Achieving Collaboration Excellence

Content Management, Data Integration and the Enterprise Portal

August 2006
Executive Summary

Portal technology is not new. However, many first-generation portal adopters rushed to the task with huge budgets, lofty ideas and relatively poor planning. Now they are paying the price with costly integration, non-compliant data and document repositories, unsupportable content management procedures, and user interface designs that make collaboration unwieldy. Portal technology vendors, application developers, and 3rd-party integration specialists have learned from these mistakes, introducing rich and flexible feature-sets, data and document structures based on open standards, needs analysis services, prototyping capabilities, and robust vertical applications.

A portal can take many forms and serve many business functions. Portal technology has come to be seen as a horizontal platform, only as good as the documents and data it serves and only as useful as the applications it hosts. Thus it is the portal adoption strategy that differentiates a successful portal initiative from an unsuccessful one.

Key Business Value Findings

The chief challenges cited by respondents in implementing an enterprise portal were associated with the degree to which documents, data and applications are organized within the company. The root of these challenges is in the historically unstructured or decentralized application development processes which have resulted in:

- critical operational systems unable to communicate effectively with one another
- disparate and non-standard sources of incoming data necessary to create a complete picture of what is happening across the enterprise
- inability to determine the ROI and thus justify the cost of a portal initiative
- poorly conceived implementation roadmap that often tries to accomplish too much at once

Implications & Analysis

Enterprises struggle to justify the allocation of funds to an unbounded project with little or no focus on real end-user requirements and face the daunting task of revising core knowledge repositories and well-engrained operation procedures. The result is fragmentation. Individual departments that can’t wait for an enterprise-wide solution find their own “quick fixes”, compounding the problem and making it much more expensive and complex in the future. While the portal technology itself is probably not going to make or break the company, the degree to which it is used effectively is a clear differentiator, visible not only to management and the staff that needs to interact with it, but also to the customers and business partners who demand flexibility and responsiveness.
Measurable Results

Each portal initiative has its own set of measurable results. If the goal is to make current customer data available to a service center, quality of service may be the best way to measure success. If the goal is to provide real-time inventory, pricing and promotion data to a sales force, sales results would be a key metric. If the goal is collaboration among departments, employee performance would be a useful measure. Aberdeen compared the performance results of over 150 companies and discovered that the enterprise portal adoption strategy determines the success of the initiative. Best-in-class strategies lead to greater performance increases than the industry norm, while laggards sometimes report performance decrease as a result of poorly-planned or executed programs.

Figure 1: Portal Adoption Strategy Directly Impacts Measurable Results

Recommendations for Action

Best-in-class portal adoption strategies understand the key challenges and incorporate them into specific action designed to minimize the cost of entry, maximize the value of the data, focus on user requirements, and encourage collaboration. Companies should design their implementation strategy to ensure they effectively accomplish the following:

- Identify top-priority business processes included in the initiative and long-term objectives for the enterprise portal
- Evaluate end-user and business process requirements and adopt user interaction standards that ensure ease of use
- Define metrics and objectives for evaluating results
- Catalog content, including documents, databases, and applications
- Develop a privacy policy, content-management and data security strategy
- Select a best-in-class technology suited to the top-priority business objectives and which will scale to the long-term objectives
- Create a proof-of-concept and gain core-user acceptance
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Chapter One: Issue at Hand

Key Takeaways

- Companies are attracted to portal technology as a customer touch-point, as a vehicle for collaboration, as a conduit for business intelligence, as a platform for new product development, and as a way to reduce redundancy in the organization.

- The overall goal of a portal initiative may be very different from the first set of objectives at the time of adoption. Many companies rush to deploy a portal, reasoning that it is required to stay competitive; but, in doing so, they sacrifice the planning, training, and operational changes necessary for success.

- Portal technologies which afford the enterprise an easy point of entry and rapid prototyping, may do so by sacrificing robust feature-sets, and scaleable architecture making it difficult and expensive to meet future demands of the enterprise.

- Portal technology vendors have learned from their early mistakes, now offering solutions that scale, feature-rich vertical applications, and services that support the organization to achieve its goals.

Portal technology is not new. However, many first-generation portal adopters rushed to the task with huge budgets, lofty ideas and relatively poor planning. Now they are paying the price with costly integration, non-compliant data and document repositories, unsupportable content management procedures, sprawling websites, and user interface designs that make collaboration unwieldy. Portal technology vendors, application developers, and 3rd-party integration specialists have learned from these mistakes, introducing rich and flexible feature-sets, data and document structures based on open standards, needs analysis services, prototyping capabilities, and robust vertical applications.

In response, many companies are reevaluating their portal adoption strategy and shifting their focus from building complex interfaces and cool dashboards to directly addressing the user needs as well as leveraging real-time business data for improved business intelligence and process optimization.

This scenario should sound familiar. A division within the enterprise begins with an idea for sharing application data, exposing a business process on the public Internet, or allowing staff to collaborate on a project. A tool is selected and a solution deployed. As soon as it is working, someone has an idea that builds on the first solution. It just requires a little tweaking here and there. The cycle continues and pretty soon there is a hodgepodge of interconnected screens, interfaces, and 3rd-party widgets, unsupportable and lacking standards. At some point, a sim-
ple request will prove impossible without a costly rewrite, or a simple change will break something and nobody will be able to fix it. To make matters worse, the same thing has been going on in other departments without anyone paying attention to standards or consistency across the enterprise.

**Figure 2: Primary reasons to implement or expand an enterprise portal**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expose Product Data to Customers</td>
<td>24%</td>
</tr>
<tr>
<td>Equip the Sales Force</td>
<td>27%</td>
</tr>
<tr>
<td>Improve Search</td>
<td>31%</td>
</tr>
<tr>
<td>Improve Business Intelligence</td>
<td>31%</td>
</tr>
<tr>
<td>Enable Online Commerce</td>
<td>46%</td>
</tr>
<tr>
<td>Improve Application Integration</td>
<td>38%</td>
</tr>
<tr>
<td>Reduce Customer Frustration</td>
<td>37%</td>
</tr>
<tr>
<td>Enable On-Demand Service or Supply Chain Management</td>
<td>36%</td>
</tr>
<tr>
<td>Optimize Handling of Business Application Data</td>
<td>35%</td>
</tr>
<tr>
<td>Eliminate Repeat Processing</td>
<td>34%</td>
</tr>
<tr>
<td>Source: Aberdeen Group, July 2006</td>
<td></td>
</tr>
</tbody>
</table>

The organization might survive if it were not for the pressures to provide collaborative workflow applications, productivity enhancements, management reporting, and better customer experience. Such pressures clearly have a strong influence on technology spend. Aberdeen research shows that across industry, across company size and geographic location, from best-in-class to laggards, companies with existing portal initiatives are planning to increase their spend on portal technology by an average of 35%-40% annually over the next two years. That figure points to two things: 1) portal technology has proven to be valuable to the organization, and 2) in answer to the pressures named above, organizational, technological, and infrastructure development plans are placing increasing demands on the enterprise portal.

Fortunately, the new capabilities that businesses must leverage to address these pressures are being provided by portal technology vendors who have redesigned their architectures and re-released their platforms, fitted with new feature-sets and adhering to the emerging standards for data and interface compliance.
Technology vendors understand that a portal platform is just a conduit for content and collaboration. Offering a combination of feature-rich vertical applications, robust transaction engines, comprehensive content management and publishing systems, a focus on business process optimization, and consulting services designed to understand and address user requirements, portal vendors no longer simply deliver the packaged application and leave it to the user to figure out how to craft a solution.

As an example of how this new understanding is put into action, consider the top reason for developing or expanding an enterprise portal: Employee Collaboration. In a retail chain, the marketing manager at the company headquarters releases a mandate detailing a new promotion that she wants to appear in every store across the country on the morning of the same day. She has many pages of specific instructions which will take each store manager several days to implement. She has a checklist to make sure the instructions were followed and she wants to be able to check the status of each store’s progress and receive an alert if one falls behind schedule. A portal-enabled workforce management application provides all the functions she needs, plus it gives her an easy way to provide the results to her CEO in the form of a management report.

In this way, portal technology enables intra-departmental, company-wide, and extra-enterprise collaboration in any industry.
Chapter Two:
Key Business Value Findings

- The value of a portal is largely a factor of the quality of the documents, data and applications it serves and the users who contribute to it and use its features.
- The business purpose for a portal determines the best technology solution and its adoption strategy. Thus, a clear set of objectives, both short-term and long, is essential to selecting and deploying the technology successfully.
- A portal will support the organization if it supports the individuals who are relying on it.

Content management is at the heart of any portal. A portal initiative will stand or fall on the merits of its content management policies and procedures. In fact, some portal implementations do not use any classical “portal” technology at all. They are instead elaborate content management systems with a publication toolkit and sometimes a transaction engine. There are good reasons for this approach. For example, if a company began first to automate its catalog business, then later made the decision to open an online storefront, the mature catalog management application would contain all of the product, pricing and possibly even inventory information already. To avoid redundancy, complex integration, or replacing a critical system, the organization might just decide to expand the catalog management application to include an e-commerce engine. A robust content management platform would have no trouble meeting this need and the acquisition of portal technology would be unnecessary, even though, technically, a portal was being implemented.

A robust content-management system has been shown in this research to improve the measured performance of an organization on many of the most highly-valued metrics. (Figure 3). While only 24% of survey respondents said they have a content-management solution in place, those who did scored noticeably higher in terms of overall performance. 80% of those who do not have a content-management solution in place said they plan to implement one within the next 1-to-2 years.

The value of best-in-class content management goes well beyond the measurable performance metrics revealed in this research. The ability of an organization to adapt quickly to change, to turn a large new source of transaction data into business intelligence, and to leverage relationships outside the organization without security risks require a coordinated and systematic approach to the handling of its key resource: information.
Companies are responding to the challenge of inadequate metrics by studying not only service response times, but also such data points as cross-channel data integration, timeliness and reliability of business intelligence, application availability, access to key data, data integrity, and collaboration efficiency. All of these metrics can be positively impacted by intelligent use of portal technology. Two later reports in Aberdeen’s benchmark series on enterprise portal technology will investigate these concepts in greater depth; Portal Technology in Multi-Channel Retail, and Information Architecture for the Next Generation Enterprise Portal.

**Key Summary Point 1**

The business objectives of a portal initiative determine the best technology solution and its adoption strategy. Thus, a clear set of objectives, both short-term and long, is essential to selecting and deploying the technology successfully.

**Challenges and Responses**

Standing in the way of optimal portal technology deployment, according to survey respondents, are non-standard data architecture, and insufficient metrics to gauge the value of the project to the organization (Table 1).

All too often, organizations measure their performance based primarily on compliance with service level agreements (SLAs) or based on customer complaints. Granted, these are critical data points to consider, but consistent customer satisfaction depends on the overall customer experience and the degree to which the staff is informed and can collaborate on projects to achieve results.
Table 1: Enterprise Portal Adoption Challenges and Responses

<table>
<thead>
<tr>
<th>Challenges</th>
<th>% Selected</th>
<th>Responses to Challenges</th>
<th>% Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Data across applications is not standardized. Master Database architecture not standardized.</td>
<td>57%</td>
<td>1. Conduct a successful proof of concept.</td>
<td>55%</td>
</tr>
<tr>
<td>2. Difficult to justify the budget expenditure. No obvious ROI metrics.</td>
<td>43%</td>
<td>2. Develop a convincing ROI analysis.</td>
<td>40%</td>
</tr>
<tr>
<td>3. Data is chaotic within applications.</td>
<td>40%</td>
<td>3. Implement a content management system.</td>
<td>43%</td>
</tr>
<tr>
<td>4. Processes dissimilar across locations.</td>
<td>36%</td>
<td>4. Revise operational procedures.</td>
<td>43%</td>
</tr>
<tr>
<td>5. Key systems unable to integrate with the portal.</td>
<td>33%</td>
<td>5. Incorporate or adopt a corporate data standardization policy.</td>
<td>36%</td>
</tr>
<tr>
<td>6. Content management insufficient to support the initiative.</td>
<td>32%</td>
<td>6. Replace or upgrade key applications.</td>
<td>31%</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, July 2006

The top motivator for implementing a portal is to integrate key application data and create a unified view of customer, product, or transaction activity across the organization. The benefit of doing this is in giving employees the ability to collaborate.

Collaboration is the sharing and exchange of key business process information. An example of the use of a portal application to facilitate collaboration can be seen in the area of new store openings. Companies report that it can take as much as a year or more to open a new store. The primary cause for lag is in the challenges of managing many (sometimes hundreds) of subcontractors, a complex and interdependent set of project milestones, coordination of local crews with headquarters, and the legal issues around lease arrangements. Some best-of-breed companies who are opening a thousand or more new store locations every year have managed to reduce the task to a matter of weeks. To accomplish this, they employ a portal-enabled collaboration tool with role-based process management, discussion tracking, system-to-system document exchange capabilities, and a management layer. Not only does the tool improve the time-to-completion of the project, but it also insures that a contractor does not get paid until the work is completed and approved. According to Aberdeen research, almost 70% of industry average and 100% of best-in-class portal technology companies agree that collaborative visibility in process and workflow management is the best source of ROI for an enterprise portal initiative.

Key Summary Point 2

Every portal technology vendor who participated in this research agreed that the secret to making a portal initiative a success is to develop it for the users who will be using it. A portal is not created for use by a group of people; it is created for many individuals.
Chapter Three:
Implications & Analysis

Key Takeaways

- Best-in-class portal technologies afford the enterprise an easy point of entry, rapid prototyping, a robust feature-set, and are scaleable to meet the future demands of the enterprise.
- Best-in-class portal adoption includes the ability to address immediate business needs without compromising future plans.
- Understanding the ROI of a portal initiative requires frequent performance measurement and usage analytics across many levels of the organization.
- Best-in-class organizations have enterprise-wide standards for content management, for privacy and security policies, and for the format and exchange of application data.

As shown in Table 3, survey respondents fell into one of three categories – Laggard, Industry Average, or Best in Class — based on their characteristics in four key categories: (1) process (responsiveness to customer needs, employee collaboration needs, and partner system integration needs); (2) organization (corporate focus/philosophy, standards and compliance, level of collaboration among stakeholders); (3) knowledge (visibility into key data, currency and accuracy of data); and (4) technology (platforms which enable rapid-deployment, prototyping, and robust, flexible and scalable vertical applications).

In each of these categories, survey results show that the firms exhibiting best-in-class field service characteristics also enjoy best-in-class workforce, customer service and financial performance (Table 2).

Table 2: Portal Adoption Competitive Framework

<table>
<thead>
<tr>
<th></th>
<th>Laggards</th>
<th>Industry Average</th>
<th>Best in Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>Applications are developed ad-hoc. Little attention is paid to the potential for future application integration or more sophisticated uses of the content.</td>
<td>Applications are managed centrally. Application design is done by the IT department and then developed by IT or by a 3rd-party. Success is measured by usage.</td>
<td>Applications are designed and engineered by the IT department with significant input from the end-users. Success is measured often, using many metrics.</td>
</tr>
</tbody>
</table>
### Process and Organization

- In the process category, firms that develop portal applications centrally with adherence to corporate policies and that involve the end-user intimately with the design and adoption of the solution performed better than firms that develop on an ad-hoc basis with limited thought to the future.

- Indeed, firms that develop and manage centrally and solicit user feedback showed marked improvement in the time

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**Firms that involve users in the design and development of portal application see higher levels of user-level adoption and employee collaboration.**

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<table>
<thead>
<tr>
<th></th>
<th>Laggards</th>
<th>Industry Average</th>
<th>Best in Class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization</strong></td>
<td>• Strategy is determined by what competitors are doing or driven by marketing initiatives. Technology is selected on basis of cost or time-to-delivery.</td>
<td>• Strategy focuses on employee productivity. Objectives are limited by the capabilities of the technology platform but innovation is encouraged.</td>
<td>• Strategy focuses on user collaboration needs and includes well-defined enterprise-wide data security, protection and privacy policies.</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>• Documents are managed locally. Data is stored individually by user, by application or by department. There is no formal content or knowledge management system.</td>
<td>• There is a content management system in place. Data is stored centrally or according to enterprise-wide guidelines. No formal knowledge management system exists.</td>
<td>• Consistent and managed document and data storage repositories feed a central knowledge-base and business intelligence system.</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>• The portal exposes static data or fixed-views of real-time application data over the Internet or corporate intranet.</td>
<td>• The portal allows data exchange among applications based on localized interfaces. Data may also be exchanged with business partners via established formats on an Extranet.</td>
<td>• The portal allows collaboration among employees, between employees and customers or business partners. Application data is consolidated into a business intelligence framework.</td>
</tr>
</tbody>
</table>
it took employees to respond to customer service requests; versus firms that
develop ad-hoc and deploy out-of-the box or IT-designed solutions, of which many
actually saw a decrease in employee performance. (Figure 4).

Figure 4: Best Practices in Portal Adoption Yield Measurable Results

![Employee Response Time Chart](image)

Similarly, best-in-class firms that measure efficiency of internal data processing performance enjoy higher marks for data entry, task redundancy, and maintenance workload. (Figure 5).

Figure 5: Efficiency Metrics Measured After Portal Implementation

![Efficiency Benchmarks Chart](image)
Technology Usage (Industry “Ah-ha”)

Across all polled industry categories, performance management and CRM are the leading solution investment category (Figure 6), with retail firms on top (80% have planned investments in performance management and 78% in CRM).

Table 3: Portal Technology Investments in Next 12-24 Months

<table>
<thead>
<tr>
<th>Technology Solution Area</th>
<th>% Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Management</td>
<td>43%</td>
</tr>
<tr>
<td>Customer Relationship Management</td>
<td>43%</td>
</tr>
<tr>
<td>Business Intelligence</td>
<td>40%</td>
</tr>
<tr>
<td>Real-Time Analytics</td>
<td>40%</td>
</tr>
<tr>
<td>Collaboration</td>
<td>38%</td>
</tr>
<tr>
<td>VoIP</td>
<td>38%</td>
</tr>
<tr>
<td>Workforce Management</td>
<td>37%</td>
</tr>
<tr>
<td>Content Management</td>
<td>33%</td>
</tr>
<tr>
<td>Point of Sale</td>
<td>33%</td>
</tr>
</tbody>
</table>

Business intelligence and real-time analytics are second to performance management and CRM in most sectors, but they are number one among distribution and financial services firms (64% of distribution firms have planned investments in real-time analytics, while 58% of financial institutions have planned investments in business intelligence).

VoIP (voice-over-Internet) is the one emerging technology cited most frequently as an area of major new investment for 2006/2007. Viewed as a potential area of significant cost-savings and well-suited to leverage the existing enterprise portal infrastructure, VoIP accounts for almost 80% of the planned increase in network hardware and bandwidth spend over the coming two years. Much deeper research into the emergence of VoIP will be available in Aberdeen’s upcoming research benchmark report on Speech and IVR technologies.

While it might look like collaboration commands less interest based on planned allocation of resources in the coming year, the fact is that survey respondents across industries, across geographic regions, and regardless of company size, agree that collaboration is the primary objective. Interestingly, users who indicate that collaboration is a priority tend to allocate more annual budget to the portal initiative. In particular, as is illustrated in Figure 10, below, Internet-focused portal initiatives that include collaboration as a priority are likely to have a development budget three times that of the industry average.
Figure 6: When Collaboration is a Priority, Average Spend is Greater

Looking at the figure above, one might wonder why Internet portal spending is so much greater when the collaboration is an objective, whereas the difference in the other two categories is only 10-30%. In follow-up interviews with the companies and vendors, it was revealed that many Internet portals are e-commerce storefronts, applications designed to digest and display information, or search engine interfaces that deliver the documents governed by a content management system. In these cases, single sign-on technology and interactive web pages comprise the extent of the solution. Whereas, in the case of a collaborative Internet portal, a multi-layer hierarchical permission system, highly interactive web-enabled applications, and back-end integration efforts, add greatly to the cost of deployment. By contrast, a majority of intranet and extranet portals are, by definition, collaborative. For this reason the spend gap is greatest in the Internet category.

Pressures, Actions, Capabilities, Enablers (PACE)

We have shown that there is a clear relationship between the pressures companies identify and the actions they take, and their subsequent competitive performance. All participants should examine their prioritized PACE selections and determine whether there are valuable perspectives to be gleaned by comparison with the PACE priorities of Best in Class companies.

What is behind this increased focus and priority? A need for efficiency. Enterprises ranked efficiency as the strongest driving pressure behind their decisions to implement an enterprise portal, in the context of Aberdeen’s PACE (pressures, actions, capabilities, enablers) analytical framework (Tree 1). In one form or another, 92% of firms classified this pressure as a top priority.
In response to the urgent need to stay competitive, companies are setting strategies and taking actions primarily around maximizing worker productivity and minimizing redundant data processing.

### Table 4: PACE (Pressures, Actions, Capabilities, Enablers)

<table>
<thead>
<tr>
<th>Priorities</th>
<th>Prioritized Pressures</th>
<th>Prioritized Actions</th>
<th>Prioritized Capabilities</th>
<th>Prioritized Enablers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improve collaboration among employees.</td>
<td>Design portal applications and tools that mirror business processes.</td>
<td>Frequent solicitation of user feedback and regular performance evaluation.</td>
<td>IT-enabled solutions that can help identify high value improvement opportunities, determine feasibility and business impact and track operational and financial performance improvements</td>
</tr>
<tr>
<td>2</td>
<td>Extend Functionality of Business Applications</td>
<td>Investigate the value of exposing application data and functions to users outside those primarily responsible for the application.</td>
<td>Rapid portal deployment to test the value of exposing application data and functions across the enterprise or outside the enterprise.</td>
<td>IT-enabled solutions that can help normalize data sources, integrate critical business data into a consolidated view and deliver it to the users who need it in a timely and easily-digestible way.</td>
</tr>
<tr>
<td>3</td>
<td>Enable Online Commerce</td>
<td>Evaluate online transaction engines, privacy and security requirements. Select appropriate portal applications.</td>
<td>Customer- and business partner-facing initiatives designed to maximize throughput and minimize redundancy.</td>
<td>IT-enabled solutions that streamline transaction processes, and maximize user experience.</td>
</tr>
<tr>
<td>4</td>
<td>Improve Application Integration</td>
<td>Evaluate application interfaces and underlying data structures. Select appropriate integration tools.</td>
<td>Develop standard interfaces and data structures. Evaluate legacy applications for compliance.</td>
<td>IT-enabled solution that can provide rapid-development application integration tools and portal technology designed to optimize the exchange of critical business data.</td>
</tr>
<tr>
<td>5</td>
<td>Reduce Customer Frustration</td>
<td>Conduct regular user-evaluation surveys and engage business process optimization specialists.</td>
<td>Respond to user complaints and requests for optimized process flow and digestible data views.</td>
<td>IT-enabled solution that can help facilitate process and data-view redesign. Match user interaction design to process flow and user expectation.</td>
</tr>
</tbody>
</table>

Source: AberdeenGroup, July 2006
# Chapter Four: Recommendations for Action

## Key Takeaways
- Identify top-priority business processes included in the initiative and long-term objectives for the enterprise portal
- Evaluate end-user and business process requirements
- Define metrics and objectives for evaluating results
- Catalog content, including documents, databases, and applications
- Select a best-in-class technology suited to the top-priority business objectives and which will scale to the long-term objectives.
- Create a proof-of-concept and gain core-user acceptance.
- Develop a privacy policy, content-management and data security strategy

Cost, revenue, profitability, and customer satisfaction benefits await all firms that are committed to optimizing their use of portal technology. But the aggressiveness of recommended improvement activities depends in large part upon the business objectives of the organization and the specific processes included in the initiative.

The key to a measurable and successful portal initiative is to begin with a goal to automate specific business processes. Define a narrow scope bearing in mind the long-term objectives. The objectives should be based mainly on observations of process inefficiencies made in the field with an eye toward optimizing critical business processes. The solution should be tailored around the users of the system who should be brought into the design process early and often, and around the process analytics that inform and qualify the opportunities for process improvement.

The selected business processes should have well-understood, measurable performance standards and a history of performance readings. Use these to target performance improvement objectives. A narrow and well-defined scope will enable the organization to estimate the expected ROI of the project, calculated either in terms of cost savings, saved business, or new opportunities.

Take inventory of the databases, document repositories and application data which will be accessed by or fed into the system. Even if the content is not part of the initial set of objectives, it is vital to understand the limitations of the data and to understand future integration challenges when preparing to select appropriate technology.

Create a proof-of-concept. Best-in-class portal technology vendors offer a prototyping platform to facilitate this. Enlist end-users who are particularly likely to embrace the technology quickly and let them encourage others to embrace it too. Listen carefully to user feedback and respond promptly. This will give the users a sense of ownership of the system and improve the adoption process.
Chapter Four: Recommendations for Action

Key Takeaways

- Identify top-priority business processes included in the initiative and long-term objectives for the enterprise portal
- Evaluate end-user and business process requirements
- Define metrics and objectives for evaluating results
- Catalog content, including documents, databases, and applications
- Select a best-in-class technology suited to the top-priority business objectives and which will scale to the long-term objectives.
- Create a proof-of-concept and gain core-user acceptance.
- Develop a privacy policy, content-management and data security strategy

Cost, revenue, profitability, and customer satisfaction benefits await all firms that are committed to optimizing their use of portal technology. But the aggressiveness of recommended improvement activities depends in large part upon the business objectives of the organization and the specific processes included in the initiative.

The key to a measurable and successful portal initiative is to begin with a goal to automate specific business processes. Define a narrow scope bearing in mind the long-term objectives. The objectives should be based mainly on observations of process inefficiencies made in the field with an eye toward optimizing critical business processes. The solution should be tailored around the users of the system who should be brought into the design process early and often and around the process analytics that inform and qualify the opportunities for process improvement.

The selected business processes should have well-understood, measurable performance standards and a history of performance readings. Use these to target performance improvement objectives. A narrow and well-defined scope will enable the organization to estimate the expected ROI of the project, calculated either in terms of cost savings, saved business, or new opportunities.

Take inventory of the databases, document repositories and application data which will be accessed by or fed into the system. Even if the content is not part of the initial set of objectives, it is vital to understand the limitations of the data and to understand future integration challenges when preparing to select appropriate technology.

Create a proof-of-concept. Best-in-class portal technology vendors offer a prototyping platform to facilitate this. Enlist end-users who are particularly likely to embrace the technology quickly and let them encourage others to embrace it too. Listen carefully to user feedback and respond promptly. This will give the users a sense of ownership of the system and improve the adoption process.
Measure the system’s performance often. In certain industries — such as retail, healthcare, telecommunications and distribution — where collaboration and access to real-time views into transaction data are critical to business continuity, customers can and will be won and lost based on customer service operations. Firms in these industries should constantly strive to improve the usability and reach of their enterprise portal. Thus, selecting a scalable and robust portal platform is particularly important to these companies. Retail firms, whose livelihood depends on accurate customer, product, inventory, and transaction data visible across the organization in a unified view, are most likely to monitor performance of the portal often and on an enterprise-wide basis. (Figure 7).

Figure 7: Retailers Focus on Benchmarking Performance

<table>
<thead>
<tr>
<th>Best-in-Class Performance Benchmarking Practices</th>
<th>Relative Importance Given to Benchmarking Portal Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>15.6%</td>
</tr>
<tr>
<td>High Technology</td>
<td>13.7%</td>
</tr>
<tr>
<td>Finance</td>
<td>3.3%</td>
</tr>
<tr>
<td>Telecom Services</td>
<td>2.4%</td>
</tr>
<tr>
<td>Telecom</td>
<td>1.8%</td>
</tr>
<tr>
<td>Education</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Whether a company is trying to move its portal adoption strategy gradually from “Laggard” to “Industry Average,” or “Industry Average” to “Best in Class,” the following actions will help spur the necessary performance improvements:

**Laggard Steps to Success**

1. **Manage application development centrally, paying close attention to future objectives**

   This can be accomplished by instituting policies on the design of data and document creation methodologies, as well as by engaging in user and business partner focus groups on the future uses of the portal.

2. **Measure performance based on usage**

   Many organizations fall short of best-in-class status because their performance metrics are too constrained. Workforce optimization, content accessibility, reduction in data and process redundancy, improved customer experience, and increased sales are some of the metrics the organization should be watching regularly, across the entire enterprise.
3. Implement a content management system and foster a corporate culture oriented around best practices in collaboration

If business processes are not built and followed with the user’s needs at the core, then consistent efficiency is at risk. Employees must not only be encouraged, but also specifically compensated to respect corporate policies on the proper handling of key content.

4. Integrate critical business applications and data into the portal and expose it to the users in usable real-time views

A successful enterprise portal initiative offers easy access to needed resources on demand. Best-in-class companies leverage this capability to streamline data exchange with partner organizations and offer a collaborative environment to its employees.

Industry Norm Steps to Success

1. Increase collaboration

Employees must leverage the enterprise portal to ensure seamless, error-free communication and data transmission. An out-of-sync team can lead to costly latencies and mistakes, eating into a firm’s overall profit margins. Introduce process optimization applications that improve collaboration.

2. Leverage the content management platform

All customer, inventory, and service data should be stored centrally, updated dynamically, and shared universally. Wherever possible, ensure single-entry of data to avoid re-entry errors.

3. Implement a corporate data privacy, security and data-sharing policy.

Overall organizational consistency with respect to critical content allows more effective planning and a predictable path to maintaining best-in-class status.

4. Turn content and operational data into business intelligence

Implement a knowledge-management or business intelligence system. All customer, inventory, and service data should be stored centrally, updated dynamically, and shared universally. Wherever possible, ensure single-entry of data to avoid re-entry errors. Introduce data interfaces to a real-time analytics systems and create data-views or dashboards for decision-makers.

Best in Class Next Steps

1. Implement a corporate data privacy, security and data-sharing policy.

Overall organizational consistency with respect to critical content allows more effective planning and a predictable path to maintaining best-in-class status.

2. Turn content and operational data into business intelligence

Implement a knowledge-management or business intelligence system. All customer, inventory, and service data should be stored centrally, updated dynamically, and shared universally. Wherever possible, ensure single-entry of data to
avoid re-entry errors. Introduce data interfaces to a real-time analytics systems and create data-views or dashboards for decision-makers.

In addition to increased workforce efficiency, improved customer experiences, and seamless integration with business partners, taking the above steps can directly impact a company’s overall costs, revenues, and profitability.
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>King of Prussia, PA 19406</td>
<td></td>
</tr>
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<td>585 Broadway</td>
<td><a href="mailto:info@broadvision.com">info@broadvision.com</a></td>
</tr>
<tr>
<td></td>
<td>Redwood City, CA 94063</td>
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<tr>
<td></td>
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<td><strong>Optimus BT</strong></td>
<td>4555 Mansell Road</td>
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</tr>
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<td></td>
<td>Atlanta, GA 30022</td>
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Author Profile

Russ Klein
Director of Emerging Technology
Edge/Retail Research
Aberdeen Group, Inc.

Russ Klein is director of the Edge/Retail Technologies Channel for AberdeenGroup, Inc., a Boston-based market research and positioning services firm. In this role, Klein provides analysis and assessment of software and services that automate and streamline retail operations. He also keeps a close eye on emerging technologies and their impact on the organization, its key processes, and its knowledgebase.

Klein specifically focuses on portal technology, data integration, collaboration, and e-commerce, and on best-practices in knowledge discovery. His passion is in realizing potential value in corporate data warehouses and employing emerging technologies to enhance data capture and directed data analysis.

He has more than 20 years of experience developing database software applications, advising companies on developing and refining knowledge acquisition systems, and harvesting business intelligence from transaction data.

He brings a wealth of knowledge and experience to Aberdeen in the areas of online transaction technologies, business intelligence systems and data warehousing as well as familiarity with emerging technologies, some of which have yet to find applications in the real world.

His current research efforts include Aberdeen’s benchmark studies on speech, IVR and VoIP technologies, multi-channel retail and pervasive retailing, as well as real-time process monitoring, mobile and handheld database application technologies, and information architecture.
Appendix A: Research Methodology

In June and July 2006, Aberdeen Group examined the portal adoption strategy of more than 150 enterprises in retail, aerospace, finance, automotive, high-tech, industrial products, and other industries.

Responding executives completed an online survey that included questions designed to determine the following:

- The degree to which portal adoption strategies affect performance
- The structure and effectiveness of existing content management procedures
- Current and planned use of automation to aid in collaboration
- The benefits that have been derived from inter-enterprise (or extranet) portal use

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on portal adoption strategies, experiences, and results.

The study aimed to identify emerging best practices for enterprise portal deployment and provide a framework by which readers could assess their own portal capabilities.

Responding enterprises included the following:

- **Job title/function**: The research sample included respondents with the following job titles: CFO or other C-level officer (23%); business process management (20%); marketing director (14%); IT manager (12%); supply chain logistics executive or manager (10%); sales (6%); and customer service (5%).

- **Industry**: The research sample included respondents from many industries, no one industry dominating the survey pool. Retail and high-tech, each representing 17% of the sample, followed closely by transportation and distribution, each which accounted for 12% of respondents. Telecom, utilities and manufacturing were 4% of the respondent pool. Other sectors responding included aerospace, automotive, education, insurance and wholesale.

- **Geography**: 58% of respondents were from North America. The remaining respondents were from the Europe (22%) and the Asia-Pacific region (12%).

- **Company size**: About 30% of respondents were from large enterprises (annual revenues above US$1 billion); 32% were from midsize enterprises (annual revenues between $50 million and $1 billion); and 38% of respondents were from small businesses (annual revenues of $50 million or less).

Solution providers recognized as sponsors of this report were solicited after the fact and had no substantive influence on the direction of the *Portal Adoption Strategies Benchmark Report*. Their sponsorship has made it possible for Aberdeen Group to make these findings available to readers at no charge.
Table 5: PACE Framework

<table>
<thead>
<tr>
<th>PACE Key</th>
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<td>Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:</td>
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<tr>
<td><strong>Pressures</strong> — external forces that impact an organization's market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)</td>
</tr>
<tr>
<td><strong>Actions</strong> — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product/service strategy, target markets, financial strategy, go-to-market, and sales strategy)</td>
</tr>
<tr>
<td><strong>Capabilities</strong> — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products/services, ecosystem partners, financing)</td>
</tr>
<tr>
<td><strong>Enablers</strong> — the key functionality of technology solutions required to support the organization's enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)</td>
</tr>
</tbody>
</table>

Source: **AberdeenGroup**, July 2006
### Table 6: Relationship between PACE and Competitive Framework

<table>
<thead>
<tr>
<th>PACE and Competitive Framework How They Interact</th>
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<tbody>
<tr>
<td>Aberdeen research indicates that companies that identify the most impactful pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute.</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, July 2006

### Table 7: Competitive Framework

<table>
<thead>
<tr>
<th>Competitive Framework Key</th>
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<tbody>
<tr>
<td>The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of FIELD SERVICES practices and performance:</td>
</tr>
</tbody>
</table>

- **Laggards (30%)** — TECHNOLOGY ADOPTION practices that are significantly behind the average of the industry, and result in below average performance

- **Industry norm (50%)** — TECHNOLOGY ADOPTION practices that represent the average or norm, and result in average industry performance.

- **Best in class (20%)** — TECHNOLOGY ADOPTION practices that are the best currently being employed and significantly superior to the industry norm, and result in the top industry performance.

Source: Aberdeen Group, July 2006
Appendix B:
Related Aberdeen Research & Tools

Related Aberdeen research that forms a companion or reference to this report includes:

- Retailers Strive to Use Business Intelligence Data in a Real-time, Portal- and Dashboard-based Environment (June 2006)
- SAP Acquires Praxis, Deepens its Penetration into SMBs (July 2006)
- Payless Shoe Source Steps Ahead in Accounts Payable Practices (February 2006)
- The Last Frontier: Collaboration in the Retail Enterprise Supply Chain (June 2005)
- Preferred Communication for New Suppliers (June 2004)

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.
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- PRIORITIZE operational improvement areas to drive immediate, tangible value to their business
- LEVERAGE information technology for tangible business value.

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260 Franklin Street, Suite 1700
Boston, Massachusetts
02110-3112
USA

Telephone: 617 723 7890
Fax: 617 723 7897
www.aberdeen.com

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