

Business Continuity:

Implementing Disaster Recovery Strategies and Technologies

March 2008

~ Underwritten, in Part, by ~



Executive Summary

Today's business world is increasingly volatile and the cost of a disruption can be massive. Beyond the inconvenience of unplanned downtime, companies have an obligation to minimize the damage and disruption to the organization and its employees. Given the exponential increase in the size and complexity of corporate data and the intensification of government regulations, many vendors have emerged with solutions for disaster recovery that promote a formalized strategy and can support enhanced business continuity. A recent study by Aberdeen surveyed over 150 organizations, and results provide evidence that Best-in-Class IT organizations have built infrastructures that support rapid recovery of data and applications with minimal or no downtime, assuring business continuity even in the face of a severe disruption event.

Best-in-Class Performance

Aberdeen used three key performance criteria to distinguish Best-in-Class companies:

- Ability to meet Recovery Time Objectives (RTO) 100% of the time
- Recovery from the most recent business disruption in less than one hour
- Greater than 10% decrease in unplanned downtime

Companies with the top 20% performance based on these criteria earned Best-in-Class status.

Competitive Maturity Assessment

Survey results show that the firms enjoying Best-in-Class performance shared several common characteristics:

- 68% have used server and storage virtualization as a key technology in building a disaster recovery infrastructure
- 58% have formal oversight into mission critical systems and data
- 58% classify their data and storage method based on business importance and retrieval need
- 74% have a cross-functional disaster recovery team

Required Actions

In addition to the specific recommendations in Chapter Three of this report, to achieve Best-in-Class performance, companies must evaluate their disaster recovery infrastructure and the organization's ability to execute recovery procedures. Alignment of the people, processes, and technology are essential components in implementing a successful business continuity strategy.

Research Benchmark

Aberdeen's Research Benchmarks provide an in-depth and comprehensive look into process, procedure, methodologies, and technologies with best practice identification and actionable recommendations

"The technical part is the easy part -- once the business can put a value on the cost of an interruption and define which business processes are critical to bring back first."

~ IT Director, government agency in Western Canada

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Chapter One: Benchmarking the Best-in-Class

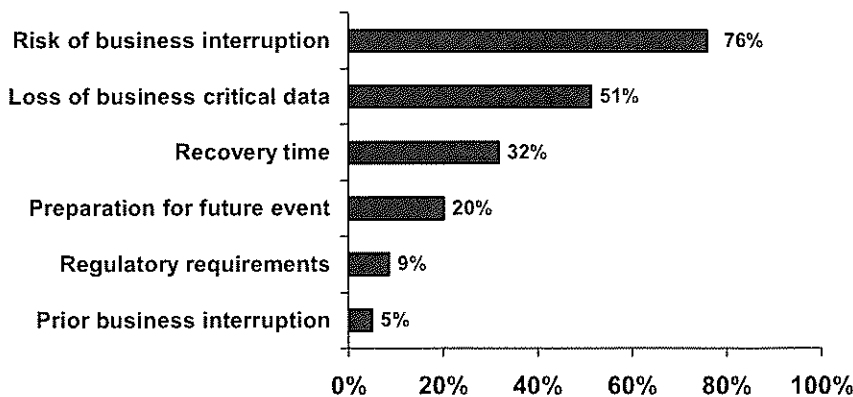
Business Context

The past decade has seen considerable turbulence, and today's enterprise faces genuine threats to its business continuity ranging from electrical blackouts to natural disasters, and even terrorist events. In the face of such realities, most organizations have run out of excuses that prevent investment in a formal disaster recovery plan. Beyond just the frustration and inconvenience of unplanned downtime, organizations now have an obligation to minimize the damage and disruption to the organization that threatens the long-term well being of the company and its employees. Given the exponential increase in the size and complexity of corporate data as well as the intensification of government regulations, many vendors have emerged with solutions for disaster recovery that promote a formalized strategy and can support truly enhanced business continuity.

Risk Drives Continuity Planning

Given the amount of business damage that can be done by losing access to a critical application for several hours, it's no surprise that companies of all sizes are driven by the risk of a business disruption (Figure 1). The amount of time it takes to recover from even a simple server outage can cause business losses that are disproportionate to the size of the event in terms of lost revenue or lost data.

Figure 1: Pressures to Implement a Business Continuity Plan



Source: Aberdeen Group, March 2008

While natural events such as hurricanes or tornadoes can have a severe and lasting impact on the continuity of business operations, these events tend to occur in specific regions of the world and are usually localized in nature.

Fast Facts

- ✓ 62% of the companies surveyed experienced between 1 and 5 business interruption events in the last 12 months, while 32% experienced none.
- ✓ 49% of the companies surveyed had a business continuity strategy for more than 2 years, but 34% have yet to implement a solution.

which accounts for the low response (5%) from respondents on their prior experience with business interruption. In contrast, companies in regulated industries such as financial institutions or governmental agencies are required to have formal business continuity plans.

The Maturity Class Framework

Aberdeen used three key performance metrics to distinguish the Best-in-Class from Industry Average and Laggard organizations:

- Ability to meet Recovery Time Objectives (RTO) 100% of the time
- Recovery from the most recent business disruption in less than one hour
- Greater than 10% decrease in unplanned downtime

Companies with top performance in these criteria earned Best-in-Class status (Table 1). Additional information about the Aberdeen Maturity Class Framework can be found in Table 5 in Appendix A.

Table 1: Top Performers Earn Best-in-Class Status

Definition of Maturity Class	Mean Class Performance
Best-in-Class: Top 20% of aggregate performance scorers	<ul style="list-style-type: none"> ▪ 50% met RTO objectives 100% of the time; the average for the Best-in-Class was 93% ▪ 95% recovered from most recent disruption in less than 1 hour; the average recovery time was 30 minutes ▪ 41% experienced more than a 10% decrease in unplanned downtime; the average decrease was 8.7%
Industry Average: Middle 50% of aggregate performance scorers	<ul style="list-style-type: none"> ▪ 17% met RTO objectives 100% of the time; the average for these companies was 83% ▪ 19% recovered from most recent disruption in less than 1 hour; the average recovery time was 2.1 hours ▪ 26% experienced more than a 10% decrease in unplanned downtime; the average decrease was 3.3%
Laggard: Bottom 30% of aggregate performance scorers	<ul style="list-style-type: none"> ▪ 0% met RTO objectives 100% of the time; the average for Laggards was 70% ▪ 0% recovered from most recent business disruption in less than 1 hour; the average recovery time was 15.7 hours ▪ 13% experienced more than a 10% decrease in unplanned downtime; the average increase was .5%

Source: Aberdeen Group, March 2008

The Best-in-Class PACE Model

Deploying a successful business continuity and disaster recovery plan to minimize the risk of business disruption requires a combination of strategic

actions, organizational capabilities, and enabling technologies. Table 2 summarizes the characteristics of these companies. Additional information about the Best-in-Class PACE Framework can be found in Appendix A.

Table 2: The Best-in-Class PACE Framework

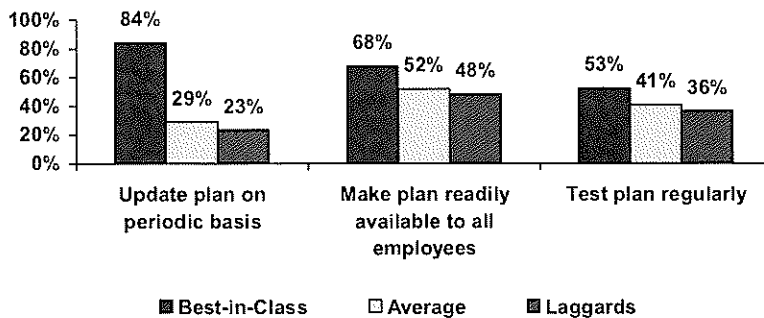
Pressures	Actions	Capabilities	Enablers
<ul style="list-style-type: none"> ▪ Maintain continuity of operations 	<ul style="list-style-type: none"> ▪ Create or upgrade disaster recovery plan ▪ Standardize failover procedures throughout the organization ▪ Create backup infrastructure to support business continuity 	<ul style="list-style-type: none"> ▪ Disaster recovery scenarios and testing ▪ Cross-functional disaster recovery team ▪ Clear documentation of disaster recovery plan ▪ Clear documentation of disaster recovery policies ▪ Critical response team 	<ul style="list-style-type: none"> ▪ Offline storage ▪ Tape storage ▪ Tiered storage architecture ▪ Mirroring ▪ Backup or snapshot ▪ Offsite storage ▪ Server / storage virtualization ▪ Storage Resource Management (SRM) software

Source: Aberdeen Group, March 2008

Best-in-Class Strategies

Updating an existing a business continuity or disaster recovery plan is a leading strategy for Best-in-Class companies (84%). As with many other kinds of business planning activities, continuity plans need to reflect current business realities and to encompass new or changed organizational capabilities. The disaster recovery infrastructure, for example, is always evolving as vendors introduce new technologies to increase reliability or performance. Business continuity planning needs to take both technology and changing organizational priorities into account.

Figure 2: Current Continuity Plan Strategies



“Apart from ensuring DR capability, the implementation of our BCDR strategy improved our overall quality of operations and added process transparency due to new metrics.”

~ VP of Information Technology at European Financial Institution

Source: Aberdeen Group, March 2008

Disaster recovery plans also need to be tested on a regular basis; otherwise companies run the risk of experiencing an interruption and being unable to

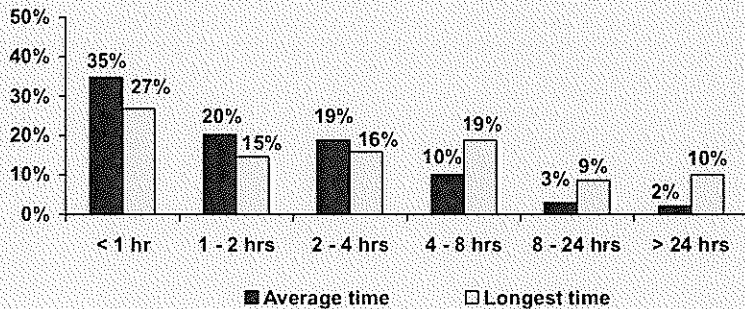
recover the right information in the right time frame. Fifty-three percent (53%) of Best-in-Class companies tested their plans regularly.

Aberdeen Insights — Strategy

It's hard to imagine that a company wouldn't have a data backup system, but just backing up data alone doesn't constitute a disaster recovery strategy. In order for a recovery strategy to be effective, it needs to recover the right applications and data in a timely fashion. Put another way, how long an outage can a business tolerate before there is a tangible impact on operations?

Figure 3 shows both the average length of time and the longest length of time it took to restore operations according to the companies surveyed. The design of a disaster recovery infrastructure needs to account for both times: the average and the longest tolerable recovery times. Most companies would probably find less than one hour to be perfectly acceptable, but at what point does the disruption become threatening to the business?

Figure 3: Average and Longest Business Interruption



Source: Aberdeen Group, March 2008

The answer to this question, of course, depends on the individual requirements of the company in question. A small retail business that loses a day's receipts or orders is no less vulnerable than an enterprise. In either case, a successful disaster recovery plan is one that keeps the company's operations intact and provides a way for business to continue in the face of an interruption.

In the next chapter, we will see what the top performers are doing to achieve these gains.

Chapter Two: Benchmarking Requirements for Success

A successful business continuity strategy requires a thorough understanding of the organization, its goals and capabilities, before plan can serve the all of the company's stakeholders. In this sense, a disaster recovery infrastructure is just a part, albeit a large one, of a larger corporate plan. Whether the plan is defined by C-level executives and pushed from the top down in the organization or defined by IT and pushed up, IT is likely to be highly involved in the plan's execution.

Case Study – Emergency Notification

Consider the case of a large agency of the Federal government with more than 50,000 employees, 30,000 of which are located in a building in Washington, D.C. Agencies are required to meet a continuity of operations (COOP) mandate from the General Accountability Office (GAO) in which they must supply an approved plan for dealing with all aspects of continuity planning. The agency's IT operational plan was sufficient to meet standards: business operations were duplicated in several remote, hardened locations and contingency plans were in place to shift operations in the event of a problem, but the agency still had no way to notify its employees of a problem. The outbound telephone system couldn't handle the call volume to notify its 100-member critical response team, let alone the other 30,000 employees, in a timely fashion.

The agency began a search for a system that would handle the required call volume, make use of more than one communication method (not just telephone, but emails, text messages, and so on), provide these capabilities in an unattended, automated way, and meet cost and administration objectives. One additional concern was the sensitivity of maintaining employee contact information outside of protected Human Resource systems.

The agency considered two approaches: an internal, turnkey system managed by agency IT personnel or a hosted solution, in which a vendor of emergency notification services provides an infrastructure outside of the agency. The hosted solution turned out to be the best solution, because it provided required functionality, including the ability to roll from cell phone to text messaging to SMS messaging automatically. Employees could edit and maintain their own contact information on a password-protected website and could specify the order of notification method. An unexpected benefit for the agency was the ability to use the same notification system for non-critical alerts; for example, a team leader could use this method to notify his or her team of important meetings or changes in schedules in an automated way. For this agency, a hosted emergency notification system provided an immediate solution at a cost that was with budget guidelines.

Fast Facts

- √ 36% of Best-in-Class companies increased their budget allocated to business continuity over the past twelve months.
- √ 64% of the companies surveyed manage their own offsite storage of critical backups; the remaining 36% use a service provider.

Competitive Assessment

Aberdeen analyzed the aggregated metrics of surveyed companies to determine whether their performance ranked as Best-in-Class, Industry Average, or Laggard. In addition to having common performance levels, each class also shared characteristics in five key categories:

1. **Process.** The approaches they take to execute their daily operations
2. **Organization.** Corporate focus and collaboration among stakeholders
3. **Knowledge management.** Contextualizing data and exposing it to key stakeholders)
4. **Technology.** The selection of appropriate tools and the effective deployment of those tools
5. **Performance management.** The ability of the organization to measure their results to improve their business

These characteristics (identified in Table 3) serve as a guideline for best practices, and correlate directly with Best-in-Class performance across the key metrics.

Table 3: The Competitive Framework

	Best-in-Class	Average	Laggards
Process	Disaster recovery plan testing		
	79%	63%	42%
Organization	Cross-functional disaster recovery team		
	74%	52%	37%
Knowledge	Classify data and storage method based on business importance and retrieval need		
	58%	50%	21%
	Visibility into mission critical systems and data		
	84%	56%	36%
Technology	Server and storage virtualization		
	68%	44%	37%
	Storage area network		
	63%	59%	47%
Performance	Percentage of data availability SLAs met over the past year		
	100%	65%	50%

“Implementing a BCDR plan is like pulling teeth. Executives know they need to do something but they don’t want to commit resources. They see it as a ‘Write a paper and keep it in a drawer’ exercise.”

~ IT Manager at a law firm in Washington, D.C.

Source: Aberdeen Group, March 2008

Capabilities and Enablers

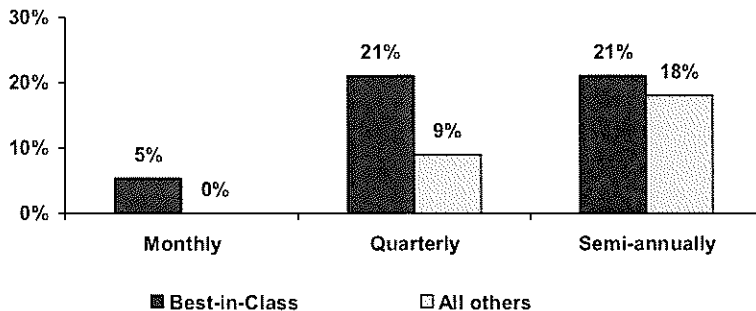
Based on the findings of the Competitive Framework and interviews with end users, Aberdeen's analysis of the Best-in-Class reveals that an infrastructure for disaster recovery must be consistent with a larger strategy of business continuity.

Process

Recovery plan testing is an essential part of ensuring that the business continuity plan will perform as expected. Regardless of how well the disaster recovery plan has been designed and implemented, if the first time it gets tested is after a server outage then the company is risking critical data on a system that may not work according to plan. Best-in-Class companies scored higher (79%) in testing their plan that Industry Average companies (63%) and Laggards (42%).

Companies who test the plan once are sure that the infrastructure works, but companies who test on a regular basis are ensuring that nothing has changed that would keep the infrastructure from performing when it's most needed. Twenty-one percent (21%) of the Best-in-Class companies performed testing on a quarterly or semi-annual basis (Figure 4) as opposed to all other companies, 9% of which tested quarterly and 18% of which tested semi-annually.

Figure 4: Frequency of Disaster Recovery Plans Testing



Source: Aberdeen Group, March 2008

Organization

A well-designed business continuity plan embraces all aspects of a company's operations, not just the disaster recovery infrastructure. If a critical server fails, then the recovery solution is exercised and the application and accompanying data is restored. The larger business continuity plan gets tested in the face of a more serious disruption, which might be as simple as a water main break that floods the basement of a building and prevents employees from coming to work. At this point, the value of building cross-functional disaster recovery teams becomes apparent. Companies plan for

certain individuals or teams to be available to handle these kinds of crises, but there is no way to be sure that events will unfold in as the planners imaged. For this reason, companies cross-train disaster teams to act and make decisions if the designated individuals are unavailable. Seventy-four percent of Best-in-Class companies trained these teams, while only 52% of Average companies and 37% of Laggard companies had this capability.

Knowledge Management

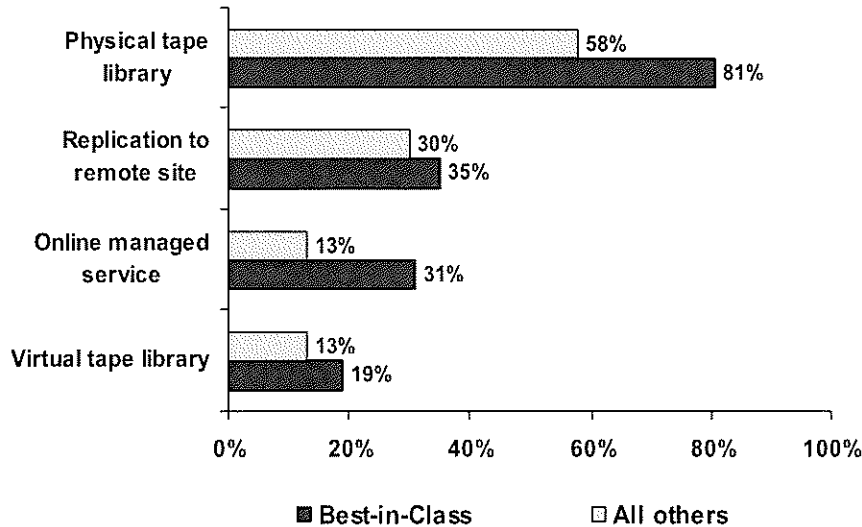
A disaster recovery plan is made more useful and its performance is enhanced when planners understand which data most need to be recovered in the event of an interruption. Not all applications and data need to be recovered immediately in the event of a server outage, but applications and data that directly affect business operations clearly need to be the first priority. For example, many companies use email as the primary way of communication with customers and suppliers, so for those organizations recovering the email infrastructure is paramount because it affects their ability to conduct operations. The list of applications and the priority will differ from company, but the continuity planners need to understand and account for those priorities in their recovery strategy. Eighty-four percent (84%) of Best-in-Class companies base their used this knowledge to build their continuity plans, while only 56% of Industry Average companies and 36% of Laggard companies do.

Technology

The technologies that enable disaster recovery are in a constant state of flux as new ways of storing and recovering data are introduced to the market. Even so, physical tape continues to be the dominant media for long-term data storage, both for Best-in-Class companies (81%) and all others (58%) as Figure 5 shows. However, virtual tape was identified by 19% of the Best-in-Class as an alternate technology to physical tape.

A good example of recent technology being applied to disaster recovery is the use of virtual servers as platforms for disaster recovery, which was identified by 68% of the Best-in-Class. Virtualization has the potential to render the practice of maintaining redundant hardware and software systems for application recovery obsolete because the image of the application environment doesn't need to be tied to specific hardware. By way of contrast, only 44% of Average and 37% of Laggard companies are using virtual servers in their disaster recovery infrastructure.

Figure 5: Best-in-Class Technologies for Critical Data Backup



Source: Aberdeen Group, March 2008

Performance Management

Companies use service-level agreements (SLAs) not only as a way of defining the service and performance expectations of service providers, but also as a way of measuring the performance of the IT infrastructure. SLAs have particular currency in the implementation and performance of a disaster recovery plan. If the recovery infrastructure is managed by the company, then SLAs measure the disaster recovery’s ability to meet the goals set by the plan. If business continuity plan is managed by an external service provider, then SLAs are used to define the provider’s deliverables and their performance under the plan.

Data availability is one of the SLA metrics that indicates how well the infrastructure is performing. A high percentage of data availability indicates that the recovery infrastructure is performing to expectations. Best-in-Class companies were able to meet their data availability SLAs 100% of the time, in contrast to 65% of Average companies and 50% of Laggard companies.

Aberdeen Insights — Technology

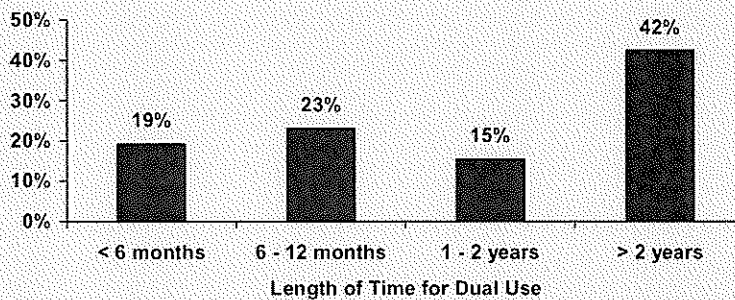
A significant number of companies (31%) use their disaster recovery systems for other purposes besides recovery. These companies use the idle capacity represented by a dedicated disaster recovery system for other computing purposes; in effect, “stealing” server or disk resources.

continued

Aberdeen Insights — Technology

Not only are companies using their disaster recovery systems for dual purposes, forty-two percent (42%) of the respondents indicated that they had been doing so for more than two years (Figure 5). Thirty-one percent (31%) of the companies claimed a greater than 10% increase in dual use.

Figure 6: Dual Use of Disaster Recovery Systems



Source: Aberdeen Group, March 2008

The increasing use of server and storage virtualization encourages this dual-use trend – virtualization makes application and resource sharing easy to implement and manage. Making use of resources that otherwise sit idle waiting for an interruption to occur may seem less wasteful than purchasing another server or storage array. But the practice is risky because it compromises the very systems that are intended to protect the company's data assets. Common sense alone says that dual-use of recovery systems should be avoided.

Chapter Three: Required Actions

Whether a company is trying to move its infrastructure performance from Laggard to Industry Average, or Industry to Best-in-Class, the following actions will help spur the necessary performance improvements:

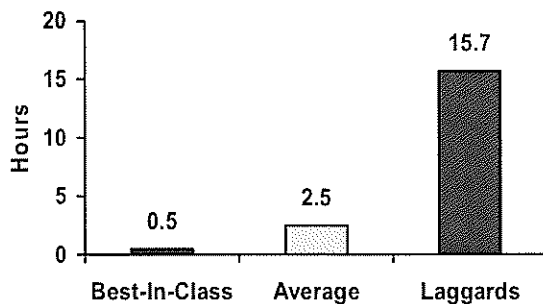
Laggard and Industry Average Steps to Success

- **Establish a formal business continuity plan.** For companies that have not yet established a formal business continuity plan, getting started is often the hardest part. As with many other strategic planning activities, formalizing a plan forces the company to examine its resources, establish operational goals and objectives, and engage the human resources throughout the organization necessary to support the plan. A continuity plan also becomes a baseline against which progress can be measured. Establishing a formal business continuity plan is a best practice in 37% of Best-in-Class companies, while Industry Average and Laggard companies together only engaged in this planning 18% of the time.
- **Engage a disaster recovery consultant.** Defining and implementing a disaster recovery plan can be a daunting task, especially for smaller companies that may lack internal expertise or be unable to allocate staff to this task. A consultant will be able to view the organization from an analytical perspective and offer planning services that are customized to meet the company's specific requirements. Thirty-two percent (32%) of Best-in-Class companies used a consultant for this purpose, while only 22% of Industry Average and 5% of Laggard companies did so.
- **Reduce the average time to recover critical data or applications.** The most significant differentiator between Best-in-Class, Industry average, and Laggard companies is the amount of time these companies reported to recover critical data. Figure 7 summarizes the average recovery times for each of the three classes.

Fast Facts

- √ 56% of respondents cited demonstrating a ROI as being the chief barrier in implementing a business continuity strategy.
- √ 26% of companies listed demonstrating a ROI as being the biggest challenge in establishing a business continuity plan.

Figure 7: Average Recovery Times for Maturity Classes

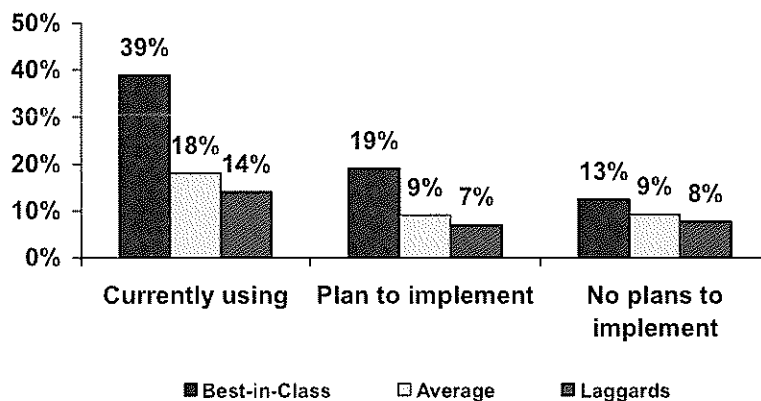


Source: Aberdeen Group, March 2008

Best-in-Class companies clearly put in the best performance (30 minutes), while Average companies averaged 2.5 hours. For most companies, that time would probably be acceptable for recovering critical systems, but the Laggard class performance of 15.7 hours threatens business operations in a major way, enough to cause any company to reexamine their recovery strategy.

- **Add bare metal recovery to your disaster recovery infrastructure.** Until recently, most companies needed to physically duplicate the hardware and operating system of a critical server in order to completely restore that server in the event of a failure. Bare metal recovery, in which the backup of a server is restored to dissimilar hardware or even to a different operating system, is being incorporated into recent backup and recovery systems and is likely to grow in popularity as more companies adopt virtualization. Figure 8 shows the current state of adoption of bare metal recovery technology.

Figure 8: Adoption of Bare Metal Recovery Technology



Source: Aberdeen Group, March 2008

Best-in-Class Steps to Success

- **Revise business continuity plan to reflect current business conditions.** A business continuity plan needs to be a “living” document because continuity planning should be based on the current capabilities of the organization as well as the current business climate. As a company grows or changes, its structure and systems change to accommodate these changes; the business continuity plan should change as well. Slightly more than half (52%) of Best-in-Class companies made regular revisions to their business continuity and disaster recovery plans.
- **Consider upgrading infrastructure components to decrease recovery time.** Server and storage technologies, the key

components of a disaster recovery infrastructure, continue to evolve at a rapid pace and recovery times continue to decrease as a result. Technologies like continuous data protection (CDP), data and application snapshots, and bare metal recovery (BMR) provide the ability to capture the current “state” of servers which makes restoration of critical applications very quick, even to hardware that is dissimilar from the original server. Only 15% of Best-in-Class upgraded their recovery infrastructure.

- **Establish a remote worker strategy.** Twelve percent (12%) of the Best-in-Class companies reported that they included a remote worker strategy as part of their business continuity plan. The ability for employees to connect to the business in the event of a prolonged disruption, such as that caused by a hurricane or similar natural event, is an essential component of a complete continuity plan. Because IT is usually involved with implementing a recovery solution, there is a tendency to focus on the recovery of critical business systems and not reconnecting employees to those systems. In fact, only 12% of Best-in-Class companies engaged in this kind of planning for their employees, a small percentage given the employees’ importance in maintaining business operations.

Aberdeen Insights — Summary

If there is one message that organizations of all sizes need to hear it is that business continuity is more than a strategic exercise. The business cost of even a brief disruption can be measured in lost business and lost customers. The message is simple: organizations must proactively develop, test, and implement a comprehensive disaster recovery strategy to ensure business continuity, or be exposed to potentially disastrous losses.

While these plans will vary in scope, sophistication, and technologies employed based on the individual organizations’ size, service and /or product offerings, future goals, and geographic location, there are several considerations that are common to all businesses:

- Determine the risk level of the data sets to be covered under the business continuity plan by analyzing their financial and operational impact on the organization.
- Based on the assessment of business impact, prioritize the most important and financially relevant applications and data for business continuity. The disaster recovery system needs to restore this information first so that operations can be restarted as soon as possible following an interruption. Test the recovery infrastructure on a regular basis to ensure that it meets the recovery objectives and time of the company.
- Establish primary, secondary, and back-up communication protocols from IT staff members all the way to senior management. The impact of a business disruption is profoundly influenced by the quality and timeliness with which information reaches decision makers.

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Appendix A: Research Methodology

Between February and March 2008, Aberdeen examined the use, the experiences, and the intentions of more than 150 enterprises that have implemented a business continuity/disaster recovery solution.

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on business continuity and disaster recovery strategies, experiences, and results.

Responding enterprises included the following:

- *Job title / function:* The research sample included respondents with the following job titles: IT manager (17%) or IT director (9%), senior management (10%), CIO (8%), consultant (9%), and non-IT manager (8%) or non-IT director (7%).
- *Industry:* The research sample included respondents from a variety of industries, the largest of which were high technology (17%), financial (13%), public sector (7%), education (6%), and insurance and legal services (6%).
- *Geography:* The majority of respondents (62%) were from North America. Remaining respondents were from the Asia-Pacific region (16%) and Europe, Middle East, and Africa (17%), and the rest of the world (5%).
- *Company size:* Twenty-eight percent (28%) of respondents were from large enterprises (annual revenues above US \$1 billion); 43% were from midsize enterprises (annual revenues between \$50 million and \$1 billion); and 29% of respondents were from small businesses (annual revenues of \$50 million or less).
- *Headcount:* Twenty-eight percent (25%) of respondents were from small enterprises (headcount between 1 and 99 employees); 27% were from midsize enterprises (headcount between 100 and 999 employees); and 48% of respondents were from large businesses (headcount greater than 1,000 employees).

Solution providers recognized as sponsors were solicited after the fact and had no substantive influence on the direction of this report. Their sponsorship has made it possible for Aberdeen Group to make these findings available to readers at no charge.

Study Focus

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

- √ The degree to which companies are actively using a BCDR system or in the process of implementing such a strategy
- √ What metrics companies are using to establish and then assess their progress in building and using a BCDR system
- √ The benefits, if any, that have been derived from implementing a BCDR initiative

The study aimed to identify emerging best practices for business continuity and disaster recovery and to provide a framework by which readers could assess their own management capabilities

Table 4: The PACE Framework Key

Overview
<p>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:</p> <p>Pressures — external forces that impact an organization’s market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)</p> <p>Actions — 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)</p> <p>Capabilities — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products / services, ecosystem partners, financing)</p> <p>Enablers — 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)</p>

Source: Aberdeen Group, March 2008

Table 5: The Competitive Framework Key

Overview	
<p>The Aberdeen Competitive Framework defines enterprises as falling into one of the following three levels of practices and performance:</p> <p>Best-in-Class (20%) — Practices that are the best currently being employed and are significantly superior to the Industry Average, and result in the top industry performance.</p> <p>Industry Average (50%) — Practices that represent the average or norm, and result in average industry performance.</p> <p>Laggards (30%) — Practices that are significantly behind the average of the industry, and result in below average performance.</p>	<p>In the following categories:</p> <p>Process — What is the scope of process standardization? What is the efficiency and effectiveness of this process?</p> <p>Organization — How is your company currently organized to manage and optimize this particular process?</p> <p>Knowledge — What visibility do you have into key data and intelligence required to manage this process?</p> <p>Technology — What level of automation have you used to support this process? How is this automation integrated and aligned?</p> <p>Performance — What do you measure? How frequently? What’s your actual performance?</p>

Source: Aberdeen Group, March 2008

Table 6: The Relationship Between PACE and the Competitive Framework

PACE and the Competitive Framework – How They Interact
<p>Aberdeen research indicates that companies that identify the most influential 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 those decisions.</p>

Source: Aberdeen Group, March 2008

Appendix B: Related Aberdeen Research

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

- Remote Office Backup; September 2007
- Business Continuity Benchmark Report (Virtualization); September 2007
- e-Discovery and Data Archiving; December 2007
- Green Initiatives: Lowering Costs and Increasing Efficiency in the Data Center; January 2008

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.

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