Dynamic Business Process Management (BPM) from IBM

Dynamic Business Process Management (BPM) powered by Smart Services-oriented Architecture (SOA)™ provided by WebSphere Dynamic Process Edition can simplify end-to-end processes, accelerate process change by 70-80% and lower IT costs by 20-50% when compared to traditional BPM. The objectives of this paper are to show how these benefits are achieved and to show how IBM can work with you in a Business Value Assessment (BVA) to quantify the benefits for your projects.

Andy Martin – version 1.5 August 2009
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1 Introduction

This paper outlines how companies can make substantial changes to their business processes much faster than has previously been possible with less dynamic business process management (BPM) technologies. This is needed to enable change in business process models, for example to support new products to new markets or to become globally integrated or to integrate and optimize end-to-end processes. The IBM platform to support this capability is IBM WebSphere® Dynamic Process Edition.

1.1 The Challenge of business process agility

"A 2008 IBM survey of over 1000 CEOs[1] worldwide found that 83% are expecting significant change yet the gap between those who expect change and those who have demonstrated the ability to handle it has tripled in the last two years." Changes were identified in all industries, but this whitepaper will focus on recent engagements in telecom, banking and insurance. For example:

1. Telecommunications – The market opportunity is moving towards providing new communication and content services over super-fast fibre optic connections. How can a Telecom quickly build a new business model to enter this market? How can this model continually adapt to support new products and regions especially when each product and region combination requires a different process?

2. Banking – A bank wants to create a new clearing capability but how can they keep costs down by not duplicating and rebuilding the same capabilities across multiple lines of business? How can they keep up to date with constantly changing customer and regulatory requirements? How can they easily give personalized customer service to differentiate themselves?

3. Insurance – An insurance company wants to roll out a standardized claims processing capability globally. The current process is spread across many systems and lines of business. How can they implement the common model, country by country, while preserving critical product line and country requirements?

In the examples above each customer needed to select the right technology approach to solve these business issues. They could use a package or custom development; they could adopt traditional BPM technologies; or they could enhance their ability to adapt and respond dynamically by deploying WebSphere Dynamic Process Edition.

1.2 The Business Value Assessment

IBM worked with each of the above customers in a Business Value Assessment (BVA) workshop. The BVA is a consulting offering provided by IBM Software Group designed to assist customers with the development of a business case that justifies the selection and investment in IBM software solutions. This paper will focus on the BVA for dynamic BPM. During a BVA, specialists from IBM work with business and technical teams from the customer to understand the nature of key business issues and to determine how best to solve those problems using WebSphere Dynamic Process Edition. Business case components for WebSphere Dynamic Process Edition include: faster build of new processes, reduced risk, faster ongoing process change, process optimization and reduced IT Total Cost of Ownership (TCO). The greatest benefits come from WebSphere Dynamic Process Edition's ability to dynamically assemble new processes. This facilitates controlled process change.

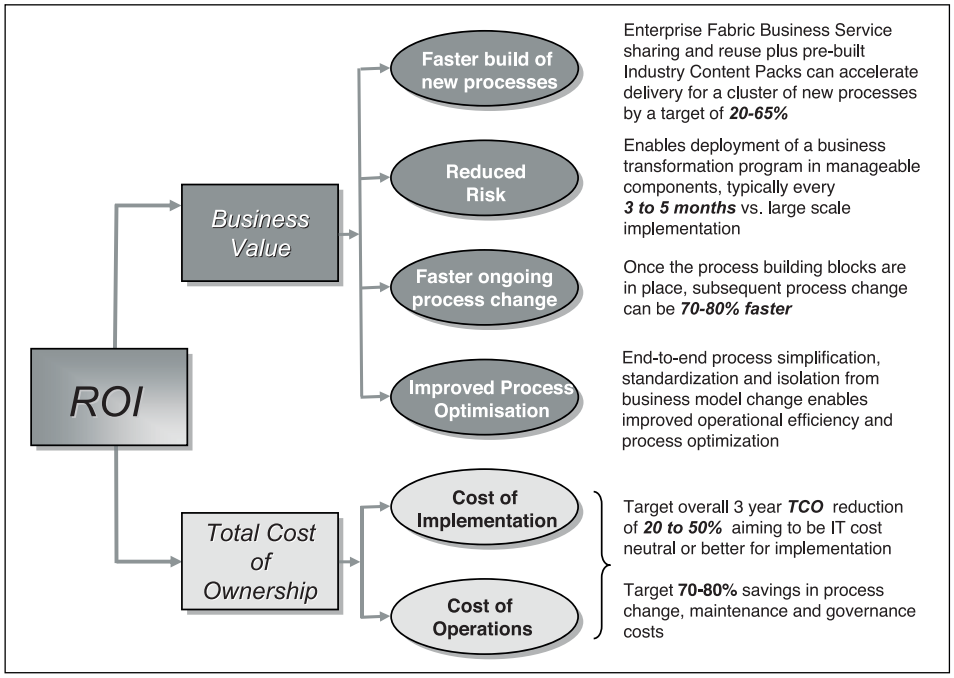

Figure 1: Key areas to build the business case for WebSphere Dynamic Process Edition

2 IT approaches

The focus of this paper is the comparison of traditional BPM to dynamic BPM powered by WebSphere Dynamic Process Edition. In this document traditional BPM refers to the orchestration of services. Traditional BPM typically handles process variation through copied and slightly different processes or the creation of multiple branches in a single process. It is important to understand that traditional BPM enablers could include the use of a Business Rules Management System as an alternative to or in addition to the above approach to handling process variations. Traditional BPM approaches support change through manipulating business rules, changing the process flow for particular instances using management tools, or changing the overall process orchestration by adding new activities and branches. Other common IT approaches such as traditional in-house application development or packaged application customization are also briefly considered.

2.1 Traditional in-house and packaged IT

Businesses today have legacy systems that are often inflexible, siloed and difficult to change. The 'embedded' business processes existing in legacy applications can be rigid like concrete—designed, implemented with hard-coding, like pouring "concrete" on top, leading to long cycle times for changes. IT situations like this lead to lack of control by the business over their own processes. Often they consider replacing their existing IT assets with new packaged software when new capabilities are required. This approach is often costly, slow and can be risky. For example, a BVA for an insurance company showed that WebSphere Dynamic Process Edition, when compared to their traditional, packaged IT approach, could reduce three-year costs by 30%, and accelerate time to value for the launch of new products by 60%. These benefits were achieved through re-factoring existing IT assets in a new multi-channel process for independent financial advisers and brokers. Risk was reduced and value delivered to the business more quickly through the incremental delivery of services to smaller groups of users every six months rather than a large scale implementation after 18-24 months.

Alternatively, to introduce new capabilities, companies may consider developing their own custom solutions. This approach can create applications that are difficult to change and cause duplication of development effort. In another BVA we assessed for a large UK-based bank that is evaluating a new solution using WebSphere Dynamic Process Edition, we determined the company could reduce their total cost of ownership (TCO) by 35% compared to the custom development approach. Subsequent process changes could be accelerated by 80%. WebSphere Dynamic Process Edition could enable high reuse compared to almost no reuse in the custom approach. This BVA used an IBM patented[2] approach to define the value of SOA over traditional development.

2.2 Traditional BPM and SOA

There is a market shift away from traditional packaged or in-house developed IT to the adoption of SOA, open standards and componentization. The reason for this shift is to achieve agility and to reduce risk (i.e., avoid vendor lock in) and cost. Adding BPM to SOA increases agility by pulling together, streamlining and integrating business processes towards greater agility. What is agility? In this case, it is the capability to rapidly and cost efficiently adapt to changes. The level of agility a business may require to keep up with changing market and business demands, may not be achieved even through common BPM approaches because they often do not have the capability to easily handle business process change.

An end-to-end process integrates the interactions between multiple lines of business such as sales and operations or multiple business components like credit assessment or product fulfillment. Each of these organizations usually owns their sub processes and operational systems. The process must typically support multiple dimensions such as different channels, customer types, product lines, regions and brands. Each dimension of variability may require a different process between and within business components. For example there may be multiple ways of handling an order depending on the brand, product and the region. Business model changes such as acquiring a new brand, with new products in a new region introduce a new level of complexity to process change. A process must be able to invoke the correct sub-process or SOA service based on, for example, the brand and product and region combination. Due to constant business change these process variants are changing on an ongoing basis. The process needs be able to adapt dynamically as the business changes.

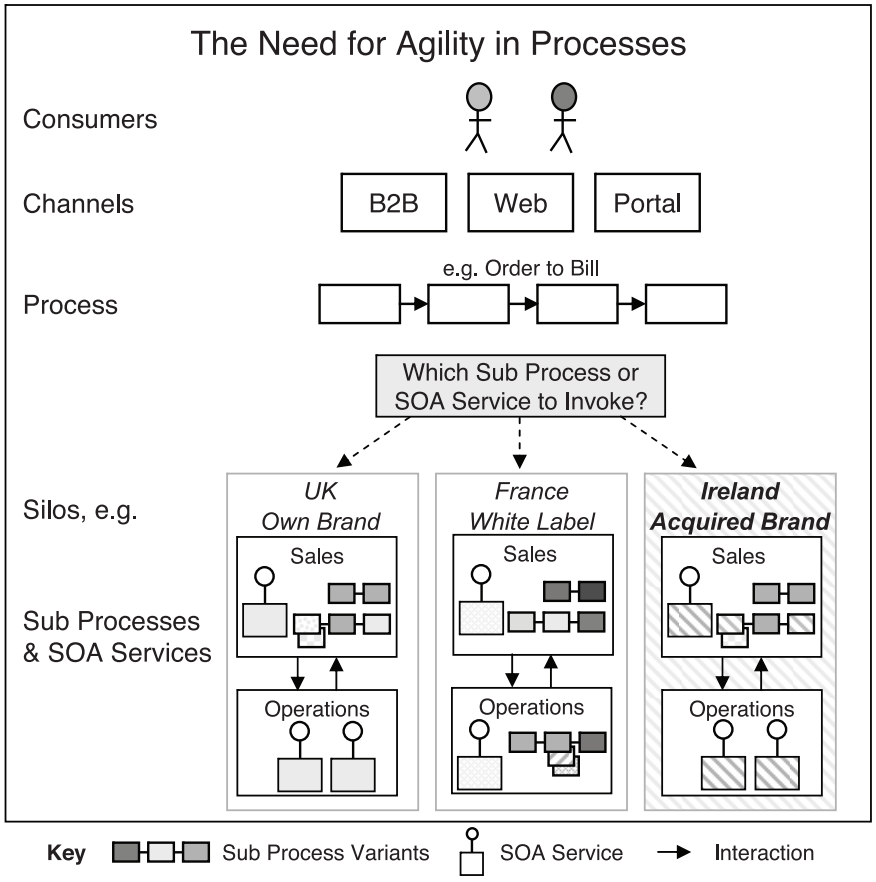

Figure 2: The Challenge of dynamic variability with traditional BPM and SOA

With traditional BPM the integration logic associated with process variability could be placed in any or all of the following: front-end channel applications (e.g., portals); middleware (Enterprise Service Bus (ESB) and/or process layer); service interfaces, or in the operational systems.

Variability handled in any of these places will require effort, reduce sharing and reuse potential and make subsequent business process change harder, especially if the approach is inconsistent or undocumented.

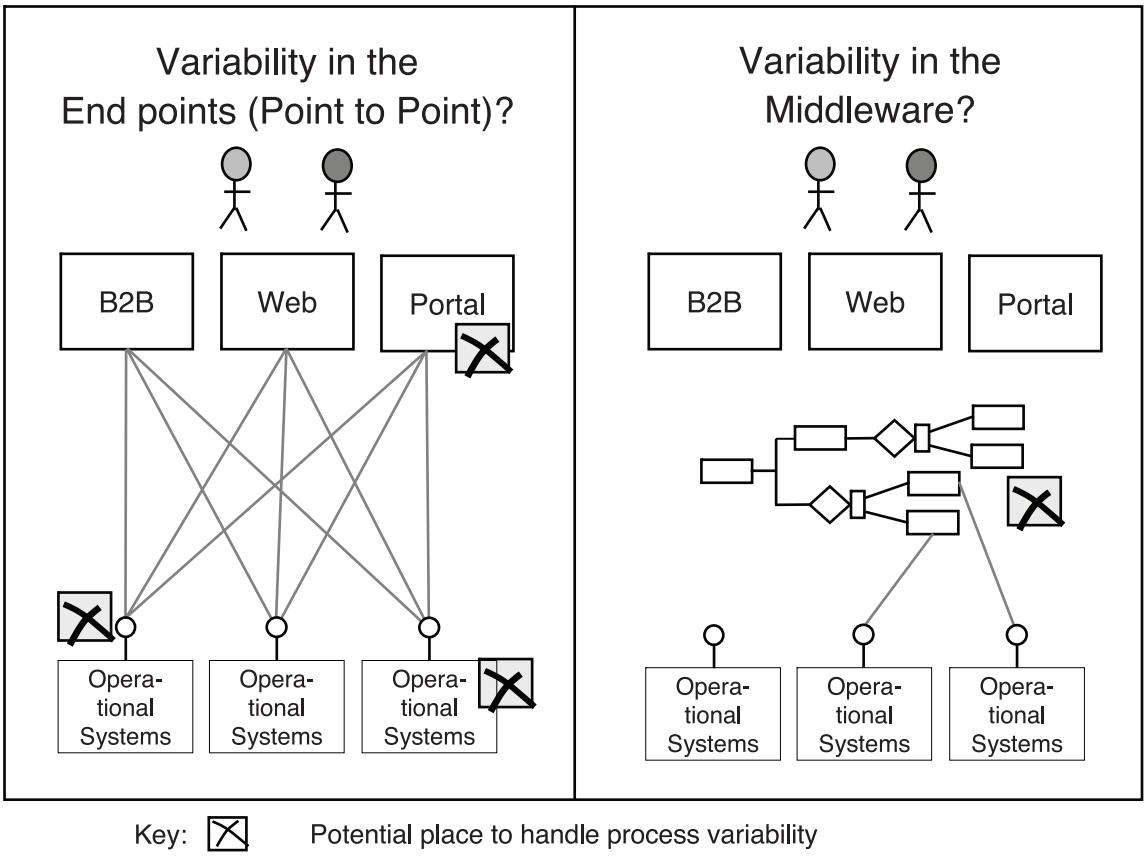

Figure 3: Where is variability handled?

Variability in the process results in either multiple branches in one large process or many duplicate processes being built. Subsequent business changes then requires either the rebuilding of the process or yet more slightly different duplicate processes. Company leaders need to determine if all the processes and/or process branches reflect the current business requirements. For example, of the 200 process services created by an insurance company only 35 were unique with the remaining 165 all being duplicates.

An example of process change is: "for new orders from Ireland ensure that the new expedited service delivery process is used but ensure that manual authorization is requested for any of these orders greater than 500 Euros." With traditional BPM, the process would require a new case to be defined in the existing process. Process changes would extend back to the modeling stage, which would also be accompanied by comprehensive process testing and then step-by-step phased deployment from development to production. This effectively repeats the entire development cycle. The business needs a new way of handling the process change in a far more dynamic manner.

2.3 Dynamic BPM powered by Smart SOA provided by WebSphere Dynamic Process Edition

Handling business process change dynamically requires a control point and IBM calls this an intelligent Business Service. Intelligent business services are created by WebSphere Business Services Fabric which is at the core of WebSphere Dynamic Process Edition. Fabric takes complex processes and modularizes them into what IBM calls intelligent Business Services, then assembles these modules at run-time. They are comprised of a logical collection of uniform SOA services (or sub-processes) that are grouped into a higher level entity based on a business function (e.g., open account, check credit). Business service policies are then defined to control the behavior of the intelligent Business Service. These Business Service Policies are written in simple business terms based on the context (e.g., channel or customer type), content (e.g., region, brand or product) and contract (e.g. response time or cost) defining how the process should use the intelligent Business Service. In this way the variability is abstracted from the process using the intelligent Business Service.

The selection of the actual technical service or process initiated by the intelligent Business Service is dynamic. At run time a dynamic assembler aggregates and ranks all the Fabric Business Service Policies to select the appropriate end point service. The Business Service Policies act at a high business level of detail, e.g., "If the Line of Business is 'AUTOP' (*Personal Automobiles* as defined by the ACORD standard), then the response time must be 2 seconds." In this case, at run time, the dynamic assembler will locate a service that satisfies that Business Service Policy requirement for a given request coming from the Personal Automobile line of business.

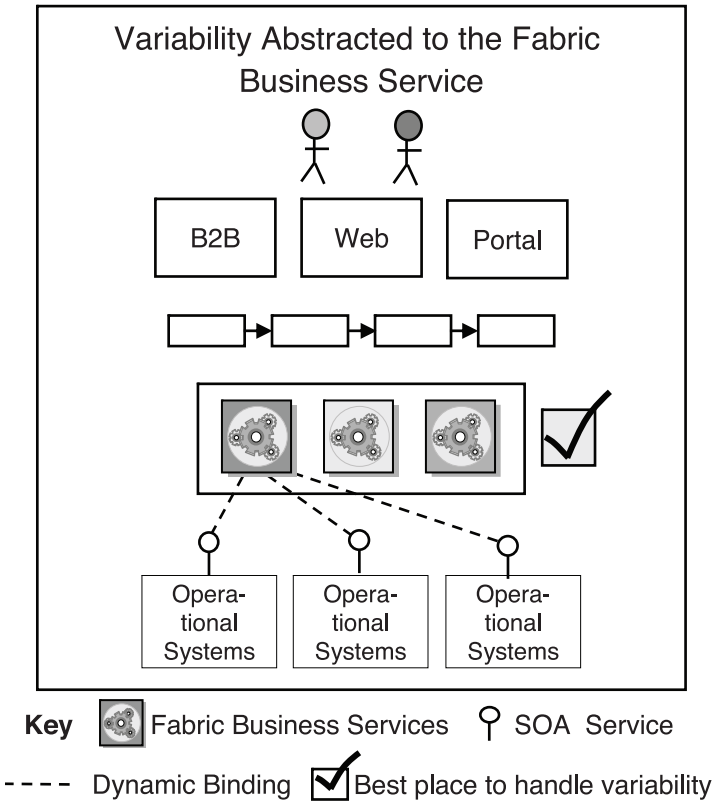

Figure 4: Intelligent Business Service control point with WebSphere Dynamic Process Edition

Business process changes, such as adding a new SOA service or sub-process, can be made by configuring intelligent Business Services without having to change the calling process or application. This applies when there are multiple SOA services or sub-processes that have a similar function, for example for different channels, customer types, brands, products or regions.

This enables standardization and simplification of the end-to-end process with any differentiating or required variation held at lower levels.

Intelligent Business Services can be assembled together to form a flexible process. The same intelligent Business Service can be easily shared between multiple processes and reused by multiple process variants. This is because the intelligent Business Service encapsulates all the metadata to describe how it is used by a process. The intelligent Business Service is a natural part of process orchestration. An intelligent Business Service enables a process to be dynamically assembled, selecting implementation services at run time without the need for any hard-coding. This gives the ability to change processes in real time. If a service is combined into several intelligent Business Services, or an intelligent Business Service into multiple processes, this may be modeled and governed in WebSphere Dynamic Process Edition. This includes the ability to continuously monitor and analyze the impact and dependencies of change across the entire deployment of processes in WebSphere Dynamic Process Edition. The implications of this capability when compared to a traditional BPM are set out in the following two paragraphs.

It is important to distinguish these capabilities from traditional BPM enablers, including a Business Rules Management System (BRMS). Only intelligent Business Services can provide a single enterprise-wide process control point to abstract all the variability of process behavior. Variability is abstracted using Fabric Business Service Policies that are encapsulated within the associated intelligent Business Service.

This unique capability has two implications:

1. When a change is made to process behavior by configuring Fabric Business Service Policies, this change controls behavior in all parts of the enterprise's processes that use the associated intelligent Business Service
2. If the change to process behavior requires a new process path to be taken, to select a new implementation service for a particular process variant, it is not necessary to change the process as the intelligent Business Service is already naturally part of the process. In this case the intelligent Business Service makes the service selection and completes the process assembly.

BRMS cannot provide the same capability. This is because only process paths which are an integral part of the process already can be utilized. Any new process variant entails a modification of this process in order to provide the required new path.

2.3.1 BRMS compliments intelligent Business Services

However, a BRMS used to automate complex decision making compliments the intelligent Business Service structure. For example, a global car rental company uses both rules and intelligent Business Services directed by Business Service Policies for their reservation process.

- *Rules determine the price and features of the rental car: mid-size, corporate customer, GPS required, etc.*
- *Intelligent Business Services provide agility to the steps in the reservation process*

The process for reserving a car varies according to the customer profile, the location of the rental, and the channel used. This means that the rules for pricing a car can change without affecting the process and the process can change without affecting the pricing rules.

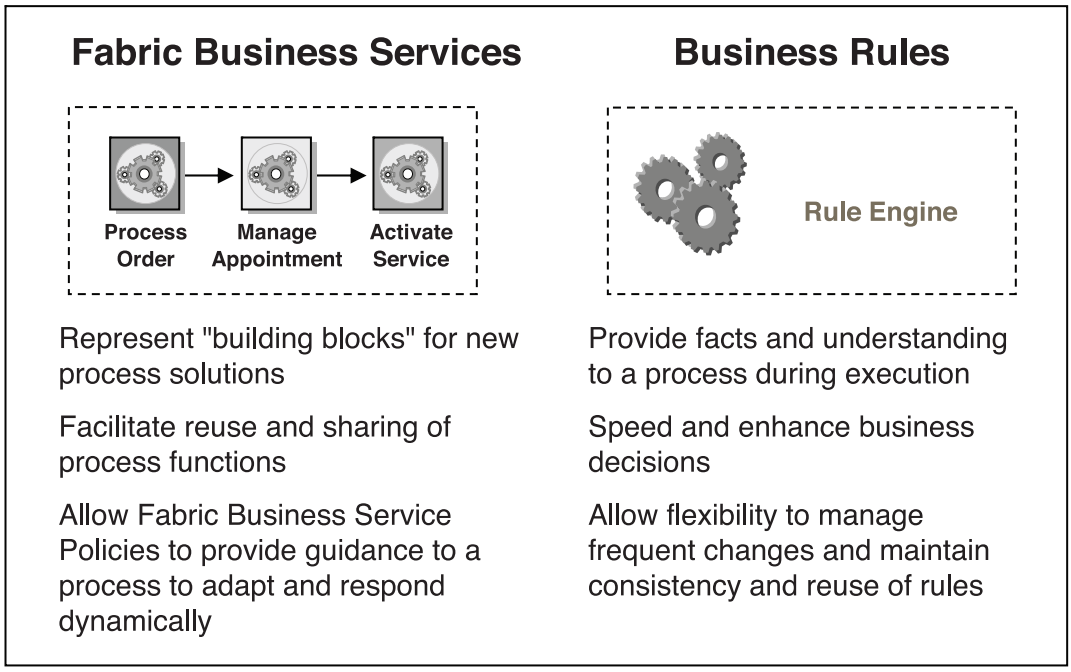

Figure 5: BRMS compliments intelligent Business Services

NOTE: This white paper details the business case for WebSphere Dynamic Process Edition alone, not combined with BRMS. BRMS should be an additional consideration for businesses.

2.3.2 WebSphere Dynamic Process Edition is a complete BPM platform

WebSphere Dynamic Process Edition is a complete BPM platform; however this paper is primarily about the benefits of dynamic BPM over traditional non dynamic BPM. The capabilities of WebSphere Dynamic Process Edition include:

- *Process modeling, analysis, and simulation*
- *Process server rules, workflow, exception handling and compensation*
- *Message routing and systems integration*
- *Dynamic BPM to assemble end-to-end processes at run time*
- *Process monitoring, key performance indicators, and dashboards*
- *Event triggering alerts and corrective actions*

3 Building a business case for WebSphere Dynamic Process Edition

WebSphere Dynamic Process Edition enables the business to build and change processes faster than traditional or generic BPM approaches. Faster builds of new processes are achieved by better reuse and sharing of intelligent Business Services. Delivery of these BPM solutions can be further accelerated through prebuilt industry-standard assets designed to ensure improved time-to-value, consistency and reuse. These assets, packaged under WebSphere Industry Content Packs, are useful across the BPM lifecycle of WebSphere Dynamic Process Edition. This accelerated ongoing process change is achieved through reconfiguration of existing intelligent Business Services rather than rebuilding or duplicating processes. Intelligent Business Services reduce the amount and complexity of testing required. These time savings can be converted into financial savings in an IT total cost of ownership business case.

3.1 High-level architecture

The business case scope is set by identifying business components that deliver critical business capabilities and are exposed to the future impact of business process change. These components are considered in the context of end-to-end processes. Candidates for intelligent Business Services are identified through process decomposition, within the selected components, identification of shared data between components and by alignment to an application map.

A bottom-up analysis identifies IT assets that can expose SOA services and then be aligned to the intelligent Business Services. The cost of exposing SOA services is the same for a traditional or dynamic BPM approach. Therefore, on a comparison basis, this cost is most relevant when comparing dynamic BPM to a non-SOA traditional development or packaged approaches.

3.1.1 Business language and information

The Business Value Assessment includes effort estimates for the creation of a business service policy/rules model and a data model. The effort required for the WebSphere Dynamic Process Edition option is reduced when combined with an Industry Content Pack. We focus on the variable data entities which are shared between the business components and are therefore used by intelligent Business Services. Dynamic BPM requires not only a canonical or common model, but especially the usage of a defined business language or ontology in order for the necessary externalization of the variability in processes, data and services to enable sharing and reuse to take place. The context, content and contract relating to the *data* are used by Business Service Policies to select *services* at run time to be assembled into *processes*. This gives a process whose behavior derives from the data that it is processing. As a consequence the process does not need to be rebuilt when a change is made to this data, such as adding a new or altered product.

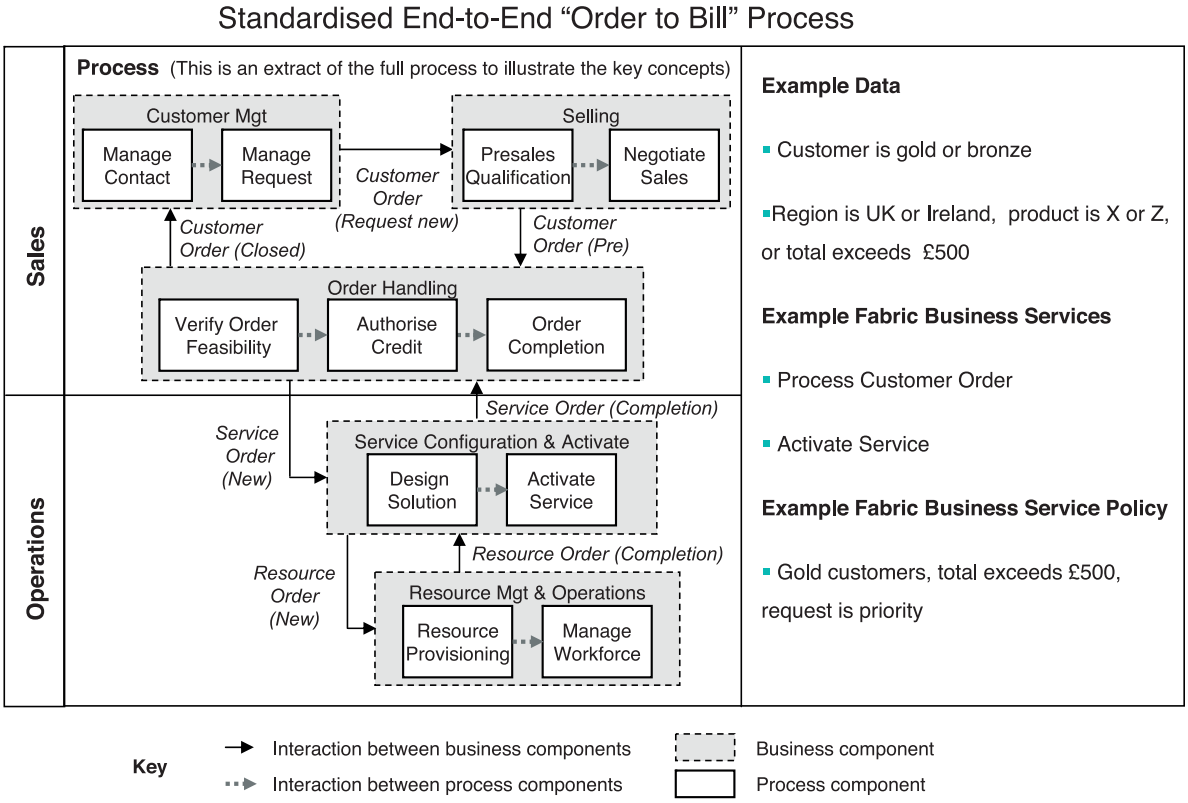

Figure 6: Chaining of components into an end-to-end process

This means that if a business process change occurs, such as adding a new region, the business users can govern the behavior of intelligent Business Services to dynamically absorb[3] this impact without needing to change the end-to-end process.

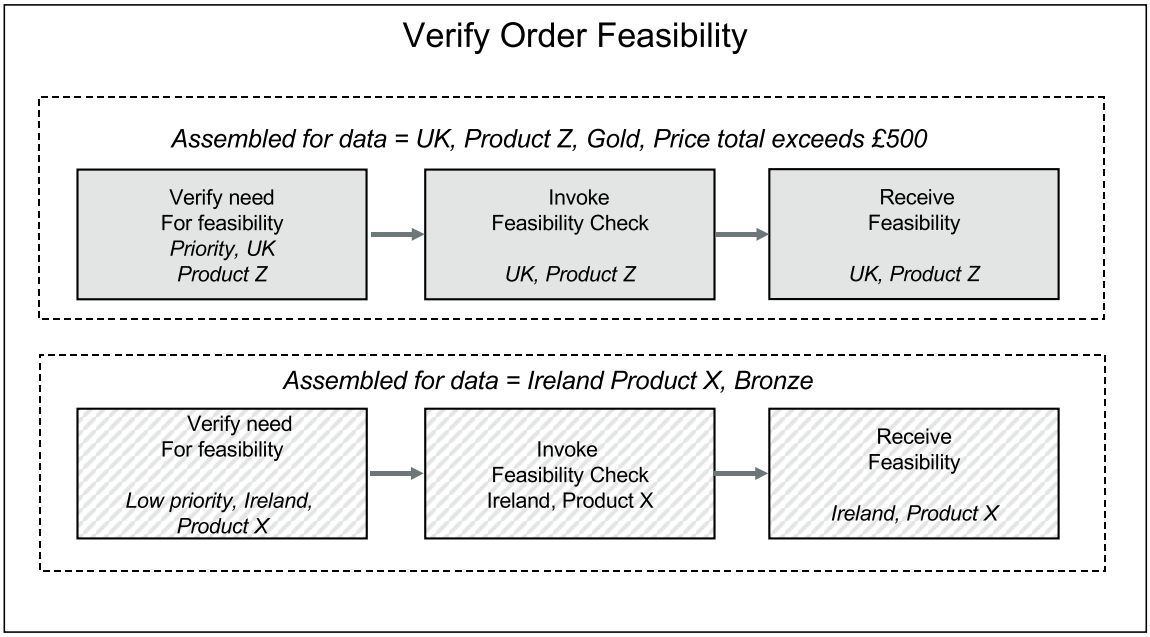

Figure 7: Process variants assembled at run time

3.2 Dynamic process optimization and monitoring

In dynamic BPM, the end-to-end process can be standardized with differentiating or required variation held at lower levels. Knowledge of how business components interact can be captured in Business Service Policies while the facts and understanding can be provided by business rules. Critically the interactions of components can be monitored providing an end to end process view for the business.

These capabilities provide new ways to optimize dynamic processes. For example, a large global organization wishes to lower finance and accounting costs by centralizing non-critical processes in a Shared Service Center (SSC) and by outsourcing those commodity processes that do not need internal knowledge. A dynamic end-to-end BPM approach could allow immediate transition in the SSC to a common process with variations across countries and business units held in lower levels. This allows day one resource optimization followed by a phased and controlled standardization and optimization of lower level processes. This controlled approach reduces business transformation risk. Adding end-to-end monitoring across the business, the SSC and outsourcing partners can reduce non-value-added activities by automatic identification and handling of exceptions identified at the source. These capabilities also allow more processes to be handled by the SSC rather than the business, or by the outsourcing partners rather than the SSC.

3.3 Faster build of new processes

When the business wants to build a new process, WebSphere Dynamic Process Edition makes it easier to reuse and share existing intelligent Business Services that have already been built. When this is combined with prebuilt components, acceleration of the process build can be significant. For example, a BVA showed that the combined impact of better reuse and sharing of intelligent Business Services and prebuilt WebSphere Industry Content Packs could accelerate the total time required to build three component business applications by 46%.

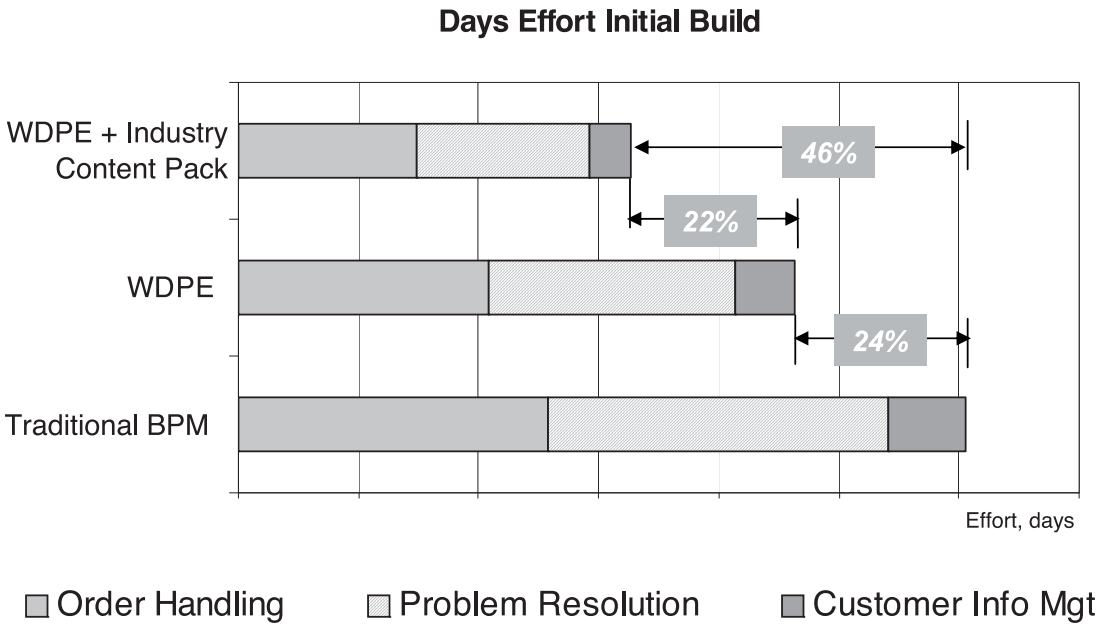

Figure 8: Accelerating delivery of new processes

3.3.1 Reusing and sharing intelligent Business Services

The intelligent Business Service provides the abstraction layer to enable end-to-end processes to remain generic and untainted by the chaos and change in the business all around. For example, a Telecom is creating a new business model based upon the constant introduction of new products and new providers. The process varies for each product type and provider combination. In order to maintain a generic end-to-end process an intelligent Business Service layer is proposed. On day one, there will be five providers and four product types; this means up to 20 variants must be supported for each coarse-grained process. Intelligent Business Services abstract this variation from the process. With WebSphere Dynamic Process Edition, you can abstract all that variation away from the end-to-end process using intelligent Business Services. As a result the intelligent Business Service becomes a highly reusable component.

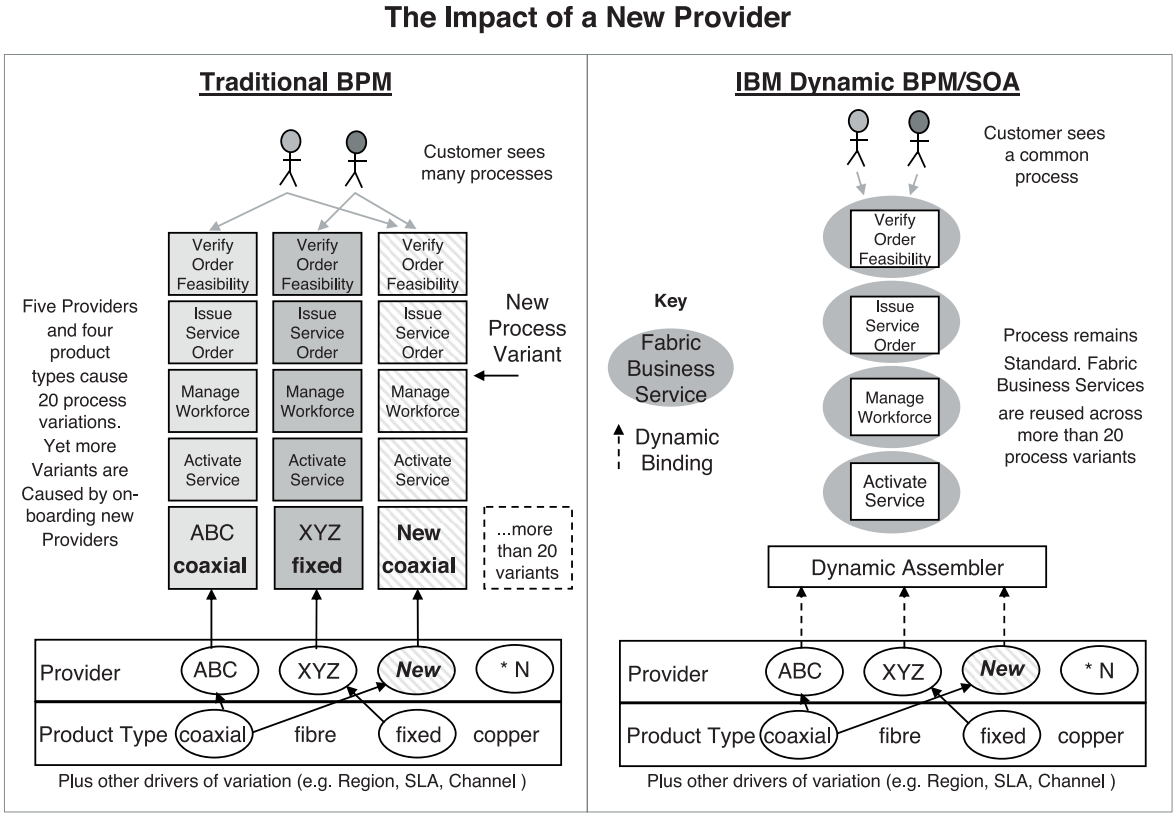

Figure 9: Reuse of intelligent Business Services within a process

Intelligent Business Services may also be shared between processes. For example, an intelligent Business Service for "manage customer information" could be shared between processes for order handling, customer fault resolution and customer management. Any differences in the required behavior of the intelligent Business Service when shared across different processes can be handled by Business Service Policies.

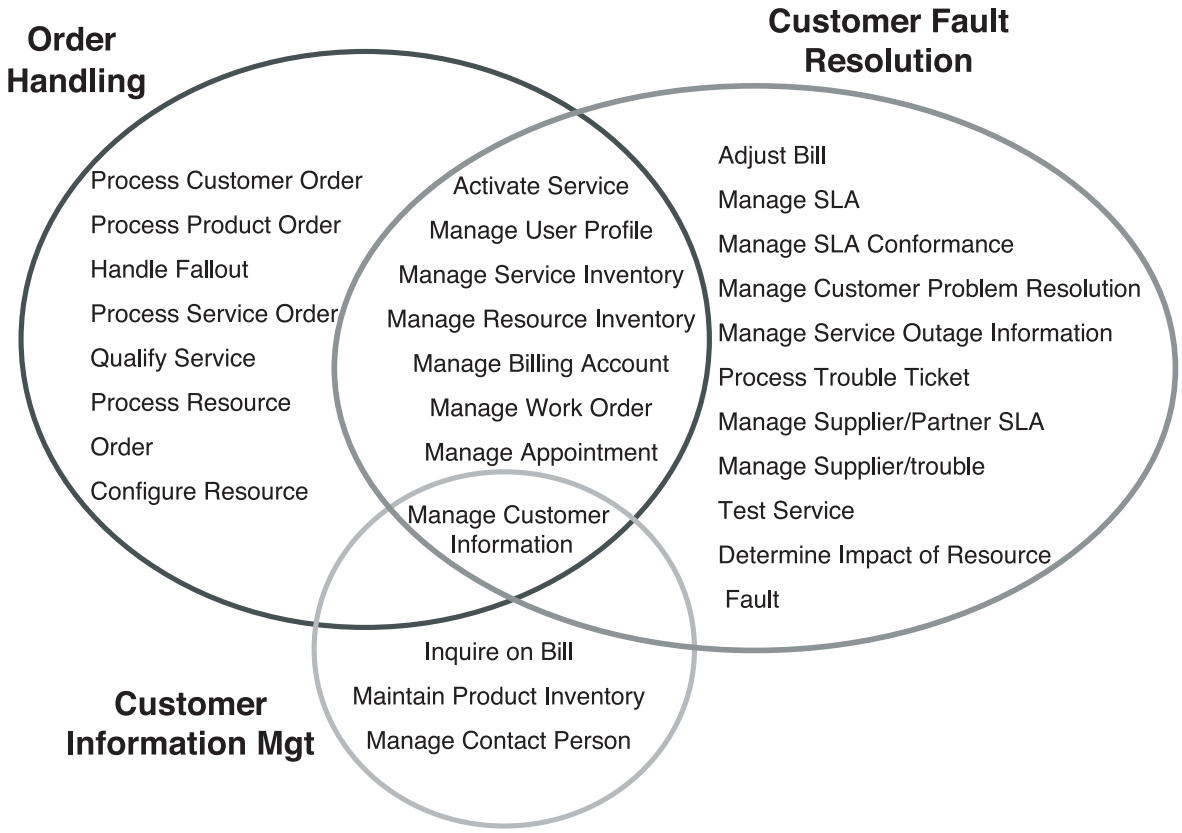

Figure 10: Sharing of intelligent Business Services between processes

In a traditional BPM/SOA IBM's[4] experience is that reuse of a coarse-grained service tends to peak at about 30 to 40% of original build costs. In most cases, reuse is far lower than this. Variation handling, coded into the coarse-grained service, limits its reuse potential. Using Business Service Policies to abstract variation allows intelligent Business Services to reach 80-90% reuse of the intelligent Business Service. This means that new processes using intelligent Business Services can be far more quickly assembled or changed than with traditional BPM/SOA.

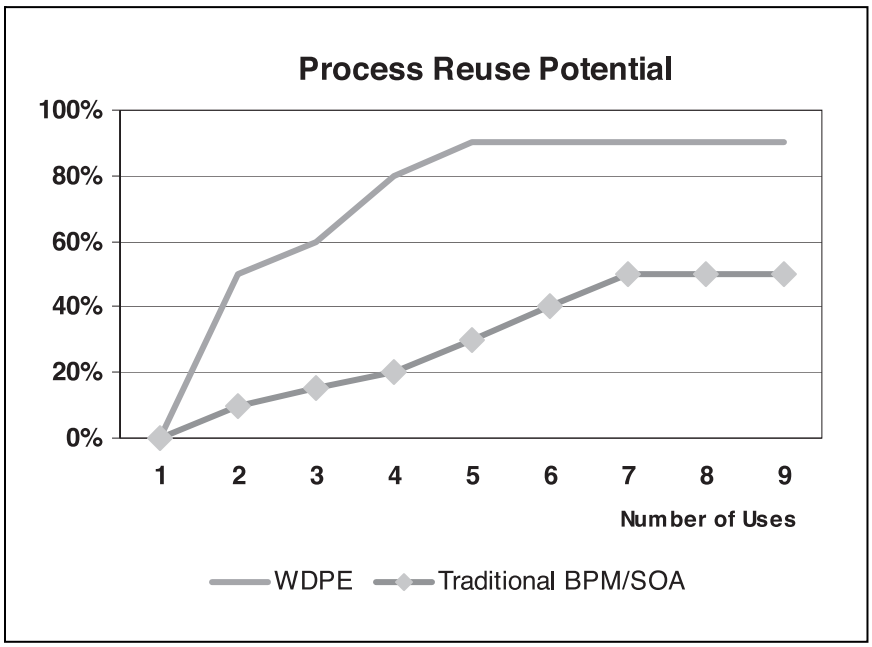

Figure 11: Process (coarse-grained service) reuse profile

Version control and management is also improved; typically, without intelligent Business Services, SOA implementations have on average 4 to 6 versions of each coarse-grained service in production at any one time.[5]

In theory this better reuse and sharing applies only to the coarse-grained process level. However in practice, as the process and the supporting services become more fragmented from variation, more intertwined and less understood, then this improved reuse may also apply at the finer-grained service level.

3.3.2 Prebuilt Industry Content Packs

IBM currently provides Industry Content Packs for Telecom, Banking, Insurance, Healthcare and Product Lifecycle Management. The Industry Content Pack is an optional accelerator. BVA studies (see figure 8) have shown that the Industry Content Pack can accelerate projects by approximately 20% compared to deployments of WebSphere Dynamic Process Edition without the use of any prebuilt accelerators.

The Industry Content Pack provides prebuilt industry-specific SOA assets optimized to technical and industry standards and best practices. Assets can be extended to create the foundation of SOA intelligent Business Services to meet your unique business needs. Prebuilt assets include capability and process maps, intelligent Business Service templates, industry service interfaces, industry common services, industry business objects model, industry business glossary and other knowledge assets (see figure 12).

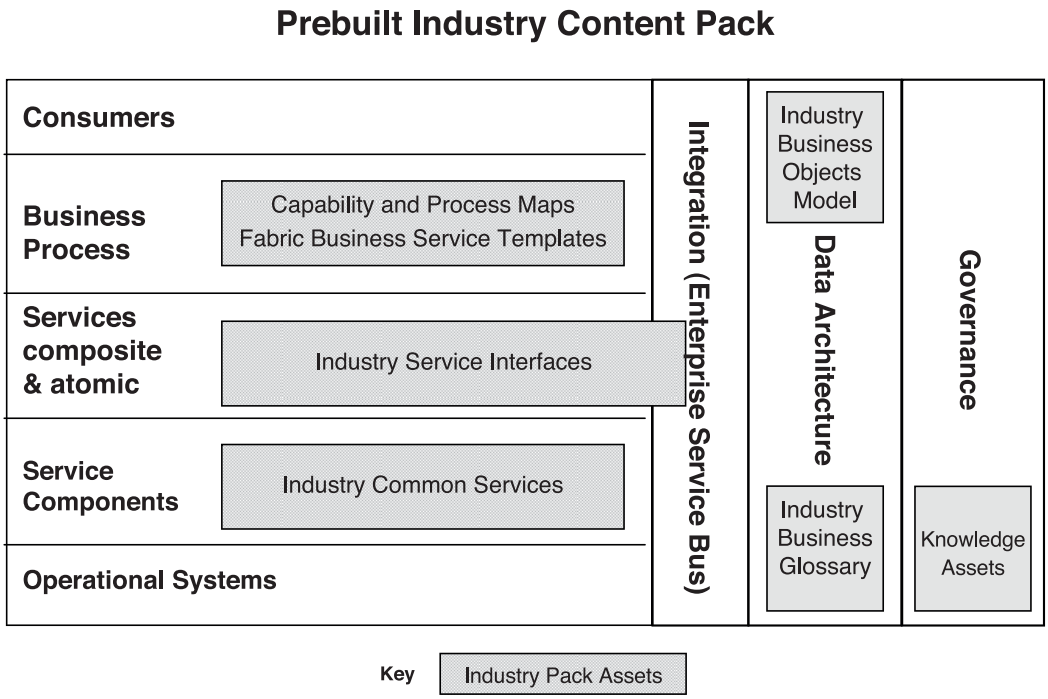

Figure 12: IBM prebuilt components in an intelligent Business Service

3.3.3 Reduced testing with intelligent Business Services

WebSphere Dynamic Process Edition reduces the amount of testing required compared to a traditional BPM solution. The use of intelligent Business Services means there are fewer coarse-grained processes to build and test. WebSphere Dynamic Process Edition also provides tools to simulate and test business service policy behavior, reducing the overall time for testing. WebSphere Dynamic Process Edition supports the testing of an intelligent Business Service without reassembly. An intelligent Business Service can be moved between environments, for example, from development to test without having to rebuild and retest the bindings between services, increasing developer productivity.

3.4 Faster ongoing process change

Once in place, the flexible IT infrastructure can allow up to 70-80% faster process change. This is achieved by reconfiguration of existing intelligent Business Services.

A business expects a new product to be launched every month. Each launch impacts ten intelligent Business Services such as "Process Product Order." For each intelligent Business Service there would be, on average, four variants caused by existing regional, service level and channel requirements. Consequently, without WebSphere Dynamic Process Edition, the customer would need to rebuild or significantly modify at least 40 processes every month. With WebSphere Dynamic Process Edition the business only needed to reuse and reconfigure through Business Service Policy adjustment the ten intelligent Business Services. Other business model changes expected included changes to channels, regions, service levels and providers. The BVA showed that the total savings that WebSphere Dynamic Process Edition could enable was 70% over traditional BPM.

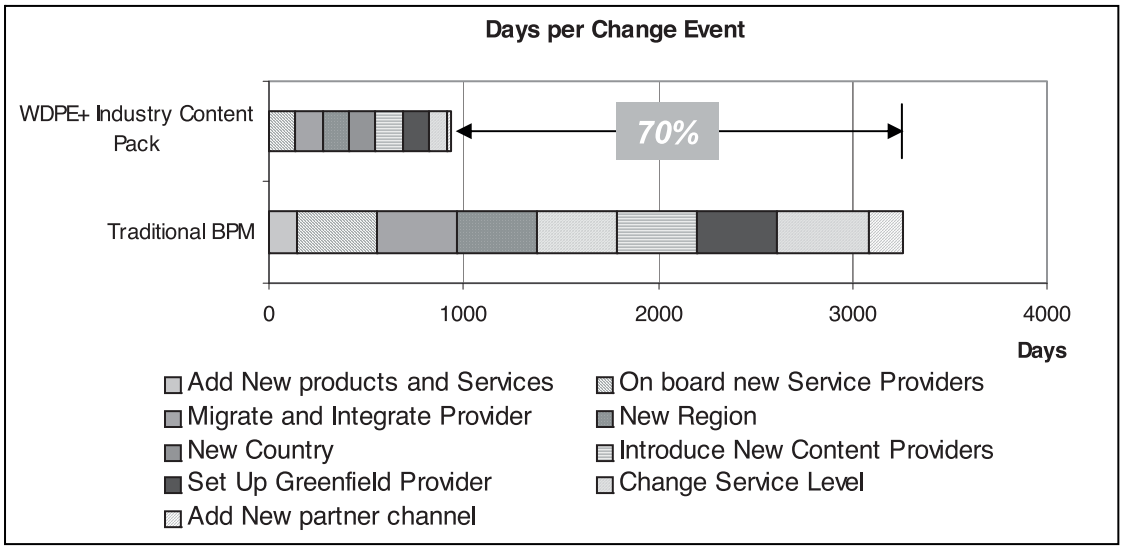

Figure 13: Speeding up ongoing change by reusing intelligent Business Services

A second customer planned to build a self-service portal with personalized service based on the type of consumer. In this case, a customer service representative needed to have relevant information to prioritize important callers. This would free up time to improve customer service and provide additional opportunities to up-sell and cross-sell. Once up and running, the portal needed to be extended to other channels, user types and other geographies. All the intelligent Business Services required for this solution could be shared from previous projects. All requirements could be met by configuring these existing intelligent Business Services. With traditional BPM it would be necessary to completely rebuild the process logic. It was estimated that WebSphere Dynamic Process Edition could accelerate projected time to value by 80%.

A bank was planning a global expansion. The bank defined a core set of 39 reusable generic intelligent Business Services including: Customer or Account Lookup; Check for Fraud; and Validate Payment. The BVA assessed that the bank could save 69% of the process integration build effort for an acquisition. This was based on the reconfiguration of the core set of intelligent Business Services.

IBM identified 11 capabilities generally required to support ongoing process change. For each one, the typical tasks required in a traditional BPM approach were established. The associated effort was estimated. This was compared to a WebSphere Dynamic Process Edition approach, which showed a reduction of the effort required in the range of 66-90%+. As an example, the SOA services (or sub-processes) selected based on the channel may need to be changed. In a traditional BPM this often requires changes to existing integration logic held in a front-end portal. By contrast, WebSphere Dynamic Process Edition only requires a Business Service Policy modification. This takes approximately 11% of the effort required for the equivalent traditional BPM approach.

In another example, if there is specific time when an alternative service should be selected—perhaps due to maintenance—this is called a "temporal constraint" and is handled through configuration of a Business Service Policy rather than coding.

Typical Capabilities Supporting Business Model Innovation	**Traditional BPM (% effort)**	**IBM Dynamic BPM/SOA (% effort)**
New end point - Endpoint Definition/Repository Addition	100%	20%
Policy Modification/Addition	100%	33%
Dynamic Endpoint Selection based on Temporal Constraint	100%	20%
Personalization based on Subscriber	100%	20%
Dynamic Endpoint Selection based on Context	100%	31%
Channel Modification/Add	100%	11%
Migration Governance & Management	100%	33%
Subscriber Modification/Removal	100%	8%
Dynamic addition/inclusion of endpoint based on temporal constraint	100%	20%
Personalisation of content based on consumption channel	100%	20%
Addition of new type of end-customer role (Subscriber Modification/Add)	100%	4%

Source: IBM Software Group Services

Key: Traditional BPM difficulty | Easy | Medium | Complex |

Figure 14: Typical capabilities supporting business process change

4 Conducting a Business Value Assessment for WebSphere Dynamic Process Edition

The objectives of the BVA are to:

- *Identify or validate opportunities for dynamic BPM to drive value*
- *Confirm that WebSphere Dynamic Process Edition is an appropriate approach*
- *Understand the process requirements and improvement potential*
- *Develop a high-level solution architecture*
- *Build a business case to justify WebSphere Dynamic Process Edition deployment*

The deliverable is a business case report outlining the opportunity areas, high-level solution proposed and financial schedules. The financial analysis is adapted to your requirements. It usually includes the following: quarterly cash flow over 3 years; breakeven; net present value and internal rate of return.

4.1 Business Case Workshop

The BVA is created in a typically two-day workshop covering business and IT. There is also a shorter condensed version of the workshop. This requires customer business executive input on day one to explain the business context and on day two a business analyst to assist in the process work. IT must be in attendance at all times to align these business needs to the underlying IT architecture, existing components, and defined projects. The IT role is typically fulfilled by an IT Architect. It may also be useful to invite project managers for large projects to outline their timelines and requirements.

IBM brings skills in the customer's industry, the WebSphere Dynamic Process Edition platform/Industry Content Pack (when required) and business case development to the workshop.

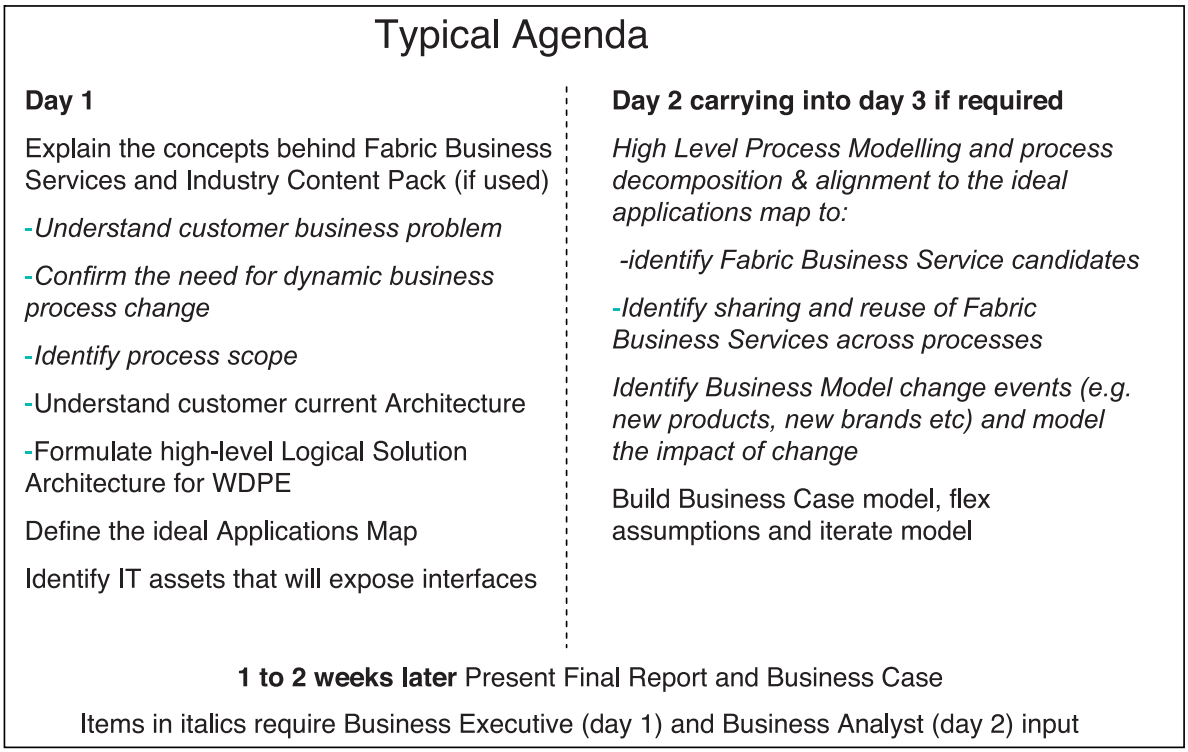

Figure 15: Typical Agenda for the 2-day BVA workshop

By investing in these two days you will get an output that you can include in your presentation to the Board.

4.2 Example output from the workshop

A company decided to build a new business model by reassembling its existing capabilities and adding a new capability to support dynamic process change. Dynamic changes included introduction of new products and new distribution channels for additional services.

The majority of benefits were estimated in reduced process maintenance and governance, classed as business model change. With traditional BPM it was estimated that by year three, 194 processes would require monthly maintenance. By contrast, with WebSphere Dynamic Process Edition, maintenance would be restricted to just 28 intelligent Business Services. It was estimated that WebSphere Dynamic Process Edition could reduce labor effort by 65% over a three year period. The traditional BPM approach was not considered practical as it was estimated that a full-time team of 30 would be required for process maintenance. The estimate for dynamic BPM was reduced to a more practical nine to ten.

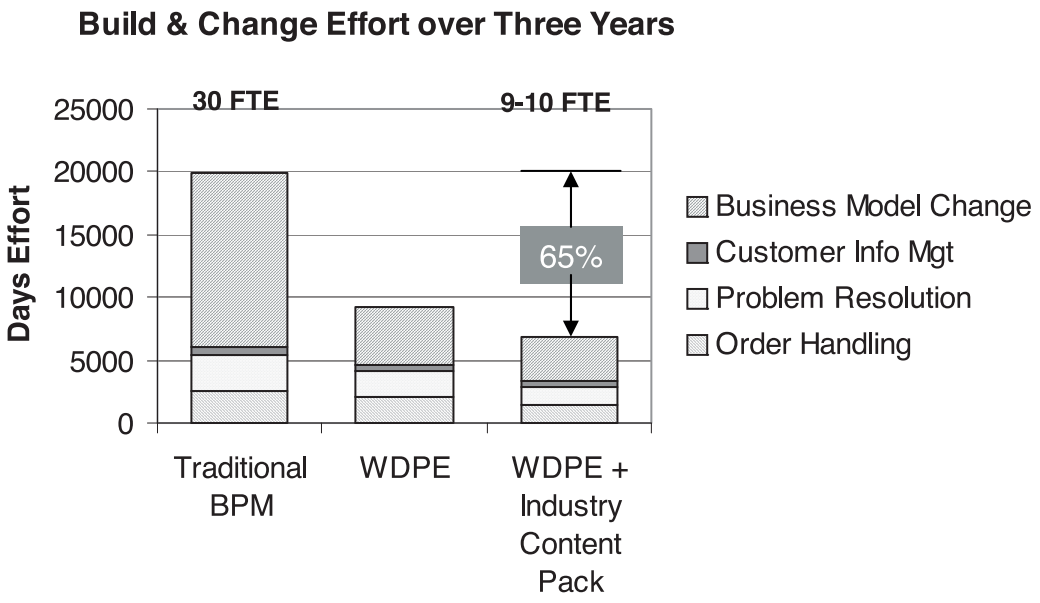

Figure 16: Three-year labor effort

The quarterly Total Cost of Ownership (TCO) cash flow demonstrated a breakeven within one year with 51% TCO savings over thee years.

The estimated 65% time-to-value saving for implementation of new processes will enable earlier delivery of process optimization savings and extra generation of revenues from new products delivered quicker to new markets. For the purposes of this study the customer wished to consider these benefits as non-quantified.

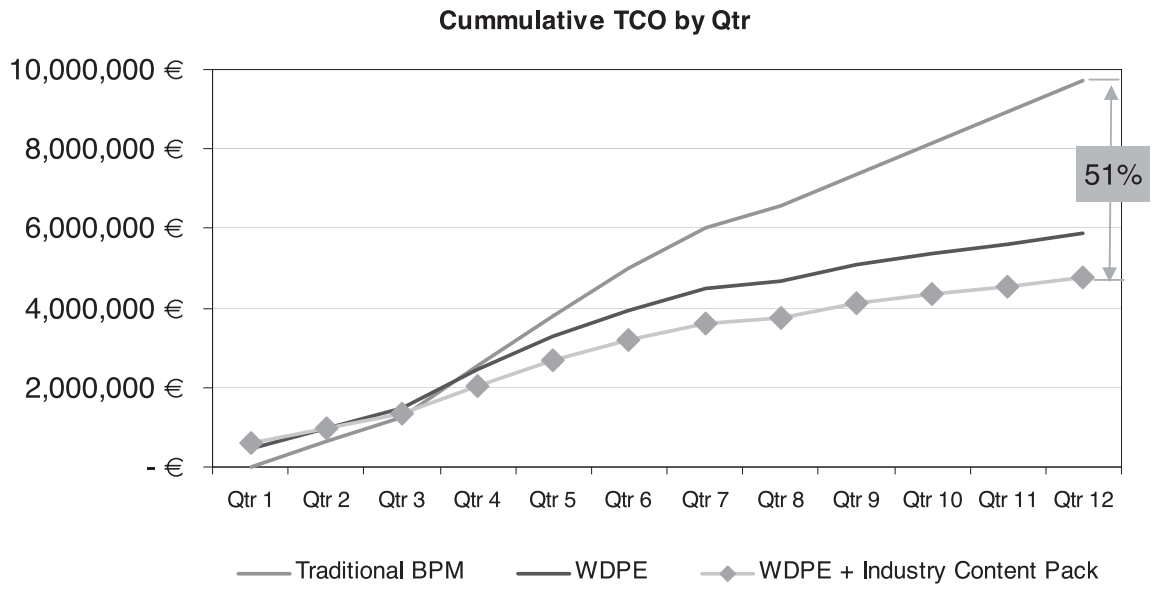

Figure 17: Three year quarterly cash flow

4.3 Risk reduction

We have seen that dynamic BPM can reduce the risk of business transformation. In addition IBM can help ensure timely enablement and delivery of the first project by use of the Rapid Development Environment (RDE) approach and by bringing a combination of highly skilled and experienced professionals together with its internal intellectual capital and assets from its other projects to implement the solution.

During the RDE phase, IBM senior subject matter experts can train and mentor customer resources and systems integrator resources to enable rapid transfer of knowledge. Additional formal training can be provided during the RDE phase.

4.4 Typical dynamic BPM benefits

Customer	Project	Time to Value Savings	Cost Savings
US Bank	Traditional in house development "vs" traditional BPM "vs" WDPE	80% to traditional in house development 30% to traditional BPM	35% to traditional in house development 19% to traditional BPM
EMEA Telco	Traditional BPM "vs" WDPE for re-factoring a monolithic application, use of pre-built Industry content pack	64% to traditional BPM	19% to traditional BPM
EMEA Bank	Traditional P2P integration "vs" with WDPE	69% to traditional P2P	35% to traditional P2P
EMEA Telco 2	Traditional BPM vs WDPE plus Industry content pack	Initial projects by 46%, Business model change by 70%	51% to traditional BPM
US Insurer	Traditional Packaged IT "vs" WDPE with reuse of legacy assets in a composite application	60% to traditional packaged IT worth 15% top line growth	30%+ to traditional Packaged IT

Figure 18: Results from recent dynamic BPM through WebSphere Dynamic Process Edition BVAs

5 Conclusion

Traditional BPM may not be practical for companies expecting significant business process change due to the maintenance and governance effort required to support variability in business models.

With IBM's dynamic BPM approach, the variability in processes, data and services are externalized for sharing between business components. When business model change occurs, such as adding a new brand with new products in a new region, the business users can govern the behavior of intelligent Business Services to dynamically absorb this impact without needing to change the end-to-end process. This avoids process maintenance.

In addition, dynamic BPM can reduce business transformation risk and improve process optimization by allowing standardization of the end-to-end process with required variation held at lower levels within business components. IBM can further reduce risk by use of its methods, intellectual capital and assets from its other projects and highly skilled resources.

A Business Value Assessment can be used to demonstrate that the WebSphere Dynamic Process Edition platform can accelerate time to value for business model innovation by 70-80% with the lowest TCO for your business projects.

If you would like further information regarding conducting a dynamic BPM/SOA Business Value Assessment to define the benefits for your company please contact your local WebSphere sales representative.

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[1] Source: The Enterprise of the Future, IBM Global CEO study 2008

[2] United States Patent Application 20080127079: Authors Andrew Joss & Peter Naylor

[3] Reference "Dynamic SOA and BPM" by Marc Fiammante IBM press, July 2009

[4] Source: IBM Software Group Services and IBM Global Business Services

[5] Source: IBM customers from the insurance industry

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