

## Component business modeling

*Financial services firms prepare for an on demand world*



*An IBM Institute for Business Value executive brief*

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## Introduction

The tech revolution of the 1990s forever altered the competitive landscape for financial services companies. Today's interconnected firms face a business environment that challenges them on multiple levels – one where organizational structures and strategic alliances constantly shift in response to rapid-fire marketplace changes. How can industry players best adapt to this emerging reality? Successful firms will challenge their process-centric assumptions with a new set of business transformation tools. Enter component business modeling.

### *The emerging world of on demand*

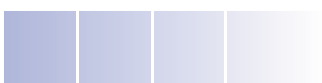
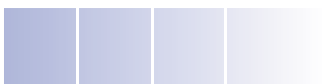
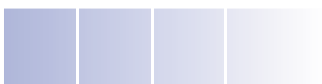
As the financial services industry heads toward an on demand operating environment, monolithic, vertically integrated institutions face stark new challenges. In today's hyper-responsive marketplace, survival favors the agile; speed can be a critical differentiator; and the organizational status quo is often a liability. Smart firms are beginning to adapt to continuous, unpredictable change.<sup>1</sup>

#### **On demand defined**

An on demand business is an enterprise whose business processes – integrated end-to-end across the company and with key partners, suppliers and customers – can respond with flexibility and speed to virtually any customer demand, market opportunity or external threat.

The emerging on demand world is marked by two trends. The first is enterprise reconstruction.<sup>2</sup> As industries fragment into collections of focused niche players, companies are dismantling their siloed processes and rebuilding them as a set of core components that can more easily be shared across the enterprise. Armed with seamlessly integrated operations, product manufacture and delivery capabilities, these companies can cost-effectively serve discrete customer segments.

The second, related trend is industry deconstruction.<sup>3</sup> Fueled by virtualization and competitive pressures, industries are dividing into specialized subindustries clustered around specific points on the value chain. For example, an asset management firm that once manufactured, marketed and distributed its own products may today focus exclusively on manufacturing, leaving distribution to an array of third parties. On demand companies are willing to reorganize – sometimes radically – around a core set of competencies, while outsourcing nonessential functions to outside providers.



### **Charles Schwab innovates to embrace on demand**

Charles Schwab prides itself in providing quality investment advice over the phone. When a customer calls, the Schwab representative is able to run a realtime portfolio analysis and offer suggestions based on the latest data. How well can the customer's holdings be expected to perform in the near term? Does her investment mix reflect her financial goals? Does her portfolio need balancing to reflect new priorities?

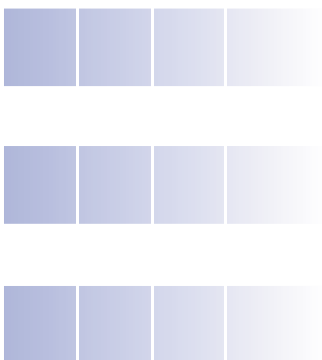
In 2003, the company reviewed the popular service, looking for ways to improve it. It discovered that each portfolio analysis took four minutes to run, a long time for representatives to keep busy investors on the phone. Schwab found a solution for the problem in an innovative technology called grid computing. By distributing the workload over several remote processors, Schwab cut the time it takes to run each analysis to 15 seconds, a reduction of more than 90 percent.

This new tech-driven capability gave Schwab an edge over its competitors in the customer service area. It also boosted efficiency by allowing the firm's call centers to process more customer requests each day. By leveraging its existing tech infrastructure in an innovative way, Schwab took a bold strategic step toward on demand. Now the firm provides portfolio analysis at "customer speed" – and has left its competitors scrambling to catch up.<sup>4</sup>

### ***The current state of financial services***

Unfortunately, the trends of the 1990s left many financial services firms ill-prepared for the evolution to on demand. Following a global wave of mergers and acquisitions, many struggle to manage a hodgepodge of legacy silos, disparate systems, redundant functionality, excess capacity and inconsistent service levels. Enthusiasm for IT spending and decentralization exacerbated the problem, saddling firms with overlapping – and often unproven – technologies. For many financial services players, the results are all too familiar: disjointed operations, redundant capabilities, inefficient cost structures and duplication of work across product, geography and business lines.

Some of these problems affect the industry at its operational core. Take the securities master file. Financial services firms rely on these files for everything from trade execution to portfolio analysis and risk management. Securities master files hold such critical data as the duration and yield of bonds and unique identifiers for specific securities (so that buyers and sellers know they are talking about the same security). For many firms, problems arise when they maintain multiple



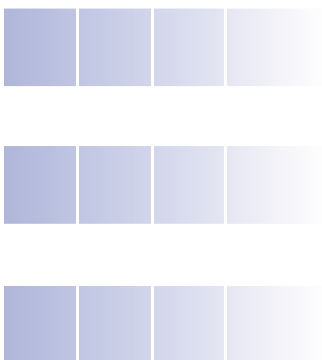
versions of these files based on geography or line of business. This unneeded redundancy often leads to excessive maintenance (much of it manual), increased reporting errors and a higher incidence of “broken trades” executed on bad data. In fact, failed trades resulting from inaccurate reconciliation cost the US securities industry a whopping US\$100 million per year.<sup>5</sup> As this paper will argue, consolidating the securities master file into a single, bounded business component would go a long way toward eliminating these unnecessary costs.

### ***Component business modeling: Pointing the way to on demand***

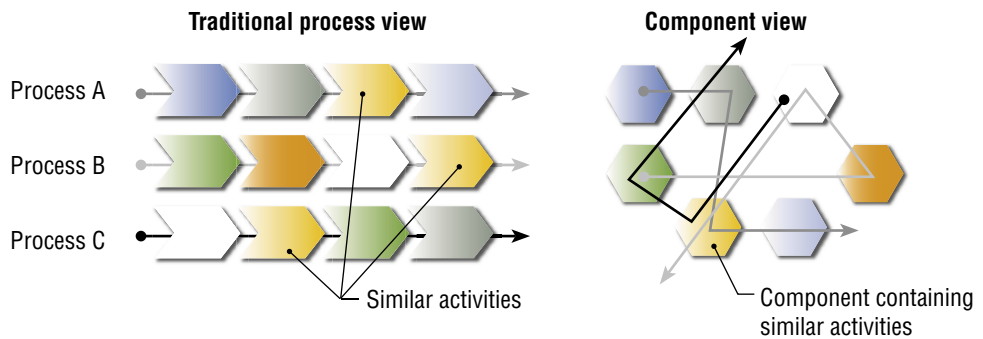
Today, most financial services firms know they need to change, but wonder if the analytical tools available to them are up to the task. Traditional, linear approaches (such as business process reengineering) have proven useful for optimizing workflows. Indeed, they often yield improved subprocesses. But they do little to highlight similar activities that might be scattered across separate processes within the enterprise. On demand firms require a new toolset for analyzing and transforming their business operations, one that will help them adapt and thrive in an environment of continuous change.

Component business modeling (CBM) simplifies the way firms look at their operations. It extracts executives from the process “rut” and helps them get at the real sources of value that drive their firms. With CBM, executives can identify the unique, standalone building blocks that comprise the overall company. Viewing business activities as autonomously managed components helps decision-makers cut through the historical boundaries that build up along organizational, product, channel, customer, geographical and informational lines.

Consider this example: A bank runs two credit decision-making operations, one from its credit card line and one from its commercial side. From the process viewpoint, the two are entirely separate. Yet the generic function they perform – decisioning – is the same. Grouping the two together as a single component can lead to a structure that reduces costs and improves the performance of the overall organization (see Figure 1).



**Figure 1. Grouping activities by process leaves similarities undiscovered. Grouping activities by component can reduce redundancy.**



Source: IBM Institute for Business Value analysis.

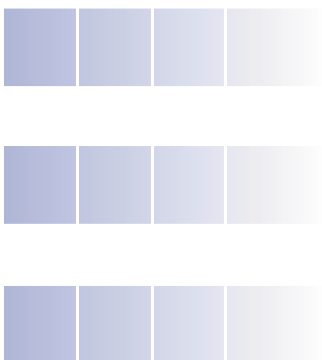
By taking the component view, executives can pull back from granular process analysis to see business activities holistically, finding similarities and grouping like with like. This can help them see through the complexity and redundancies that often go unnoticed with a process-centric analysis.

### ***What are components?***

In brief, components are clearly bounded groups of tightly linked business activities. The defining attribute of a component is the service it provides rather than the position it occupies along a fixed sequence of steps. Instead of stages in a process, think of components as discrete nodes in a configurable value network.

Components have well-defined interfaces: Each receives inputs, adds value and outputs the results to other components. Standardized interfaces between components allow executives to snap them in and out like plastic blocks. With components, there is no need to untangle organizational wiring or solder it into a new shape.

Component business modeling provides a helpful framework firms can use as they think about moving toward on demand. Viewing the business as a network of discrete components helps managers discover where the value comes from – and does not – within their organizations. Looking beyond linear processes can even expose hidden sources of value. And when the firm must respond to a sudden change in the competitive or regulatory environment, executives will know where the key value drivers are, and can take immediate steps to enhance or preserve them.



**It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.**

– Charles Darwin

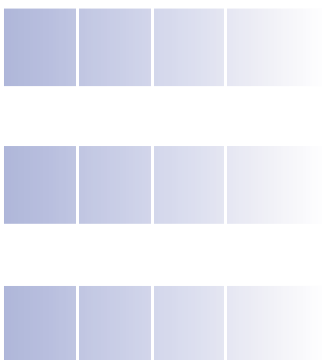
## ***Component model offers real advantages***

Modeling a business as a network of components can lead to improvements in three critical areas: efficiency, strategic planning and flexibility.

*Efficiency.* The ability to look across organizational boundaries can help firms eliminate duplication and optimize processes around centralized, bounded business activities. Consider how customer data is commonly handled. In many companies, different areas of the business maintain their own customer profiles. When one group receives new customer information, it must alert all the other groups to the change. But this practice is inherently inefficient, and notices often fail to replicate across silos. Now imagine a component that acts as a central repository for customer profiles. All changes are made to this single, centralized component, which can then be queried by other components as needed. Alternatively, the component could update the other areas of the business according to a regular schedule. Specific architectures can vary. The key is that this centralized component acts as the “one correct source” for its type of information. Countless firms could benefit from adopting just this component.

*Strategic planning.* A component-based analysis can help firms evaluate the current state of the business and decide on measures that will help them operate on demand. Metrics derived from CBM analysis expose the true cost, processing effectiveness and output quality of the firm’s constituent blocks. Armed with these measurements, executives can evaluate each component to decide first, if it is differentiating for the firm; second, if it can – and should – be outsourced; and third, whether to invest in trying to transform the component.

With a more informed view of the firm’s activities, planners can make better sourcing decisions. If a company discovers it is particularly effective in one area, it may opt to provide that service for other firms. This strategy, known as insourcing, has been adopted successfully in the financial services arena by companies like State Street Bank and The Bank of New York. As these firms discovered, they so excelled at financial market back-office activities that they were able to transform them into a core business. After working hard to achieve requisite scale, they now are dominant players.



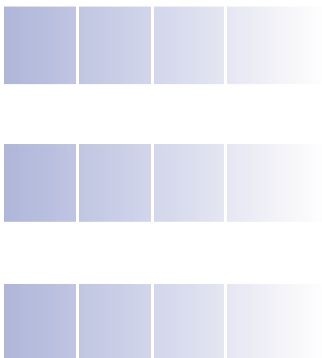
In the case of non-differentiating components, once a firm defines, measures and determines what it costs for a component to provide a service, it can start to make direct, one-to-one comparisons in the marketplace. Does it make sense to continue providing the service in-house? Or should a partner firm handle it? Farming out commodity functions to a more capable partner can enable a company to concentrate on a core set of differentiating, value-adding activities.

Although traditional outsourcing has become commonplace in the financial services industry, in the case of bounded, non-customized business services, the marketplace may provide another intriguing option: third-party specialists known as business utilities. Like the gas or electric company, a business utility would provide a generic service that lends no competitive advantage but is nevertheless necessary for running a commercial enterprise. One area where this strategy makes sense is corporate actions (see callout below). Another is the securities master file, which today is maintained by individual firms but could evolve into an industry-level function maintained by third-party utilities. Using a set of open standards, securities master file utilities would maintain generic data, received from vendors, that subscriber firms could then take and enhance or customize on their premises with their own analytics and other value-adds.

#### **Corporate actions: A prime target for utility partnerships**

Any time a securities issuer makes a move involving its financial structure – a stock split, a payment of dividends or a proxy vote, for example – it must provide timely, accurate notification. Compiling these notices is a non-differentiating, non-value-added, commodity function. Yet financial services institutions tend to subscribe to multiple sources of this data and handle corporate actions on their own, in the process tying themselves to costly, inflexible operations. For this function, an industrywide data utility for corporate actions announcements might make more sense.

*Flexibility.* Finally, CBM helps enable firms to adapt more nimbly to rapid changes in the business environment, whether by merging, outsourcing, insourcing or pursuing a strategic partnership or utility strategy. As the financial services industry deconstructs into specialized niches, CBM's modular approach is designed to allow firms to reconfigure their value networks without becoming entangled in process-bound technology and business "wiring." As firms partner more rapidly and frequently, CBM can speed integration efforts. And as the consolidation trend continues to play out across the industry, CBM can ease the task of assimilating new operations.



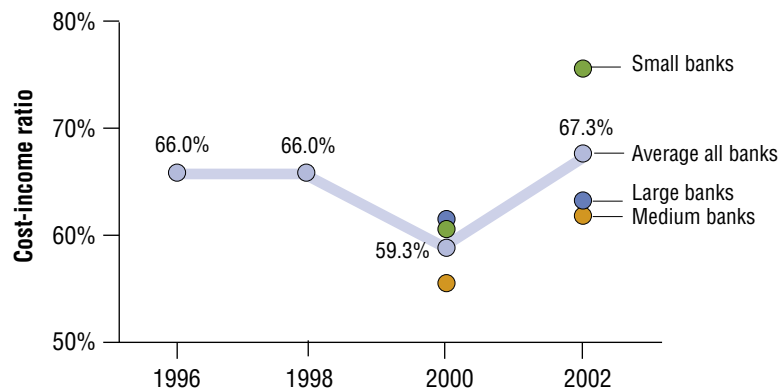
Kookmin Bank, a large Asia-Pacific financial institution, wanted to act as the primary distributor of financial services to its customers, regardless of product or manufacturer. But organizational complexity hampered its efforts. Different channels in different business units all used their own marketing tactics, making a unified approach extremely difficult. To become more responsive to its customers and the marketplace, Kookmin decided to “componentize” its business to identify and eliminate duplication and simplify the organization. With the help of outside advisers, Kookmin analyzed its activities across the enterprise to consolidate similar functions and create greater organizational agility. The bank is now reconstructing its organization as a network of multifunctional business components, each designed to operate independently, without regard for geographic location. Kookmin anticipates the move to a component model will help it become more agile and responsive to its customers. And by eliminating duplicate business processes and realigning its organization, the bank expects to save more than US\$250 million.<sup>6</sup>

### *Components in action: The private banking industry segment*

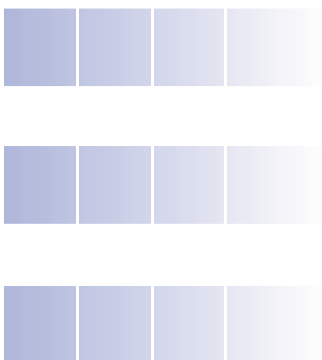
Private banks provide a good example of how CBM can help financial institutions confront the operational and marketplace pressures now facing the industry:

- *High cost structures.* The private banking industry continues to be plagued by high cost-income ratios (see Figure 2). CBM helps private banks cut costs by eliminating duplication, exposing waste and optimizing business processes.

**Figure 2. After trending downward due to strong growth, cost-income ratios are on the rise as revenue growth declines and competition increases.**



Source: IBM Business Consulting Services. “European wealth and private banking industry survey 2003.” 2003.



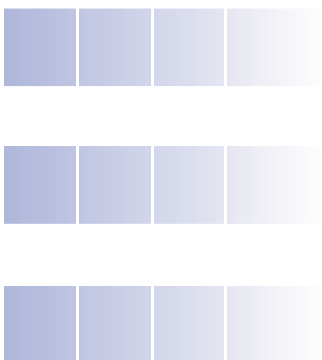
- *Smart, demanding clients.* More than ever, financial services clients are demanding a wide range of best-of-breed products and innovative services. Yet today less than 20 percent of products sold by private banks come from other firms.<sup>7</sup> The flexibility of components enables private banks to source products more easily from the right providers.
- *Consolidation.* Lured by growth and economies of scale, industry players will continue to consolidate, albeit selectively. CBM's modularity can help buyers digest acquisitions and extract synergies more quickly. For the small- and mid-size firms that remain, "componentization" can help overcome scale disadvantages by making it easier to leverage utility and outsourcing partnerships.
- *Duplication of product and service activities.* In one large multinational private bank, 63 percent of products/services were processed entirely within country-specific business units.<sup>8</sup> Here, the component model shows where operators can consolidate across geography, product and business unit silos.

### ***On demand requires focus from today's private banks***

Today private banks try to do too much. For many, activities initially viewed as sources of competitive advantage have turned out to be cost-intensive commodities. Part of the problem may be that clients traditionally think of their private bank as a source of many different products. Most of these offerings, however, fall outside the segment's core competencies.

For example, many private banks attempt to run cost- and labor-intensive operations like trading desks and private equity funds, believing that they provide competitive differentiation. Unfortunately, these strategies drain resources while often failing to establish a compelling alternative to best-in-class offerings from the industry's many dedicated specialists.

Through its own component-based study, IBM has found that most private banks have, in the final analysis, only three core components upon which to differentiate: the bank's advisory relationship with the client, its ability to source and manage – but not necessarily manufacture – the right products, and its effectiveness at consolidating transactions. The remaining components are without question necessary for running the business. But they should not be mistaken for differentiating activities.



Instead, private banks should consider outsourcing non-differentiating functions to a trusted provider with the necessary scale, insight and focus. For private banks within larger organizations, the parent firm's retail or commercial operation can often be tapped to handle non-differentiating activities.

Regulatory issues should be a key consideration when adopting a component structure. The wide divergence in global rules governing how customer data may be shared across borders, for instance, could hamper componentization efforts undertaken by multinational and offshore private banks. In the 1990s, the European Union passed new rules regulating the collection and trade of personal data, while other regions did not. Such disparities may prevent some financial services companies from moving to a full, enterprise-level component model. But even in these cases, firms can realize efficiencies by adopting a modified business component approach.

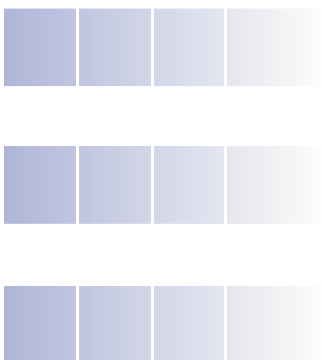
### ***Taking charge with CBM: Driving the enterprise toward on demand***

The IBM Institute for Business Value recommends that financial services firms begin now to pursue CBM-based change. The primary goal of the CBM analysis is not to map how the business is organized now, but rather to expose the true sources of value within the organization. Consequently, your business will not look like your component model. Think rather in terms of the type of business you want to pursue, the areas in which your firm excels, the elements that differentiate your firm from its competitors, the services and capabilities important in the industry and the functions you “have no business” handling in-house. These concerns should shape your thinking from the initial stages through to the development of the implementation plan (see Figure 3).

**Figure 3. A three-phased approach to component business modeling.**



Source: IBM Institute for Business Value analysis.



## Grouping components by competency

One way of grouping components is by competency. Consider your focus, main areas of value creation and sources of competitive advantage. You will probably retain most of your components under these competencies. For financial institutions, core competencies include Insight, Risk & Financial Management, Distribution, Manufacturing, Processing and Infrastructure.<sup>9</sup>

*Step one: Insight.* Construct a component business model. What are the basic building blocks of your firm?

- Group tightly linked activities into cohesive business components
- Model the firm as a value network populated by collaborating, specialized business components
- Test the model by mapping components against major, real-world process flows.

*Step two: Architecture.* Assess current business and perform gap analysis. With the industry moving toward specialization, a CBM assessment can help your firm map its strengths and weaknesses to specific roles along the dynamic industry value chain. How do your current capabilities match up to your future needs?

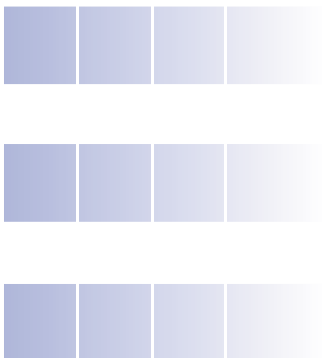
- Determine value contributed to the firm by each component, identifying components that differentiate the firm
- Define metrics for components and assess performance using external benchmarks where available
- Map existing capabilities against requirements for the future state to identify gaps in current model.

*Step three: Investment.* Prioritize opportunities and prepare a transformation plan. Which investments offer the greatest value? How do you convince your organization to move forward?

- Develop detailed business case for each opportunity
- Prioritize investment opportunities by assessing importance to the business, potential return on investment and technological feasibility
- Prepare an in-depth transformation plan that leverages the advantages of a phased approach.

### Three factors to consider for a successful CBM-based transformation effort:

- Get support from senior management. CBM is a major undertaking, often leading to sweeping organizational change. This requires buy-in from managers, "early and often."
- Present a strong vision and business case. Pursuing a component-based organization is a marathon, not a sprint. Keeping everyone pointed at the finish line requires a well-articulated vision, backed by a strong business case. Publicizing early successes can establish the credibility of the overall effort and help drive it forward.
- Adopt a phased approach. Pursuing a component structure across a large, multinational firm represents a substantial investment. A phased approach allows firms to use savings from initial "quick wins" to fund subsequent transformation efforts.

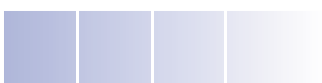
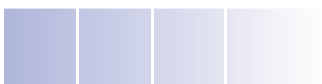


Can CBM help your firm prepare for an on demand environment? As financial services firms evolve toward on demand, executives are faced with what can seem like a bewildering range of issues. As you begin to think about your firm and its place in the on demand environment, consider the following questions:

- Which of your firm's specific activities add value? How effectively can you measure the value they add?
- How well do the individual units of your firm perform versus other providers, both internal and external?
- When you partner with another firm, how quickly are you able to set up business and technology connections?
- How well does your firm adapt to sudden changes in the regulatory environment? Could you do it more effectively?
- If you recently merged with another firm, did you realize the synergies you were expecting? Where did you succeed? Where did you fall short?

To learn more about component business modeling and how it can be applied to your business, please e-mail us at [iibv@us.ibm.com](mailto:iibv@us.ibm.com). To browse other resources for business executives, we invite you to visit:

**[ibm.com/bcs](http://ibm.com/bcs)**



### ***Additional IBM publications***

- “On demand business: The new agenda for value creation.” IBM Institute for Business Value. 2003.  
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### ***About the authors***

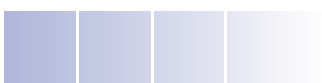
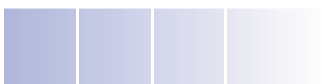
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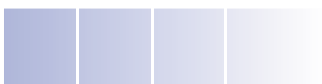


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