

A Forrester Consulting Thought Leadership Paper Commissioned By IBM Corporation

# The Next Generation Of Knowledge Worker Processes Will Dominate Enterprises

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**FORRESTER**

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## Executive Summary

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In conducting in-depth surveys with 155 case management influencers and decision-makers from the US, UK, Australia, and India, we found a clear recognition that older process automation approaches based on old mass production concepts are no longer adequate in an era of people-driven processes, and that case management has moved well beyond the traditional views. Responses to our survey validated that more enterprises must tackle smart jobs, encompassing more skilled workers who must accomplish a greater variety of tasks with relatively fewer resources. Now these ad hoc, human-driven process flows rival production and straight-through process types, yet they receive far less attention and funding than more structured processes. Key drivers include an increased need to manage the costs, risks, and customer experience and new demands that regulators, auditors, and litigants place on businesses to respond to external regulations. Yet, cross-departmental issues and integration top the list of case management challenges, while current systems lack agility and business-side control.

## Case Management: Familiar To Enterprises But Moving Beyond Current Thinking

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Case management in the traditional sense is a well understood and mature process discipline at 79% of firms surveyed, yet understanding often depends on a person's background. If you say "case management" to many business people, they immediately think about social workers' case files or attorneys' cases. If you say "case management" to someone who works in a government agency providing and processing information all day, they will most likely understand exactly what you mean. And if you say "case management" to a business process professional who has done a lot of work with document management, document imaging, retention management, and other types of unstructured information, the person will nod in understanding and know exactly what you are talking about.

But despite these differing views, survey data collectively viewed points to a new meaning for case management — one that moves from a "replace the paper file" mind set to a view that companies' basic approach to processes has changed and new ways to improve processes require a new way of thinking and new support tools. Our survey shows a clear recognition that older process automation approaches based on old mass production concepts are no longer adequate in an era of knowledge worker processes that benefit from autonomous decision-making and highly social collaborative tools. Forrester defines case management as:

*Case management is a semi-structured, but also collaborative, dynamic and information-intensive process that is driven by outside events and requires incremental and progressive responses from the business domain handling the case. Examples of case folders include a patient record, a lawsuit, an insurance claim, or a contract, and the case folder would include all the documents, data, collaboration artifacts, policies, rules, analytics, and other information needed to process and manage the case.*

## Survey Results Reflect A New Generation Of Knowledge Worker Processes

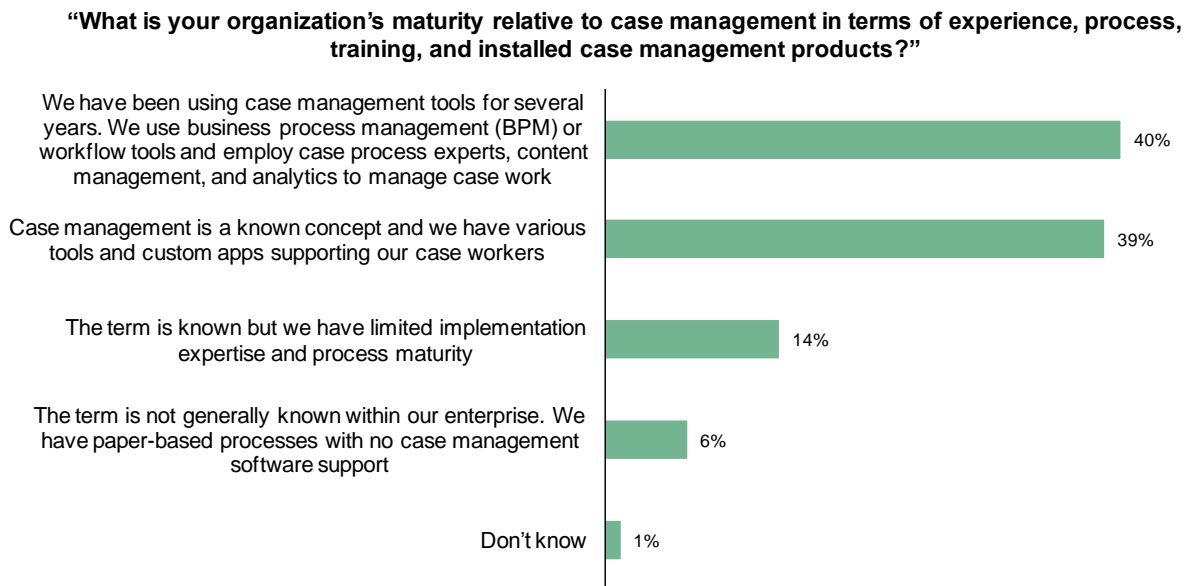
The concept behind case management is far from new. In fact case management was a known and mature process discipline at 79% of firms surveyed, which either had used case management tools for several years or were at least aware of the concept (see Figure 1). In addition, 40% of surveyed firms had used case management tools for over five years (see Figure 2).

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### Figure 1

Case Management Is A Known And Mature Process Discipline At 79% Of Firms Surveyed

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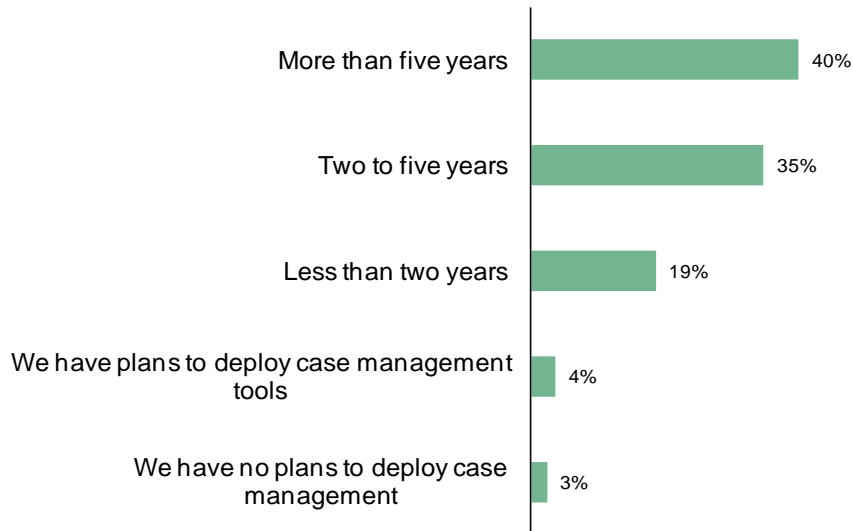
Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

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**Figure 2**

Software Tools For Case Management Are Not New to Firms

**“For how long have you been using software tools to service case management needs?”**

Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India  
(percentages may not total 100 because of rounding)

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

As everyone knows, developed countries are manufacturing less as factories get relocated to China and other lower-wage economies. Meanwhile, businesses in the developed world are busy applying Lean Six Sigma and business process management (BPM) approaches to automate work in non-manufacturing parts of the business. Companies in the services sector have caught onto this idea and are also applying proven methodologies, like Lean and Lean Six Sigma to back-office and front-office processes. As a result of these continuous improvement initiatives, more heads-down, mass-production-style clerical activities that add limited value are being eliminated through automation, continuous improvement, or the rethinking of job assignments.

Instead of work being parceled out to a sequential progression of service workers on an imaginary assembly line (in homage to Henry Ford and mass production), workers in smart jobs must manage a “case” from start to finish. That case may be a loan request, a benefits claim, or a disability claim at the Social Security Administration, but the common thread across these cases is that the case worker handles more of the work. In short, the workforce has shrunk; the sheer amount of information handled by a single worker has increased. This is in sharp contrast to an old and outdated mass production approach where small pieces of the job are done by passing work “down the line” to a plethora of employees doing routine work. This gradual shift in how work gets done paves the way for dynamic case management by moving the focus from the old-style workflow

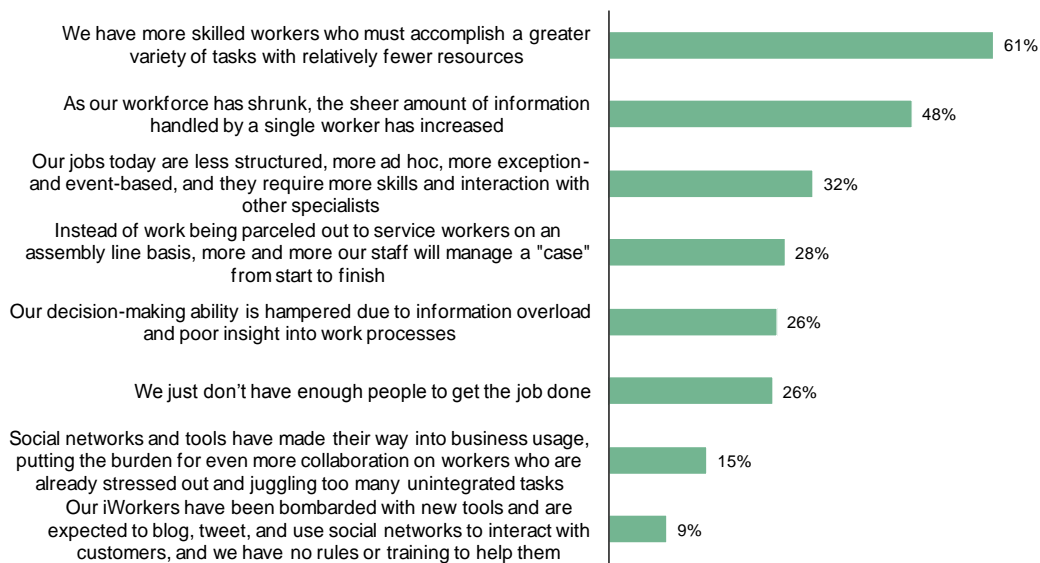
to more exception- and event-based activity. Predictable, highly repetitive work will be handled as much as possible through straight-through processing that the worker doesn't see or touch.

Responses to our survey validated these macro trends that affect information management: Surveyed firms reported that their business processes must increasingly tackle smart jobs — those encompassing more skilled workers who must accomplish a greater variety of tasks with relatively fewer resources (see Figure 3). Skilled workers also report a significant challenge in the form of information overload and blame the reduction in resources that has increased the sheer amount of information that must be managed.

**Figure 3**

Workers And Resource Shortages Push Enterprises To Do More With Less

“Select the descriptions below that best describe your staffing and human issues in your organization.”



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India  
(multiple responses accepted)

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

## Ad Hoc Knowledge Worker Process Flows Rival Production And Straight-Through Process Types

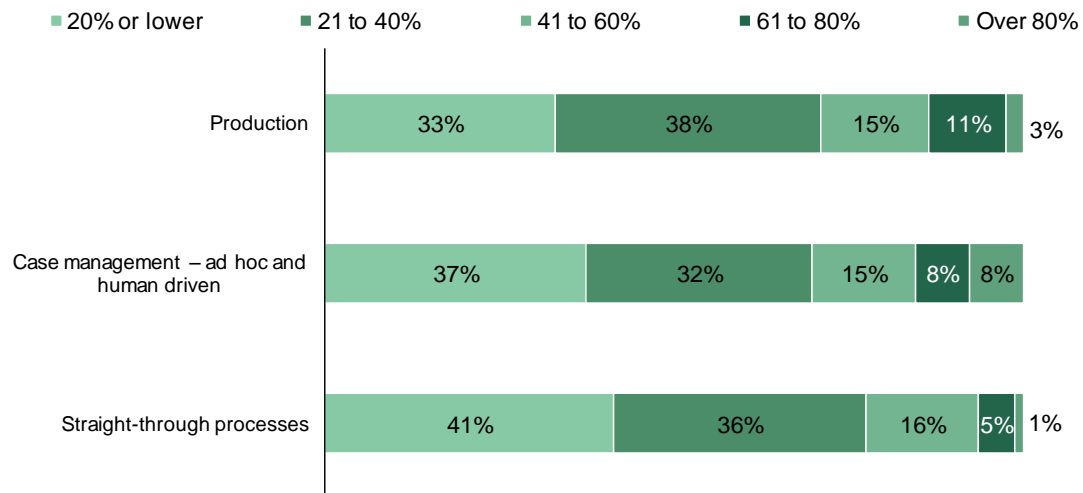
Forrester asked respondents to distinguish between three types of processes: those that are straight through or system to system, such as routine property and casualty insurance claims that are handled as a straight-through process with limited human intervention; those that are well-structured production processes, controlled by software but involving humans, such as order administration; and those that are semi-structured processes driven by knowledge workers (such as case management). Forty-seven percent of surveyed firms estimated

that a significant percentage (between 21% and 60%) of their processes were of the latter type — that is, case management-type processes (see Figure 4). Furthermore, these process types get less IT attention and overall corporate investment (see Figure 5). Not surprisingly, 48% of iWorkers (i.e., employees who use a computer at work and are between the ages of 18 and 70) have no dedicated case management application, and these are the most skilled workers in the company, responsible for development of intellectual property and handling more complex issues (see Figure 6).

**Figure 4**

Surveyed Firms’ Processes Are Well Balanced Among Case Management, Production, And Straight-Through Types

**“Organizations have three types of processes: those that are straight through, or system to system; those that are well-structured production processes, controlled by software but involving humans; and those that are semi-structured processes driven by knowledge workers (i.e., case management). Please estimate the percentage of each process type in your organization.”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India  
(percentages may not total 100 because of rounding)

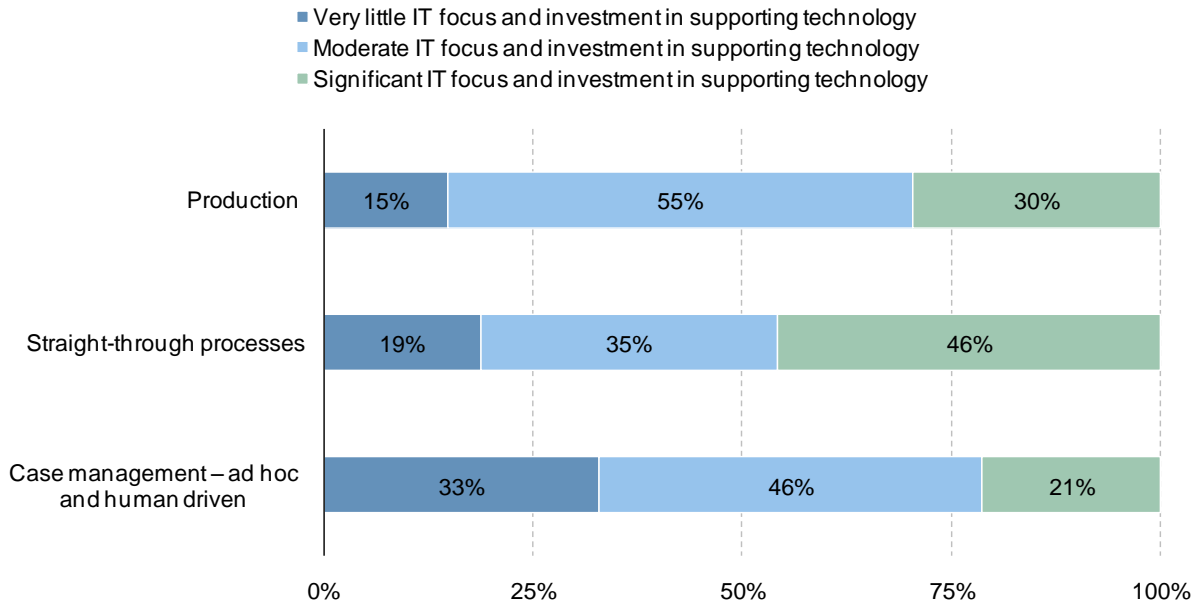
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

**Figure 5**

Case Management Processes Receive Very Little IT Focus And Investment Compared With Other Process Types

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**“For each of these areas, please characterize the amount of IT focus and investment in supporting technology and process improvement.”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

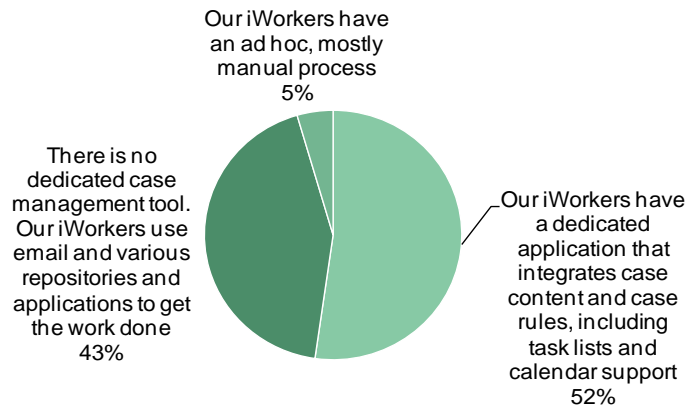
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

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**Figure 6**

Nearly Half Of iWorkers Have No Dedicated Case Management Application

**“Which of the following best describes your organization’s support of the iWorker or case worker to improve case management?”**



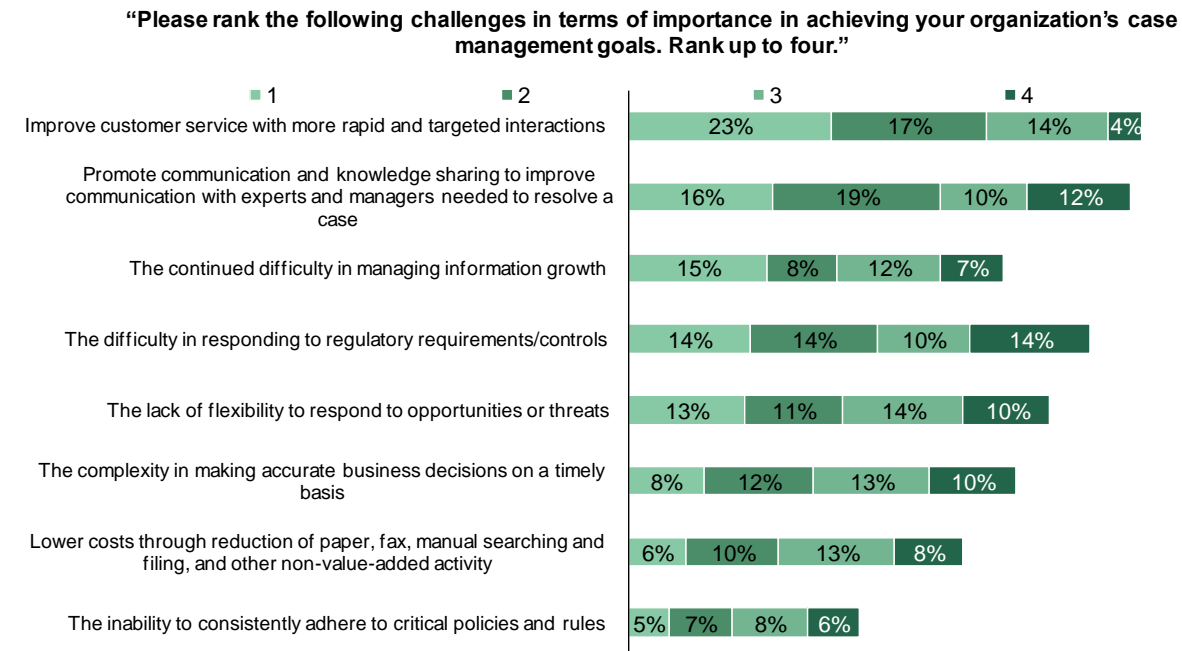
Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

## Internal And External Forces Drive Current Enterprise Challenges

Surveyed companies viewed today’s case management as insufficient for tomorrow’s business process challenges. Respondents raised concerns that business processes of the future must support shifts in regulations, customer expectations, cross-department process coordination, and worker demands that require more ad hoc and collaborative exception management.

Emerging case management platforms and solutions address many of the challenges faced by enterprises, the most of important of which is the difficulty of promoting communication and knowledge sharing among experts and managers to improve the handling of cases, particularly given the dependence on shrinking pockets of critical expertise at most firms. This was followed by the continued difficulty in managing information growth and switching among siloed information sources caused by the increasing channels and complexity of products and services. Difficulty in responding to regulatory requirements/controls was also a significant challenge for enterprises surveyed (see Figure 7).

**Figure 7****Customer Service Is A Top Goal Of Case Management**

Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

### Organizations Focus On Improving The Customer Experience And Quality Metrics

It’s difficult to change the mindset of business and IT about how processes should execute. As confirmed by this survey, skill sets are limited and in high demand, and resources are constrained due to downsizing. Yet, forces continue to push businesses toward new process thinking that is more dynamic and more predictive, with a greater customer focus and with emphasis on customer service and reducing errors.

- **An increased focus on customer service and project management.** All businesses make mistakes, but it is how they are handled that will differentiate companies over time. Basic service levels have become commoditized, and it’s increasingly about the exceptions or problems. Case management software, for example, captures complaints and automatically schedules and prompts concerned departments, reports on complaint details, and fully manages related content.
- **Improving quality metrics.** Quality was considered one of the top case management goals and a way for firms to measure the success of case management initiatives. This was followed by lower costs of acquiring and servicing customers. Most of the metrics cited highly measure some form of customer satisfaction (see Figure 8).

- **Lower service costs.** Decreased cost of servicing and acquiring customers and managing incidents or investigations ranked second as a measure of success for planned case management efforts, with 58% of respondents selecting this category. This is consistent with both current-business-cycle and continuous improvement initiatives that Forrester reviews. In addition, lowering service costs was the second most cited challenge by respondents, with 59% reporting the need to better manage the expense of supporting customers for loans, claims, and benefits (see Figure 10).

**Figure 8**

Quality Metrics, Followed By Cost Efficiencies, Measure Success For Case Management Efforts



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India  
(multiple responses accepted)

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

## Enterprises Are Taking A Broader View Of Case Management

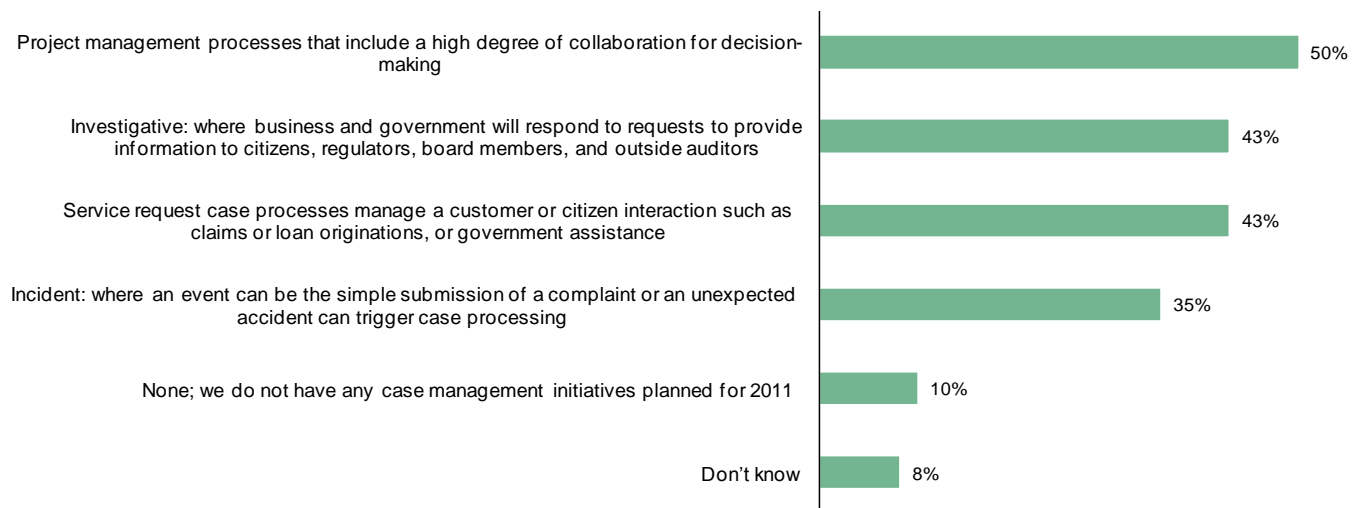
Surveyed companies view case management as applying to a broader set of use cases. Respondents indicated that case management is not just limited to legal, social work, and government cases but may apply to a variety of use cases. Case management projects that organizations plan to evaluate or deploy in 2011 included specific projects that require a high degree of collaboration; investigative case, where enterprises know they will receive hundreds of requests a year to provide information to citizens, regulators, board members, and outside auditors; incident management, where an event such as the simple submission of a complaint or an unexpected accident can trigger a case process to keep track of actions, coordinate people, use rules for escalation, and

document the process; and finally, service requests that resolve customer service issues and related exceptions (see Figure 9). A broader view is evident in non-traditional opportunities for case management. Increasingly, case management is being integrated with enterprise applications like customer relationship management (CRM) systems to coordinate knowledge across customer channels and allow more rapid and cost-effective response, with a goal of improving customer service. Adverse drug reactions in the pharmaceutical industry are another target as firms struggle with increased regulatory filings and the need to coordinate internal resources for rapid response. And finally, health care reform is pushing health payers and providers to take a fresh look at care management, particularly for chronic cases.

### Figure 9

#### Project Management And Investigative Processes Lend Themselves To Case Management

**“What types of case management projects to support the iWorker does your organization plan to evaluate or deploy in 2011?”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India  
(multiple responses accepted)

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

## An Emerging Regulatory Environment Must Overlay Business Improvements And Will Ask More Questions

The current economic crisis requires even greater regulatory oversight, which increases pressure on business processes and process technologies and places a sharp focus on transparency.<sup>1</sup> Reacting to the poor decisions leading up to the credit and market crises, the emphasis going forward will be on process insight, predictive analytics, and control. Respondents confirmed these concerns when asked what challenges for managing cases best described their organization. New demands from regulators, auditors, and litigants topped the list (see

Figure 10). In fact, providing the right information, at the right time, and in the right context — in time for business people to take preventive action — will be the hallmark of the next phase of compliance. Case management is suited to this new regulatory and business risk management environment to manage enhanced and more decentralized authority. For example, investigation into the Securities and Exchange Commission’s (SEC) Bernie Madoff debacle concluded that field investigators would benefit from fewer management layers and more autonomous inquiry powers.<sup>2</sup> With this trend, businesses of all sizes will have to respond to more frequent requests of a wider variety, and they may follow increasingly random patterns. Without case management, this new round of compliance will be hard to tackle on a wide scale.

**Figure 10**

Increased Regulation And Cost Drivers Are Top Challenges Of Case Management



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India  
(multiple responses accepted)

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

### Cross-Departmental Issues And Integration Top List Of Case Management Deployment Challenges

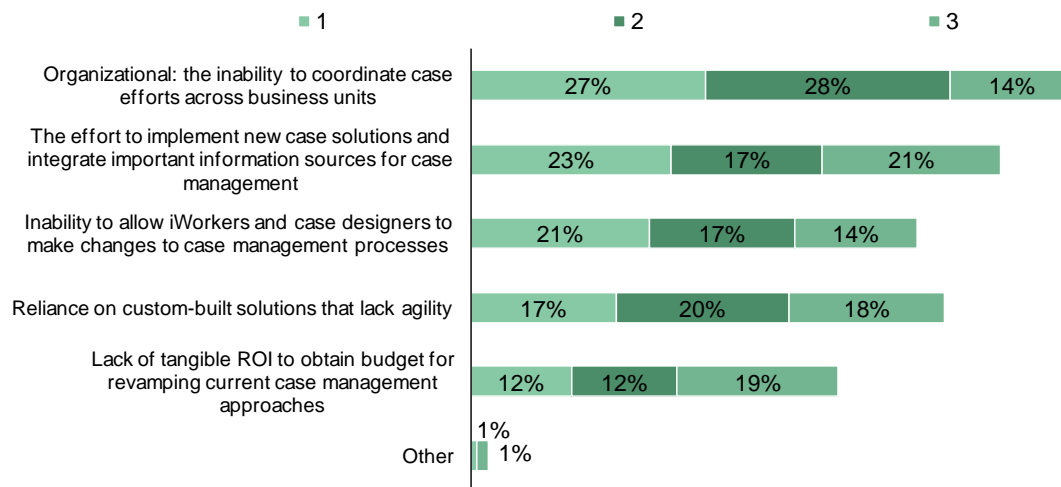
For most organizations, the greatest challenge to achieving case management business goals is the inability to coordinate activities across departments or business units. The customer experience in insurance, for example, is defined by the cross-departmental interaction across submission, underwriting, policy development, claims, and customer service. Cross-department activity — or lack thereof — often creates bottlenecks and information

blackouts and necessitates non-value-added activity such as data entry and searches for information due to incompatible systems, all of which provide a less valuable and more costly customer experience. The second biggest challenge is the ability to integrate with key information systems, where important data — structured and unstructured — is maintained. These deployment challenges were far ahead of a business' ability to change aspects of the case process or gain acceptable ROI for a case project. The barrier appears to be the organizational and technical ability to push the process to broader enterprise efficiency (see Figure 11).

**Figure 11**

Cross-Departmental Issues And Integration Top List Of Case Management Deployment Challenges

**“For your organization, what do you think are the greatest challenges to achieving case management business goals? Please rank up to three in order of importance.”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

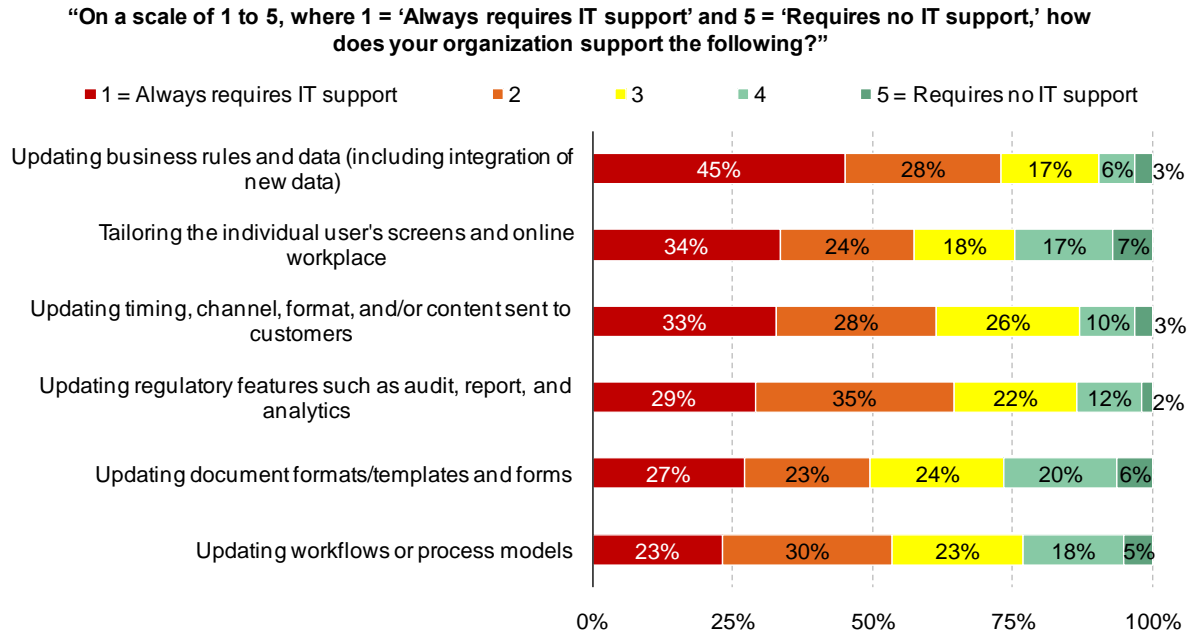
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

## Current Systems Lack Agility And Business-Side Control

Advanced case management platforms are built on BPM and enterprise content management (ECM), plus they incorporate collaboration with social features. They feature predictive analytics, business activity monitoring, complex event processing, and business rules, and they use the power of BPM/service-oriented architecture (SOA) to support agile development, rapid deployment, and continuous improvement. But how important are these capabilities in terms of business-side control? We found that current case management capabilities are largely developed, maintained, and changed by IT and lack strong business-side control (see Figure 12).

**Figure 12**

IT Still Leads Changes To Case Management Applications



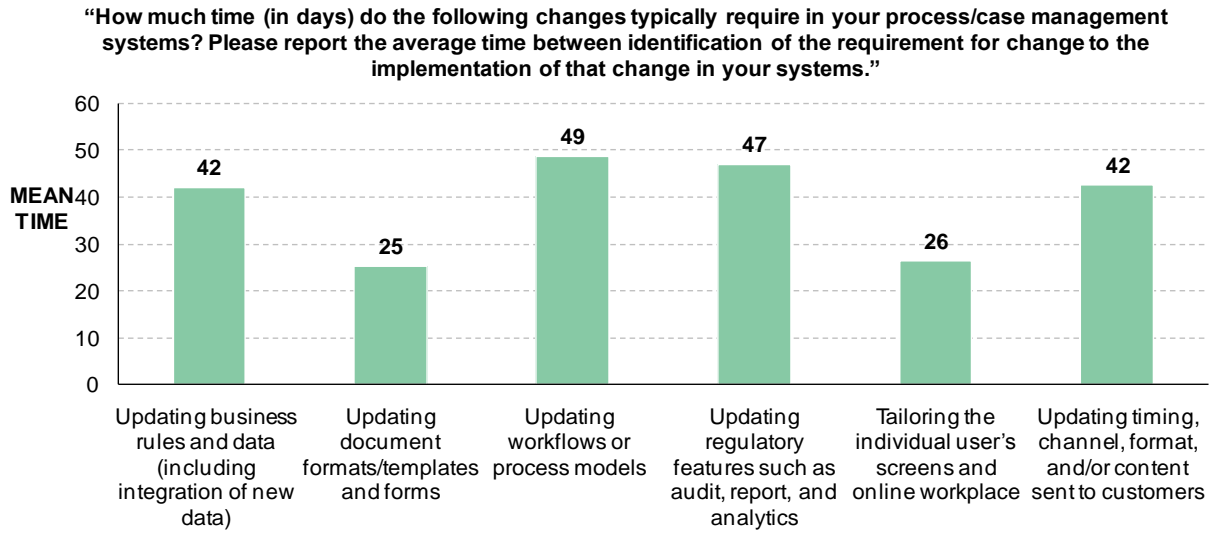
Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

It takes a long time for even simple changes. One important goal of the next generation of case management solutions is to have the business make changes to business rules, work processes, and outbound content through an “English-like” non-programmatic interface. The main reason? Time. We asked about how much time (in days) typical changes require in firms’ process/case management systems, based on the average time between identification of the requirement for change to the implementation of that change in their systems. Respondents reported that it takes 40 to 50 days to change rules, process models, reporting, and document output (see Figure 13).

**Figure 13**

It Takes 40 To 50 Days To Change Rules, Process Models, Reporting, And Document Output



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

## A LOOK INTO THE FUTURE: WHAT ENTERPRISES WANT FROM CASE MANAGEMENT

Case management will benefit from the convergence of many information management technologies and the maturity of BPM overall. Over the next year, new integrated BPM platforms that draw from human- and document-centric BPM suites (BPMS) that combine best practices with advanced analytics will emerge and target case management use cases. Yet, firms will look to several sources for help, turning most often toward their packaged app provider:

- **Rapid implementation takes center stage.** Dynamic case management allows a business analyst to combine prebuilt process models with other prebuilt process models and process fragments to quickly create new processes. The ability to leverage “widgets” and allow mashups will be a boon for case management applications that can reuse and snap in capabilities. Portions of many case management processes have similar sequences (i.e., process snippets or process fragments) that analysts can leverage. But firms cited the ability to rapidly bring up new case management applications as a requirement.
- **Analytics show promise for enterprises — but let’s get basic status reporting first.** Forrester believes that predictive analytics to improve a process and anticipate business changes will be a hallmark for dynamic case management with visibility and optimization tools front and center. In fact, firms applying case management to fraud prevention and other investigative areas have been using analytics for some time. Dashboards consisting of key performance indicator (KPI) charts, tables, and alerts will track events and tasks. Supervisors will monitor case workers and teams and create priority and escalation thresholds. Case management will evolve to include text mining and data mining, decision support and decision automation, and descriptive and predictive analytics. Survey respondents were more rooted in the present, however, and perhaps not able to envision what may be possible in the future. They most desired basic status reporting, followed by analytics that can provide aggregate case results.
- **Collaboration, mobility, and social media tools add value, but they are not available in case tools today.** Social networks, collaboration, and mobility have made their way into business use, putting further burden on workers who are already stressed out and juggling too many un-integrated tasks. Enterprises are aware of this trend but are ill prepared to incorporate these tools into current case systems. Most enterprises (54%) see value in social communication, but only 21% can leverage it directly in case processing today. Twenty-five percent just saw no value in social technologies within case processes. Ultimately, case management that incorporates both social/collaboration tools and mobile communications will tackle and improve the full range of work an information worker is expected to handle.
- **Information governance is needed.** Enterprises need more holistic management of all interactions that relate to a customer encounter that may span years, have multiple connected sub cases, and go through life-cycle stages. Information must include all off-line and online communication threads, independent of the channel. This need is driven by regulatory concerns but also by a desire to listen and respond to customers in a broader and more in-depth manner.

## Appendix A: Methodology

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In this study, Forrester conducted an online survey of 155 case management influencers and decision-makers in the US, UK, Australia, and India to evaluate the current state of case management. Questions provided to the participants asked about the challenges surrounding their organizations' case management issues and how to achieve their organizations' case management goals. The study began in June 2010 and was completed in August 2010.

## Appendix B: Demographics

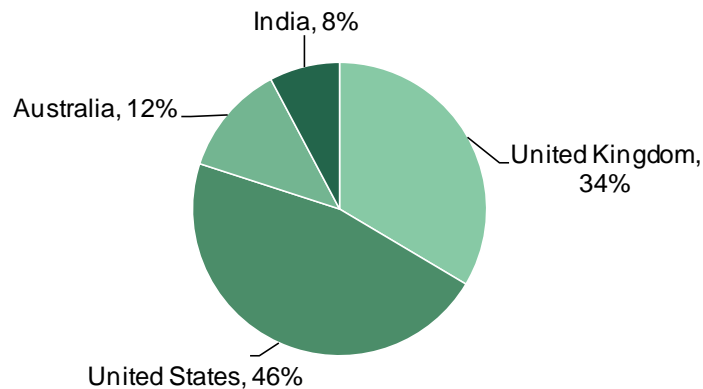
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**Figure 14**

Country

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**“In which of the following countries do your responsibilities for your organization reside?”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

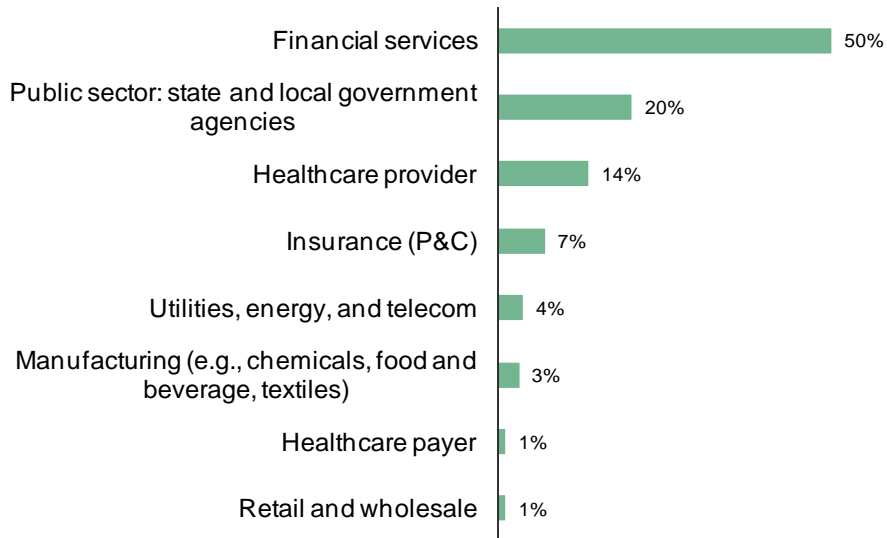
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

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**Figure 15**

Industry

**“Which of the following best describes your company’s industry classification?”**



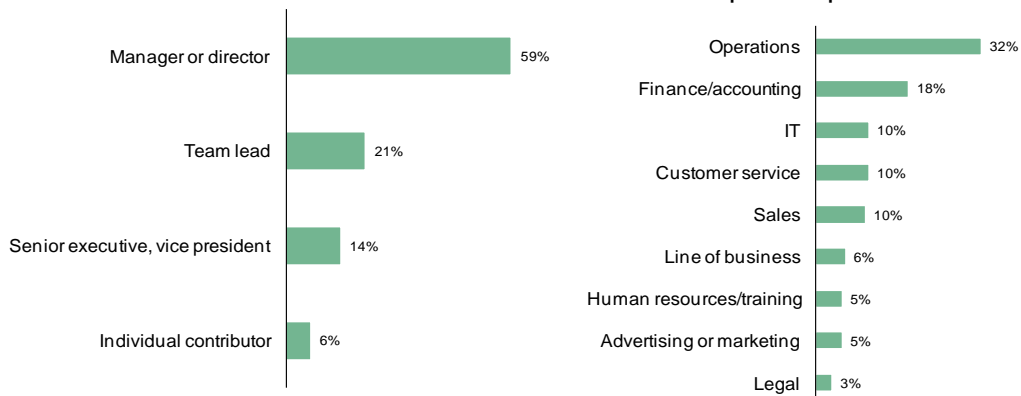
Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

**Figure 16**

Job Level And Department

**“Which of the following most closely describes your job level?” “Which of the following most closely describes your current position/department?”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

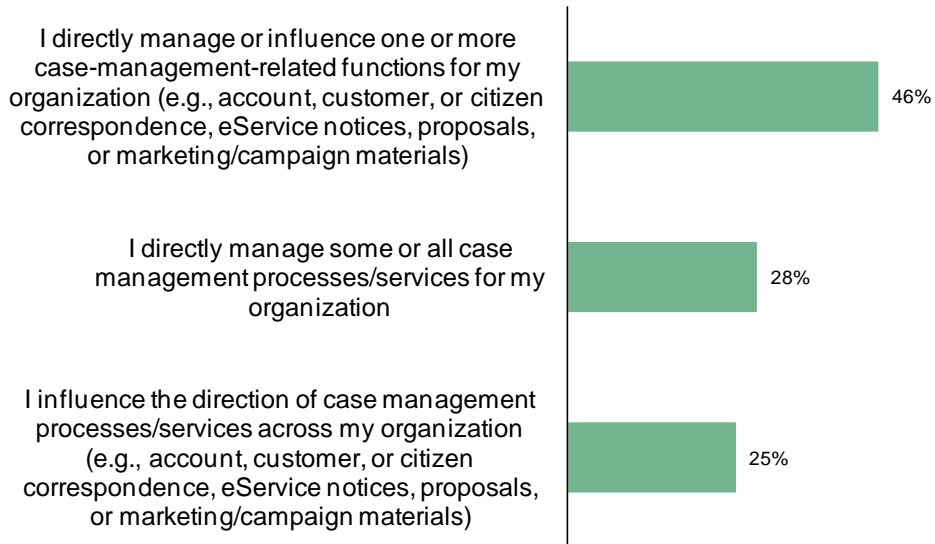
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

**Figure 17**

Involvement With Case Management

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**“Which of the following statements best describes your involvement with case management?”**



Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

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**Figure 18**  
Involvement With iWorkers

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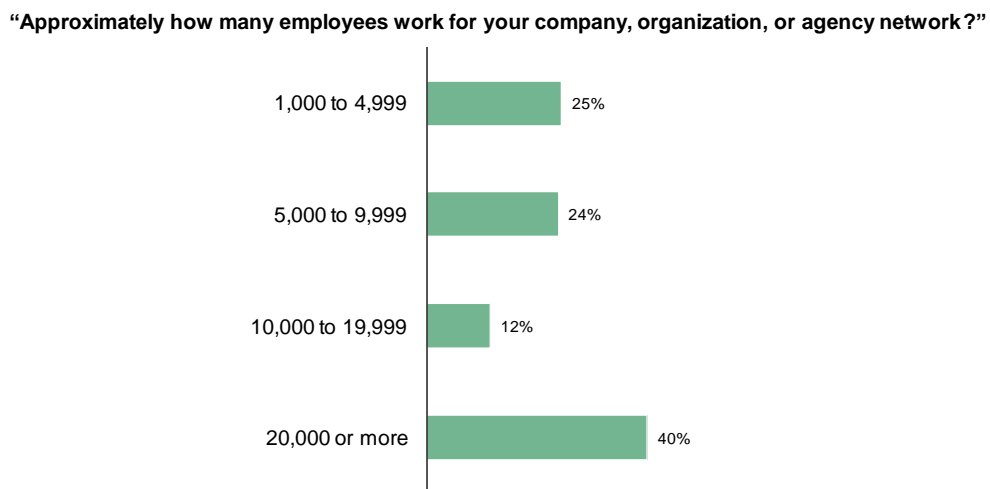
Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

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**Figure 19**  
Company Size

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Base: 155 case management influencers or decision-makers from the US, UK, Australia, and India

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM Corporation, August 2010

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## Appendix C: Endnotes

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<sup>1</sup> Legislation has passed to increase regulations and revive the financial services sector, and now regulators will draft the rules to enforce the law. But other examples are easy to find and include the US Senate voting to nearly double the Consumer Product Safety Commission budget in response to waves of product recalls; the US Environmental Protection Agency setting tighter emission restrictions after accusations of lax control; and the UK's Medicines and Healthcare products Regulatory Agency cracking down on transparency of drug trial results after cases where potential side effects were not properly disclosed. Source: "Inquiry Spotlight: Governance, Risk, And Compliance, Q4 2008," Forrester Research, Inc., November 3, 2008.

<sup>2</sup> The SEC last month announced the unit's biggest reorganization in at least three decades, aimed at speeding investigations and honing expertise. The overhaul will leave fewer management layers, more front-line investigators, and at least five specialist teams focused on emerging and complex areas of the market. The SEC is also taking steps to make it easier for investigators to issue subpoenas and reward people for aiding probes. Source: David Scheer, "SEC Never Did 'Competent' Madoff Probe, Report Finds (Update2)," Bloomberg, September 9, 2009 (<http://www.bloomberg.com/apps/news?pid=20601087&sid=agBw9n2hZi5U>).