process Issues
 - Identify and evaluate key players
 - Create As-Is process diagrams
- Process analysis
 - Identify problems and failures
 - Prioritize problems and failures
 - Identify improvement opportunities
 - Identify quick hits
 - Perform value-add analysis



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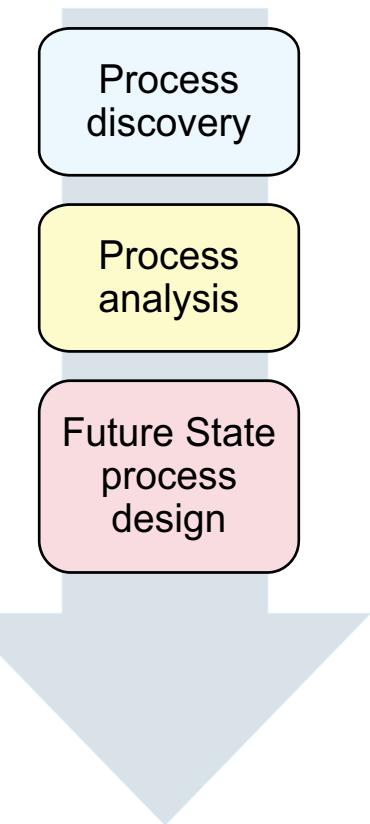
Figure 4-6. Typical BPM analysis stages (2 of 3)

Process analysis:

- Identify problems and failures
- Prioritize problems and failures
- Identify improvement opportunities
- Identify quick hits
- Perform value-add analysis

Typical BPM analysis stages (3 of 3)

- Process discovery
 - Identify process issues
 - Identify and evaluate key players
 - Create As-Is process diagrams
- Process analysis
 - Identify problems and failures
 - Prioritize problems and failures
 - Identify improvement opportunities
 - Identify quick hits
 - Perform value-add analysis
- Future State process design
 - Create To-Be process diagrams
 - Identify key performance indicators (KPIs) and service level agreements (SLAs)



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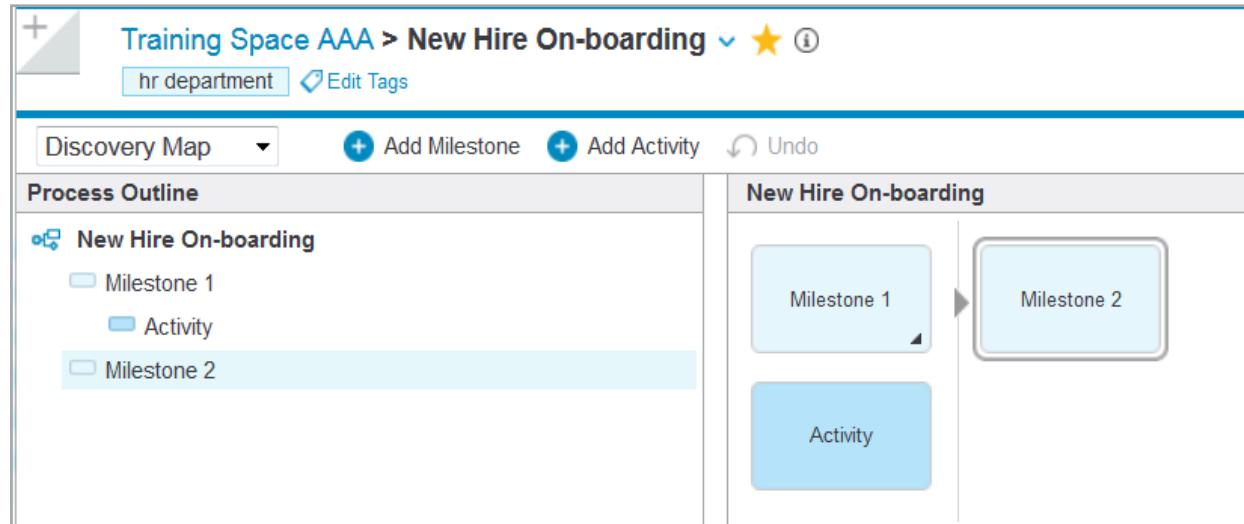
Figure 4-7. Typical BPM analysis stages (3 of 3)

Future State process design:

- Create To-Be process diagrams
- Identify key performance indicators (KPIs) and service level agreements (SLAs)

IBM Training 

Example of milestones and activities that are defined in Blueworks Live



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Figure 4-8. Example of milestones and activities that are defined in Blueworks Live

This slide shows an example of how the milestones and activities are defined in Blueworks Live. Exercise 3 provides detailed instructions of how to define various process components in Blueworks Live.

BPM process discovery deliverables

- Typical BPM analysis deliverables:
 - Project charter, goals, and success metrics
 - Inventory of project area
 - As-Is process diagram

Process
discovery

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Figure 4-9. BPM process discovery deliverables

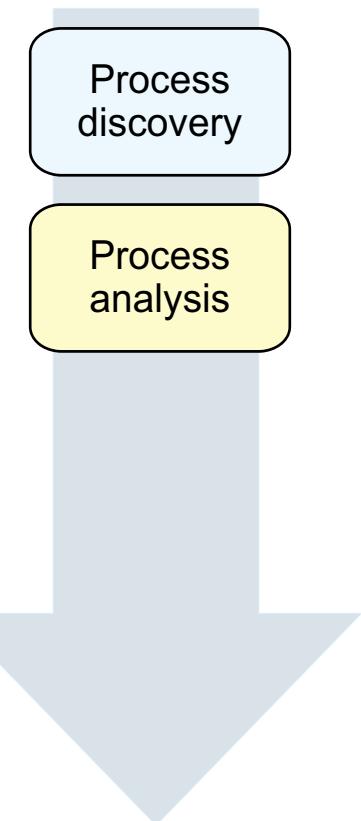
Typical BPM process discovery deliverables during process discovery include:

- Project charter, goals, and success metrics
- Inventory of project area
- As-Is process diagram



BPM process analysis deliverables

- Typical BPM process analysis deliverables:
 - Value-add analysis
 - Problem root cause analysis
 - Ranked list of process problems



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Figure 4-10. BPM process analysis deliverables

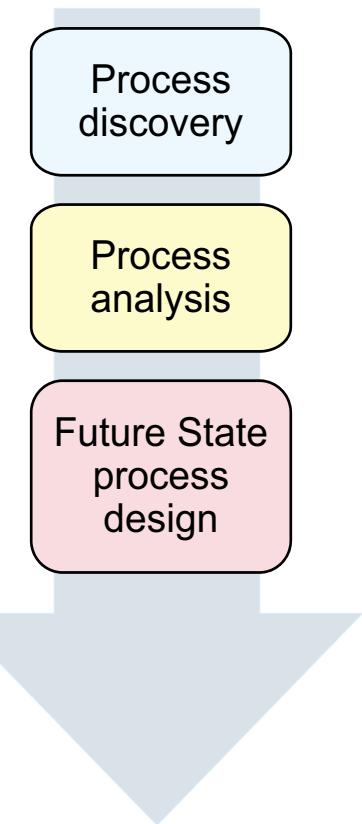
Typical BPM process analysis deliverables during process analysis are as follows:

- Value-add analysis
- Problem root cause analysis
- Ranked list of process problems



BPM future process design deliverables

- Typical BPM analysis deliverables:
 - To-Be process diagrams
 - Detailed roadmap for process improvements
 - Detailed documentation for process improvement
 - Top 5 – 10 KPIs and SLAs
 - Estimated project cost and timeline
 - Business case with estimated potential value and impact



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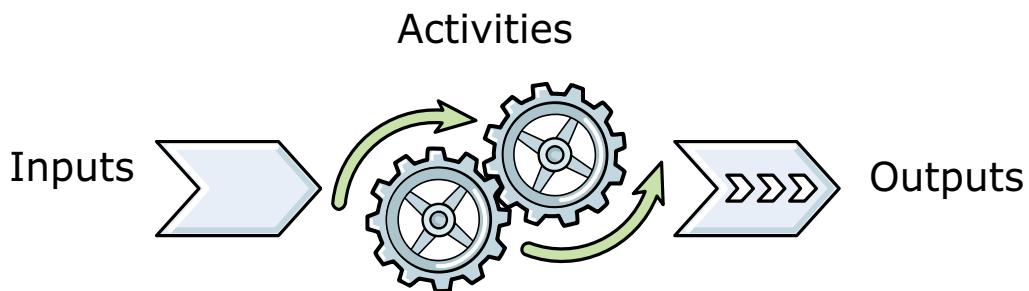
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Figure 4-11. BPM future process design deliverables

Typical BPM deliverables during Future State process design:

- To-Be process diagrams
- Top 5-10 key performance indicators (KPIs) and service level agreements (SLAs)
- Detailed roadmap for process improvements
- Detailed dashboard for process improvement
- Estimated project cost and timeline
- Business case with estimate of potential value and impact

What is a business process?



- A set of activities that takes specific inputs and converts them into specific outputs in a defined, predictable fashion

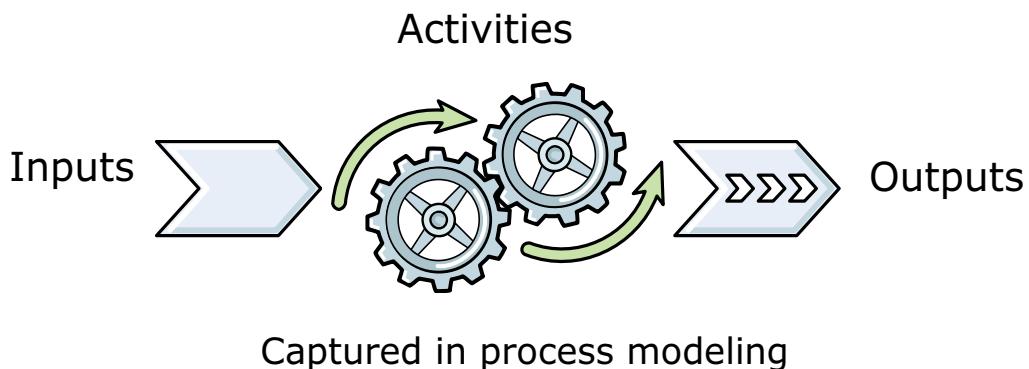
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Figure 4-12. What is a business process?

A business process is a set of tasks or activities that takes specific inputs and converts them into specific outputs in a specified, predictable fashion. Inputs are typically information or set of information that triggers a set of activities in the process. Outputs are the decisions that the set of activities render.

What is process modeling?



- Process modeling captures the ordered sequence of the business process tasks or activities

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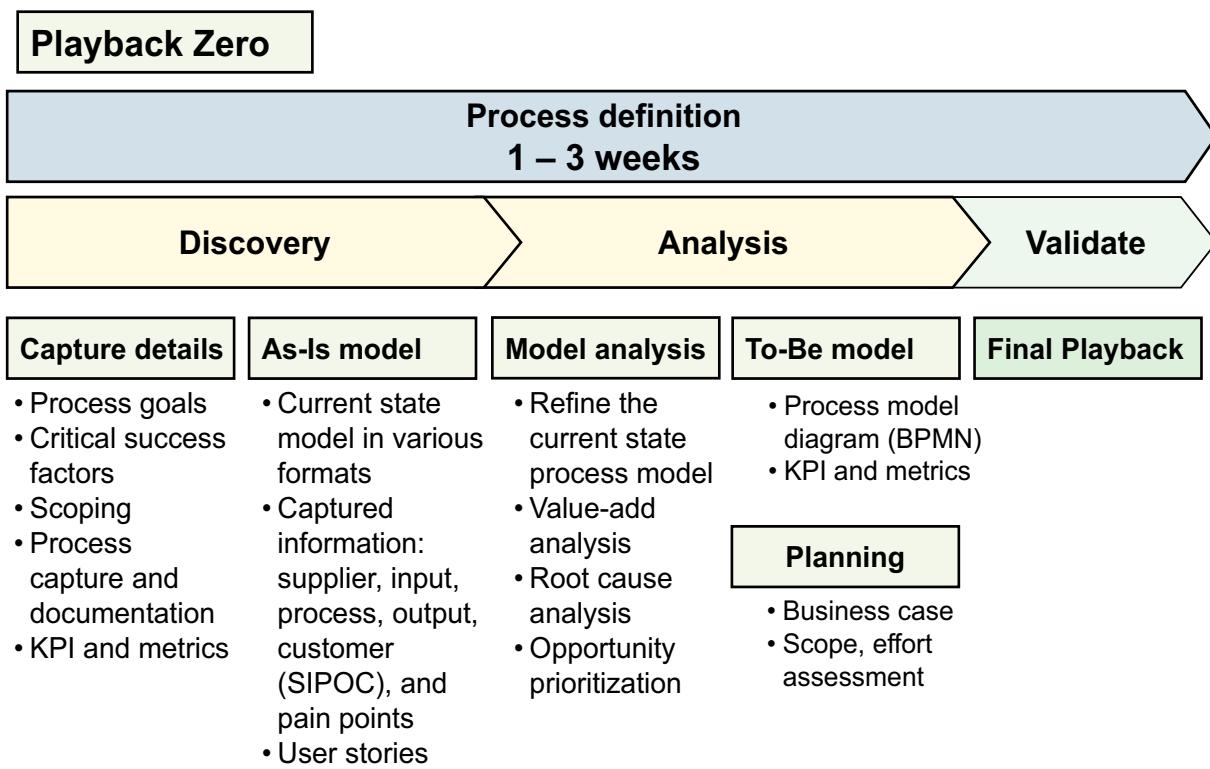
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Figure 4-13. What is process modeling?

Process modeling captures the ordered sequence of the business process tasks or activities. It also captures the responsible roles that perform the activities, conditional branching, and the sequencing of the flow of work between activities. Finally, it captures all the supporting information from start to end.



When does process diagram modeling happen?



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Figure 4-14. When does process diagram modeling happen?

With IBM Blueworks Live, the analyst uses a prescribed methodology to accomplish the process diagram modeling. This methodology is known as a Playback. The initial modeling is known as Playback Zero. In Playback Zero, the analyst moves through three phases:

- Discovery: The phase is reserved for the process modeling effort. This phase includes capturing key process details and formatting the As-Is model.
- Analysis: This phase is reserved for the process analysis methods that are used to evaluate process improvements that can be applied to the As-Is model. A To-Be model is then constructed as the outcome of the analysis. Planning for the implementation of the process model is conducted in the analysis phases as well.
- Validate: A final Playback session is held to validate that the process model is ready for implementation.

The details for all of these phases, plus an overall view of Playback Zero, is covered in more detail in this course.

BPM analyst (BPMA) role

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Figure 4-15. BPM analyst (BPMA) role

BPM analyst role

- The business process management analyst role overview:
 - Employ the process modeling phases, goals, and deliverables
 - Communicate process needs through the expected, exception, and escalation paths in a business process definition model
 - Capture, define, analyze, improve, and document a process model
- The business process management analyst:
 - Leads process improvement efforts
 - Is an expert in process decomposition, process and data analysis, scoping, and optimization
 - Identifies the business case, key opportunities, prioritized roadmap, and ROI
 - Identifies and enforces the delivery of KPIs, SLAs, and scoreboards
 - Helps to prioritize the business process portfolio to select which the business process to implement to bring greatest return on investment
 - Models the business process by using the BPMN standard
 - Understands the different business process modeling patterns such as: parallel paths, join, exclusive gateway, event gateway, message

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Figure 4-16. BPM analyst role

The first step to analyze the business process is to diagram the “As Is” process to ensure that you have all the necessary data for process improvement: process owners, participants, customers, inputs, outputs, a detailed description of the activity within the process, and ultimately what goals you need to achieve. As an analyst, you strive to document this data and share it with project team members and stakeholders to validate the information. More details about process modeling (or discovery) are covered later in this course.

Now is when you make the choice of what application or set of applications would help to document and maintain this data. Blueworks Live, IBM’s powerful software as a service (SaaS) application is the simplest yet most powerful way to diagram and document your process.

BPM analyst deliverables

- Potential deliverables for the business process management analyst:
 - Analysis assessment
 - Analysis business process model (To-Be)
 - BPM macro design agenda
 - BPM macro design implementation roadmap
 - BPM macro design kickoff presentation
 - Business challenges
 - Business improvement request
 - Business process model (As-Is)
 - Center of Excellence (CoE) charter
 - Coach list
 - Discovery assessment
 - Estimate for the BPM project
 - High-level business process
 - Process description and detailed documentation
 - Processes prioritization matrix
 - User story list

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Figure 4-17. BPM analyst deliverables

Depending on the scope, charter, and staffing of the BPM project, a BPM analyst might be assigned to produce the artifacts that are listed. This list is in alphabetical, not project order.

- Center of Excellence (CoE) charter: CoE is a collection of suggested practices, standards, templates, and guidelines for the BPM projects
- Coach list: List of user interfaces (UI) for the BPM solution

BPM analyst workshop facilitation

The business process management analyst as a workshop facilitator should:

- Communicate expectations: Sponsor should provide the “why, what, and how” of the workshop and communicate expectations at the start
- Use an iterative approach: Notify the participants that you use an iterative approach, discussing the process several times, adding additional information each time
- Involve the team: Assign a participant to capture comments and notes in the Documentation tab of each activity
 - Also, assign another attendee to document tabled issues and follow-up items
- Encourage sharing: Facilitators must steer the direction of meetings and persuade participants to open up and share their experiences and thoughts
- Manage time: The workshop is often a learning experience for the participants that reveals, for the first time, details about the process
 - Lots of enlightening information and dialogs, but be sure to limit the discussion
- Document the current process: Participants often want to discuss processes as they “should be”
 - Focus on how the process currently works and capture the improvement ideas

Figure 4-18. BPM analyst workshop facilitation

One of the important BPMA's responsibilities is to facilitate process discovery, analysis, and modeling workshops. This slide is a summary that highlights the BPMA responsibilities at such workshops.

Unit summary

- Apply “process” thinking
- Define the components of a process-driven culture
- Analyze a process by using the BPM methodology
- Evaluate key inputs and outputs
- Review known issues and impacts
- Create the As-Is process

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Figure 4-19. Unit summary

Review questions

1. True or False: The typical BPM analysis stages are:
 - Process discovery
 - Process integration
 - Future State process design

2. Which of these items is **not** a BPM analyst deliverable?
 - A. Analysis assessment
 - B. Analysis business process model (To-Be)
 - C. BPM solution test cases
 - D. Business process model (As-Is)



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Figure 4-20. Review questions

Write your answers here:

1.

2.

Review answers

1. True or False: The typical BPM analysis stages are:

- Process discovery
- Process integration
- Future State process design

The answer is False. The typical BPM analysis Stages are:

- Process discovery
- **Process analysis**
- Future State process design

2. Which of these items is **not** a BPM analyst deliverable?

- A. Analysis assessment
- B. Analysis business process model (To-Be)
- C. BPM solution test cases
- D. Business process model (As-Is)

The answer is C.



Exercise: Analyzing a process to create the As-Is process model

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Figure 4-22. Exercise 3: Analyze a process to create the As-Is process model

Exercise objectives

- Identify an organization's challenges
- Document business requirements
- Create the As-Is process model

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Figure 4-23. Exercise objectives

Unit 5. Improving business processes

Estimated time

02:00

Overview

This unit begins with the As-Is process model, identifies candidates for automation, and identifies efficiencies to create the To-Be process model.

Unit objectives

- Define key performance indicators (KPIs)
- Add value through process analysis
- Create the To-Be process

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Figure 5-1. Unit objectives

Topics

- Key performance indicators (KPIs)
- KPI example scenario
- Performing a value-add analysis
- Prioritize opportunities
- Identifying and selecting appropriate solutions
- To-Be analysis example

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Figure 5-2. Topics

5.1. Key performance indicators (KPIs)

Key performance indicators (KPIs)

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Figure 5-3. Key performance indicators (KPIs)

Introduction to KPIs and SLAs

- Key performance indicators (KPIs) are metrics that are used to help an organization define and measure progress toward organizational goals
- A service level agreement (SLA) is a part of a service contract between two parties where the level of service is formally defined

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Figure 5-4. Introduction to KPIs and SLAs

Key performance indicators (KPIs) are used in process models to capture the standard for performance of tasks. During analysis of the process model, the analyst lists the key performance indicators (KPIs) in the process. KPIs are defined as metrics that are used to help an organization define and measure progress toward organizational goals. A service level agreement (SLA) is derived from KPIs. An SLA is a part of a service contract between two parties where the level of service is formally defined.

Are KPIs and SLAs linked?

- All KPIs need to be measured against a target
- These targets are called service level agreements (SLAs)
- Examples:
 - KPI: Quality acceptance rate needs to be 98% (SLA)
 - KPI: Variable cost per unit needs to be below \$1.2 (SLA)
 - KPI: Delivery time needs to be in four days (SLA)

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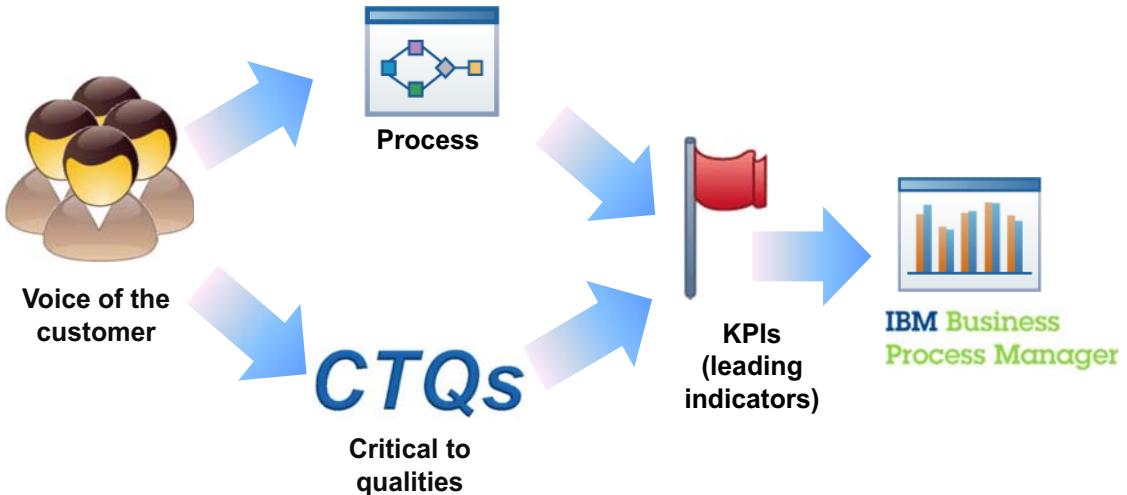
Figure 5-5. Are KPIs and SLAs linked?

All KPIs need a target to be measured against, and those targets are also called SLAs (service level agreements).

Example:

- Increase the quality acceptance rate (KPI) from 90% to 98% (SLA). The two parties that are involved are the quality department and management.
- Decrease the variable cost per unit (KPI) from \$1.2 to \$0.8 (SLA). The two parties that are involved are operations and management.
- Decrease the delivery time (KPI) from 7 days to 4 days (SLA). The two parties that are involved are the supply chain people and management.

Where do KPIs fit?



- Example: Car wash
- Voice of the customer: “As a customer, I am interested in which business has the fastest car wash”
- Process: Washing of a car
- CTQ: Time
- KPI: Amount of time it takes to wash your car

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Figure 5-6. Where do KPIs fit?

KPIs fit in a process as a measurement of task performance.

An example is washing a car.

A customer is interested in which business has the fastest car wash. The process would be washing a car. What is critical to quality for the customer is time – that the car is washed quickly. The KPI is essentially the amount of time that it takes to wash the car. This KPI can be measured in a process execution software package like IBM Business Process Manager to extract these KPIs, act when SLAs are violated, and improve processes through multiple iterations of process models.

Initially, KPIs might be basic. Eventually, your processes might be able to create KPIs that are used as leading indicators. A **leading indicator** is a measurable factor that signals a particular pattern or trend that happens in the future. **Leading indicators** are used to predict process events, but they are not always accurate. Through multiple iterations and improving KPIs, you might be able to create KPIs that predict process problems, and implement solutions to avoid these problems before they occur.

KPIs need to be SMART

Specific
Measurable
Achievable
Result-oriented
Time-bound

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Figure 5-7. KPIs need to be SMART

KPIs need to be SMART:

- Specific
- Measurable
- Achievable
- Result-oriented or Relevant
- Time-bound

KPI examples

Organization	KPI
Schools	Graduation rate
Customer service department	Percentage of customer calls answered in the first minute
Manufacturing	Percentage of rework
Car wash	Wait time

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Figure 5-8. KPI examples

Key performance indicators are quantifiable measurements that reflect the critical success factors of an organization. They differ depending on the organization.

Some examples of KPIs are:

- School (organization): Graduation rate (KPI)
- Customer Service department (organization): Percent of customer calls answered in the first minute (KPI)
- Manufacturing (organization): Percent of rework (KPI)
- Car wash (organization): Wait time (KPI)

How to identify KPIs

Steps

- 1 Know the process goals
- 2 List all customers
- 3 List customer concerns
- 4 Determine critical to quality (CTQ)
- 5 Define the KPI

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Figure 5-9. How to identify KPIs

The steps to help identify KPIs are:

1. Know the process goals.
2. List all customers.
3. List their concerns.
4. Determine critical to quality (CTQ).
5. Define the KPI.

Steps to identify KPIs (1 of 5)

Know your process goals before anything else

- Determine goals by asking the right questions
- Examples:
 - How long does the process take?
 - What are the bottlenecks?
 - How often is each path issued within the process?
 - How much will this process or task cost?
 - How often are certain criteria met?



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Figure 5-10. Steps to identify KPIs (1 of 5)

While modeling the processes, it is important to keep in mind what the process goals are. This effort helps determine what parts or data an analyst wants to monitor and store for later evaluation. By discovering the right questions to ask, an analyst is able to identify data points in the process model that is required for optimization analysis. The questions should be based on the purpose and goal of the process.

Steps to identify KPIs (2 of 5)

List all customers

- Voice of the customer
- All external and internal customers that relate to the process are identified
 - External customers are external to the organization (examples: buyer, seller, and vendor)
 - Internal customers are internal to the organization (examples: finance, manufacturing, and human resources)
- If the process affects them, upstream and downstream groups are also identified as customers
 - Do not limit identification to customers who “touch” the process

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Figure 5-11. Steps to identify KPIs (2 of 5)

The second step is to list all customers. This step is accomplished through brainstorming sessions based on the voice of the customer.

- All external and internal customers that relate to the process are identified.
 - External customers are external to the organization. For example: buyer, seller, and vendor.
 - Internal customers are internal to the organization. For example: finance, manufacturing, and human resources.
- If the process affects them, upstream and downstream groups are also identified as customers.
 - Do not limit identification to customers who “touch” the process.

Steps to identify KPIs (3 of 5)

List the concerns of the customer

- Brainstorm the pain points of every customer that is related to the process under discussion
- Document those pain points

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Figure 5-12. Steps to identify KPIs (3 of 5)

Next, list the concerns of the customer.

- Brainstorm the pain points of every customer who is related to the process under discussion.
- Document those pain points.

Steps to identify KPIs (4 of 5)

Determine critical to quality (CTQ)

- CTQs (critical to quality) are the key measurable characteristics of a process whose performance standards or specification limits must be met to satisfy the customer
- CTQs are a result of the pain points
 - When in place, they satisfy the customer and eliminate the pain point
- These items are also called critical success factors

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Figure 5-13. Steps to identify KPIs (4 of 5)

Determine critical to quality (CTQ):

- CTQs (critical to quality) are the key measurable characteristics of a process whose performance standards or specification limits must be met in order to satisfy the customer.
- CTQs are a result of the pain points discussed previously, and when in place they satisfy the customer and eliminate the pain points.
- These items are also called critical success factors.

Steps to identify KPIs (5 of 5)

Define KPI

- Key performance indicators (KPI) are metrics that are used to measure the critical to quality (CTQ) characteristics of the process
- KPIs must be defined to measure progress toward organizational goals

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Figure 5-14. Steps to identify KPIs (5 of 5)

Define KPI:

- Key performance indicators (KPI) are metrics that are used to measure the critical to quality (CTQ) characteristics of the process that is defined earlier
- Also, KPIs must be defined so that they measure progress toward organizational goals

Measuring a KPI

- Example KPI: Percentage of quality acceptance in a manufacturing plant
- How to measure KPI
 - Measure total units that are accepted during quality inspection
 - Measure total units that are rejected during quality inspection
 - Percentage of quality acceptance = Total units that are accepted during quality inspection / (total units that are accepted during quality inspection + total units that are rejected during quality inspection)*100

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Figure 5-15. Measuring a KPI

Now that the KPI is defined, the next step is how to measure the KPI. Using an example KPI: % of quality acceptance in a manufacturing plant, the KPI is measured:

- Measure total units that are accepted during quality inspection
- Measure total units that are rejected during quality inspection
- % of quality acceptance = total units that are accepted during quality inspection / (total units that are accepted during quality inspection + total units that are rejected during quality inspection)*100

5.2. KPI example scenario

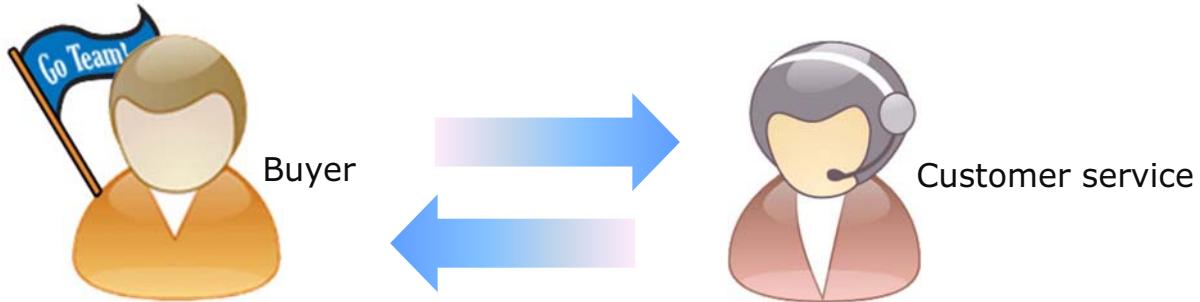
KPI example scenario

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Figure 5-16. KPI example scenario

Example: A retail company



- An online retailer has a customer service department that calls buyers who were initially promised a ticket to an event, but the company did not provide those tickets for various reasons
- This department gives away vouchers to dissatisfied buyers with the aim of bringing back those customers to the company later

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Figure 5-17. Example: A retail company

Consider this scenario: An online retailer has a Customer Service department that calls buyers who were initially promised a ticket to an event, but the company might not provide those tickets due to various reasons. This department gives away vouchers to dissatisfied buyers with the aim of bringing back those customers to the company later.

The goal: Improve the Customer Service department's "voucher process".

Step 1: Know the goals



The goal of the company is to improve the customer service department's "voucher process," but the company does not have any idea what to measure.

- Goal: Improve the customer service departments "voucher process"
 - This goal needs to be SMART
- SMART goal: Increase customer satisfaction by reducing waste and reduce cycle time to process voucher

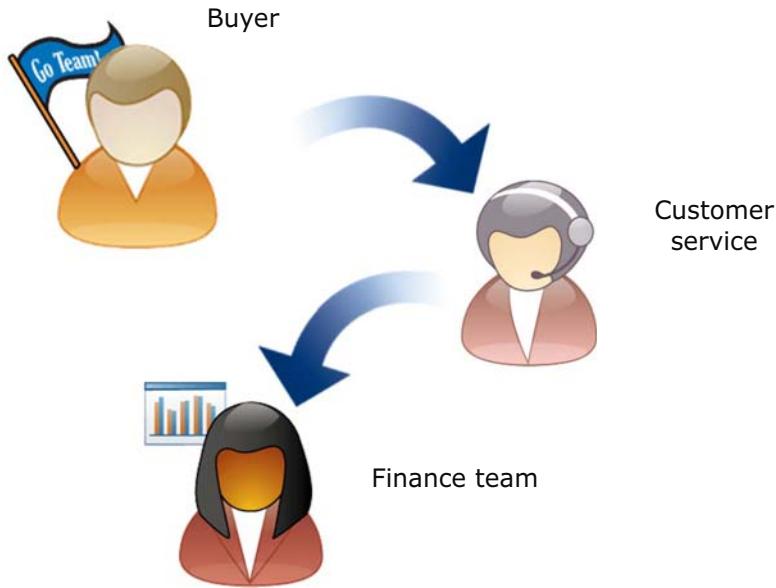
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Figure 5-18. Step 1: Know the goals

The initial goal of "Improve the customer service voucher process" is too vague. This goal needs to be a SMART goal, so it is changed to "Increase customer satisfaction by reducing waste and reduce cycle time to process voucher." Now the goal can be measured.

Step 2: List all customers



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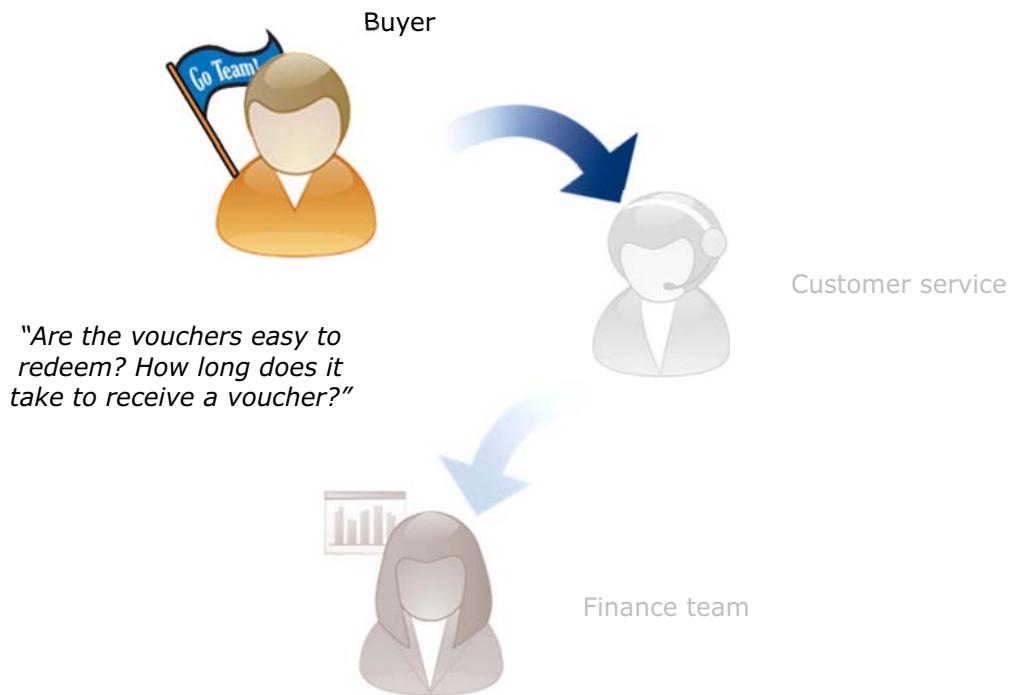
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Figure 5-19. Step 2: List all customers

The internal and external customers for the voucher process are identified:

- Buyer
- Customer service team
- Finance team
- Seller

Step 3: List the customer concerns



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Figure 5-20. Step 3: List the customer concerns

Begin with a list of the buyers' (external customers) concerns.

The buyers' concerns are:

- Time to receive a voucher
- Ease of use of voucher

Step 4: Determine critical to quality (CTQ)

Concerns	Critical to quality (CTQ)
Ease of use of voucher	Simple and quick process to redeem the voucher
Time to receive a voucher	Shorter time to receive the voucher



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Figure 5-21. Step 4: Determine critical to quality (CTQ)

Next, determine the CTQ for each of the concerns.

Step 5: Define KPI

Critical to quality (CTQ)	KPI
Simple and quick process to redeem the voucher	Percentage of vouchers that are redeemed versus given
Shorter time to receive the voucher	Cycle time from the customer issue that is raised to voucher issued



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Figure 5-22. Step 5: Define KPI

The KPIs for each of the CTQs are now defined.

Determine how to measure the KPI

KPI	How to measure the KPI
Percentage of vouchers that are redeemed versus given	Total number of vouchers that are given to buyers, total number of vouchers that buyers redeemed
Cycle time from customer issue that is raised to voucher issued	Timestamp of issue that is raised, voucher that is requested, approval decision, and voucher that is granted



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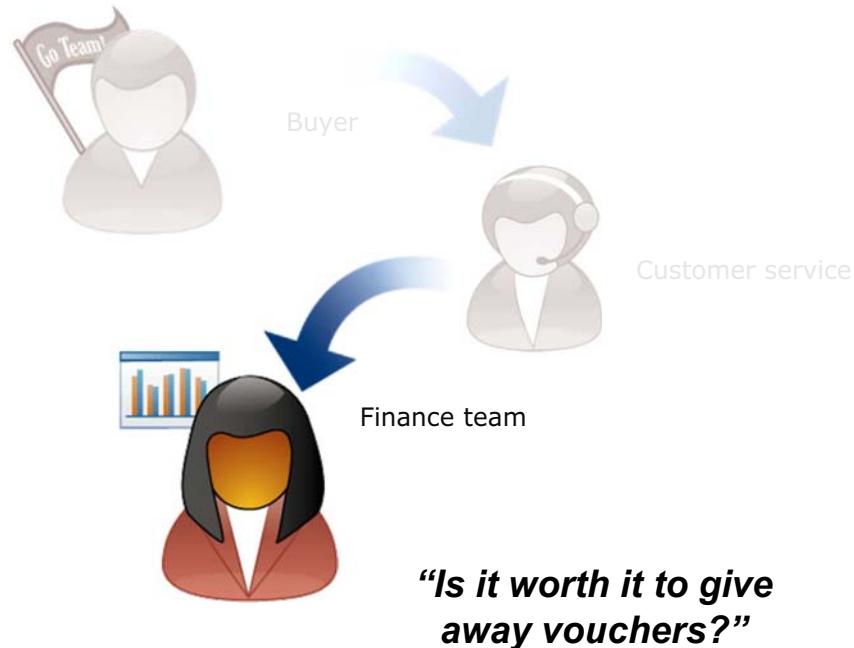
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Figure 5-23. Determine how to measure the KPI

The analysts then list how they measure the KPIs in the process.

Repeat step 3: List the customer concerns

Internal customer perspective



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Figure 5-24. Repeat step 3: List the customer concerns

Move on to the internal customer: the Finance Team. They have a concern: "Is it worth it to give away vouchers?"

Step 4: Determine critical to quality (CTQ)

Concern	Critical to quality (CTQ)
Worth giving away vouchers	Repeat business from customer



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Figure 5-25. Step 4: Determine critical to quality (CTQ)

With the internal customer concern identified, it creates a new CTQ.

Step 5: Define the KPI

Critical to Quality (CTQ)	KPI
Repeat business from customer	Number of times the customer does business in the next year
	Dollar value of customer



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Figure 5-26. Step 5: Define the KPI

New KPIs for the process are identified.

Determine how to measure the KPI

KPI	How to measure the KPI
Number of times the customer does business in the next year because of voucher	Count of customers that are returning (with voucher)
Dollar value of customer	Total dollar value of vouchers that are granted and redeemed



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Figure 5-27. Determine how to measure the KPI

For the voucher process, the KPIs can now be fully measured for both internal and external customers. This measurement allows the analyst to assess the process participant task performance to meet these standards.

5.3. Performing a value-add analysis

Performing a value-add analysis

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Figure 5-28. Performing a value-add analysis

Value-add analysis of process activities (1 of 2)

- Value added:
 - An activity in the process that is essential to deliver the service or product
 - Must be done to meet customers' needs
 - Adds form or feature to the service
 - Enhances quality, enables competitive delivery, or has a positive impact on price competition
 - If they knew that you did it correctly, customers would be willing to pay for the work
- Business value added:
 - An activity that the business requires to add value according to executives, but adds no real value from a customer standpoint
 - Reduces financial risk
 - Supports financial reporting requirements
 - Addresses compliance requirements
 - Provides extra support in execution of value-add work

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Figure 5-29. Value-add analysis of process activities (1 of 2)

Value-add analysis:

- This analysis identifies non-value-added steps in an existing process for possible elimination or modification.
- The purpose of the Value Add/Non-Value Add tool is to identify and eliminate the hidden costs that do not add value for the customer. This tool helps a team identify and reduce unnecessary process complexity and increase capacity by better using resources.
- A key benefit in using this tool is that it provides the team with a clear understanding of redundant steps in the current process. Also, it provides an understanding of process steps that customers are willing to pay for versus those steps they are not.



Note

If it is not clear whether a task is value-add to your customers, consider what would happen if you **stop** doing it. Would your external or end customer complain? If so, then it is likely that it is a value-added activity. However, you might also need to determine whether this complaint is because they are used to receiving something or because they need and use what they receive (habit versus critical need).

If a task is not considered a value-add to the internal customer and you are not sure whether it is a business value-added activity, consider what would happen if you **stop** doing it. Would your internal customers complain? If so, then it is likely that it is a business value-added activity. However, you might also need to determine whether this complaint is because they are used to receiving something or because they need and use what they receive (habit versus critical need).

If you **stopped** the activity, would any customers (internal or external) know the difference? If not, the work is probably a non-value-added activity.

Examples

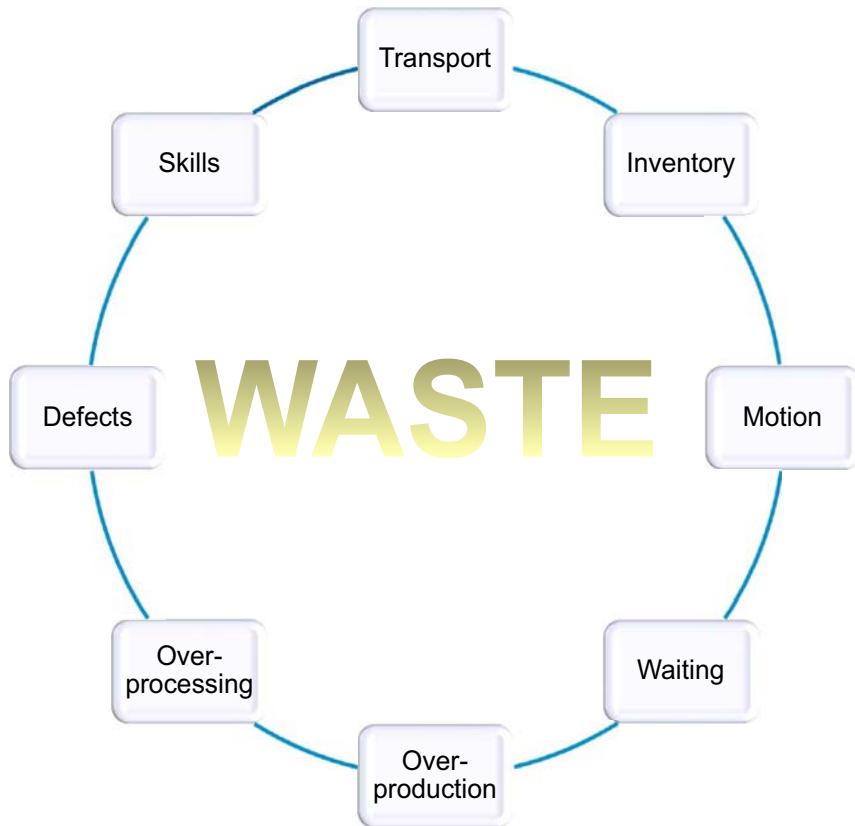
- Customer cashing a check in a bank
 - VA: Receive cash from bank teller.
 - BVA: Filling out the deposit slip.
 - NVA: Check deposited for \$1000, but only \$100 credited to the account. Customer complains – rework is done by the bank and eventually the problem is fixed.
- Manufacturing: Cell phone assembly
 - VA: Assembling front, back cover, microphone, headset, key pad.
 - BVA: Inventory management of those components.
 - NVA: Assembled phone failed end-of-line quality inspection and must be reworked.
- Retail industry: Distribution and warehousing
 - VA: Ship apparels to the store.
 - BVA: Bring apparels from ocean port to distribution center.
 - NVA: Store high moving units in “not so easily” accessible locations (non-golden pick zones) within the warehouse. It causes double handing and also not using FTL (flow through logistics) for units, which already have a demand in a store even before they arrive at a distribution center. Ideally, they should be routed to shipping directly instead of storing them in the warehouse.

Value-add analysis of process activities (2 of 2)

- Non-value-added:
 - An activity that adds no value from the customer's perspective and is not required for financial, legal, or other business reasons
 - Rework needed to fix errors
 - Duplicative work (monitoring of work, multiple signatures, proofing, redundant processes, checking the checker)
 - Waiting, idle time, delays
 - Over-processing
 - Waste

Types of waste

- TIMWOODS
 - Transport
 - Inventory
 - Motion
 - Waiting
 - Over-production
 - Over-processing
 - Defects
 - Skills



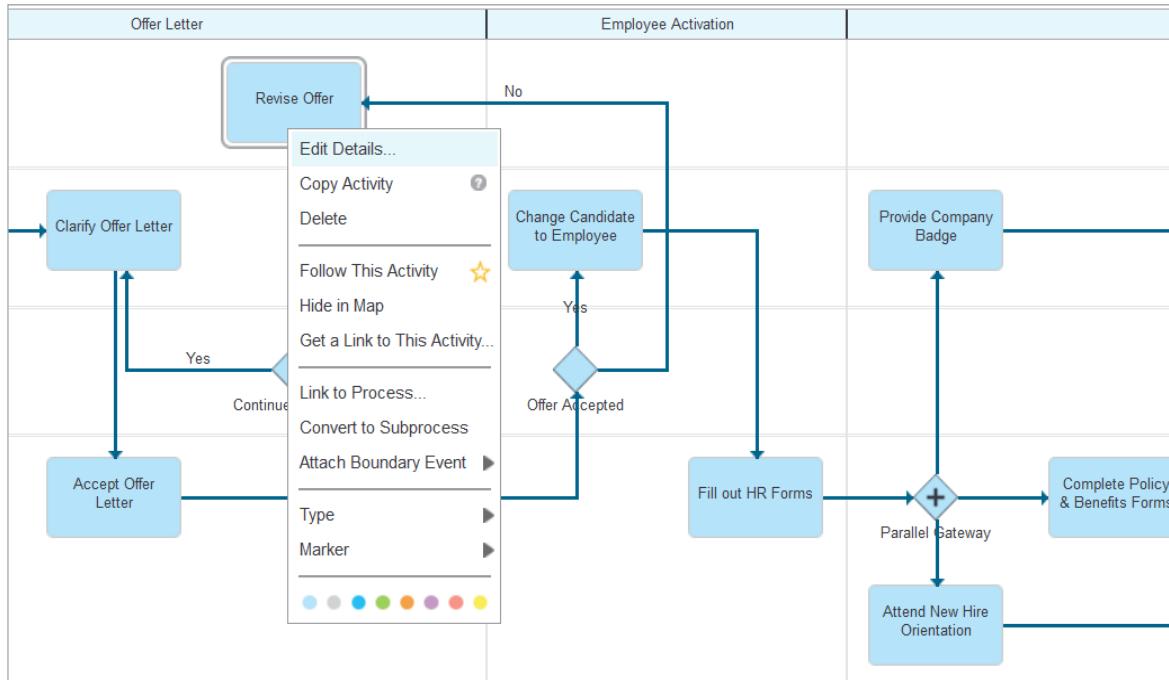
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Figure 5-31. Types of waste

You can use the acronym TIMWOODS to remember the different types of waste you can categorize in your organization.

Value-add analysis by using Blueworks Live (1 of 2)



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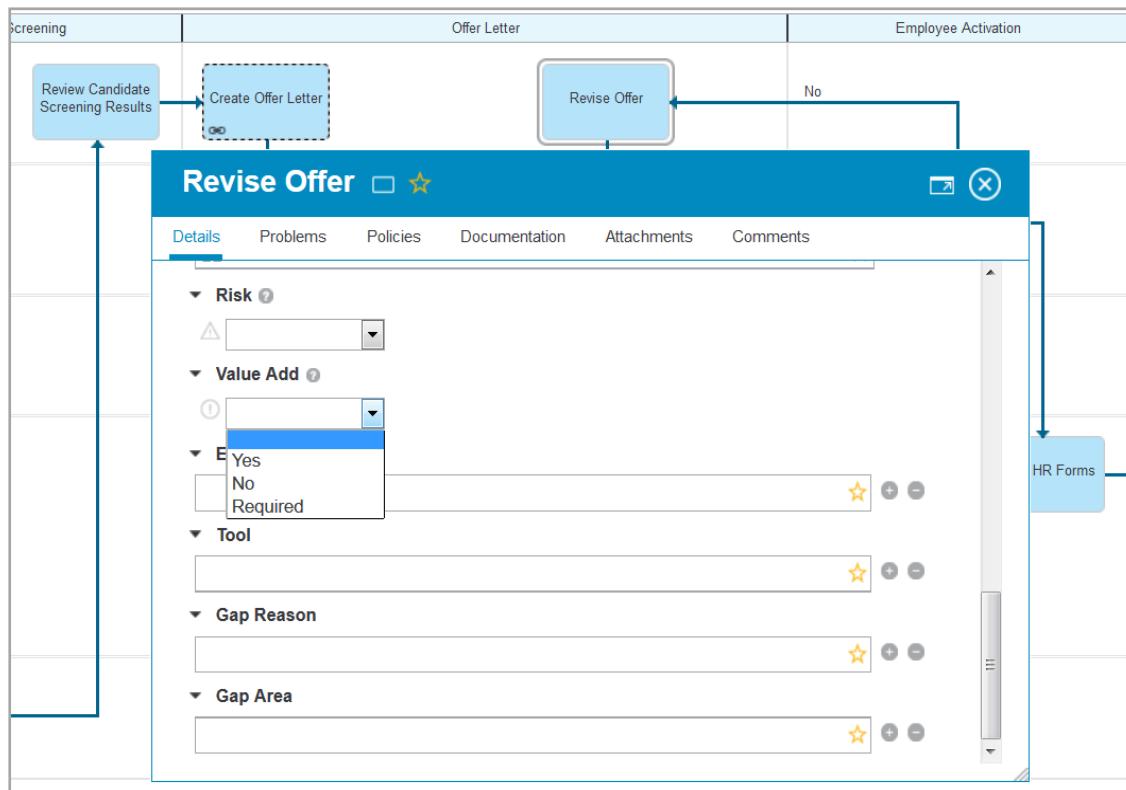
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Figure 5-32. Value-add analysis by using Blueworks Live (1 of 2)

In Blueworks Live, the analyst right-clicks an activity in the process diagram to access the menu options. The analyst then selects the Details option. In the example process diagram of the Expense Reimbursement process, the analyst selects the Validate the Request activity in the System lane.



Value-add analysis by using Blueworks Live (2 of 2)



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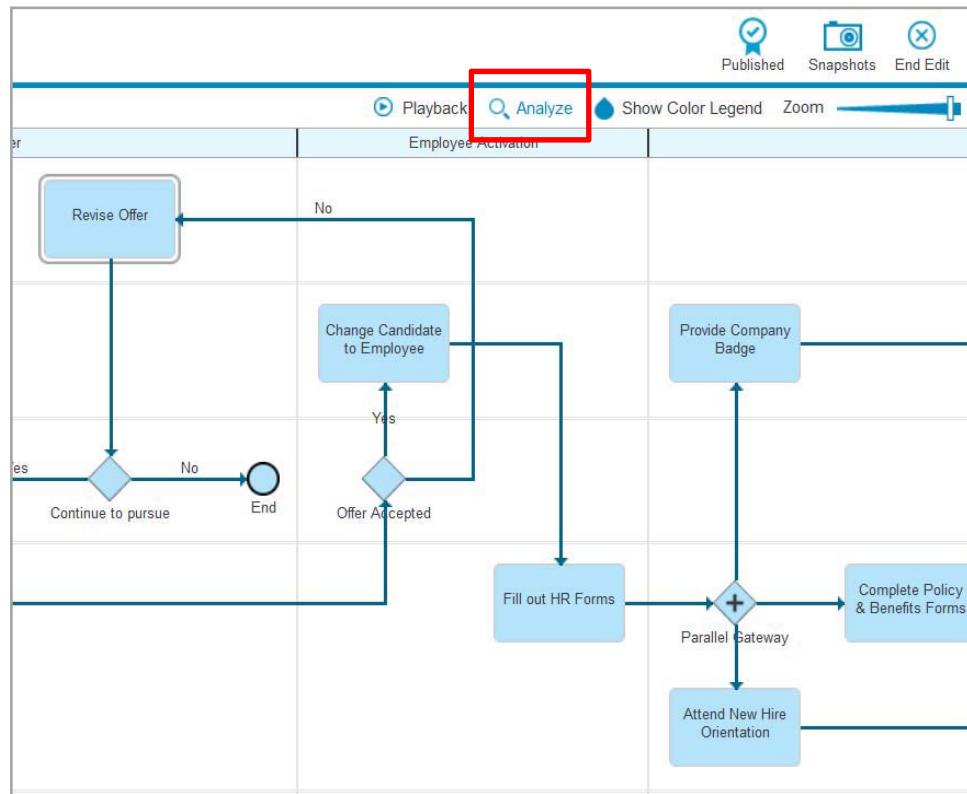
Figure 5-33. Value-add analysis by using Blueworks Live (2 of 2)

The analyst scrolls down the Details page in the dialog box to the Value Add option. The analyst clicks the chevron icon on the drop-down menu to view the options. The options available relate to the customer value, business value, and non-value-add categories.

- Yes pertains to customer value-add.
- No is a non-value-add activity.
- Required is a business value-add task.

In this case, the Validate the Request activity is not a customer value task. However, the activity is a business value task because it meets compliance policies in the organization. The analyst selects the Required option to tag the activity as a business value-add activity.

Using the analyze feature in Blueworks Live



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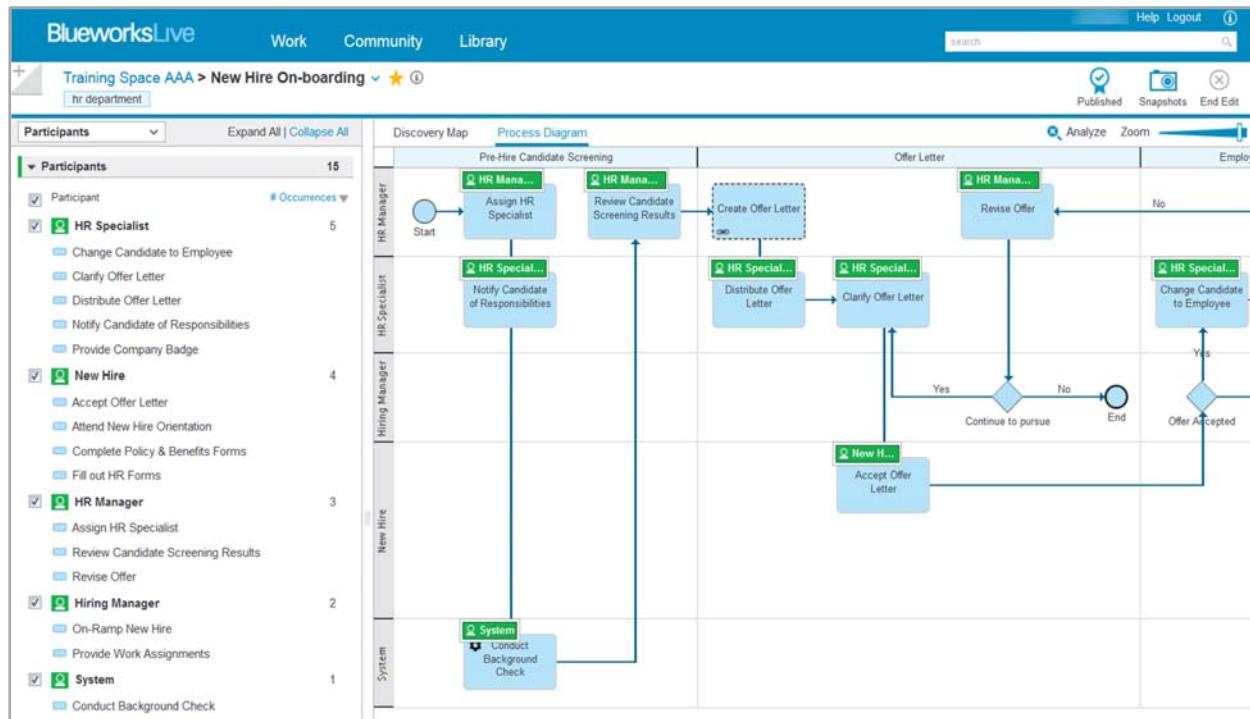
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Figure 5-34. Using the analyze feature in Blueworks Live

To review analysis that is completed in Blueworks Live, the user selects the Analyze icon at the top of the process diagram or discovery map section.

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Analyze interface



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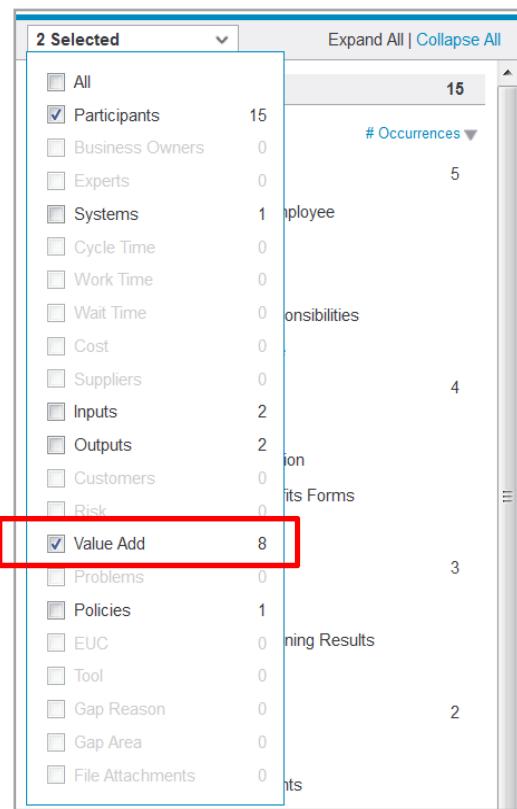
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Figure 5-35. Analyze interface

The Analyze interface in Bluworks Live consists of either the process diagram or a blueprint discovery map on the right side. The analysis panel for the diagram or map is found on the left side. To switch between the diagram or map, the user clicks the icons for each at the top of the interface. To exit out of the Analyze interface, the user clicks the “X” on the Analyze icon in the menu bar.



Selecting an analysis category



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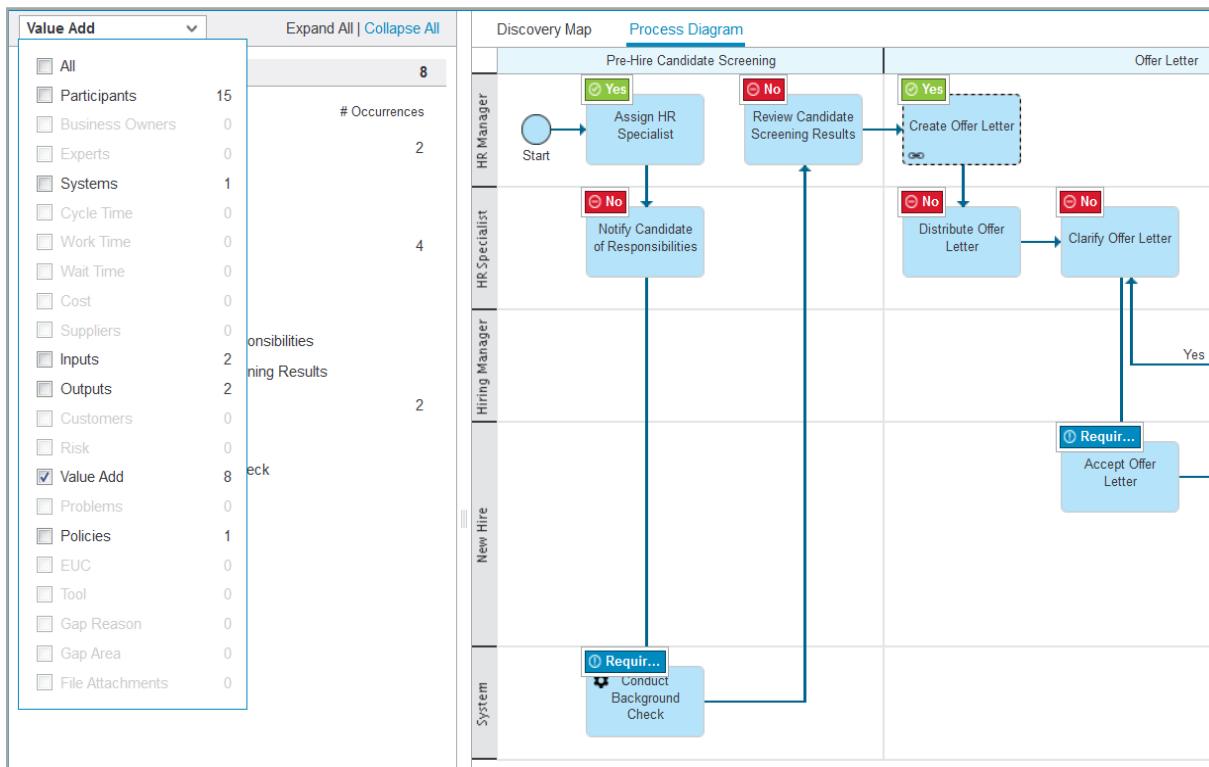
Figure 5-36. Selecting an analysis category

The user opens the drop-down menu to select the options in the analysis that the BPM team completes. Value-add is a selection available in the menu options.

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Viewing the value-add analysis on a process diagram



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Figure 5-37. Viewing the value-add analysis on a process diagram

In the example Expense Reimbursement process diagram, the value-add analysis shows the tag that is applied to the Validate the Request activity. If any other activity was tagged with value-add status, the tags would also appear on the diagram.

Prioritize opportunities

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Figure 5-38. Prioritize opportunities

Process triage

- Identify highest priority business goals and drivers
- Ranked list of processes based on impact on those goals
- Baseline criteria for process selection against the company goals

	Easy to quantify ROI/benefit (.37)	Does not require integrations (.24)	Can be scoped to 90 days or less (.03)	Minimal risk to business performance (.35)	Row total	Relative value	Rank
L1 order fulfillment	0.15	0.06	0.01	0.01	0.22	0.22	3
Support services – call center	0.02	0.09	0.01	0.12	0.24	0.25	2
L3 seller delivers	0.18	0.09	0.01	0.06	0.35	0.35	1
Finance GL controls	0.00	0.00	0.00	0.17	0.17	0.18	4

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Figure 5-39. Process triage

To prioritize opportunities, first create a process triage matrix. By identifying highest priority business goals and drivers, it allows your organization to rank processes based on impact on the organizational goals. Using the matrix, you can easily quantify relative improvement over chance (RIOC), improve processes within 90 days, and minimize integration requirements and business disruption.

Activity triage

- Identify opportunities for improvement in the selected processes
- List all problems and pain points in the process
- Rank and identify the highest value problems to attack first

ID	Owner	Challenge	Category of pain		
			Process	People	System
1	RSD, CRM	Sell 401k plan to plan sponsor		X	
2	RSD, CRM	Generate and print fee schedule	X	X	X
3	RSD, CRM	Create SMART submission packet	X		X
4	RSD, CRM	Conduct master application meeting with plan sponsor and broker	X	X	
5	CC	Review master application documents for completeness	X	X	X
6	CC	Create folder on P drive and drag applicable checklist templates	X	X	X
7	CC	Email to CRM, RSD, IS, CS that submission is complete or incomplete	X	X	X
8	CC	Assign plan to trigger setup of weekly calls	X	X	
9	CC	Email CS to trigger setup of weekly calls	X		X
10	IS	Complete database checklist	X		X

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Figure 5-40. Activity triage

Next, move on to activity triage. Identify opportunities for improvement in the selected processes from process triage. List all the problems and pain points that the stakeholders identify. Then, rank and identify the highest value problems to attack first. Through a structured approach, the best projects reveal themselves.

An example activity triage matrix is shown.

Tool: Prioritization matrix

- After the improvement opportunities, pain points, and business goals are listed in the prioritization matrix, the next step is to complete the numerical values for the tool to calculate a “priority value”
 - Rank (number) the business goals from high to low according to the importance of the goal to the business
 - Rate the impact the improvement opportunity or pain point has on the business goal
 - Define a numerical scale

Project	Importance to customer	Cost to implement	Likelihood of success	Cost reduction	Positive impact on other processes	Total project priority value					
	1	X	1	X	1	X	1	X			
Proj A	5	X	5	X	3	X	4	X	5	X	1500
Proj B	4	X	3	X	5	X	1	X	2	X	120
		X		X		X		X		X	
		X		X		X		X		X	
		X		X		X		X		X	

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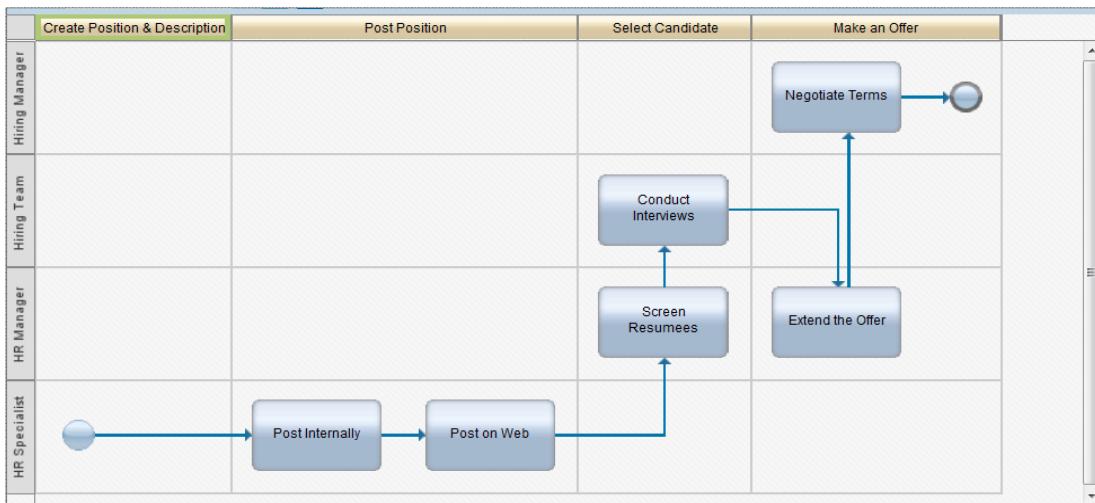
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Figure 5-41. Tool: Prioritization Matrix

- After the improvement opportunities or pain points and business goals are listed in the Prioritization Matrix, the next step is to complete the numerical values in order for the tool to calculate a “priority value”.
- Rank (number) the business goals from high to low according to the importance of the goal to the business. The higher the ranking, the higher the importance.
- Rate the impact that the improvement opportunity or pain point has on the business goal. The higher the ranking, the higher the negative impact on the goal.
- Define a numerical scale. The purpose of the scale is to be able to calculate a numerical value that orders the improvement opportunities from high priority to low priority.

Opportunities for improvement

- Identify process hot spots:
 - Bottlenecks: Not visible in process flow, but interview or shadow participants in the process to determine participants that might have a large workload or are overwhelmed
 - Rework: Look for loops in the process flow such as approval-rejection loops
 - Non-value-added steps: Look for activities that contain waste



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Figure 5-42. Opportunities for improvement

5.4. Identifying and selecting appropriate solutions

Identifying and selecting appropriate solutions

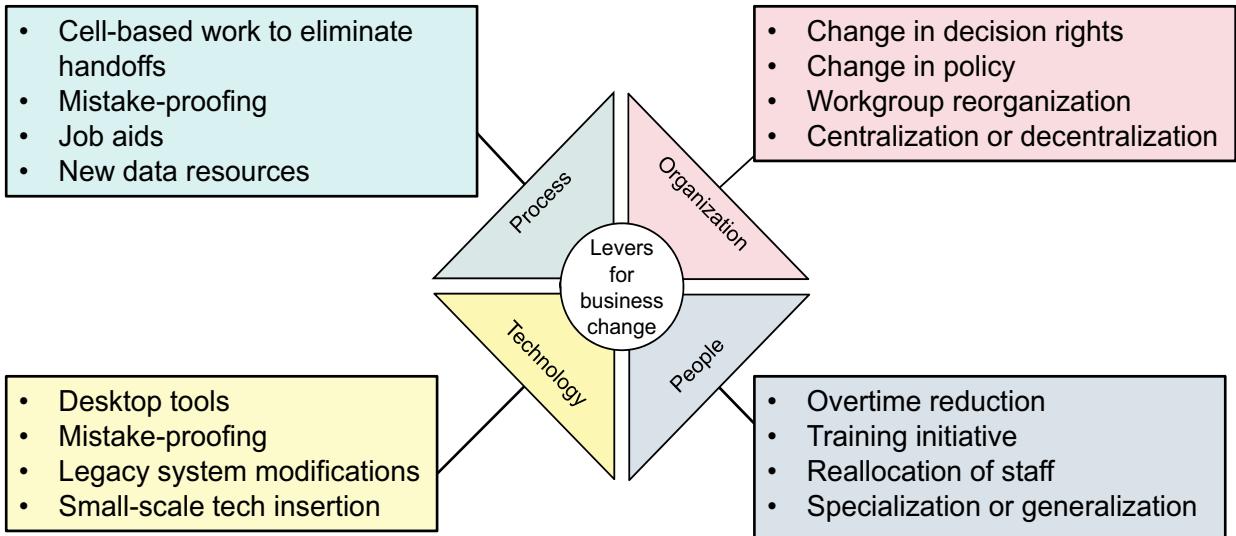
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Figure 5-43. Identifying and selecting appropriate solutions

Identifying and selecting appropriate solutions

- Process improvement is focused on the identification and selection of the appropriate solution



- An early key goal is the identification of improvement opportunities that are actionable in the near term

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Figure 5-44. Identifying and selecting appropriate solutions

Recommendations

- Identify and rank a set of recommendations for improving the biggest pain points in a process
 - Both short-term and long-term improvements
 - Highlight operational impact and costs of each

High-level issues	Recommendation	Operational impact
<p>Multiple checklists are difficult to manage</p> <ul style="list-style-type: none"> • Many special-purpose checklists are used throughout the implementation process by the IS and CS • The checklists are usually paper hardcopies and require manual use and maintenance • The IS uses multiple, manual checklists that require maintenance, and increases the exposure to human errors 	<ul style="list-style-type: none"> • Eliminate manual paper checklists • Consolidate all CS and IS activities into one project management tool • Implement a business process management system (BPMS) that does automated task routing based on predefined business rules 	<ul style="list-style-type: none"> • Reduction in manual, non-value-added tasks • One source of information for resources to take direction from • Automation based on business rules reduces the opportunity for human error
<p>Master application meeting is first source of data contamination</p> <ul style="list-style-type: none"> • Complete information is usually not gathered in the master application meeting • The CRM team is not encouraged or motivated to gather all necessary information that is required for proper plan implementation downstream • Handwritten notes on paper copies are scanned into software and are often not legible 	<ul style="list-style-type: none"> • Redesign this event to ensure sales and implementation resource accountability for every step on the call • Strategically align sales group and implementation team • Engage in facilitated sessions that are aimed at driving out SLAs for sales inputs to implementation 	<ul style="list-style-type: none"> • Strategically aligned organization with common objectives and measures for success • External departments and larger GWL organization has insight to implementation group strategy and objectives • Prepared and satisfied clients

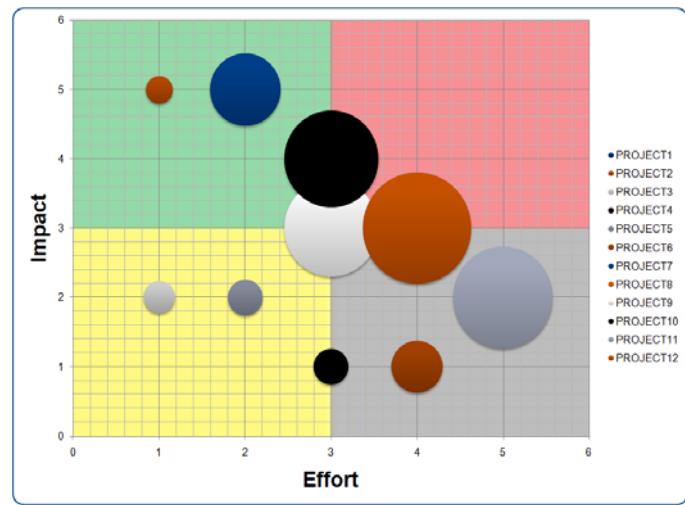
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Figure 5-45. Recommendations

Impact and effort matrix

- After the prioritization matrix is complete, you can further expand the matrix into an impact and effort analysis
- Rate the positive impact that the improvement opportunity or pain point has on the process goal
- Rate the effort (resource investment, change management) that is required to address the improvement opportunity or pain point
- The resulting graph displays the priority value (circle size), and level of impact and effort required
- Depending on the intended outcome, you can focus on one quadrant or a combination of them



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Figure 5-46. Impact and effort matrix

After the prioritization matrix is complete, you can further expand the matrix into an impact and effort analysis.

1. Rate the positive impact that the improvement opportunity or pain point has on the process goal. The higher the ranking, the higher the positive impact on the process goal.
2. Rate the effort (resource investment, change management) that would be required to address the improvement opportunity or pain point. The higher the ranking, the higher the positive impact on the process goal.

The resulting graph displays the priority value (circle size), and level of impact and effort required. Depending on the intended outcome, you can focus on one quadrant or a combination of them.

An example impact and effort matrix is shown. The large red circle represents a moderate impact project with a comparatively higher amount of effort, with a large priority value.

To-Be analysis example

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Figure 5-47. To-Be analysis example

Example: Identified area of opportunity

Currently, the company sends out only a postcard to enroll customers into the program

- Facts

- Estimated cost \$0.50
- One per customer
- Open invitation for phone calls to be placed to company
- Might potentially be shared with other customers not eligible for the program (potentially increases phone calls)
- Not personalized (no account information)
- Might never receive the postcard in the mail

Example: Analysis of opportunity

- In Year 3, 5000 postcards were sent out to customers. This effort generated an estimated 3500 phone calls from customers to the company (70% response rate). What is the cost associated with sending out the postcard with the information the company has today?
 - A phone call to the company lasts on average 15 min (0.25 hr)
 - An estimated loaded cost is \$35 per hour
 - Cost of phone calls for Year 3 = 0.25 hour x \$35 per hour x 3,500 phone calls = \$30,625
 - Cost of the 5,000 postcards @ \$0.50 = \$2500
- The \$2500 spent on 5000 postcards carries an extra cost of \$30,625
- Now think about how many phone calls were about:
 - What is required for the customer to bring to the agency?
 - The down payment amount?
 - The program itself and its benefits?
- Increasing the amount of information on the postcard might save time and money for the customer and the company might reduce the number of phone calls

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Figure 5-49. Example: Analysis of opportunity

Example: Roadmap for success, the short term (1 of 2)

Take a proactive approach in providing more information to the customers before arriving at the third-party location or calling the company

- Send more than one postcard to eligible customers
 - A possible scenario might be to send the customers a postcard at 3 months, 2 months, and 1 month before first enrollment date
 - Postcards cost about \$0.50 versus someone that calls the customer
 - An employee's cost to receive and answer the simple questions is much more costly than a postcard (three postcards = \$1.50)
- Personalize the postcard for the customer, and provide information about the amount due to enroll in the program
- Add more instructions on the postcard for the customer and list what they must bring the first time that they visit a location:
 - Identification cards from everyone in the family
 - 3 months of income verification of all incomes in the family
 - A copy of the bill
 - Receipt of payment within 30 days

Example: Roadmap for success, the short term (2 of 2)

- Define business decision rules to further automate the process of approving enrollment applications
 - It increases first time and past yield of enrollments
- Provide more education on the benefits of staying enrolled and getting enrolled early
- Do more analysis
 - Gather information and perform analysis on customers who get notice of disqualification and enroll before disqualification versus customers who get notice and enroll in post-disqualification
 - Do cost analysis on the cost of disqualification and requalification
 - Gather information on why customers fail the plan
 - Do analysis and brainstorm solutions to mitigate plan failures

Example: Roadmap for success, the long term

With the additional analysis results of customers, compare the total disqualification and requalification cost per customer versus some incentive to the customer to remain qualified and enrolled

- Credit towards customer account
- Create a point system
 - Customers can potentially redeem these points for items that might save them money

Example: Summary

- In summary, the evaluation of the As-Is and To-Be analysis that is conducted by the company was in fact thorough, prepared, and allowed further analysis of areas before customer enrollment in the program
- Using Blueworks Live validated the To-Be process in a 360-degree setting with process participants
- With the validation of the process improvements, the To-Be process proves to increase efficiency in the enrollment by enhanced sharing information with third-party participants and automated processing and coordination
- Root cause analysis was performed on the process before the enrollment process
 - If other communication vehicles are not explored and further educating of the experienced customers is not done, enrollment peak points continue to occur

Unit summary

- Define key performance indicators (KPIs)
- Add value through process analysis
- Create the To-Be process

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Figure 5-54. Unit summary

Review questions

1. Which is a part of the SMART acronym that describes KPIs?
 - A. Achievable
 - B. Actionable
 - C. Applicable
 - D. Amateur
2. True or False: During a value-added analysis, an activity in a process that performs a required legal review by a lawyer as part of industry regulation compliance is classified as non-value added.
3. Transport, inventory, motion, waiting, over-production, over-processing, defects, and skills are all types of:
 - A. Metrics
 - B. KPIs
 - C. Waste
 - D. Process activities



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Figure 5-55. Review questions

Write your answers here:

- 1.
- 2.
- 3.

Review answers

1. Which is a part of the SMART acronym that describes KPIs?
 - A. Achievable
 - B. Actionable
 - C. Applicable
 - D. Amateur

The answer is A.
2. True or False: During a value-added analysis, an activity in a process that performs a required legal review by a lawyer as part of industry regulation compliance is classified as non-value added.
 The answer is False. If regulations require it, a legal review would be considered business value-added.
3. Transport, inventory, motion, waiting, over-production, over-processing, defects, and skills are all types of:
 - A. Metrics
 - B. KPIs
 - C. Waste
 - D. Process activities

The answer is C.

Improving business processes

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Figure 5-56. Review answers



Exercise: Improving a process

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Figure 5-57. Exercise 4: Improve a process

Exercise objectives

- Create the To-Be business process

Improving business processes

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Figure 5-58. Exercise objectives

Unit 6. Discovering the IBM Systems Solution Implementation Standard (ISSIS)

Estimated time

01:30

Overview

This unit explores the resources that are available in the IBM Systems Solution Implementation Standard (ISSIS).

Unit objectives

- Navigate the IBM Systems Solution Implementation Standard (ISSIS) portal to gather the type of material that is used for a process transformation project
- Explore the ISSIS method library composition and terminology
- Locate the IBM Business Process Manager collection of documentation
- Maximize use of typical business analyst work products, templates, and deliverables
- Conduct Playbacks
- Navigate the hybrid cloud and process transformation

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Figure 6-1. Unit objectives

Topics

- Introduction to ISSIS and concepts overview
- Using ISSIS
- Business analyst work products, templates, and deliverables in ISSIS

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Figure 6-2. Topics

6.1. Introduction to ISSIS and concepts overview

Introduction to ISSIS and concepts overview

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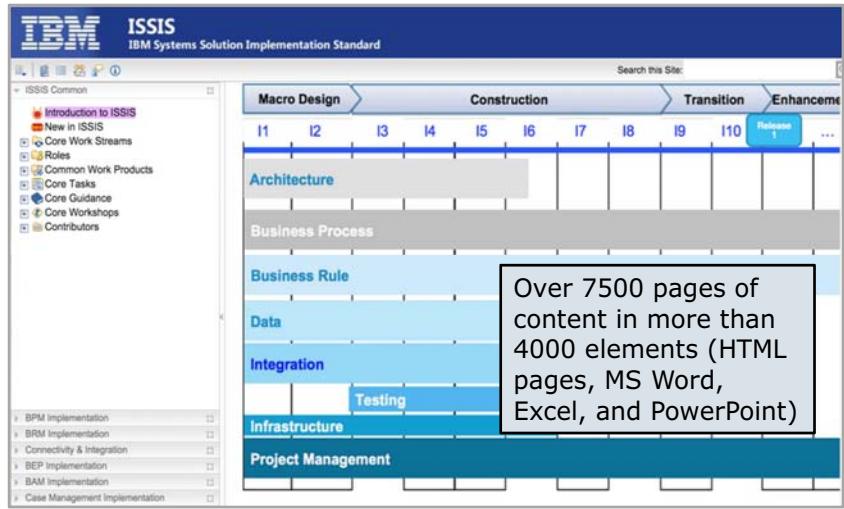
Figure 6-3. Introduction to ISSIS and concepts overview

IBM Training



What is IBM Systems Solution Implementation Standard (ISSIS)?

- An IBM methodology portal
- A standard implementation process: roles, tasks, work products
- A structured knowledge asset repository: guidance, templates, checklists
- A set of Center of Excellence (CoE) services:
Discovery and other workshops, health check, project assessment
- Ranging from solution inception to deployment
- Addressing technical tips and business relevance



[Discovering the IBM Systems Solution Implementation Standard \(ISSIS\)](#)

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Figure 6-4. What is IBM Systems Solution Implementation Standard (ISSIS)?

The IBM Systems Solution Implementation Standard (ISSIS) is a methodology that is used by the IBM Software Services organization to:

- Maximize its clients' return on investment in IBM products.
- Provide IBM Middleware product-specific suggested practices and execution artifacts based on the experience that is gathered from hundreds of consulting projects.
- Support generic project management for consulting services, BPM, ODM, BAM, Connectivity, Integration, Cloud, and Optimization technologies. It enhances IBM's ability to consistently provide outstanding quality and deliver projects on time, on specification, and on budget.
- In addition to technical guidance, it codifies specific project management skills that IBM acquired and defined over the years with a goal to minimize project and technical risks.

ISSIS availability and access

- License to access the ISSIS portal is:
 - Free to IBM Business Partners
 - Available for a nominal fee for IBM clients
- The content available to clients is a subset of what is available to IBM Business Partners

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Figure 6-5. ISSIS availability and access

IBM clients can use ISSIS in two ways:

- The first one is to license the source of the ISSIS content. ISSIS is a method library that was built by using the Rational Method Composer platform. The library is composed of a number of method plug-ins that can be extended to create a method that is precisely tailored to the client's needs and specificities. Extending and customizing the ISSIS content requires the use of Rational Method Composer (a software tool that IBM licenses) or the Eclipse Process Framework (an open source software tool from the Eclipse Foundation). It then requires that the client hosts the resulting web application on a web server to expose the content of the library to its personnel. Lab services can support the following tasks:
 - Install and set up the platforms that are needed to manage, author, and publish the methodology
 - Mentor the client on tailoring and extending the ISSIS library
- A second, simpler way is to subscribe to access a predefined version of ISSIS on the internet. The subscription covers 50 registered users and is valid for a year, and is renewable each year.

ISSIS history:

- ILOG created ISSIS in 2003, and was focused on providing a repeatable methodology approach to develop business rules-based decisions by using a business rule management system (BRMS). The core of the methodology was the agile business rule development process, and included a collection of guidance and suggested practices that are dedicated to the ILOG JRules platform.
- After the ILOG acquisition by IBM in 2009, ISSIS was integrated as the methodology to support the IBM Lab Services engagements on ODM. It was then extended to cover extra practices from the IBM Middleware portfolio, in particular business process management, business activity monitoring, and connectivity and integration products such as WebSphere Enterprise Service Bus, WebSphere Message Broker, and IBM MQ.
- In 2012, ISSIS was made available on the internet to IBM Business Partners so that they could use the predefined services and suggested practices to execute engagements with IBM clients.
- In 2014, the source content of ISSIS was made available for licensing to IBM's clients to help them develop and tailor Center of Excellence for their BPM and ODM practices.
- Finally, in 2016, a predefined version of ISSIS is made available on the internet to IBM's clients with a yearly subscription model.

Getting access to ISSIS

- To request an ISSIS license, send an email to: isishelp@us.ibm.com
- After you get an ISSIS license, go to ISSIS Live
 - The ISSIS version for Business Partners and Clients is found at: www.isislive.com
- Clients have access to a subset of the artifacts available to the Business Partners
- In terms of access to content: Blue ISSIS > ISSIS Live for Partners > ISSIS Live for Clients
 - Browse online
 - Download templates and other artifacts

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(ISSIS)

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Figure 6-6. Getting access to ISSIS

Key messages

- ISSIS: The IBM Systems Solution Implementation Standard
- An integrated platform for IBM Services, Business Partners, and client practices:

▶ Common	☒
▶ BPM Implementation	☒
▶ ODM Implementation	☒
▶ Cognitive Business Operations	☒
▶ DSI Implementation	☒
▶ Connectivity & Integration	☒
▶ BAM Implementation	☒
▶ Case Management Implementation	☒
▶ Glossary	☒

- Linking roles, activities, work breakdown structure (WBS), best practices, guidance, and offerings
- End-to-end project implementation process:
 - With a mindset on how to implement solutions with IBM software
- Product-specific best practices:
 - Organized body of knowledge, including references to external content

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(ISSIS)

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Figure 6-7. Key messages

ISSIS is an integrated platform for IBM Services, Business Partners, and client practices that are listed on this slide.

ISSIS basics

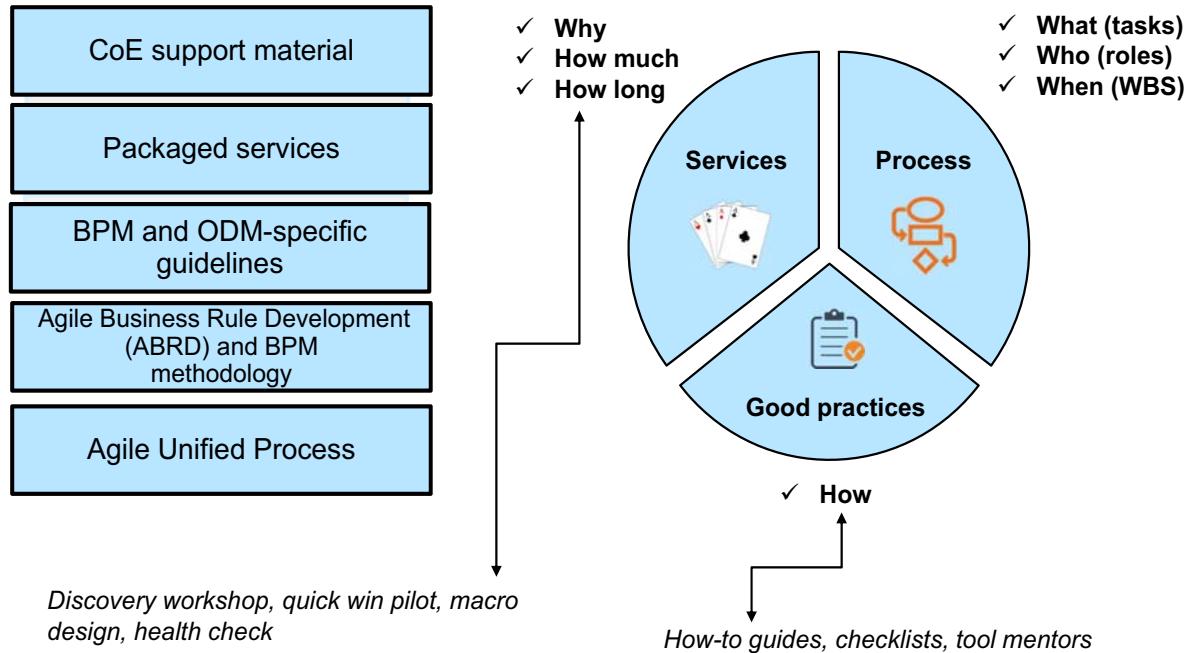
- Goal:
 - Consistent way to deliver services and build technology-based solutions
 - Support practitioners from business idea to solution deployment
 - Support for delivering engagement services
 - Rapidly enable partners on service delivery
 - Plug-and-play practices that are linked to each other
- Software development methodology
 - Includes delivery processes for BPM Standard and Advanced, Operational Decision Management (ODM) Standard and Advanced, business activity monitoring (BAM) projects, case management

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Figure 6-8. ISIS basics

ISSIS: A platform to support focused practices



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Figure 6-9. ISSIS: A platform to support focused practices

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Common solution implementation challenges

- ISSIS guidance and artifacts help with addressing BPM solution challenges:
 - Project requirements management
 - Ambiguous and imprecise communication
 - Brittle architecture: fails under stress
 - Overwhelming complexity
 - Undetected inconsistencies in requirements, designs, and implementations
 - Insufficient testing
 - Subjective assessment of project status
 - Failure to attack risks
 - Uncontrolled change propagation
 - Insufficient automation

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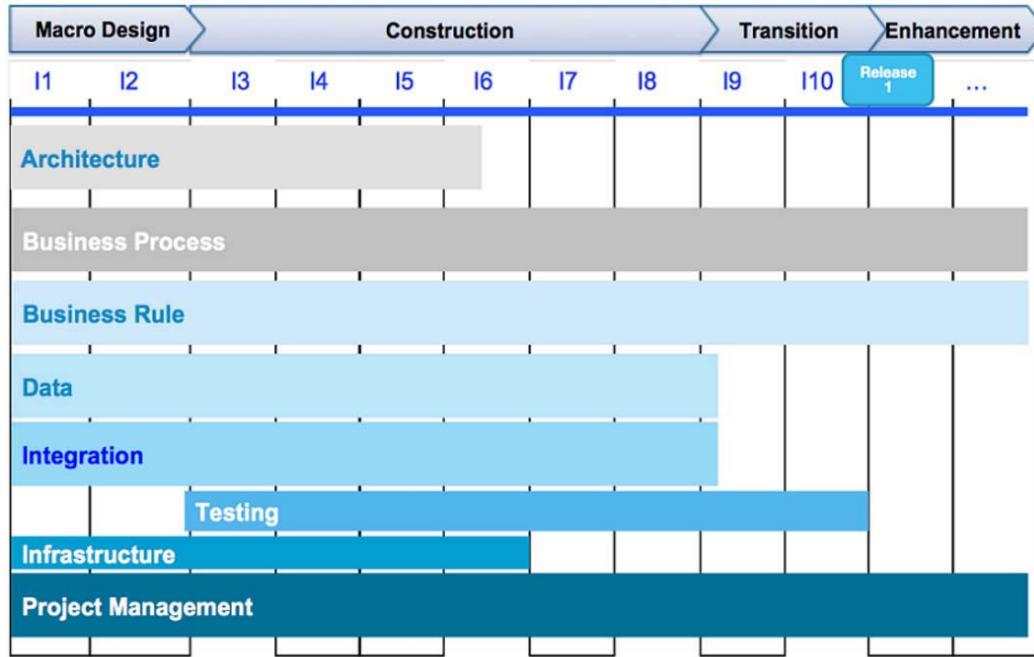
Figure 6-10. Common solution implementation challenges

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ISSIS = unified process as the framework for delivery projects

Each project phase is broken into iterations and work streams



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Figure 6-11. ISSIS = unified process as the framework for delivery projects

- ISSIS originally focused the Unified Process as the framework for delivery processes, by using the inception, elaboration, construction, and transition phases. Now, it is simplifying the phases to macro-design, construction, transition, and then post-release with enhancement.
- Each phase is working on a series of work streams, and validating iterations through Playbacks.
- The most important aspect for ISSIS is to apply an agile, iterative, and incremental approach, and to organize tasks into a series of work streams.
- ISSIS is a resource around agile discipline that any project manager should use.

ISSIS = iterative progress + agile methodology

Iterative progress:

- Minimizes project risk and improves productivity
- Gives you progress toward project goals in discrete time-boxed steps
- Manages the next set of key risks for each step and determines the next set of functionality
- Gives you the “controlled risk” approach with checkpoints between iterations
 - Enables project stakeholders (project owners, users, and technical staff) to review the progress of the project and agree on the goals of the next step
- The “Playback” sessions are the culmination of the checkpoints

Agile methodology:

- Applies to iterative software development methodology
- Iterative development is an approach to building software in which the overall lifecycle is composed of iterations
- Each iteration is a self-contained, time-boxed mini-project that is composed of activities such as requirements analysis, design, programming, and test
- The goal for the end of an iteration is an “iteration release”, which is a stable, integrated, and tested subset of the complete system

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Figure 6-12. *ISSIS = iterative progress + agile methodology*

Iterative progress

ISSIS incorporates iterative development to minimize project risk and improve productivity. Iterative development progresses toward project goals in discrete time-boxed steps, each of which manages the next set of key risks and determines the next set of functionality. This “controlled risk” approach has checkpoints between iterations to enable project stakeholders – project owners, users, and technical staff – to review the progress of the project and agree on the goals of the next step. For BPM projects, the “Playback” sessions materialize the checkpoints.

Agile methodology

- ISSIS is an agile and iterative software development methodology. Iterative development is an approach to building software in which the overall lifecycle is composed of iterations. Each iteration is a self-contained time-boxed mini-project that is composed of activities such as requirements analysis, design, programming, and test. The goal for the end of an iteration is an “iteration release”, which is a stable, integrated, and tested subset of the complete system.
- Most iteration releases are internal and are used as a baseline for the benefit of the development team. Some iterations should deliver production-ready code to be presented to the client. The final iteration release is the complete product that is released to the client.

ISSIS endorses agile principles

- Communication, maturity, trust:
 - Frequent, close, and daily cooperation between business people, BPM analysts, rule analysts, and developers
 - Face-to-face conversation is the best form of communication
 - Projects are built around motivated individuals, who should be trusted
 - Continuous attention to technical excellence and good design
 - Unforgiving honesty of working software: component, service, process, rules
 - Minimum of self-documenting number artifacts, limit unessential documentation
- Short iteration:
 - Customer satisfaction by rapid, continuous delivery of useful software
 - Working software is delivered frequently (weeks rather than months)
 - Working software is the principal measure of progress
 - Even late changes in requirements are welcomed
 - Regular adaptation to changing circumstances
- <http://agilemanifesto.org>

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Figure 6-13. ISIS endorses agile principles

ISSIS relies on agile values

- Frequent **feedback**
 - From unit-tests
 - From customer
 - From team
- Embrace **change**
 - Limit deep planning
- Assume **simplicity**
 - Limit complex designs
- War room concept
 - Live area to work in and share resources
 - Avoid cubicles, promote communication, use creative work

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Figure 6-14. ISIS relies on agile values

The bullpen and war-room precepts:

Dedicate the project area. Team members essentially “live” in this area (war room) for the project duration. They have no need for other offices since they have no other duties or assignments. Commitment to the project increases in direct proportion to the isolation provided by the environment. The war room should be large enough to support the project but no larger. The unwritten law states that communication quality and quantity decrease rapidly when the distance between team members increases beyond 50 feet.

Do not construct communications barriers. Walls, partitions, or barriers of any kind are the nemesis of teamwork. Many studies describe the grave decrease in communications that occurs when walls of any kind are constructed within the work area. The walls can be made of plaster, cardboard, or even several feet of pure air. Team-member segregation in any form degrades communications and morale. The infamous cubicle that decreases organization costs in terms of programmers per square foot is one of the greatest detriments to communications, productivity, and quality in today’s environments. Regardless of this profound negative impact, cubicles are standard in most of the traditional development facilities.

Provide utensils for creative work. The war room must be supplied with the software development tools and systems that are required to develop the software product effectively and

efficiently. These required tools also include whiteboards, cork boards, tables, and chairs for small group discussions that the team can freely arrange as their immediate needs dictate.

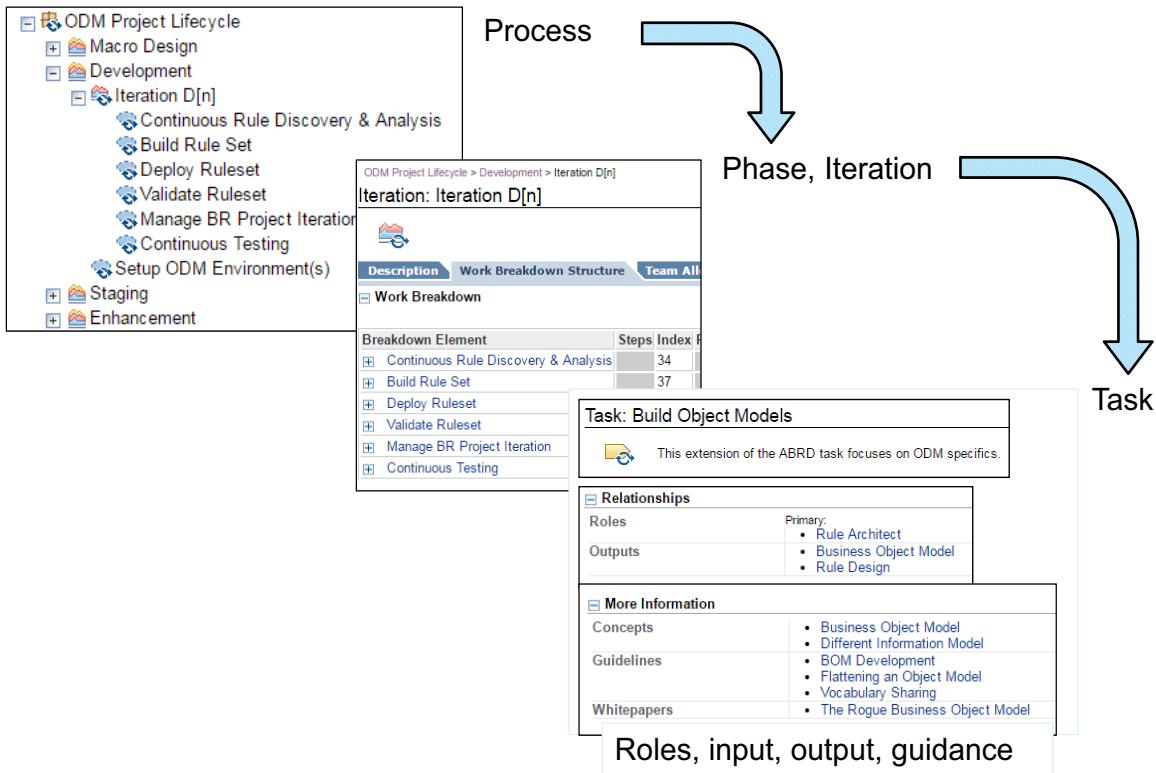
Do not share resources. The war room, or development area, and its resources must not be shared with other projects or activities. The sharing restriction doubly applies to development personnel. Part-time people equate to part-time commitment. Part-time commitment leads to team failure.

Do not interfere with the project's space. An organization outside the project domain usually performs facilities management. The physical environment should be largely under project control, a tough hurdle to clear. The effort necessary to accomplish this culture shift is high, but the benefit of putting the project staff in this type of environment far outweighs the expense. At least, that is the result in every team-oriented project researched.

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General ISSIS organization



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Figure 6-15. General ISSIS organization

General ISSIS organization is structured from the process to the task level with associated artifacts at each level.

Base components of a software development method

Who?		<ul style="list-style-type: none"> Role in the project that an individual or a team plays Example: PM, architect, developer, business analyst Represents skill and responsibility
What?		<ul style="list-style-type: none"> Artifact (work product) produced during the project Examples: Design document, source code, test plan
How?		<ul style="list-style-type: none"> Unit of work (task) performed by a role, by using and producing artifacts Example: Run workshop, design project plan
When?		<ul style="list-style-type: none"> Sequence of related activities that brings value to the project Group the activities by disciplines: requirements, analysis, and more

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Figure 6-16. Base components of a software development method

Some of the base components of a software development method are listed here.

Sample of ISSIS base components description



Roles: Gathers the actors who participate in the realization of the different tasks, either in a primary or secondary function



Work products: Gathers the artifacts that are produced or consumed from a task or a step

- A work product is usually created from a *template*, which is one type of *guidance*



Tasks: Gathers the collection of related *tasks* that define a major “area of concern”



Guidance: Where relevant, gathers all guidance and template artifacts specific to the current tab



Delivery processes: Gathers processes, which are a set of *tasks*, with *steps*, which are organized in sequences through a *work breakdown structure* and displayed as *workflows*

- A lifecycle can be specific to a *phase*

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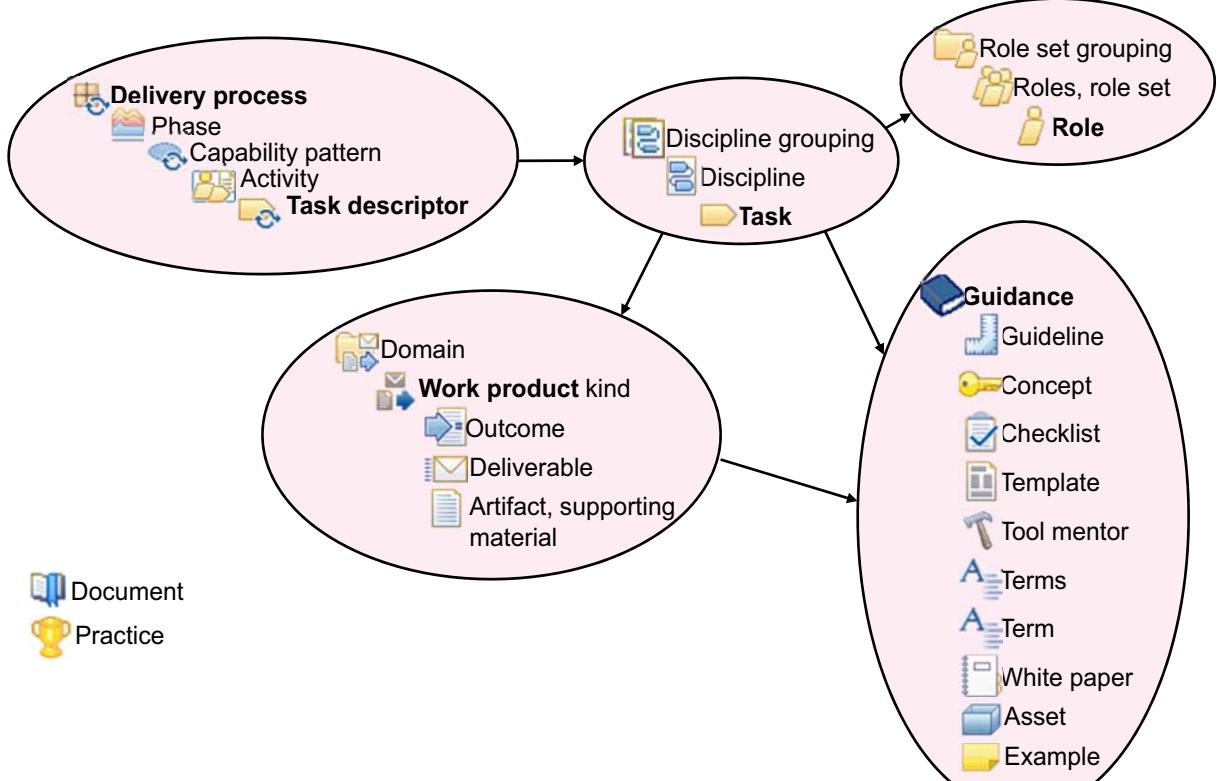
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Figure 6-17. Sample of ISSIS base components description

This slide provides a sample of ISSIS base components with brief descriptions.



ISSIS artifact types and groups



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Figure 6-18. ISSIS artifact types and groups

ISSIS base components are organized into logical groupings and relationships.

ISSIS business value examples

	Business owner	Architect	Business analyst	Project manager
Scope the project (application assessment)	✓			✓
Limit business risks (application assessment)	✓			✓
Limit technical risks (proof of concept)		✓		✓
Help capture business logic (agile rule set development)			✓	
Cut development time	✓	✓		✓
Advise on team organization (rule governance)	✓			✓

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Figure 6-19. ISIS business value examples

This table presents some of the business value of using ISIS to conduct a project.

The values are listed from the standpoint of the different customer stakeholders (business owner, architect, business analyst, project manager).

6.2. Using ISSIS

Using ISSIS

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Figure 6-20. Using ISSIS

How to navigate ISSIS

- The ISSIS portal is composed of the following **tabs**:
 - **Core**: Covers the common aspects of supporting engagements and managing projects
 - **ODM**: Covers development methodology that is related to Operational Decision Management
 - **BPM**: Covers development methodology that is related to business process management
 - **Connectivity and Integration**: Covers development methodology that is related to SOA, ESB, and other connectivity products
 - **DSI**: Covers development methodology that is related to business event processing and Decision Server Insights processing
 - **BAM**: Covers development methodology that is related to business activity monitoring

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Figure 6-21. How to navigate ISSIS

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Choose your tab

The screenshot shows the IBM ISIS web interface. At the top, there's a navigation bar with icons for search, refresh, and help. Below it is a main menu with three items: 'ISIS Common', 'BRM', and 'BPM Implementation'. The 'BPM Implementation' item is underlined, indicating it is the active tab. To the right of the menu, there are two large callout boxes. One is titled 'BPM Implementation' and lists: 'BPM Implementation Method' (selected), 'News in BPM', 'Project Plans', 'Roles', 'Best Practices', 'Templates', 'BPM Assets', and 'Service Offerings'. The other is titled 'ODM Implementation' and lists: 'BRM Implementation Method' (selected), 'New in BRM', 'Agile Business Rule Development', 'Delivery Processes', 'Roles', 'Disciplines', 'Work Products', 'Guidance', and 'Service Offerings'. Arrows point from the 'BPM Implementation' menu item to both of these callout boxes.

ODM = Operational Decision Management
BRM = Business Rule Management

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Figure 6-22. Choose your tab

Choose your entry point

- Looking for a specific engagement (for example: Discovery Workshop, Quick Win Pilot, Health Check, User Stories Template ...)
- Don't know exactly where to start?
 - Try the Search

Who?		❖ You are assigned to a role in a project and want to know what to expect from that role
What?		❖ You need to produce an artifact for a project and want details about it, guidance, template, and more
How?		❖ You want to know what to involve in performing a specific task in a project
When?		❖ You want an overall view of given type of engagement or project

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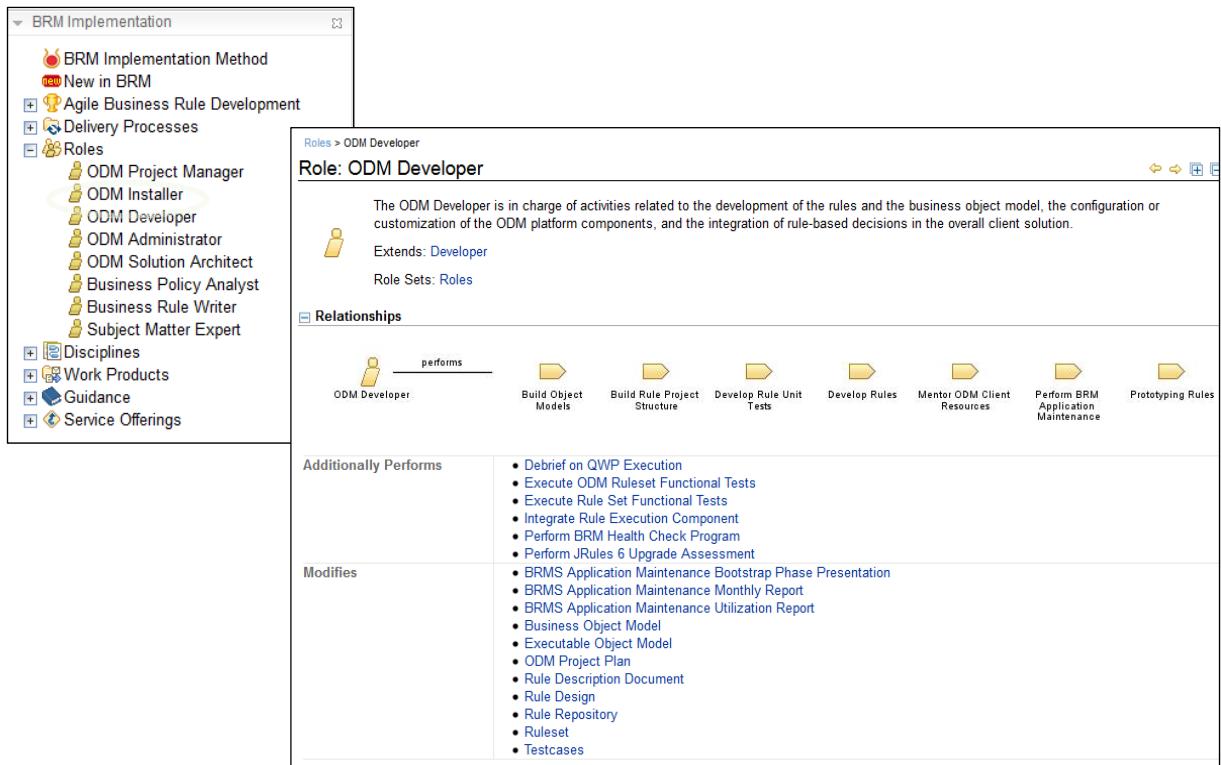
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Figure 6-23. Choose your entry point

Example of searches include: "best practices", "estimate", "enablement".



Example: Role-based navigation



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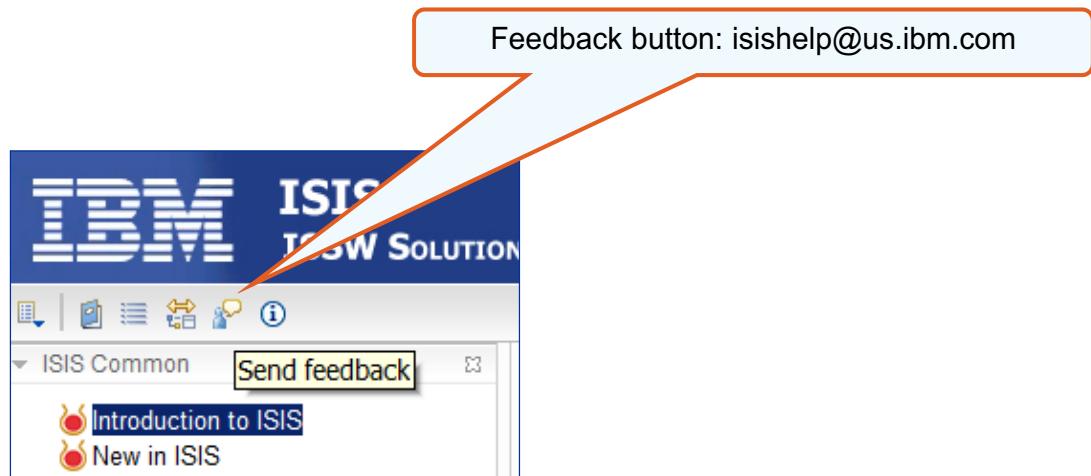
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Figure 6-24. Example: Role-based navigation

This image shows an example of role-based navigation.

Providing feedback

- Suggest corrections, enhancements
- Ask questions, precisions



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Figure 6-25. Providing feedback

This slide shows how to provide feedback to the ISSIS team.



Contributors

- Contributors are recorded for each artifact

The screenshot shows a web browser window for ISIS 7.3.45 (February 2) displaying the 'ISIS Contributors' page. The URL is conlinux03.pittsburgh.ibm.com:8080/blue_isis/#isis.publish.base/customca. The left sidebar has a tree view under 'ISIS Common' with nodes like 'Introduction to ISIS', 'Core Principles', 'ISIS Roles', etc. A blue curved arrow points from the 'ISIS Contributors' node in this tree to the right panel. The right panel title is 'Contributor: Alain Neyroud'. It contains sections for 'Relationships' (listing 'BRMS Discovery Workshop Report') and 'Main Description' (listing 'Alain Neyroud').

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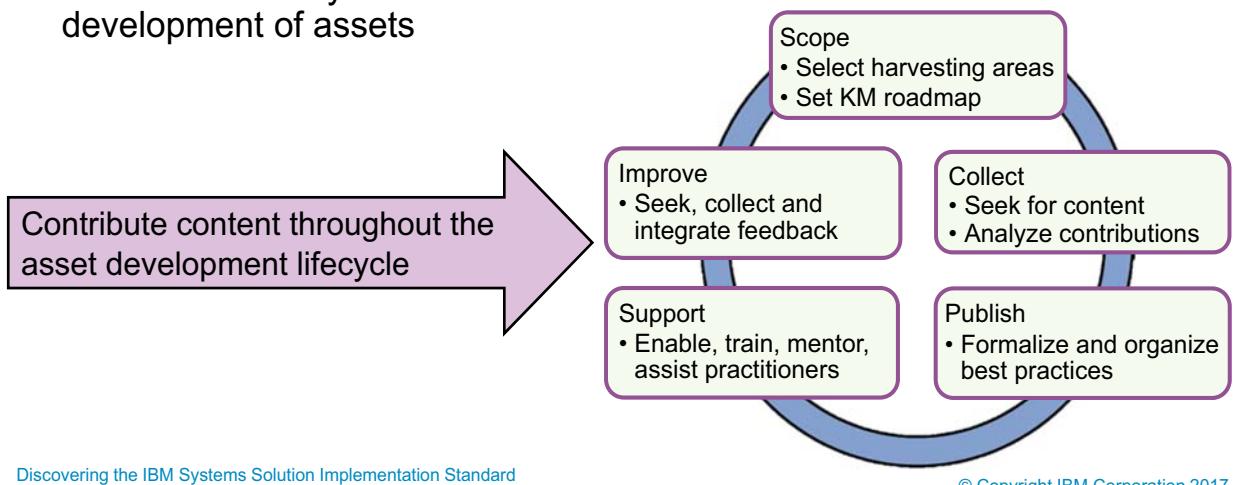
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Figure 6-26. Contributors

Direct involvement in intellectual property development

IBM Business Process Manager contribution dashboard

- Propose and discuss contributions in the forum
- When a contribution topic is defined, specify:
 - Roles (SME, author, reviewer) and target date
 - Deliverable type: ISSIS artifact (possibly associated with code), devWorks article, and more
- Create the activity and start development of assets



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Figure 6-27. Direct involvement in intellectual property development

You can contribute content throughout the asset development lifecycle.

6.3. Business analyst work products, templates, and deliverables in ISSIS

Business analyst work products, templates, and deliverables in ISSIS

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Figure 6-28. Business analyst work products, templates, and deliverables in ISSIS

Role-based navigation: BPM analyst example

Role: BPM Analyst



This role represents a business analyst with BPM modeling competency. The business analyst is able to employ the process modeling phases, goals and deliverables, communicate process needs through the expected, exception, and escalation paths in a Business Process Definition model; capture, define, analyze, improve, and document a process model.



Extends: [Business Analyst](#)

Role Sets: [Roles](#)



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Figure 6-29. Role-based navigation: BPM analyst example

Typical BPMA deliverables from ISSIS (1 of 2)

- Analysis assessment
- Analysis business process model (To-Be)
- BPM macro design agenda
- BPM macro design implementation roadmap
- BPM macro design kickoff presentation
- BPM solution architecture
- BPM strategy roadmap
- Business challenges
- Business improvement request
- Business process model (As-Is)
- Coach list that represents the user interfaces (UI) for the BPM solution

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Figure 6-30. Typical BPMA deliverables from ISSIS (1 of 2)

Typical BPMA deliverables from ISSIS (2 of 2)

- Center of Excellence (CoE) charter
 - CoE is a collection of best practices, standards, templates, and guidelines for the BPM projects with the goal to increase operations efficiencies by promoting various types of synergies
- Decision point table that is used to document business policies for the business rules that are related to the BPM solution
- Discovery assessment
- Estimate BPM project
- High-level business process
- Interface catalog
- Process description
- Processes prioritization matrix
- User story list

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Figure 6-31. Typical BPMA deliverables from ISSIS (2 of 2)

Deliverable: Analysis Business Process model (To-Be)



Business process model that is built during the analysis activities

Work Product Kinds: **BPM Macro Design**

Relationships

Roles	Responsible	Modified By:
		<ul style="list-style-type: none"> BPM Analyst BPM Developer BPM Project Manager BPM Solution Delivery Architect

Tasks

Input To:	Output From:
<ul style="list-style-type: none"> Assess Business Process Analysis Capture User Stories for the Business Process Define Business Process Characteristics Define Wireframe Develop Executable Business Process Elaborate BPM Solution Estimate BPM Project Budget Execute Playback 0 Identify and Refine Key Business Entities Identify Business Rule Task in the Process Identify User Interface Model Post Design Assessment Define BPM Logical Architecture Estimate Rough Order of Magnitude 	<ul style="list-style-type: none"> Capture User Stories for the Business Process Conduct Macro Design Engagement Define To-Be Business Process

Main Description

If you are making significant changes to improve the business process, a-to-be version of the business process model can be helpful. The pair of models make it easier to collaborate during analysis. Having both the as-is and to-be versions available side-by-side to compare and contrast also improves communication and illustrations for presentations during analysis. Where the as-is version serves to communicate and illustrate what the process is today, the to-be version shows that the process can be improved in its future state.

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Figure 6-32. Deliverable: Analysis Business Process model (To-Be)

Outcome: Business challenges

 Business challenges as perceived by the business unit.

Relationships

Roles	Responsible	Modified By
	<ul style="list-style-type: none"> BPM Analyst 	<ul style="list-style-type: none"> BPM Analyst
Tasks	<ul style="list-style-type: none"> Input To: <ul style="list-style-type: none"> Assess Discovery Initiate BPM Strategy Roadmap 	<ul style="list-style-type: none"> Output From: <ul style="list-style-type: none"> Elaborate Business Case
	<ul style="list-style-type: none"> Discover As Is Business Process 	

[Back to top](#)

Main Description

This is a list of the challenges that the business unit wants to address, with an associated justification/impact and a priority assignment. The following table can be used to capture these challenges to be included as section within the process document or as a standalone document using the Business Challenges template spreadsheet.

ID	Description	Impact	Priority	Target Date

Below are some typical challenges an organization may face:

- Cost of operation is increasing
- Clients are becoming increasingly frustrated due to the complexity of the business process the organization exposes to them.
- Multiple entry of the same data in different applications leads to error
- System has a slow response time
- Multiple views of the client data
- Too many manual tasks
- Redundant paper work

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Figure 6-33. Outcome: Business challenges

Unit summary

- Navigate the IBM Systems Solution Implementation Standard (ISSIS) portal to gather the type of material that is used for a process transformation project
- Explore the ISSIS method library composition and terminology
- Locate the IBM Business Process Manager collection of documentation
- Maximize use of typical business analyst work products, templates, and deliverables
- Conduct Playbacks
- Navigate the hybrid cloud and process transformation

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Figure 6-34. Unit summary

Review questions

1. True or False: ISIS is an IBM portal that contains a standard implementation of business process and a structured knowledge asset repository

2. Which of the items is **not** an ISIS base component?
 - A. Roles
 - B. Company Mission Statement
 - C. Work Products
 - D. Tasks



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Figure 6-35. Review questions

Write your answers here:

- 1.

- 2.

Review answers

1. True or False: ISSIS is an IBM portal that contains a standard implementation of business process and a structured knowledge asset repository.

The answer is True.



2. Which of the items is **not** an ISSIS base component?

- A. Roles
- B. Company Mission Statement
- C. Work Products
- D. Tasks

The answer is B.

Unit 7. Business analysis practices

Estimated time

01:00

Overview

This unit describes common practices of successful business analysts.

Unit objectives

- Advocate good practices for IBM Blueworks Live
- Set up a Business Process Center of Excellence with business analyst contributions
- Create effective user stories

Topics

- Advocating good practices in Blueworks Live
- Creating a BPM Center of Excellence (CoE)
- Creating effective user stories

Business analysis practices

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Figure 7-2. Topics

7.1. Advocating good practices in Blueworks Live

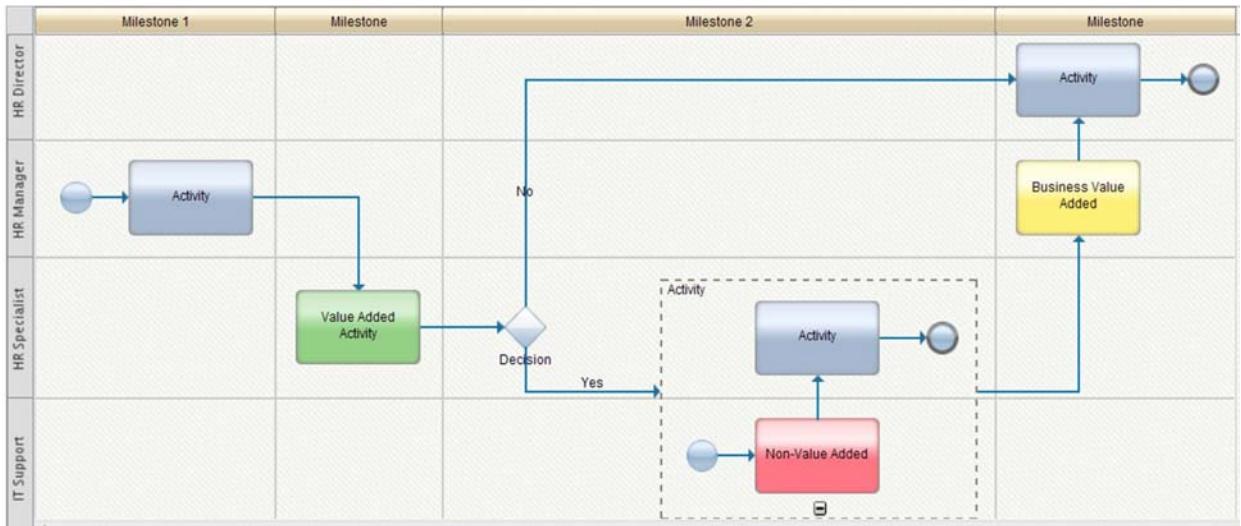
Advocating good practices in Blueworks Live

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Figure 7-3. Advocating good practices in Blueworks Live

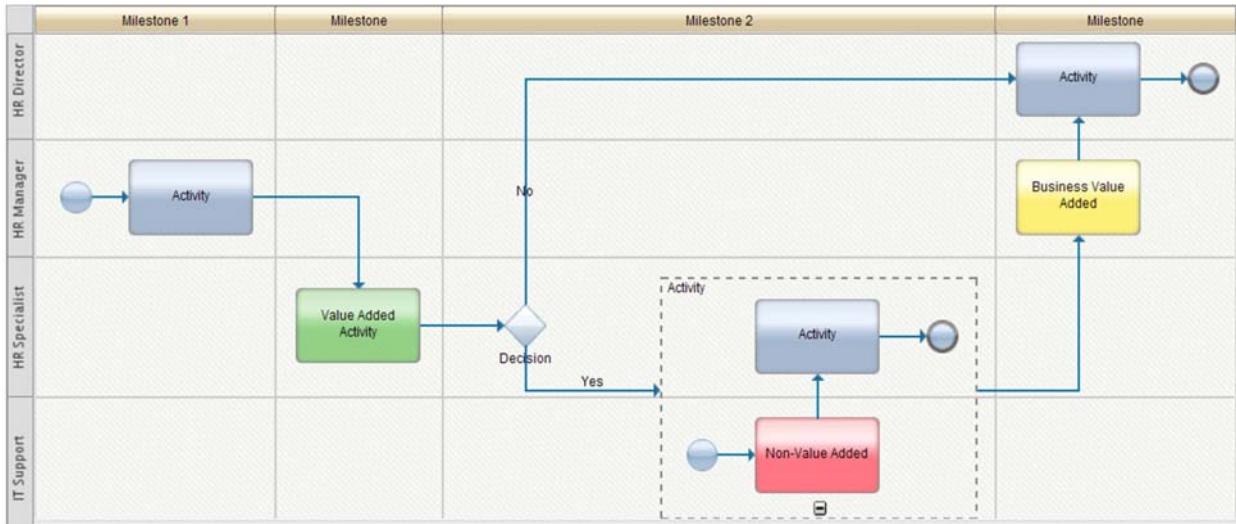
Good practices: Value-add activities (1 of 3)



When performing a value-add analysis, use:

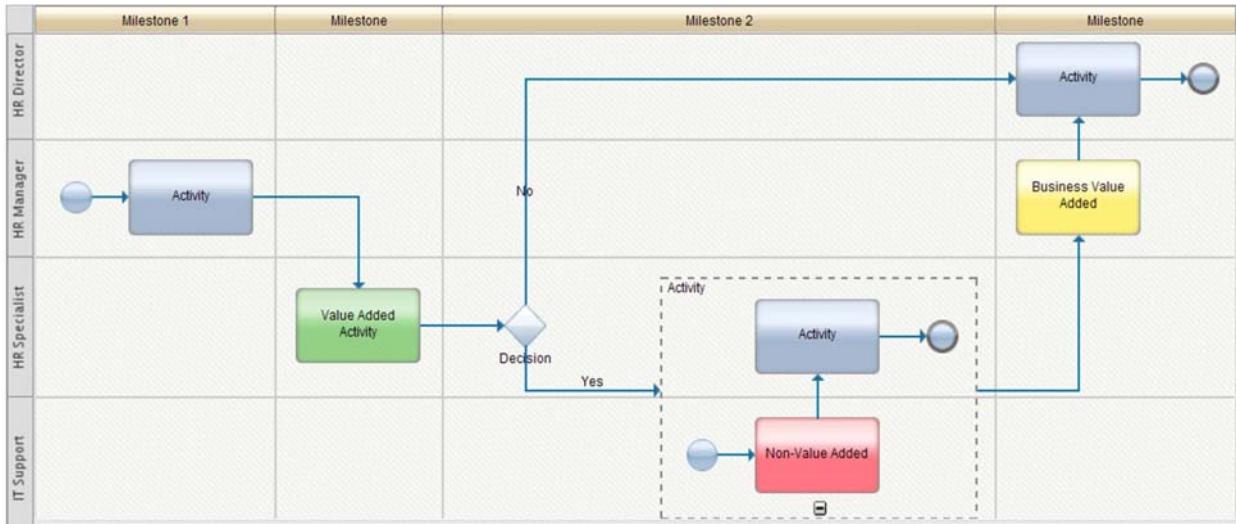
- **Green** – to denote value-added activity
 - Value Added: An activity in the process that is essential to deliver the service or product
 - See Unit 5 for a more detailed definition of value-added activity

Good practices: Value-add activities (2 of 3)



- **Yellow:** To denote Business Value Added activity
 - Business Value Added: An activity that the business requires to execute value-add, but adds no real value from a customer standpoint

Good practices: Value-add activities (3 of 3)



- **Red:** To denote Non-Value Added activity
 - Non-Value Added: Waste, an activity that adds no value from the customer's perspective and is not required for financial, legal, or other business reasons

Anti-patterns

- “Rule of Seven”
 - A good gauge of the number of activities on a process is seven
 - Normally, you can create a subprocess or linked process to encapsulate activities to reduce the number of boxes that are shown on each level of a process to seven
- “If you cannot model it without crossing lines, it is too complex”
- “If it does not fit in your window without scrolling, it is too complex”
- Model for readability, model for accuracy, but in Blaworks Live, do not model the technical implementation
 - When you model services and system activities, keep in mind that it is OK to use a “black box” that can be filled later with the technical details
 - Sometimes you do not know which system performs an operation, so identify the function but omit the system that performs the function

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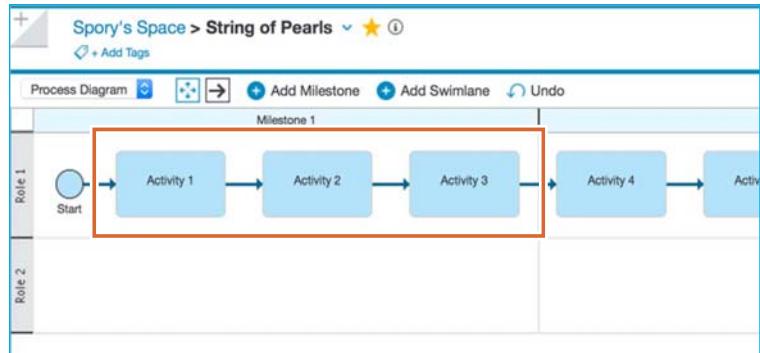
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Figure 7-7. Anti-patterns

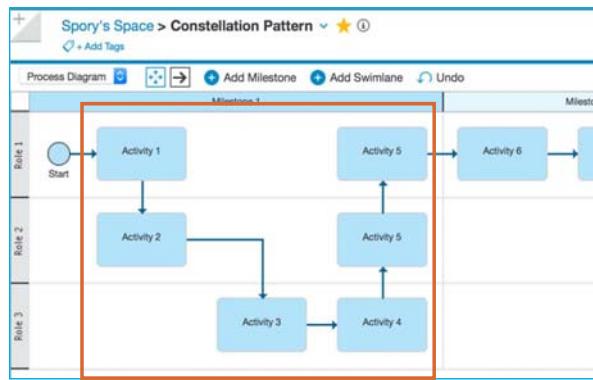
Rule of Seven pattern: For single-page readability, *Rule of Seven* is a good standard. This rule means that there should be no more than seven milestones or activities or subprocesses per process level.

Good practices for granularity patterns

- String of pearls pattern



- Constellation pattern



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Figure 7-8. Good practices for granularity patterns

Activity: Represents a single task that a process participant accomplishes from start to end. Think about inputs and outputs – if one person or computer takes input and transforms it into output, that is one activity. That activity can start and stop many times, and the duration can take 1 second to multiple years to accomplish.

Process granularity: Granularity and scope should be similar from process-to-process and project-to-project. The following questions can help determine whether an activity should be created:

- Can a participant complete multiple activities in a row?
- Is an output created and forwarded during this activity?
- Is the duration similar to others at this level?
- Create a two-to-five-sentence scenario in each activity to help determine whether it should stand alone: As a [participant], I need to [do something] so that I can [create business value].

String of Pearls pattern: If you notice several serial activities in the same swimlane in a row, like a *string of pearls*, consider eliminating or collapsing the activities into one activity or subprocess. This model can indicate missing participant details, too much detail at a low level of granularity, or misalignment in scope.

Constellation pattern: If you notice a *constellation pattern*, consider creating a subprocess:

- Tight groups of multiple activities across two to three swimlanes in a group
- Single flow line in and out of the group

IBM good practice resources

- Best Practices Using IBM Blueworks Live Redbook
 - <http://www.redbooks.ibm.com/abstracts/redp5111.html?Open>

- Discovering Decisions using IBM Blueworks Live Redbook
 - <http://www.redbooks.ibm.com/redpapers/pdfs/redp4993.pdf>

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Figure 7-9. IBM good practice resources

This slide was shown earlier in the course, but just a reminder of the resources you can use to find more good practices:

- **BP3: Blueworks Live Best Practices**
<https://www.bp-3.com/blueworks-live-best-practices/>
- **BPM Institute.org: BPMS Watch: Ten Tips for Effective Process Modeling**
<http://www.bpm-institute.org/resources/articles/bpms-watch-ten-tips-effective-process-modeling>
- **tdwi.org: Starting the BPM Process: 10 Best Practices**
<https://tdwi.org/Articles/2013/05/14/BPM-10-Best-Practices.aspx?Page=1>
- **BATimes.com: How to Facilitate Successful Process Mapping Sessions**
<https://www.batimes.com/articles/how-to-facilitate-successful-process-mapping-sessions.html>
- **TechRepublic.com: 10 Things to Keep in Mind When Improving Processes**
<http://www.techrepublic.com/blog/10-things/10-things-to-keep-in-mind-when-improving-processes/>

7.2. Creating a BPM Center of Excellence (CoE)

Creating a BPM Center of Excellence (CoE)

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Figure 7-10. Creating a BPM Center of Excellence (CoE)

The need for a BPM governance organization

- Although most BPM projects begin as individual, loosely connected (or entirely disconnected) efforts, today's operations eventually necessitate bringing individual BPM projects together in a consolidated BPM program
- To meet the demand of scalability and enterprise-wide adoption of BPM, a BPM Center of Excellence (CoE) must address the following key focus areas of responsibility:
 - Defining a higher business goal or vision, driving BPM initiatives and aligning individual projects with that vision
 - Executing a scalable delivery resource model for discovering, implementing, deploying, managing, and supporting BPM initiatives
 - Administering a shared infrastructure for hosting and maintaining the solutions that are the outcomes of BPM initiatives
- Organizations cannot immediately implement all the business process improvements that they need to make – instead, projects are prioritized
 - The BPM CoE provides a central group of experts within an organization to increase each product's likelihood of success
 - Experience with the processes, tools, and hurdles on each project helps each project to reach its business goals and minimizes trial and error

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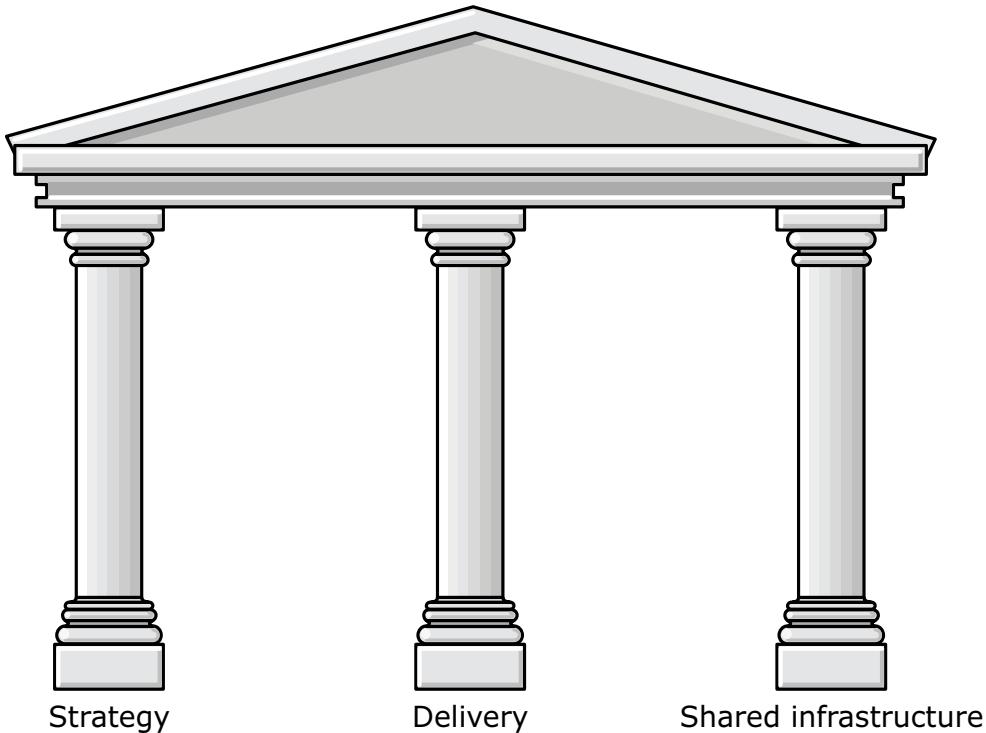
Figure 7-11. The need for a BPM governance organization

Transforming your enterprise requires time and patience, investment in people and technology, and commitment from executive leadership, middle management, and the workforce.

Through experience with both successful and challenged BPM program initiatives, clients learned that the following aspects are true:

- A BPM initiative can survive only by achieving business value, and business value must support the strategic objectives of the organization. Business value must be measured objectively with supporting data and be easily visible and communicated to leadership. Without demonstrating business value, the BPM journey ends, or stagnates at best.
- The transformative nature of BPM requires a shared infrastructure (a BPM system, or BPMS) that scales with a growing demand for BPM projects. This shared infrastructure must support the collaborative aspects and governing demands of BPM as a discipline.
- The purpose of a BPM initiative is to create a repeatable delivery model for improving business performance. Long-term success depends entirely on establishing a scalable BPM delivery model as a discipline. Focusing on organizational enablement in BPM methods is essential for an uninterrupted BPM journey. Without BPM method enablement, even the best BPMS achieves no value.

The pillars of a BPM governance organization



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Figure 7-12. The pillars of a BPM governance organization

It is possible for a single governing group of people to have all three of these responsibilities. A more likely approach is that certain individuals within the group carry one or more of these responsibilities by committee. Each responsibility is unique in its charter and requires individuals with appropriate levels of authority, skills, and experience to accomplish its charter.

Strategy

This key focus area is responsible for defining business goals and setting the course for BPM initiatives across a broad area, likely the entire business enterprise. The scope of responsibility includes:

- Strategy and long-term planning for the overall BPM initiative
- BPM advocacy within the organization
- A funding model for the BPM program
- Tracking key performance indicators (KPIs) along an enterprise-wide value chain to measure the success of the overall BPM initiative beyond the tactical success of individual projects

Delivery

This key focus area is responsible for creating a scalable delivery model for staffing and delivering BPM initiatives. This responsibility includes sourcing, enabling, staffing, and retaining BPM talent. It

also includes creating, maintaining, and governing tactical suggested practices for the entire BPM project lifecycle.

Shared infrastructure

This key focus area is responsible for designing, building, and governing a shared infrastructure (a business process management system, or BPMS). It is used for hosting, executing, and maintaining the process applications that are the outcomes of BPM initiatives. This responsibility includes hardware configuration, software installation, administration, upgrades, deployment, and maintenance.

Given the increasing importance of process management and governance for chief business executives, it is now more important than ever for any BPM-related initiative to have a governing body. The body must set goals, seek visibility, and drive change at a level that is directed specifically at executive leadership of the organization. This importance, in summary, is the purpose of the BPM Center of Strategy.

A BPM CoE mandate

- A BPM Center of Excellence must articulate and drive an enterprise-level strategy (from a business and a technology perspective) for all BPM initiatives across the entire organization
- This mandate can generally be divided into the following categories:
 - Vision, goals, strategy, and KPIs for the overall BPM initiative
 - Organizational awareness, education, and advocacy
 - Funding model for BPM initiatives
 - Inventory of processes along the enterprise value chain

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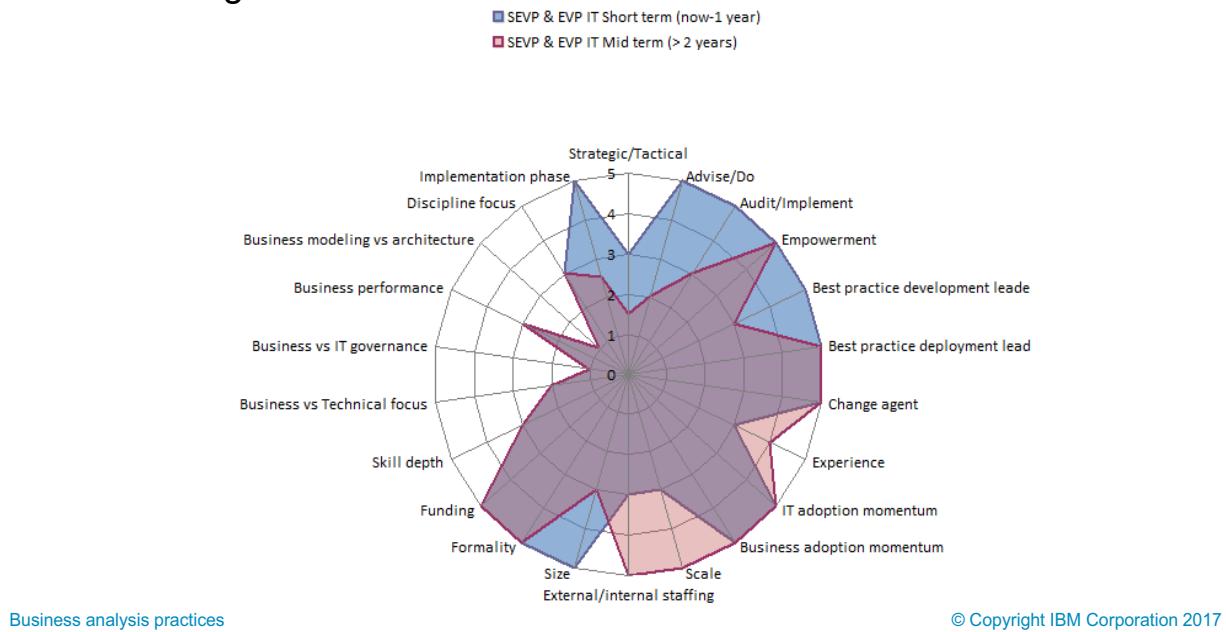
Figure 7-13. A BPM CoE mandate

Conducting a BPM CoE profiling meeting

- The BPM CoE Profiling meeting is an important first step of the BPM CoE assessment activity
- The purpose of this meeting is to draw an initial picture in terms of:
 - The directions that the CoE should follow
 - The primary objectives that should be set
 - Comparing the short-term situation (now – 1 year) to midterm intended state (> 2 years)
- To achieve the goals, gather inputs in a structured manner by using a profiling tool

Creating the CoE profiling tool

- The CoE profiling tool covers 23 key dimensions that need to be considered when setting up a BPM CoE
- The gathered answers are used to differentiate short-term priorities versus longer term orientations



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Figure 7-15. Creating the CoE profiling tool

For more information on creating your organizational CoE profiling tool, contact your IBM representative.

Sample question in the BPM CoE profiling tool

Do you envision the goal of the BPM CoE to be rather...?

- “Strategic”, for example, leading and driving business adoption, including coming with ideas for new business applications, BPM as contribution to strategy, discussion with the board of directors
- More toward managing a portfolio of business opportunities (program management)
- Leading both on the business fit and IT implementation (dual intent)
- Technical while paying attention to business relevance
- “Tactical” around product expertise and how to deliver

Figure 7-16. Sample question in the BPM CoE profiling tool

This slide shows an example of the types of questions in the BPM CoE profiling tool. The set of 23 questions can assist an organization to establish and provide guidance and direction for the creation and operation of a BPM CoE.

7.3. Creating effective user stories

Creating effective user stories

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Figure 7-17. Creating effective user stories

What are user stories?

- Reminders to have conversations
- Represent customer requirements
- Written in the customer's voice
- Capture user, activity, and value

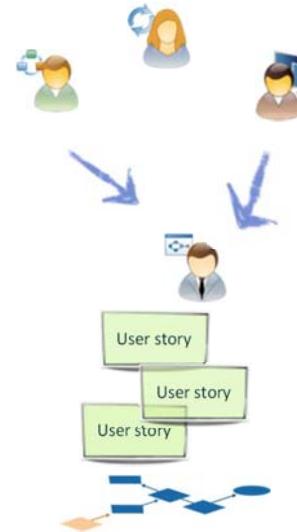


Figure 7-18. What are user stories?

Why user stories?

- Functional specs and written language can be confusing
- Can easily be used to prioritize and group work
- Supports agile development
- Encourages verbal interactions and communications
- Balances the conversation between user and developer

User stories format

- As a <role>, I want to <action> so that <business value>
 - As a buyer, I want to submit my buy plan so that I can get vendor bids
 - As an events coordinator, I want to submit a proposed event so that I can get the necessary permits
- Use the “three Cs”
 - Card
 - Conversation
 - Confirmation

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Figure 7-20. User stories format

Analysts manage the project by increment and iteration. A good tool to manage iteration and the project scope is to define user story and work items. The user stories are defined for each activity of the business process, and created in a worksheet. The user stories are uploaded in a project management tool. Work items are captured for each work stream activity to track in the project.

User stories are effective to define each business process activity. Use the format that is shown to create user stories.

Balance the conversation between user and developer. Provide emphasis on verbal communication.

User stories represent customer requirements. They serve as a reminder to have a conversation.

Use the “three Cs” to build your user stories. Each story is written down on a card. Each card captures a “conversation” taking place at different times and places during a project between the various people concerned. The “confirmation” confirms that the objectives of the conversation were reached.

What makes a good story?

- INVEST
 - Independent
 - Negotiable
 - Valuable to users
 - Estimable
 - Small
 - Testable

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Figure 7-21. What makes a good story?

Independent: Problems prioritizing or estimating. Database and data entry screen are not independent.

Negotiable: Don't get too much detail up front.

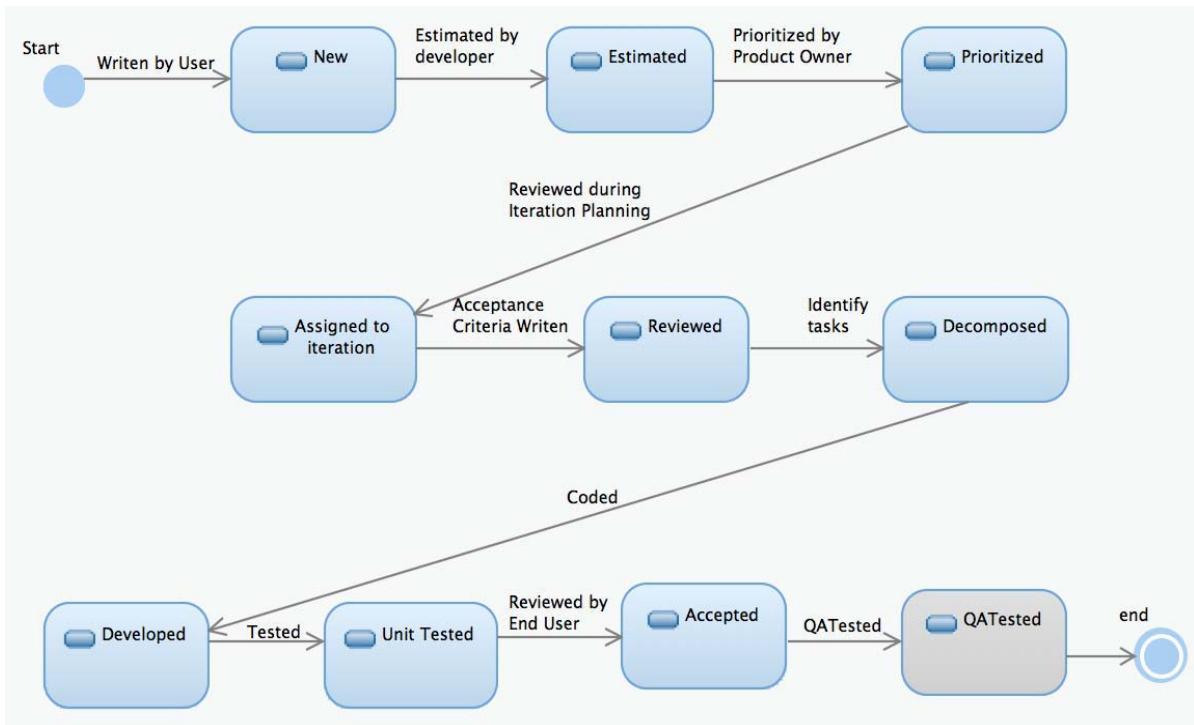
Valuable to users: Not "all errors that are handled through a standard set of classes" but "errors that are presented to users and logged consistently".

Estimable: Lack of domain knowledge, lack of technical knowledge, too large.

Small: Stories should not be so large as to become impossible to plan, task, or prioritize with a certain level of certainty.

Testable: A user must find the system easy to use, and a novice must be able to complete basic flows without training.

User story lifecycle



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Figure 7-22. User story lifecycle

Good practices for capturing user stories

- Examples
 - Weak: “As a supervisor, I want to approve the claim so that the claim can be authorized for payment.”
 - Better: “As a supervisor, I want to approve claims that were processed so that I can confirm the legal and financial elements are correct before payment processing.”
 - Even Better: “As a supervisor, I want to review legal and financial elements when approving a claim so that the claim is correct before payment processing.”
- The better user story further describes the thought that is going into the approval action, while the Even Better story ties the thought into the activity
- A user story should be implemented in a week or less
 - If not, decompose it

Unit summary

- Advocate good practices for IBM Blueworks Live
- Set up a Business Process Center of Excellence with Business Analyst contributions
- Create effective user stories

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Figure 7-24. Unit summary

Review questions

1. True or False: The three pillars of a BPM governance organization are strategy, delivery, and shared infrastructure.
2. If you create a process diagram that requires you to scroll right and down to view the entire diagram, what action should you take to improve the readability for the stakeholders?
 - A. Remove everything except for the value-added activities
 - B. Encapsulate activities in a subprocess to reduce the total items on this level of the process to seven or less
 - C. Separate each process milestone into its own linked process
 - D. Create a string of pearls pattern from your activities
3. True or False: A user story should be implemented in a month or less, and if not, decompose it.



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Figure 7-25. Review questions

Write your answers here:

- 1.
- 2.
- 3.

Review answers

1. True or False: The three pillars of a BPM governance organization are strategy, delivery, and shared infrastructure.
The answer is True.
2. If you create a process diagram that requires you to scroll right and down to view the entire diagram, what action should you take to improve the readability for the stakeholders?
 - A. Remove everything except for the value-added activities
 - B. Encapsulate activities in a subprocess to reduce the total items on this level of the process to seven or less
 - C. Separate each process milestone into its own linked process
 - D. Create a string of pearls pattern from your activities**The answer is B.**
3. True or False: A user story should be implemented in a month or less, and if not, decompose it.
The answer is False. A user story should be implemented in a week or less, and if not, decompose it.



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Figure 7-26. Review answers

Exercise: ISSIS and user stories

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Figure 7-27. Exercise 5: Exploring IBM Systems Solution Implementation Standard (ISSIS) and create user stories

Exercise objectives

- Use tools in ISSIS to help process analysis
- Complete the user stories template for the To-Be process
- Use BPM templates

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Figure 7-28. Exercise objectives

Unit 8. Ensuring a smooth transition

Estimated time

01:00

Overview

When the project Playback Zero phase comes to a close, the quality of the business analyst's deliverables are critical to the implementation team. This unit covers the success factors that are involved in a smooth transition from Playback Zero to the next process transformation project iteration.

Unit objectives

- Dissect Playback Zero
- Prepare business analyst deliverables and the relationship with the BPM team members
- Import a process into IBM Business Process Manager
- Work with DevOps
- Review the next steps

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Figure 8-1. Unit objectives

Topics

- Dissecting Playback Zero
- BPM analyst deliverables
- IBM Business Process Manager overview
- Process Designer
- Working with DevOps
- Next steps for the BPM solution

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Figure 8-2. Topics

8.1. Dissecting Playback Zero

Dissecting Playback Zero

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Figure 8-3. Dissecting Playback Zero

Key questions about Playback Zero

- What does a BPM project look like?
- What is Playback Zero?
- Where does Playback Zero fit in the BPM project?
- What are the goals of Playback Zero?
- What are the deliverables of Playback Zero?
- How do you facilitate a Playback Zero?



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Figure 8-4. Key questions about Playback Zero

The key questions to answer in this section are:

- What does a BPM project look like?
- What is Playback Zero?
- Where does Playback Zero fit in the BPM project?
- What are the goals of Playback Zero?
- What are the deliverables of Playback Zero?
- How do you facilitate a Playback Zero?
- What are the next steps after Playback Zero?

Playback Zero definition

- A **Playback** is a focused demonstration of a partially implemented BPM solution
- Playback Zero:
 - Typically after a three-week effort
 - A result of a phase in a BPM project lifecycle that is designed to analyze and improve designated business processes
 - Encompasses the inventory, analysis, As-Is, and To-Be process documentation
 - Final Playback Zero evaluation is the sign-off from the To-Be business process definition in IBM Business Process Manager

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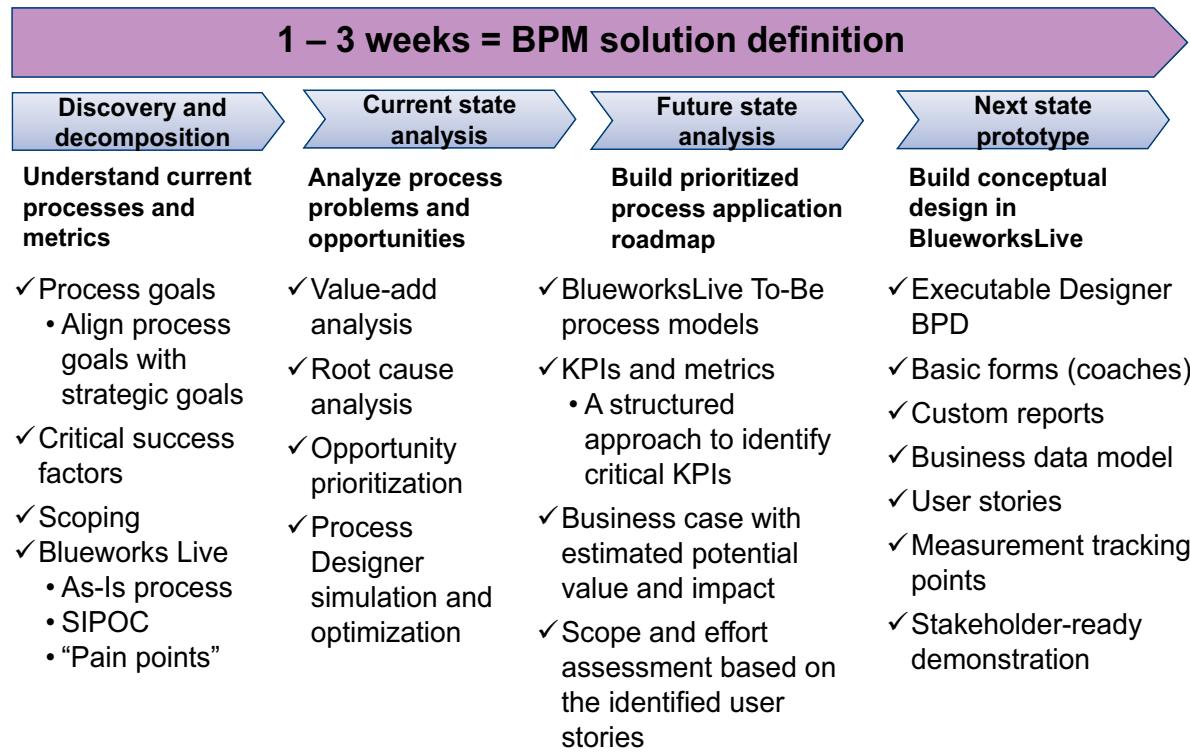
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Figure 8-5. Playback Zero definition

A Playback between business and IT is a focused demonstration of a partially implemented process model with the goal of discussion, consensus building, collaborative improvement, and ultimately approval of the model (final evaluation). Playbacks thus enable the iterative development of the process application. The first Playback is known as Playback Zero:

- Typically after a three-week effort
- A result of a phase in a BPM project lifecycle that is designed to analyze and improve designated business processes
- Encompasses the inventory, analysis, Level 1 and 2 As-Is, and Level 1 and 2 To-Be process documentation
- Final Playback Zero evaluation is the sign-off from the To-Be business process definition in IBM Business Process Manager

IBM Business Process Manager approach: Playback Zero



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Figure 8-6. IBM Business Process Manager approach: Playback Zero

KPI = key performance indicator

SIPOC = supplier, input, process, output, customer

What are the goals for Playback Zero?

- Consensus-building and discovery of business process among stakeholders
- Develop further understanding of implementation scope
- Alignment of bottom-line expectations, KPIs, and high-value metrics from executive sponsors



- ✓ Confirmed stakeholder acceptance
- ✓ Prioritized roadmap of current and future requirements
- ✓ No requirements that are lost in translation
- ✓ Developer-ready process model

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Figure 8-7. What are the goals for Playback Zero?

Facilitating a Playback Zero session

- Duration: 60 – 90 minutes to demonstrate business value and the progress of the process solution
- Example agenda:
 - Introduction by process owner (5 min)
 - BPM by a BPM advocate (5 min)
 - Process visibility by process owner or stakeholders (5 min)
 - Project description and milestones by project manager (5 min)
 - The Playback by representative participants or process owner (40 min)
 - Feedback and discussion led by PM or tech lead (30 min)
- For a first Playback on the first project, plan to have three or four 1-hour rehearsals with the team of presenters
- Participants include business and technical process stakeholders:
 - Process owner, subject matter experts (SMEs), and users
 - BPM and business analysts
 - Process participants
 - Technical BPM leads

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Figure 8-8. Facilitating a Playback Zero session

Playback Zero participants should include all current and future process stakeholders and users. The audience is the most important and difficult challenge in coming up with a Playback Strategy. The audience is the driving factor of frequency, duration, ground rules, and theme of each Playback.

- Set the agenda
- Determine the audience
- Set the roles
- Validate the process before Playback meeting
- Conduct Playback demonstration
- Play back the value

Facilitator role

- Needs to be a forceful presence
- Keep the conversations relevant to the theme
- Suggest bottleneck issues be placed in the parking lot
- Do not be afraid to time-box conversation
- Improvise if necessary

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Figure 8-9. Facilitator role

Use ground rules and themes

- Set a theme that tells the audience what aspects of the process are being discussed, and what aspects are not
- A ground rule might be: “To foster complete understanding, no part of the process is out of scope in this discussion”
- Another ground rule might be “Open and honest communication” to impress upon the audience that nobody must use a straightforward answer against someone else later

Playback	Example iteration themes
Zero	BPM: Establishing transparency process management and traceability to business value
Zero	Getting started: Establishing business opportunity
Zero	Process analysis Playback
Zero	Playback Zero: Validate the process model

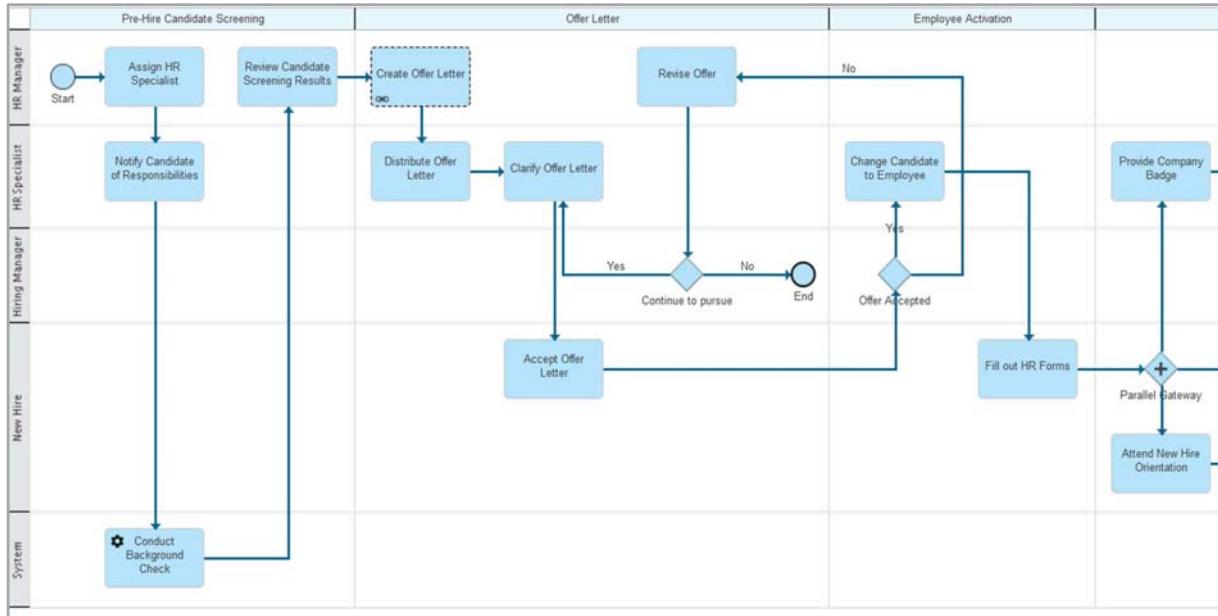
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Figure 8-10. Use ground rules and themes

Playback Zero Playback: To-Be process model

- Confirm process roadmap – discovery map
- Confirm version 1 of the To-Be process design diagram



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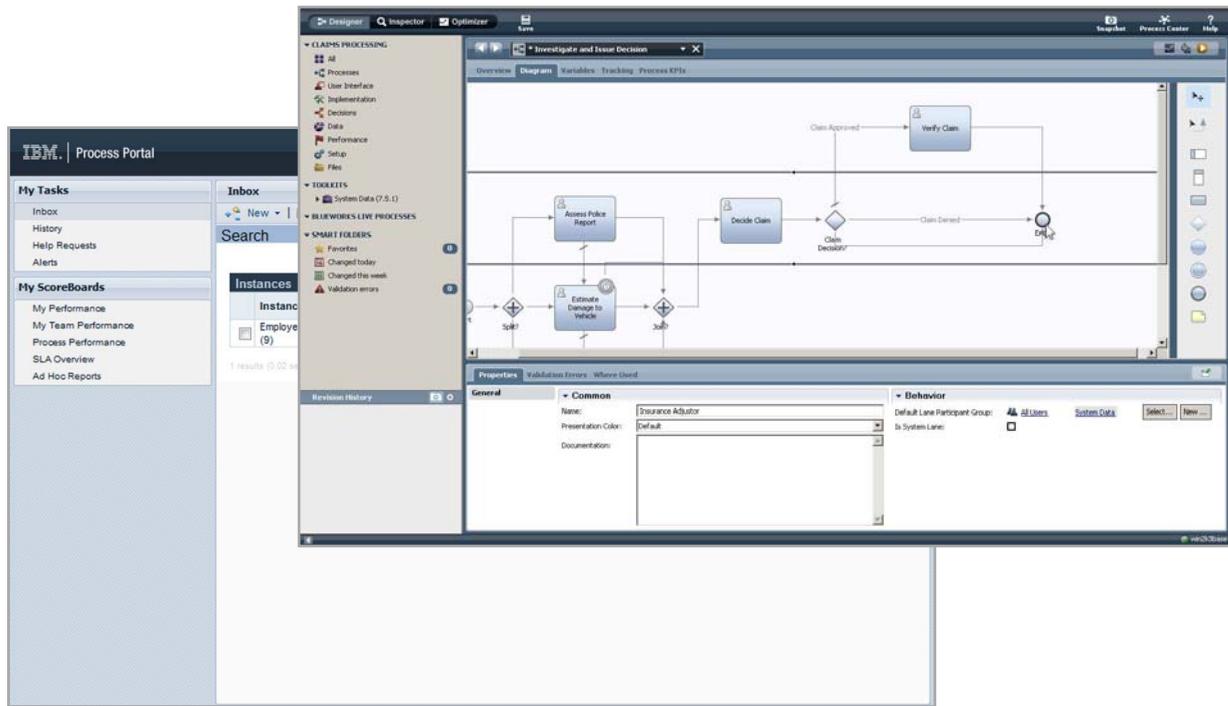
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Figure 8-11. Playback Zero Playback: To-Be process model



Playback Zero Playback: Conceptual design

- Implement conceptual design in IBM Business Process Manager



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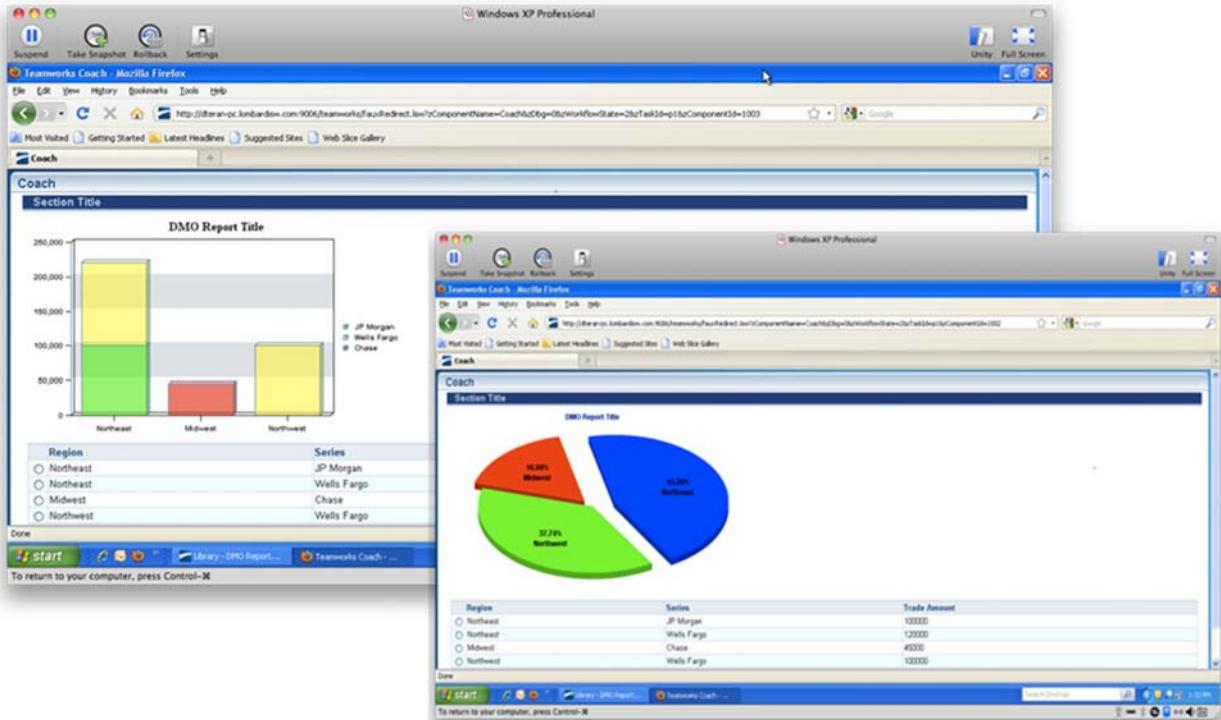
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Figure 8-12. Playback Zero Playback: Conceptual design



Playback Zero Playback: Measurement and visibility

- Mock-ups of process visibility approach and KPIs to be delivered



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Figure 8-13. Playback Zero Playback: Measurement and visibility

Make mock-ups of the process key performance indicators (KPI) visual representation in any tool available to the team.

8.2. BPM analyst deliverables

BPM analyst deliverables

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Figure 8-14. BPM analyst deliverables

BPM solution success

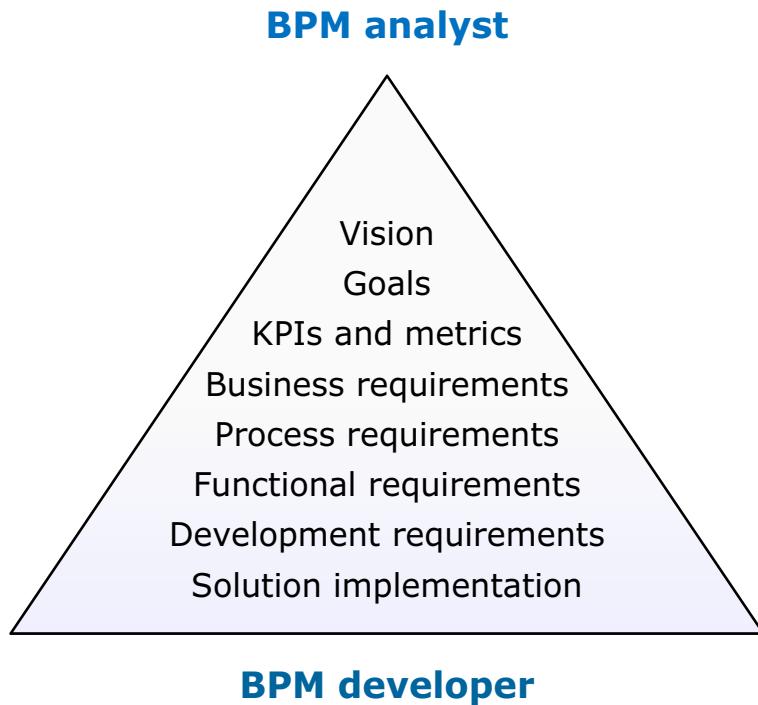
- The BPM solution success is based on the quality of BPMA deliverables
- When the project Playback Zero phase comes to a close:
 - The quality of the business analyst's deliverables is critical to the implementation team
 - BPM analysts are involved in a smooth transition from Playback Zero to the next process transformation project iteration

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Figure 8-15. BPM solution success

BPM project: Components



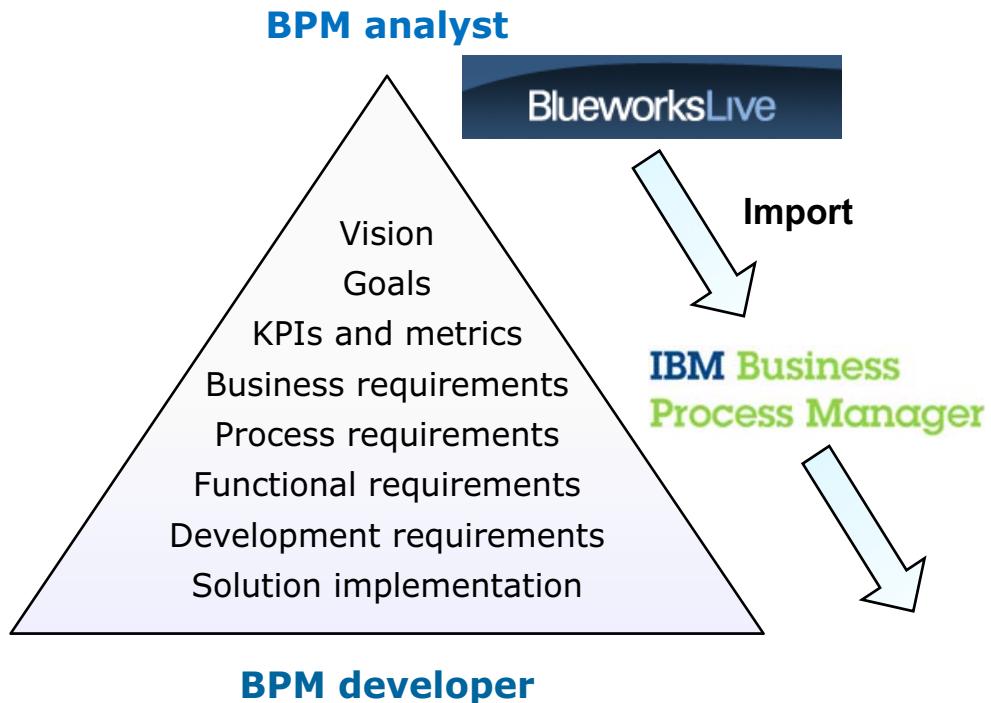
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Figure 8-16. BPM project: Components

Established standards and methodologies typically reinforce project lifecycles for any IT initiative. A BPM project, especially one that includes a broader vision of engagement of business people, would not fit a typical project lifecycle because the key BPM project components are slightly different.

BPM project: Effective toolsets



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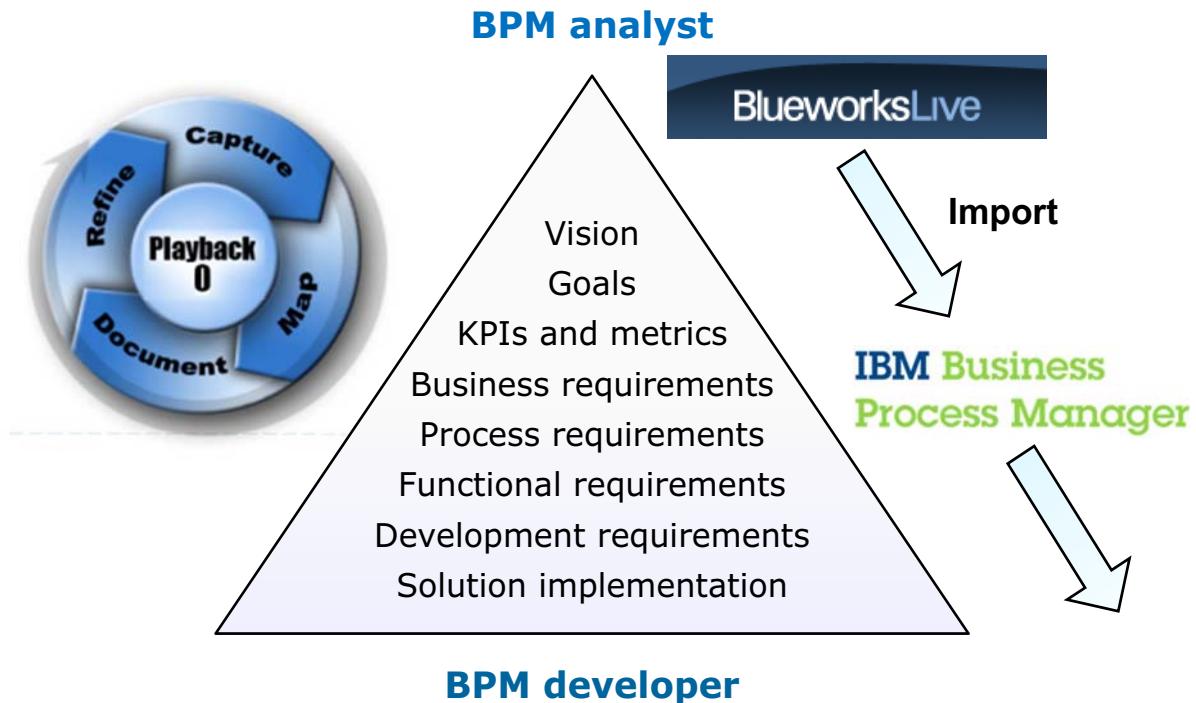
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Figure 8-17. BPM project: Effective toolsets

Along with these components, the toolset adapts to the development needs at each project component deliverable.



BPM project: Effective development methods



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Figure 8-18. BPM project: Effective development methods

Successful BPM projects include a flexibility that is built within each tool to follow an iterative methodology of development. IBM Blueworks Live and IBM Business Process Manager offer the ability to do just that, plus efficiently handle each component of a BPM project and the phases of process modeling. They also provide built-in functions to involve business people throughout the modeling phases, whether it is through direct collaboration or effective model validation meetings, called “Playbacks” that are part of the functional charter for both tools.

As soon as the To-Be process is defined in the Blueworks Live, it is imported into IBM Business Process Manager for creating an executable BPM solution by the technical team.

What are the deliverables of Playback Zero? (1 of 2)

The BPM analyst delivers:

- A high-level executable business process definition (BPD)
 - Modeled to the level of depth necessary to show each discrete user task that is encountered in the process
- A participant and user group model
 - Modeled swimlanes in the BPD or single participant groups
- Documentation denoting which activities require more detailed information from external systems (integrations)
- A basic high-level data model that uses variable types
 - Identified “process data” and as much “business data”
- Mock-up coaches (graphical user interface) for each user activity
 - Where each coach is constructed from simple, drag coach designer widgets (no complex, code-driven UI required) that are **not** “bound” to any variables

What are the deliverables of Playback Zero? (2 of 2)

- Two to three mock-up reports that demonstrate the following principles:
 - Process visibility, analysis, and control
- A focused demonstration of the deliverables
 - Ran from the IBM Business Process Manager Portal (BPM component that is provided with the product)
 - Delivered by the process owner or business analyst (BA) as trained by the BPM analyst

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Figure 8-20. What are the deliverables of Playback Zero? (2 of 2)

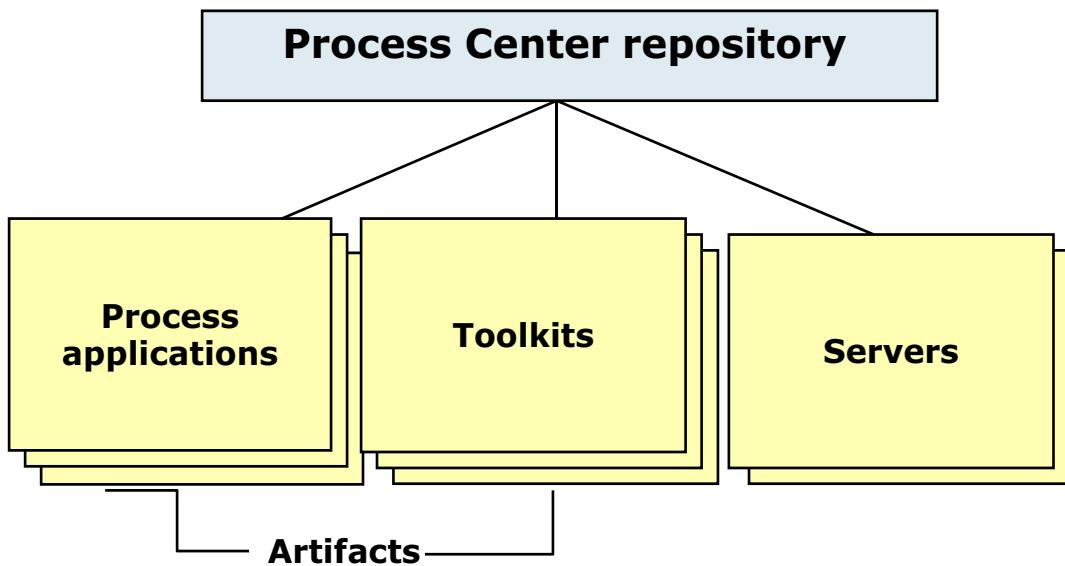
IBM Business Process Manager overview

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Figure 8-21. IBM Business Process Manager overview

IBM Business Process Manager



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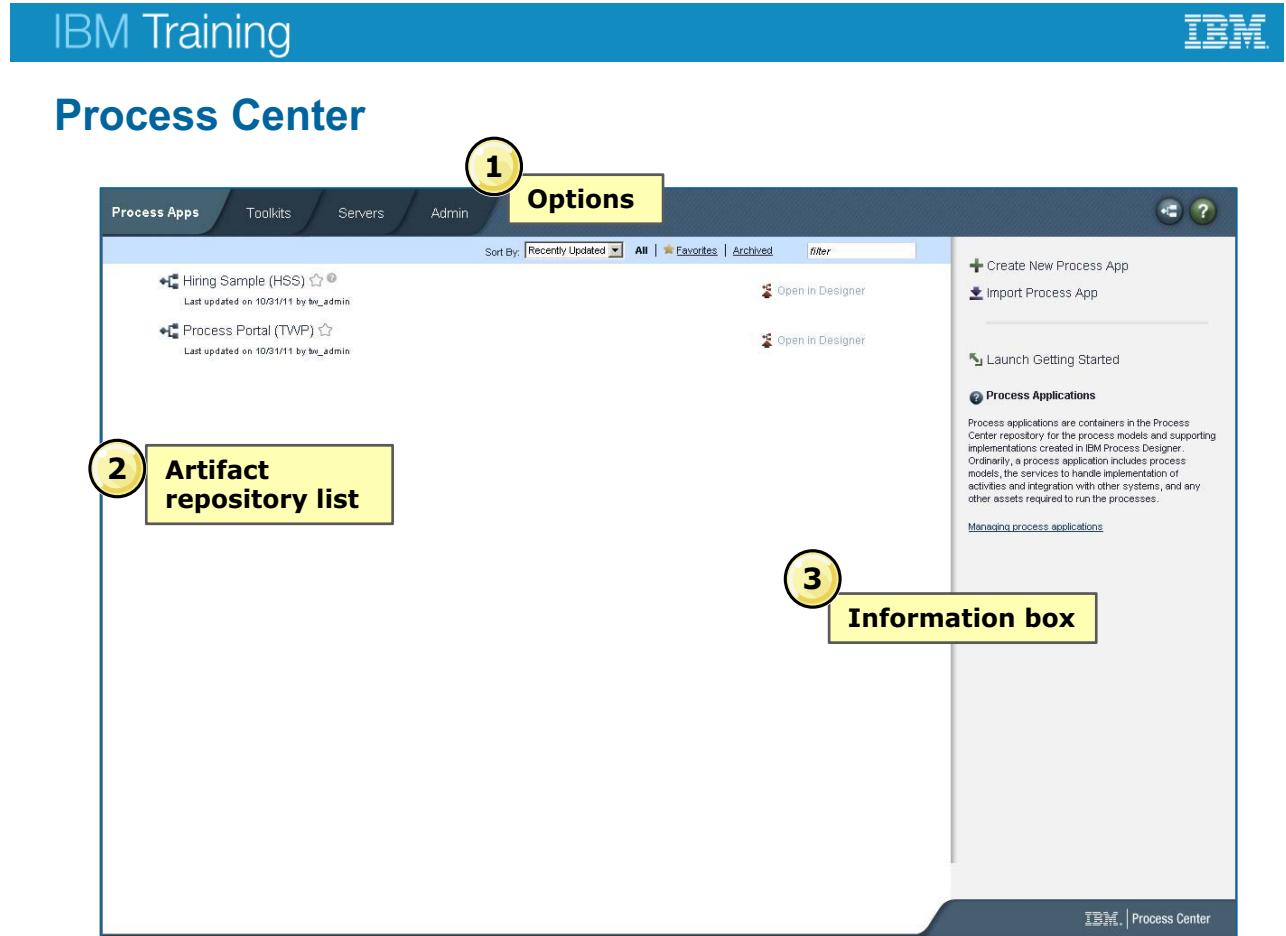
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Figure 8-22. IBM Business Process Manager

IBM Business Process Manager's unique design environment includes a central repository that is called the Process Center. From the Process Center console, a development team can create multiple process applications and toolkits (artifacts). Other users can be granted access to those process applications and toolkits through the same Process Center. All artifacts are stored for ease of access in the one central repository.

The team has many developers, many process applications, and one enterprise application.

The Process Center also provides the central location for administrators to install process applications on specific servers, such as testing, production, or QA. Administrators also manage running instances of process applications in the configured environments.



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Figure 8-23. Process Center

The Process Center includes a Process Center server and Performance Data Warehouse, allowing users to work in IBM Business Process Manager to run their processes and store performance data for testing, reports, and Playback purposes.



Process applications

- Process applications can be opened and created through the Process Center

The screenshot shows the 'Process Apps' section of the IBM Process Center. At the top, there are tabs for 'Process Apps', 'Toolkits', 'Servers', and 'Admin'. A search bar is at the top right. Below the tabs, there's a sorting dropdown set to 'Recently Updated' and buttons for 'All', 'Favorites', and 'Archived'. The main area lists three process applications:

- Hiring Sample (HSS) - Last updated on 3/15/16 by author1. Includes 'Open in Designer' and 'Edit' buttons.
- Process Portal (SYSRP) - Last updated on 3/15/16 by author1. Includes 'Open in Designer' and 'Edit' buttons.
- Heritage Process Portal (TWP) - Last updated on 3/15/16 by author1. Includes 'Open in Designer' and 'Edit' buttons.

To the right of the application list is a vertical sidebar with the following options:

- Create New Process App** (highlighted with a red box)
- Import Process App
- Download Process Designer
- Download MobileFirst Adapter

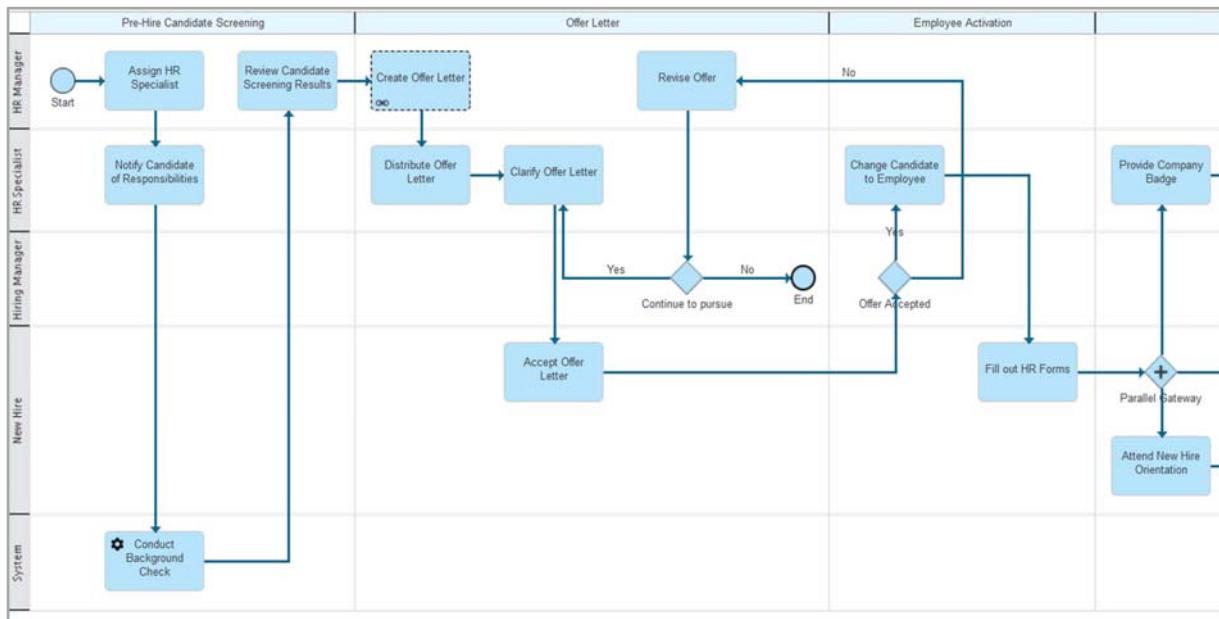
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Figure 8-24. Process applications

True to its name, the Process Center is the central place for BPM teams to store, retrieve, and deploy their process applications. BPM programs can now look to one place for all project artifacts, some of which can be designated as reusable applications. The process center enables a centralized development environment for distributed authoring. A development team can open process applications through the Process Center, or create an entirely new process application that in turn is now stored with the other applications and shown in the repository list.

Bluworks Live To-Be process diagram



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Figure 8-25. Bluworks Live To-Be process diagram

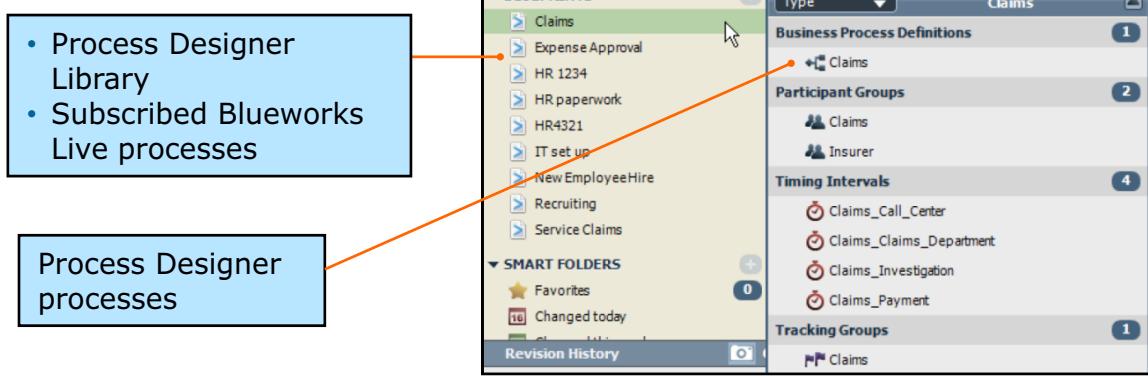
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Subscribing to a Blueworks Live process diagram in IBM Business Process Manager



Key information

- You must either select a process application in the Process Center repository or create a new process application for subscribing to a Blueworks Live process diagram because subscriptions can be completed only in the Designer
- You can subscribe to multiple Blueworks Live process diagrams from one single IBM Business Process Manager process application
- Subprocesses are included as separate business process definitions (BPDs) in your process application library
- Linked subprocesses in your Blueworks Live process diagram are included as a separate subscription



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Figure 8-26. Subscribing to a Blueworks Live process diagram in IBM Business Process Manager

Business process definitions (BPDs) can be easily transferred between Blueworks Live and IBM Business Process Manager, enabling authors to collaborate on the development of BPDs. Process diagrams that authors create in Blueworks Live can be exported from Blueworks Live and then imported into the IBM Business Process Manager Authoring Environment.

Steps to subscribe to a Blueworks Live process diagram

Step	Function
1	Click the plus sign next to Blueworks Live in the library of the Designer for your process application
2	Select Subscribe to Blueworks Live Process
3	Type your Blueworks Live user name and password and click Next
4	Click the check box next to the process or multiple processes that you want to subscribe to and click Next
5	Verify that the subscriptions appear on the Summary page and click Finish

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Figure 8-27. Steps to subscribe to a Blueworks Live process diagram

The following steps illustrate how you can subscribe to a Blueworks Live process diagram in the IBM Business Process Manager Authoring Environment.

1. Click the plus sign next to **Blueprints** in the library of the Designer for your process application.
2. Select **Subscribe to Blueworks Live Process**.
3. Type your Blueworks Live user name and password and click **Next**.
4. Click the check box next to the process or multiple processes that you want to subscribe to and click **Next**.
5. Verify that the subscription appears on the Summary page and click **Finish**.

Opening and updating subscribed processes

- You can change a subscribed Blueworks Live process while working in the IBM Business Process Manager Process Designer

Step	Function
1	In the Blueworks Live category in the Designer Library, right-click the process, and select Open in Blueworks Live
2	Make the required changes in Blueworks Live
3	Update the process subscription in IBM Business Process Manager by right-clicking the Blueworks Live process in the Designer Library and selecting Update from Blueworks Live
4	Type your Blueworks Live user name and password and click Next
5	Updates from Blueworks Live are now applied to the subscribed Blueworks Live process in the Designer Library

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Figure 8-28. Opening and updating subscribed processes

You can change a subscribed Blueworks Live process while working in the IBM Business Process Manager Process Designer.

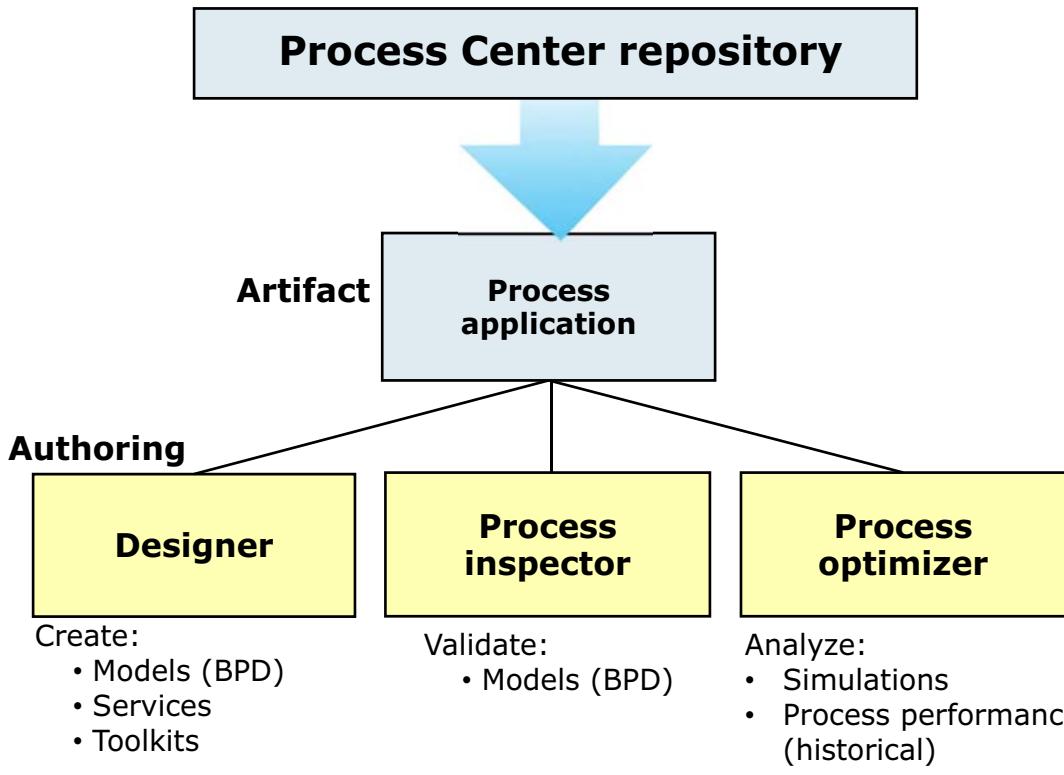
Process Designer

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Figure 8-29. Process Designer

Process application authoring



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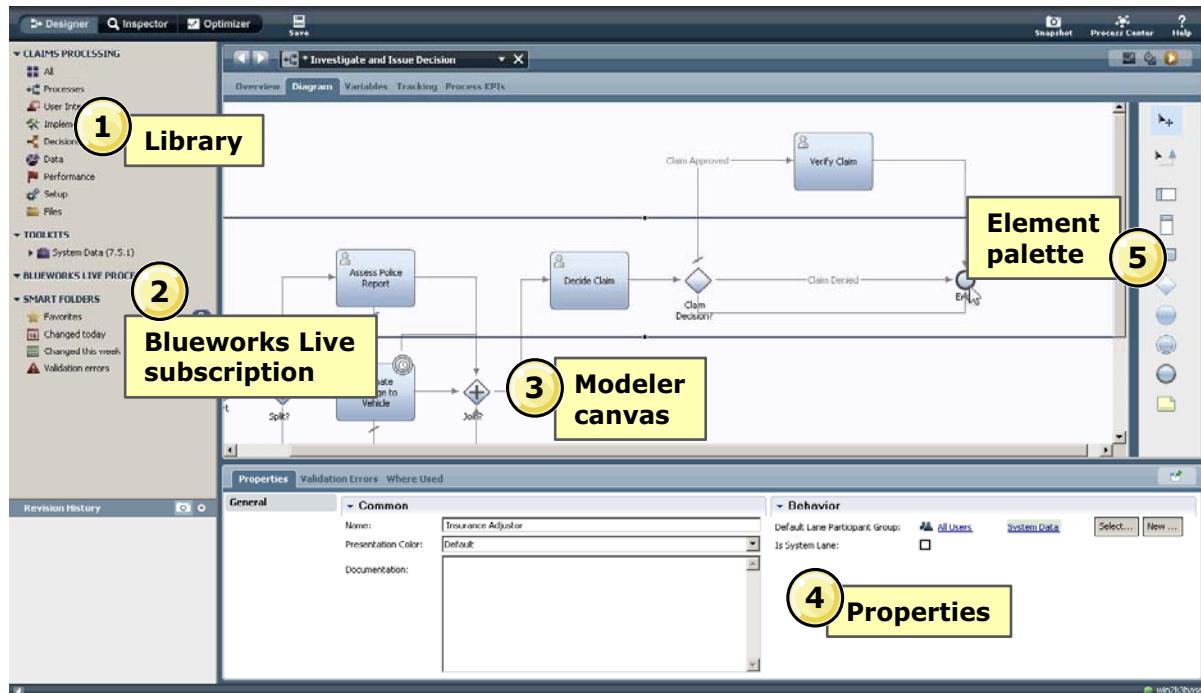
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Figure 8-30. Process application authoring

Users can create process models, services, and other assets within process applications by using the Authoring Environment Designer. Designer is the main development tool for all process applications.

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Process Designer: Designer view



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Figure 8-31. Process Designer: Designer view

You can use the Designer Library to subscribe to a Blueworks Live Process. When you need to modify a IBM Business Process Manager BPD created from the Blueworks Live subscription, you would use:

- Modeler: Similar to the Blueworks Live process diagram, in the Modeler you can add new elements (BPMN) where necessary, adjust existing elements, redirect flow lines, and adjust swimlanes and other modifications that communicate the “To-Be” process effectively.
- Element palette: All the pertinent BPMN elements that are used in IBM Business Process Manager are located in the far right quadrant. To add new elements to the BPD, click and drag an element to the Modeler and then release it in the area where it needs to be. To add a flow line, select the flow line element. Then, move your cursor over any model element, click once to anchor the flow line, and then click the connection that you would like to make to another element and release. Elements that are located in the palette include:
 - Selection tool
 - Sequence flow
 - Activity, swimlane
 - Milestone

- Gateways (decision, simple split, conditional)
 - Note
 - Start event
 - End event
 - Intermediate timer event
 - Start message event
 - Intermediate message event
 - Intermediate tracking event
 - Start ad hoc event
 - Intermediate exception event
 - End exception event
 - Terminate event
- Attributes: For preparation of a “To-Be” BPD for implementation, you can add property information for model elements through the Attributes section in the lower right quadrant.

Process Designer highlights

- The IBM Business Process Manager Process Designer is a tool that BPM developers use to create and implement an executable BPM solution
- Executable business process flow involves human services, control logic, calls to external services, and other implementation components
- Creating an executable business process involves defining a set of artifacts:
 - Process activities
 - Integration services
 - Participant roles, groups of users in a team
 - Fault and exception management
 - Data elements in scope of the process
 - User interfaces for the human task interactions, with the corresponding services, called a “coach”
 - KPIs for the process execution monitoring
- You can use a web Process Designer in a browser, or the traditional Process Designer on your desktop

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Figure 8-32. Process Designer highlights

BPM developers develop an executable business process by using IBM Business Process Manager Process Designer. It might be human workflow, case management, or ad hoc processes. This task supports only the BPD implementation, top-level process and any subprocesses it might include. It also addresses the implementation of the “services” in process applications or toolkits that the BPD consumes.

You can use the web Process Designer in a browser to model your process, or you can use the traditional Process Designer on your desktop. Create business process definitions (BPDs). Processes contain the function of BPDs and also include case management function. Coaches and business object development represent a critical part of the BPD.

8.3. Working with DevOps

Working with DevOps

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Figure 8-33. Working with DevOps

DevOps is not just tools...

- DevOps is an approach, a combination of culture, process, and technology
- You do not buy DevOps – you create a DevOps solution by purchasing tools, products, and services that enable DevOps
- DevOps requires transformation – cultural and organizational shift, not just funding for purchasing IT and development tools and services
- Plan DevOps adoption as part of your business transformation
 - As one of the enablers of your digital innovation
 - Add and develop your DevOps capabilities that are aligned to your business needs



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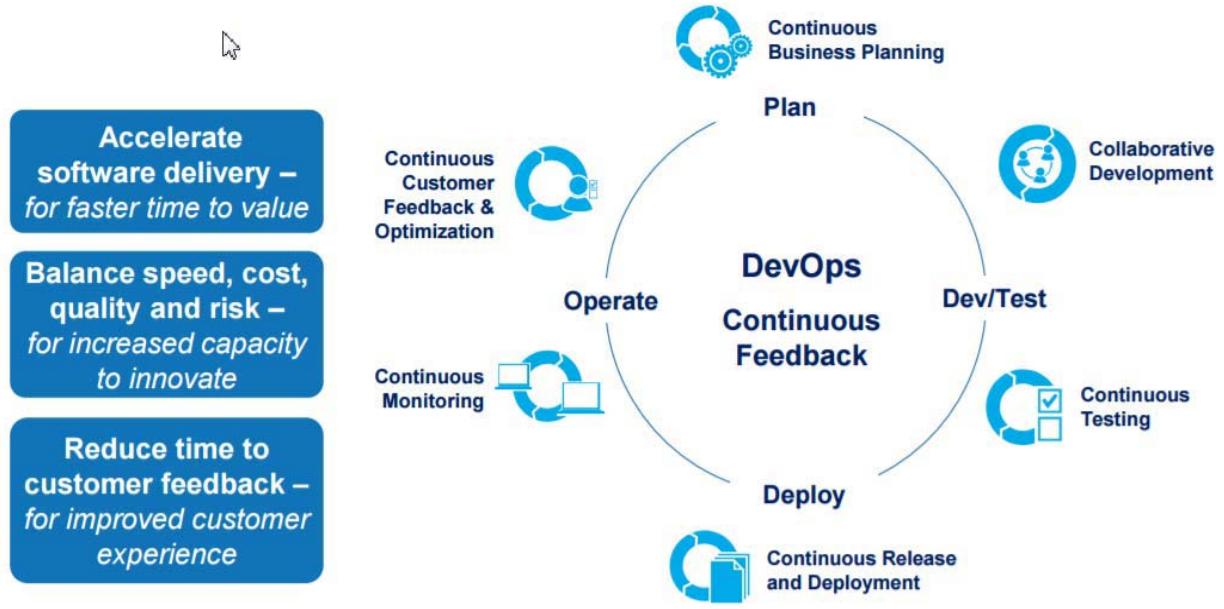
Figure 8-34. DevOps is not just tools...

For more information on DevOps, see the following website:

<https://www.ibm.com/ibm/devops/us/en/resources/dummiesbooks/>

DevOps applies agile practices across the application delivery lifecycle

DevOps is an enterprise capability for continuous software delivery that enables organizations to seize market opportunities and reduce time-to-customer feedback



DevOps delivers measurable business outcomes

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Figure 8-35. DevOps applies agile practices across the application delivery lifecycle

Continuous delivery is a software development discipline where you build software in such a way that the software **can** be released to production at any time.

To achieve **continuous delivery**, you need:

- A close, collaborative working relationship between everyone involved in delivery (often referred to as a “DevOps culture”).
- Extensive automation of all possible parts of the delivery process, usually by using a continuous delivery pipeline (or, as it is sometimes referred to, a toolchain)

DevOps and SaaS (software as a service)

Team planning, development, and operations

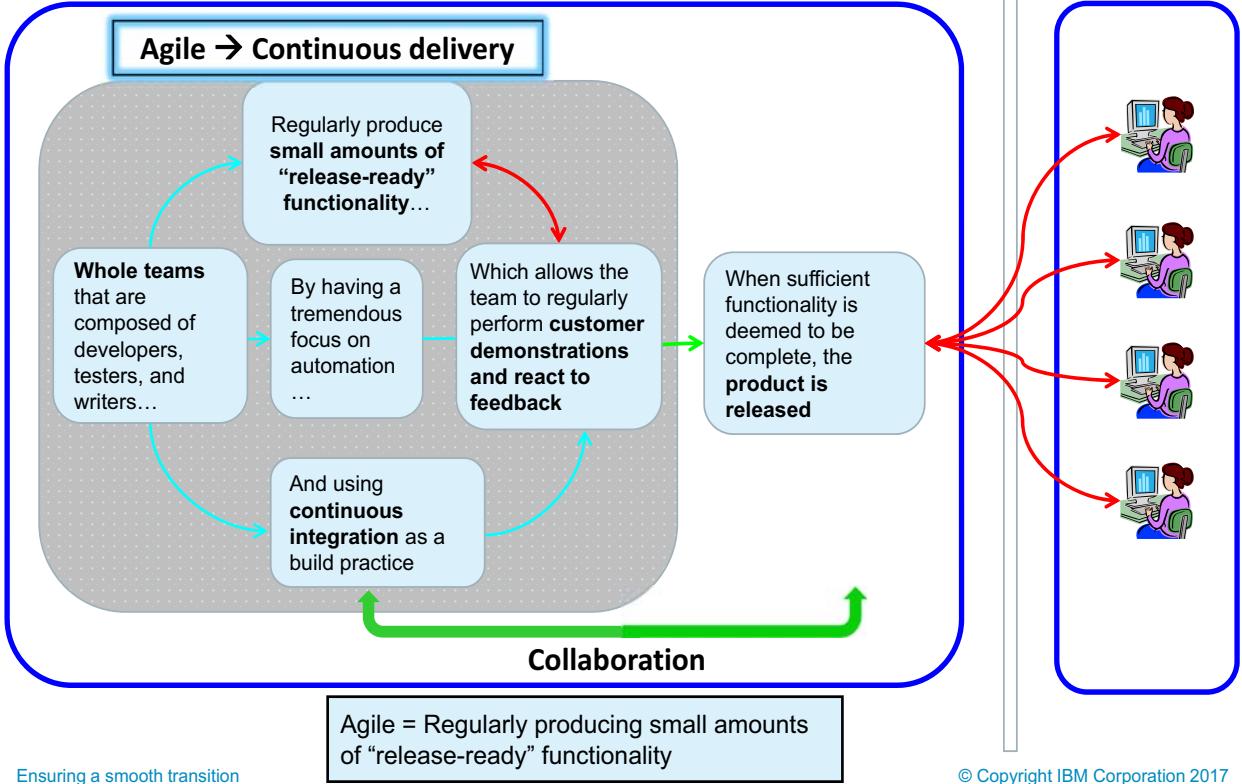


Figure 8-36. DevOps and SaaS (software as a service)

DevOps and SaaS (software as a service): Continuous delivery

You are doing continuous delivery when:

- Your software is deployable throughout its lifecycle
- Your team prioritizes keeping the software deployable over working on new features
- Anybody can get fast, automated feedback on the production readiness of the systems
- Any time somebody changes the system configurations, anybody who chooses to be notified, is notified
- You can perform push-button deployments of any version of the software to any environment on demand
- To administer applications on the cloud environment, you need to contact a part of the DevOps team (that is not regular Support)

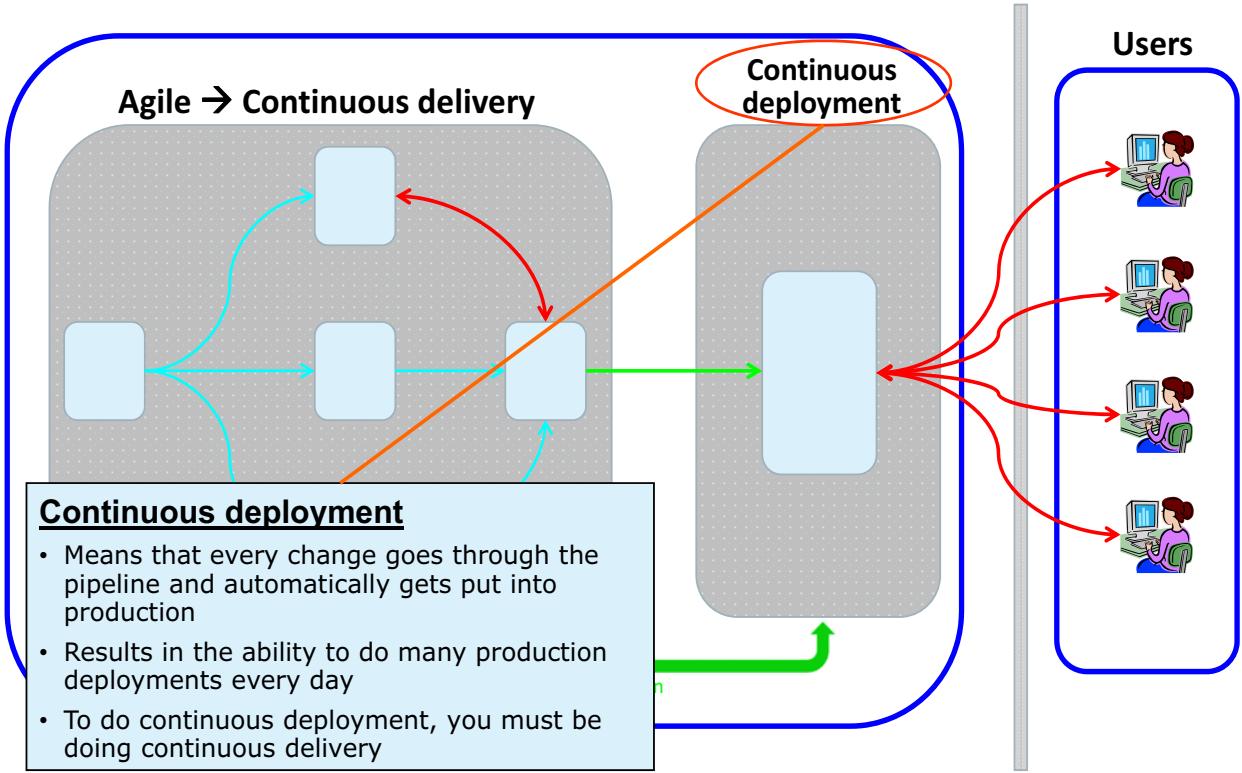
Figure 8-37. DevOps and SaaS (software as a service): Continuous delivery

Continuous delivery is a software development discipline where you build software in such a way that the software **can** be released to production at any time.

To achieve **continuous delivery**, you need:

- A close, collaborative working relationship between everyone that is involved in delivery (often referred to as a “DevOps culture”)
- Extensive automation of all possible parts of the delivery process, usually by using a continuous delivery pipeline (or, as it is sometimes referred to, a toolchain)

DevOps and SaaS (software as a service): Continuous deployment



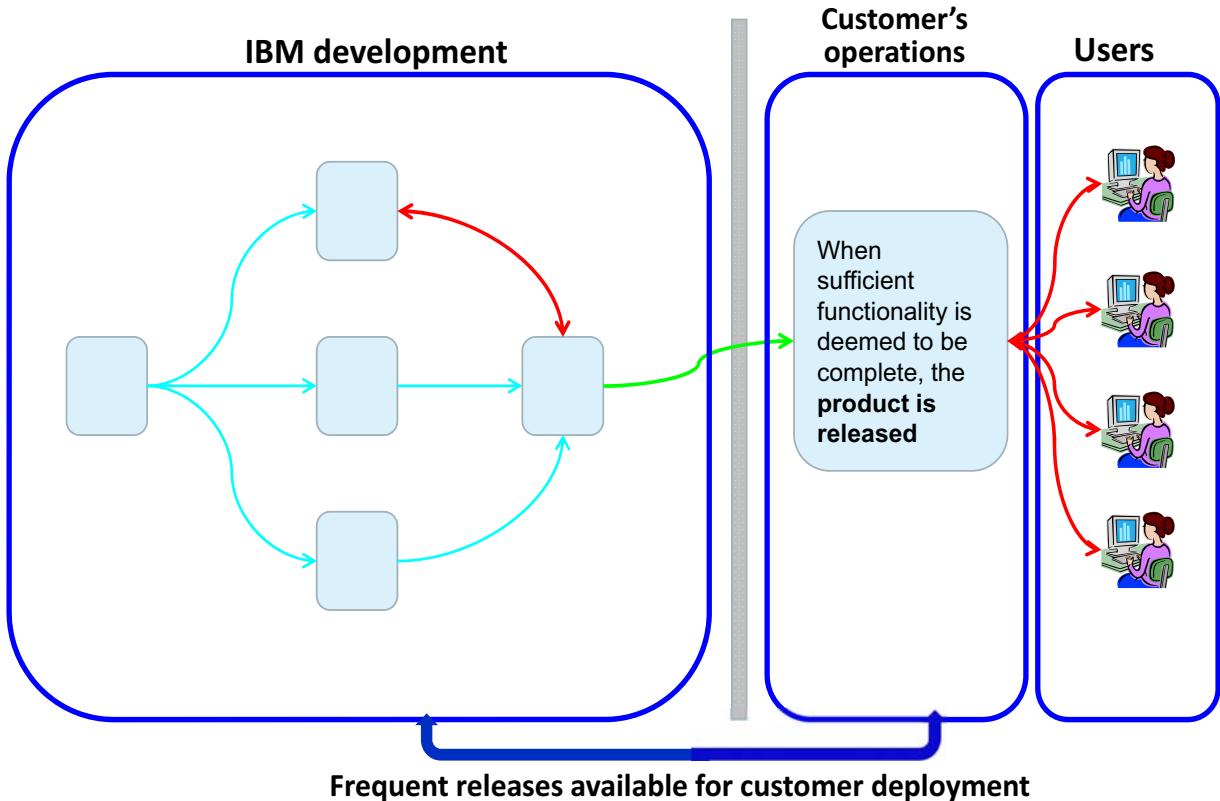
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Figure 8-38. DevOps and SaaS (software as a service): Continuous deployment

Continuous delivery means that you are able to do frequent deployments but might choose not to do it, usually because the business prefers a slower rate of deployment.

Agile and continuous delivery in on-premises models



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Figure 8-39. Agile and continuous delivery in on-premises models

Benefits of DevOps

- “Fail fast, fail cheap” → succeed sooner
- Rapid experimentation and rapid feedback
- More parts of the organization that work together towards a shared, common goal
- By adopting a DevOps approach, organizations can seize new opportunities and gain competitive advantage

Business objectives

- Enable client on-demand deploys to foster continuous software-driven innovation
- Drive 49 – 99-day deployment cycle times to 3 – 5 days
- Reduce deployment costs by > 70%

Speed	Empowerment	Economics
<ul style="list-style-type: none"> • Applications available up to 98% faster • Speed to market of application development and test projects up to 60% faster 	<ul style="list-style-type: none"> • Application teams eliminate wait time and rework through self-managed deployments • Developers and tester focus on developing, testing, and delivering quality results with up to 80% defect reduction 	<ul style="list-style-type: none"> • Up to 98% less cost to redeploy an application into the Cloud • “Pay-as-you-go” model

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Figure 8-40. Benefits of DevOps

8.4. Next steps for the BPM solution

Next steps for the BPM solution

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Figure 8-41. Next steps for the BPM solution

What are the next steps?

- BPM analyst continues with Playback alignment throughout the lifecycle of the project
- In addition to Playback alignment with business requirements, continue to:
 - Further refinement of scope and timeline by BPM project managers (PM) and BPM developers
 - Be involved as BPM analyst or trained business analyst in subsequent Playbacks to act as voice of the customer (executive level)
 - Identify, capture, and provide hand-off of technical collateral to the BPM developers or trained developers as a way to continue to implement business process and functionality requirements in future Playbacks (iterations)

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Figure 8-42. What are the next steps?

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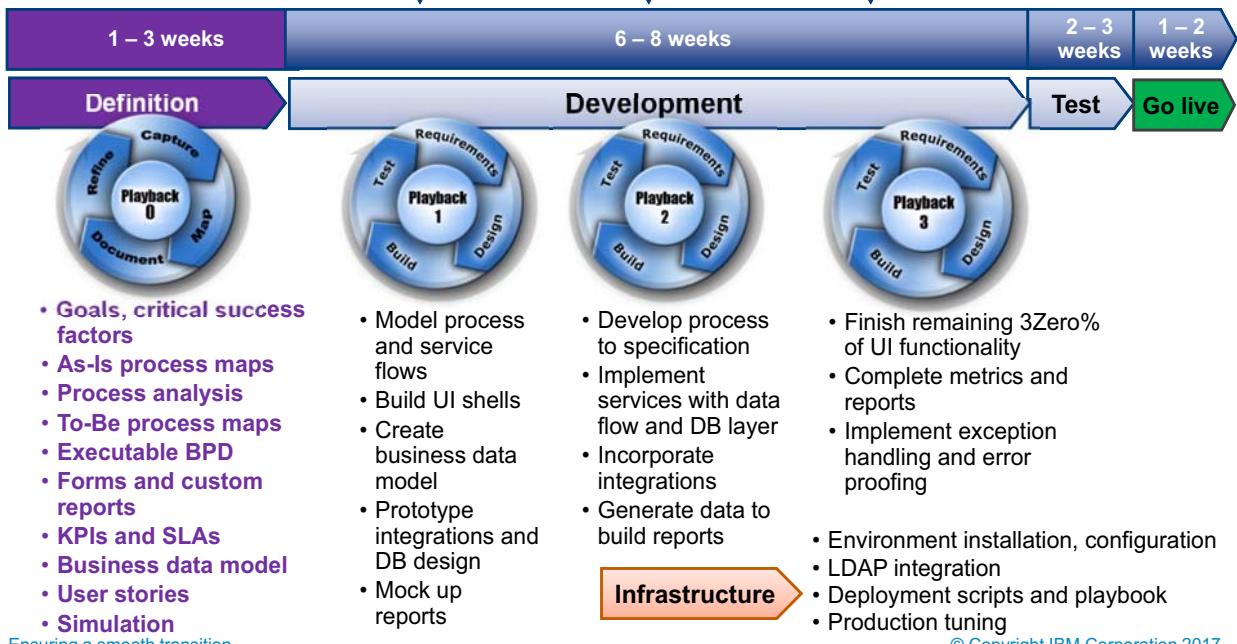


IBM Business Process Manager approach: Integrated process analysis and implementation

- BPM analyst (1)
- Engagement manager (1)
- Infrastructure specialists (1)

- BPM developer (2)
- Technical architect (1)
- Engagement manager (1)

- BPM developer (1)
- Technical architect (1)
- Engagement manager (1)
- Infrastructure specialists (1)



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Figure 8-43. IBM Business Process Manager approach: Integrated process analysis and implementation

This slide shows development iteration steps with corresponding Playbacks at the end of each iteration.

Unit summary

- Dissect Playback Zero
- Prepare business analyst deliverables and the relationship with the BPM team members
- Import a process into IBM Business Process Manager
- Work with DevOps
- Review the next steps

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Figure 8-44. Unit summary

Review questions

1. True or False: The results of the Playback Zero are confirmed stakeholder acceptance, prioritized roadmap of current and future requirements, no requirements lost in translation, and developer-ready process model.

2. Which item is true about DevOps?
 - A. DevOps is an approach, a combination of culture, process, and technology
 - B. DevOps is just a tool that is used by the technical teams
 - C. You can buy DevOps
 - D. You must subscribe to DevOps through the IBM Business Process Manager Process Designer



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Figure 8-45. Review questions

Write your answers here:

1.

2.

Review answers

1. True or False: The results of the Playback Zero are confirmed stakeholder acceptance, prioritized roadmap of current and future requirements, no requirements lost in translation, and developer-ready process model.

The answer is True.



2. Which item is true about DevOps?

- A. DevOps is an approach, a combination of culture, process, and technology
- B. DevOps is just a tool that is used by the technical teams
- C. You can buy DevOps
- D. You must subscribe to DevOps through the IBM Business Process Manager Process Designer

The answer is A.

Exercise: Playback Zero

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Figure 8-47. Exercise 6: Playback Zero

Exercise objectives

- Conduct Playback Zero

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Figure 8-48. Exercise objectives

Unit 9. Course summary

Estimated time

00:30

Overview

This unit summarizes the course and provides information for future study.

Unit objectives

- Explain how the course met its learning objectives
- Identify other IBM Training courses that are related to this topic
- Access the IBM Training website
- Locate appropriate resources for further study

[Course summary](#)

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Figure 9-1. Unit objectives

Course objectives (1 of 2)

- Describe business process management (BPM) and its benefits to an organization
- Describe agile business process analysis methods and supporting project tasks and work products that are used in a process transformation project
- Document business process and decision management opportunities and attach relevant references to clarify project goals and requirements for the process transformation
- Define detailed business requirements as user stories within the process context
- Create a macro design with Design Thinking
- Map high-level activities and participants in a business process by using Blueworks Live
- Generate and refine a detailed process diagram by using Blueworks Live
- Establish a change management plan to garner acceptance and buy-in for process improvement initiatives

[Course summary](#)

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Figure 9-2. Course objectives (1 of 2)

Course objectives (2 of 2)

- Document detailed processes through validation and enhancement of blueprints, with key inputs and outputs and known issues and impacts
- Create process user stories for project task estimation and prioritization
- Describe DevOps and how it affects development projects
- Explain the difference between BPM projects and other IT implementation projects
- Facilitate process discovery sessions
- Identify key performance indicators (KPIs) for a process
- Identify next steps for process improvement initiatives
- Describe the tools that are available in the IBM Systems Solution Implementation Standard (ISSIS) repository and how they can be used for business process and rules analysis
- Describe the working relationship between the business analyst, subject matter experts, solution architect, and development team

[Course summary](#)

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Figure 9-3. Course objectives (2 of 2)

To learn more on the subject

- IBM Training website:
www.ibm.com/training
- IBM Redbooks:
www.redbooks.ibm.com
- To stay informed about IBM training, see the following sites:
 - YouTube: youtube.com/IBMTTraining
 - Facebook: facebook.com/ibmtraining
 - Twitter: twitter.com/websphere_edu

Course summary

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Figure 9-4. To learn more on the subject

Enhance your learning with IBM resources

Keep your IBM Cloud skills up-to-date

- IBM offers resources for:
 - Product information
 - Training and certification
 - Documentation
 - Support
 - Technical information



- To learn more, see the IBM Cloud Education Resource Guide:
 - www.ibm.biz/CloudEduResources

[Course summary](#)

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Figure 9-5. Enhance your learning with IBM resources

Unit summary

- Explain how the course met its learning objectives
- Identify other IBM Training courses that are related to this topic
- Access the IBM Training website
- Locate appropriate resources for further study

[Course summary](#)

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Figure 9-6. Unit summary

Appendix A. List of abbreviations

A

ABRD Agile Business Rule Development
Ajax Asynchronous JavaScript and XML
AMD Asynchronous Module Definition
APAR authorized program analysis report
API application programming interface

B

B2B business-to-business
BA business analyst
BAL Business Action Language
BAM business activity monitoring
BOM business object model
BPD business process definition
BPEL Business Process Execution Language
BPM business process management
BPMA business process management analyst
BPMC business process management consultant
BPMN Business Process Model and Notation
BPMS business process management system
BRM Business Rule Management
BRMS business rule management system
BVA business value added

C

CC customer care
CEO Chief Executive Officer
CIO Chief Information Officer
CMIS Content Management Interoperability Services
CoE Center of Excellence
CRM customer relationship management
CS coach service
CS customer support
CSS Cascading Style Sheets
CSV comma-separated values
CTQ critical to quality
CV coach view

D

DB database
DB2 Database 2
DOM Document Object Model

DSI Decision Server Insight

E

EAR enterprise archive

ECM Enterprise Content Management

EIS Enterprise Information System

EJB Enterprise JavaBeans

ENV environment variable

EPV exposed process value

ERP enterprise resource planning

ESB enterprise service bus

F

FTL flow through logistics

G

GB gigabyte

GUI graphical user interface

H

HR human resources

HS human service

HTML Hypertext Markup Language

HTTP Hypertext Transfer Protocol

HTTPS Hypertext Transfer Protocol Secure

I

IBM International Business Machines Corporation

IBM BPM IBM Business Process Manager

ID identification

IE Internet Explorer

IME intermediate message event

INVEST Independent, negotiable, valuable to users, estimable, small, testable

I/O input/output

IOT Internet of Things

IP Internet Protocol

IS information systems

ISSIS IBM Systems Solution Implementation Standard

IT information technology

J

J2C J2EE Connector architecture

J2EE Java 2 Platform, Enterprise Edition

JAR Java archive

JDBC Java Database Connectivity

JMS Java Message Service

JNDI Java Naming and Directory Interface
JSAPI JavaScript API
JSON JavaScript Object Notation
JVM Java virtual machine

K

KPI key performance indicator

L

LDAP Lightweight Directory Access Protocol
LOB line of business

M

MIL multi-instance loop
MIME Multipurpose Internet Mail Extensions

N

NFR non-functional requirement
NVA non-value-added

O

OASIS Organization for the Advancement of Structured Information Standards
ODM Operational Decision Manager
OMG Object Management Group
OS operating system

P

PB Playback
PBT profit before tax
PC Process Center
PDF Portable Document Format
PFS Process Federation Server
PM project manager
POJO plain old Java object
PS Process Server

Q

QA quality assurance

R

RACI responsible, accountable, consulted, and informed
REST Representational State Transfer
RIOC relative improvement over chance
RFC request for comment
ROI return on investment
RSD regional sales director

RUP Rational Unified Process

S

SaaS software as a service

SDK software development kit

SDLC software development lifecycle

SIPOC supplier, input, process, output, customer

SLA service level agreement

SMART specific, measurable, achievable, result-oriented or relevant, and time-bound

SME subject matter expert

SMTP Simple Mail Transfer Protocol

SOA service-oriented architecture

SOAP a lightweight, XML-based protocol for exchanging information in a decentralized, distributed environment.

Usage note: SOAP is not an acronym; it is a word (formerly an acronym for Simple Object Access Protocol)

SOR system of record

SQL Structured Query Language

SSL Secure Sockets Layer

SSO single sign-on

T

TIMWOODS transport, inventory, motion, waiting, over production, over processing, defects, and skills

TPC technical, political, cultural

TQM total quality management

TS task service

U

UAT user acceptance testing

UCA undercover agent

UI user interface

UML Unified Modeling Language

URI Uniform Resource Identifier

URL Uniform Resource Locator

V

VA value-added

VM virtual machine

W

W3C World Wide Web Consortium

WAR web archive

WBS work breakdown structure

WS web services

WS-I Web Services Interoperability

WSDL Web Services Description Language

X

XML Extensible Markup Language

XP extreme programming

XPath XML Path Language

XSD XML Schema Definition

XSL Extensible Stylesheet Language

XSLT Extensible Stylesheet Language Transformation



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