

Data Recovery Management: Are You Ready?

August 2007



Executive Summary

Data protection and recovery technologies have changed significantly in the past few years. Once comprised solely of backup applications and tape, today's data recovery processes are increasingly relying on evolving disk-based backup and restore technologies.

As data recovery assumes a higher priority within companies, recovery technologies need to become part of a company-wide, centralized initiative. AberdeenGroup surveyed more than 200 companies and found Best-in-Class companies are ahead of the curve in laying the groundwork for best practices for data protection and, specifically, recovery management. These companies also have a better handle on whether such policies are translating into a higher guarantee of data and application recovery.

Best-in-Class Performance

AberdeenGroup used several key performance metrics to distinguish Best-in-Class organizations from the Industry Average and Laggards. These key performance indicators (KPIs) are the general standard metrics used within the storage industry to measure data recovery management:

Best-in-Class performers meet their **Recovery Time Objectives (RTOs) and Recovery Point Objectives (RPOs) 90% of the time**, compared to the Industry Average which meet their metrics 76% of the time. Laggard firms meet their RPOs and RTOs 75% of the time.

Competitive-Maturity Assessment

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

- **82%** of Best-in-Class organizations have a **formal, written** data protection and recovery management policy in place, compared to 51% of the Industry Average and 33% of Laggards.
- **86%** of Best-in-Class organizations have had an **enterprise-wide** data protection and recovery management strategy in place for two to five years, compared to 41% of the Industry Average and 19% of the Laggards.
- **57%** of Best-in-Class organizations have implemented a recovery management policy at the **executive level**, compared to 29% of the Industry Average and 14% of the Laggards.

Required Actions

In addition to the specific recommendations in Chapter 3 of this report, to achieve Best-in-Class performance, organizations must:

- Create a **formal, well-defined Service Level Agreement policy** that includes RPOs and RTOs, which **cover all business applications** and is well-known throughout the ranks of the organization.

- Deploy a **centralized** data protection and recovery management schema throughout the organization.
- **Regularly test and monitor** the health and **performance** of the company's **DPRM processes and infrastructure**.
- **Leverage technologies**, such disk-to-disk-to-tape (D2D2T), virtual tape libraries (VTL) and replication; policies such as tiered storage data migration to enable data recovery that support the organization's set SLAs.
- Make **recovery management** and the organization's **SLA, RTO, RPO** policies a **C-level executive focal point**.

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Table of Contents

Executive Summary.....	2
Best in Class Performance	2
Competitive Maturity Assessment.....	2
Required Actions.....	2
Chapter One: Benchmarking the Best in Class.....	5
Aberdeen Analysis.....	5
Maturity Class Framework.....	6
Best in Class PACE Model	9
Chapter Two: Benchmarking Requirements for Success	11
Competitive Assessment.....	11
Organizational Capabilities and Technology Enablers	12
Chapter Three: Required Actions	16
Laggard Steps to Success.....	16
Industry Norm Steps to Success	16
Best in Class Steps to Success	16
Appendix A: Research Methodology.....	18
Appendix B: Related Aberdeen Research.....	21
Featured Underwriters	22

Figures

Figure 1: Data Recovery Management Drivers.....	5
Figure 2: Companies with Defined DPRM Policies	6
Figure 3: How Was the High-tech Sector ranked by End-Users Community?	7
Figure 4: How Was the Financial Sector ranked by End-Users Community..	8
Figure 5: Best In Class Performers by Industry.....	7
Figure 6: Where Recovery Management Policies are Implemented	13
Figure 7: What Technologies are Implemented by BIC Organizations.....	14
Figure 8: How Technologies-Implemented differ between BIC and General Population	15

Tables

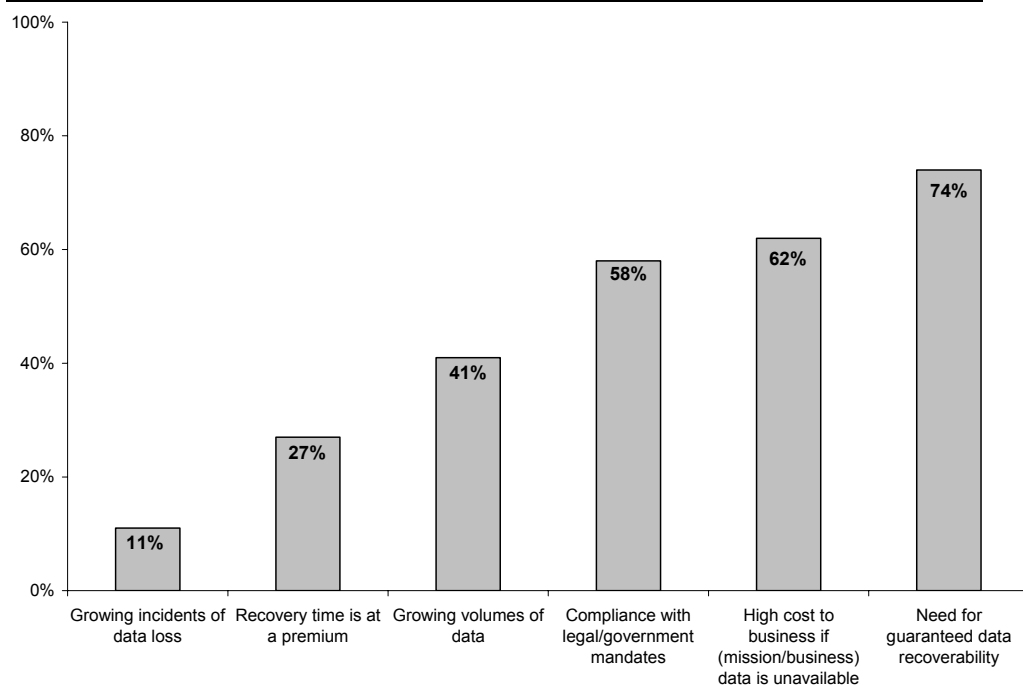
Table 1: Companies With Top Performance Earn “Best-in-Class” Status:.....	9
Table 2: Best-in-Class PACE Framework.....	10
Table 3: Competitive Framework	12
Table 4: PACE Framework	19
Table 5: Competitive Framework	19
Table 6: Relationship between PACE and Competitive Framework.....	20

Chapter One: Benchmarking the Best in Class

To ensure effective data recovery, organizations need a coordinated, centralized recovery management policy that establishes best-practice standards for the process of restoring data. The top three pressures driving companies to create data recovery management policies are: the need for guaranteed data recoverability; the high cost to businesses when data is unavailable and compliance of legal/government mandates.

It is noteworthy that respondents provided a low rank to “growing incidents of data loss.” However, they are still taking a pro-active role in ensuring data and application recovery driven largely by the need to ensure data is recoverable after an unplanned shut down.

Figure 1: Data Recovery Management Drivers (Does not add to 100%)



Source: Aberdeen Group, August 2007

Fast Facts

- ✓ **74%** of Best-in-Class performers have deployed Disk-to-Disk-to-Tape policies, compared to **46%** of the Industry Average and **37%** of the Laggards.
- ✓ **75%** of Best-in-Class companies use or evaluate Virtual Tape Library (VTL) technology, compared to **56%** of the Industry Average and **26%** of Laggards.
- ✓ **43%** of Best-in-Class performers leverage Disk-to-Disk-to-Tape policies in conjunction with VTL technology.

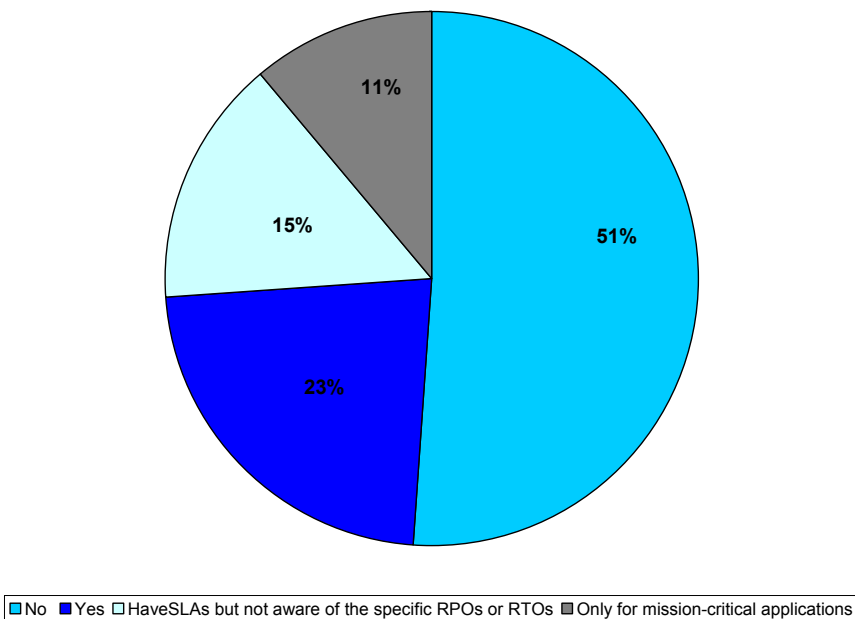
Aberdeen Analysis

Aberdeen found that about 70 percent of all respondents stated that their company had some type of a recovery management policy, either a formal and written policy or informal and ad hoc policy, in place. Furthermore, 61% stated that data protection and recovery management are high priorities within their companies while 31% said they were a medium priority.

A key data point is that 51% of all respondents did not have internal Service Level Agreements (SLAs) that include RPOs and RTOs for applications (Figure 2). SLAs,

RPOs and RTOs play a crucial role in a company's ability to measure if its data recovery management strategy is working well. Hence, 51% of the survey pool essentially has no tangible metrics to measure whether their data recovery management policy is actually working.

Figure 2: Companies with Defined SLAs with RPOs and RTOs



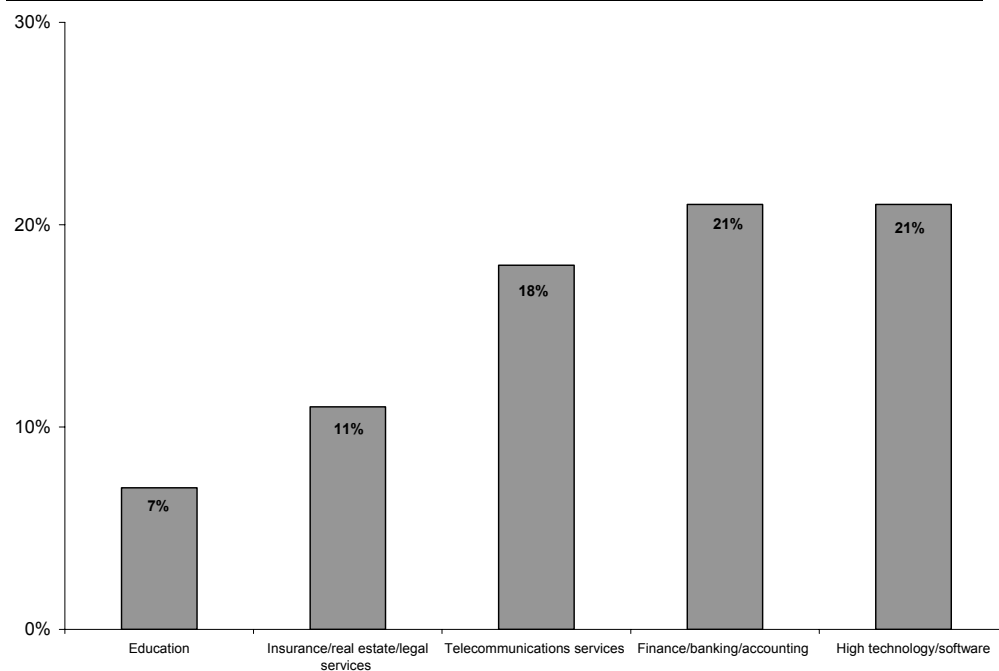
Customer Quote

"The expectations from the end user for RTOs and RPOs continue to rise higher and higher,"
~Jaideep Khanduja, general manager for quality assurance at an India-based company.

Source: Aberdeen Group, August 2007

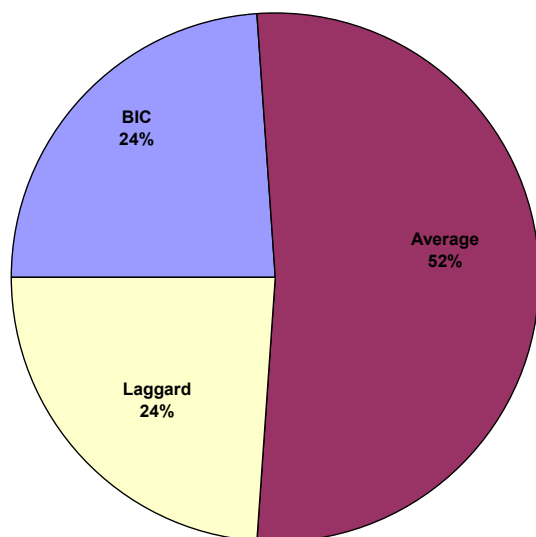
The 49% of all respondents, including those with defined SLAs with RPOs and RTOs (38% of the total) and those with SLAs only for mission-critical applications (11% of total) were defined as recovery management users. It is this group of users that were grouped into Best-in-Class, Industry-Average and Laggard categories to complete the analysis of current data recovery management strategies and Best-in-Class practices.

Figure 3: Best-in-Class Respondents by Industry Verticals



Source: Aberdeen Group, August 2007

Figure 4: High Technology Sector by Best-in-Class, Average and Laggard Performers

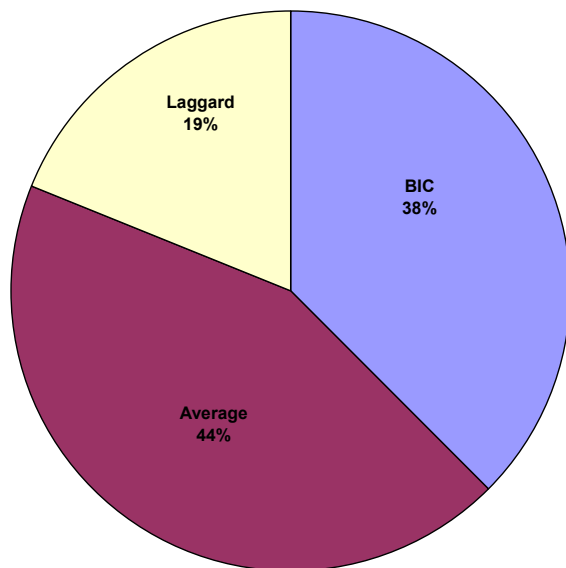


Source: Aberdeen Group, August 2007

RPO, RTO Definitions

- ✓ **RPO** stands for Recovery Point Objective. It refers to how much data loss an organization can tolerate without experiencing significant financial loss
- ✓ **RTO** stands for Recovery Time Objective. It refers to how quickly a company will need to access its data should a disaster strike.
- ✓ **RPOs** and **RTOs** are often different and can be application specific.

Figure 5: Financial Services by Best-in-Class, Average and Laggard Performers



Source: Aberdeen Group, August 2007

Fast Facts

- ✓ **36%** of Best-in-Class performers back up more than 81% of their data to disk as opposed to tape. Only **22%** and **14%** of the industry average and laggards, respectively, follow this practice.
- ✓ **55%** of Best-in Class companies use synchronous replication technology, compared to **48%** of the Industry Average and **43%** of Laggards.

Maturity Class Framework

AberdeenGroup used two key metrics to distinguish Best-in-Class companies. These include how often the RPOs and how often the RTOs, within a defined SLA policy, are met successfully. When a company has established RPOs and RTOs for its applications and data, it has established the value of its data and has set a standard on how much data loss and how much down time the business can tolerate.

Table 1: Companies with Top Performance Earn Best-in-Class Status

Definition of Maturity Class	Mean Class Performance
<u>Best in Class:</u> Top 20% of aggregate performance scorers	<ul style="list-style-type: none"> • All internal users are aware of defined SLAs which include the entire enterprise operation • Meet RPOs over 80% of the time • Meet RTOs over 80% of the time
<u>Industry Average:</u> Middle 50% of aggregate performance scorers	<ul style="list-style-type: none"> • Not all users are aware of internal SLAs and the SLAs cover only business critical applications • Meet RPOs 61% to 80 % of the time • Meet RTOs 61% to 80 % of the time
<u>Laggard:</u> Bottom 30% of aggregate performance scorers	<ul style="list-style-type: none"> • Not all users are aware of internal SLAs and the SLAs may or may not cover business critical applications • Meet RTOs less than 60% of the time • Meet RPOs less than 80% of the time

Source: Aberdeen Group, August 2007

Best-in-Class organizations are ahead of the curve in deploying a data recovery management plan with 86% of these companies having had an enterprise-wide data protection and recovery management strategy in place for two to five years,. This compares to 41% of Industry Average and 19% of the Laggard companies.

BIC organizations generally have been early adopters of data recovery management initiatives and have demonstrated a strong ability to meet their RPOs and RTOs more than 80% of the time.

Best-in-Class performers are also more likely to have deployed synchronous replication with tiered storage as part of an off-site disaster recovery plan. 70 percent of these organizations use synchronous replication for this scenario, compared with 61% of the Industry Average and 36% of Laggards. Furthermore, 89% of Best-in-Class companies regularly test (e.g. monthly, quarterly) their backup and recovery systems to ensure stated goals are being met, while 44% of the Industry Average and 29% of the Laggards do regular tests.

Best-in-Class PACE Model

As part of its research methodology, AberdeenGroup factors a combination of strategic actions, organizational capabilities and enabling technologies to achieve Best-in-Class status. These are summarized as follows:

Table 2: Best-in-Class PACE Framework

Pressures	Actions	Capabilities	Enablers
<ul style="list-style-type: none"> Greater need for guaranteed data recovery 	<ul style="list-style-type: none"> Set a company-wide data protection and recovery management policy 	<ul style="list-style-type: none"> Offer consistent SLAs for all users in the organization 	<ul style="list-style-type: none"> Tiered storage infrastructure
	<ul style="list-style-type: none"> Implement an infrastructure for appropriate SLAs for the recovery of mission-critical and other applications 	<ul style="list-style-type: none"> Satisfy and meet all compliance rules 	<ul style="list-style-type: none"> Disk-based, second-tier storage technology
		<ul style="list-style-type: none"> Guaranteed SLAs for mission-critical applications 	<ul style="list-style-type: none"> Disk-based backup & archiving technology (VTL)
			<ul style="list-style-type: none"> Centralized data protection and recovery management tool-set
			<ul style="list-style-type: none"> An organization-wide data protection schema orchestrated by IT

Source: Aberdeen Group, August 2007

Aberdeen Insights – Strategy

Companies generally manage data recovery as part of their high availability, disaster recovery and business continuity plans that typically are managed by different IT managers in conjunction with disparate, point technologies. This is likely to cause overlaps and inconsistencies in how data is stored and recovered; increasing the chances of data recovery failures. Based on AberdeenGroup's research, the data recovery management concept has been embraced by some 20% of the overall customers' surveyed, which not only have put in place the correct technologies but also are taking on a top-level centralized operational approach to data recovery management. The majority (80%) of companies surveyed have yet to take the needed operational steps to make data recovery management a centralized initiative within the organization.

Chapter Two:

Benchmarking Requirements for Success

The selection of technologies and the ability to institute best data recovery practices plays a crucial role in an organization's ability to recover data and keep the business running uninterrupted. The following is an example of a company that has laid the foundation for a centralized data recovery management process to ensure the company's applications are hitting its assigned RPOs and RTOs.

Case Study

Many companies that struggled with imperfect data recovery processes now are turning to RPO and RTO metrics as barometers for data recovery stability. Consider this: Haryana, India-based company, which provides software development services to clients in India, South East Asia, Africa, Europe and the United States.

The company's IT department developed and implemented a formal, written policy a couple of years ago to define the roles, responsibilities and level of support provided by the IT department for data protection and recovery management. Prior to this formal policy, there was confusion within the company between the IT department and users as to who was responsible for supporting the backup and restore needs. The practice resulted in inconsistent backup and restore practices.

As part of the formal policy, the IT department developed, in conjunction with the business units supported, SLAs specifying the RPOs and RTOs for the business data. Currently, the IT department achieves their RTOs and RPOs between 41 and 60 percent of the time. Although this has led to improved reliability and stability internally and with external customers, the demand from users is to continue improving performance.

This process has led the company to begin classifying the criticality of the business data into important, very important and critical categories and to develop data protection and recovery management policies for each of these categories. The data protection and recovery management policies extend to the more than 100 remote offices throughout India. Backup and restore tasks in the remote offices are handled through a mix of remote login and local backups. In addition, the company has implemented a tiered-storage infrastructure with policy-based, automated data migration between the different disk-based tiers for different levels of production data.

Source: Aberdeen Group, August 2007

Fast Facts

- ✓ **44%** of Best-in-Class companies use a policy-based, automated data migration method between disk-based tiers for different levels of production data, backup and archiving.
- ✓ **89%** of BIC organizations regularly test their backup and recovery systems as compared with **44% & 29%** of industry average and laggards, respectively.

Competitive Assessment

The performance of surveyed companies with defined SLAs determined whether they 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 (ability to detect and respond to changing data recovery conditions); (2) organization (corporate focus); (3) knowledge (of various data-recovery practices); (4) technology (selection or appropriate tools and intelligent deployment of those tools); and (5) performance management (ability to measure

the benefits of technology deployment). These characteristics are a guideline and correlate with BIC performance across key metrics.

Table 3: Competitive Framework

	Laggards	Average	Best-in-class
Process	An enterprise-wide data protection and recovery management strategy has been in place over two years		
	19%	41%	86%
Organization	Executive-level data protection and recovery management policies		
	14%	29%	57%
Knowledge	Operations group is responsible for the data protection and recovery management		
	10%	15%	25%
	Executive level ownership of the data protection and recovery management policies		
	14%	29%	57%
Technology	Technologies that Best-in-Class companies use for their data-recovery needs		
	<ul style="list-style-type: none"> • 39% currently use Disk-To-Disk-To-Tape (D2D2T) • 13% currently use VTL technology • 22% currently use Sync replication • 7% plan to deploy de-duplication technology. 	<ul style="list-style-type: none"> • 46% currently use D2D2T • 39% currently use VTL • 57% currently use sync replication • 18% plan to deploy de-duplication technology 	<ul style="list-style-type: none"> • 74% currently use D2D2T • 65% currently use VTL technology • 85% currently use sync replication technology • 24% plan to deploy de-duplication technology
Performance	How they measure their SLA policies		
	<ul style="list-style-type: none"> • 89% of BIC organizations regularly test their backup and recovery systems 	<ul style="list-style-type: none"> • 44% of industry average organizations regularly test their backup and recovery systems 	<ul style="list-style-type: none"> 29% of laggard organizations regularly test their backup and recovery systems

Source: Aberdeen Group, August 2007

Fifty- five percent of Best-in-Class organizations use asynchronous replication as part if their off-site disaster recovery plan, compared to 48% of the industry average; 43% of Laggards. Furthermore, 70% of the Best-in-Class surveyed use synchronous replication for offsite disaster recovery, compared to 61% of the Industry Average and 36% of Laggards.

Consistency is key in maintaining a certain guarantee of data recoverability. However, as the next paragraph details, most companies struggle to deploy the same quality of data-recovery management practices that exist in the data center to remote offices. Typically, most companies' remote offices lack dedicated IT personnel so these companies are struggling to deploy robust and reliable data protection and recovery solutions that can be maintained without necessarily placing onsite IT personnel.

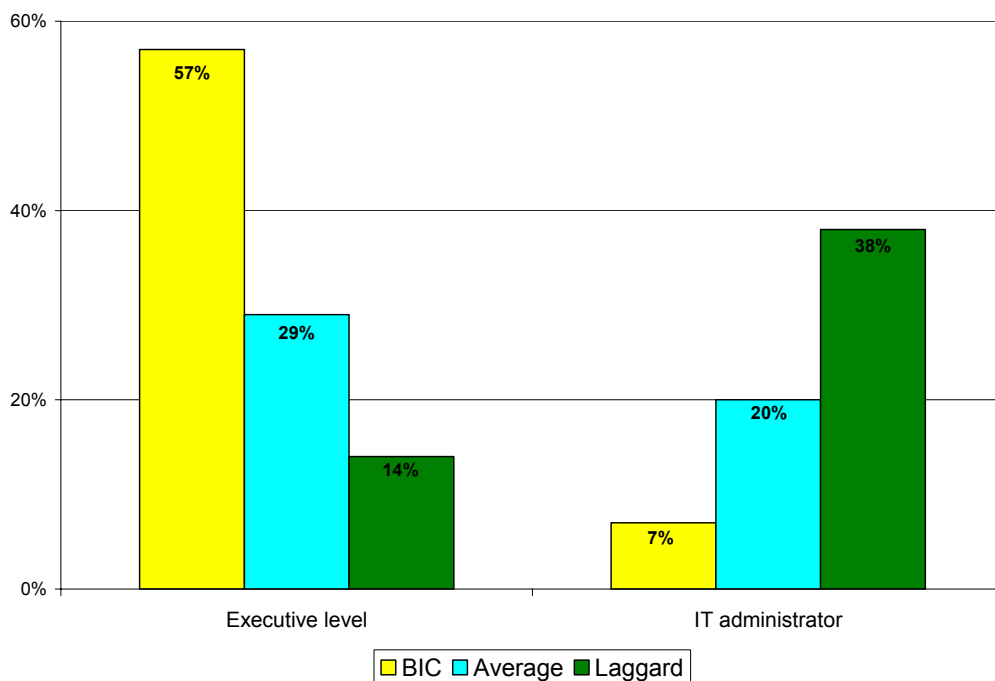
However, AberdeenGroup research found that 74% of Best-in-Class respondents apply data-center quality data protection and recovery management practices to their remote sites, compared to 56% of the Industry Average and 43% of the Laggards.

The Laggards and Industry Average companies are looking to catch up: 29 % of Laggards are in the process of implementing high-quality data protection and recovery management practices in remote sites, while 17% of the Industry Average firms also are in the process.

Customer Quote

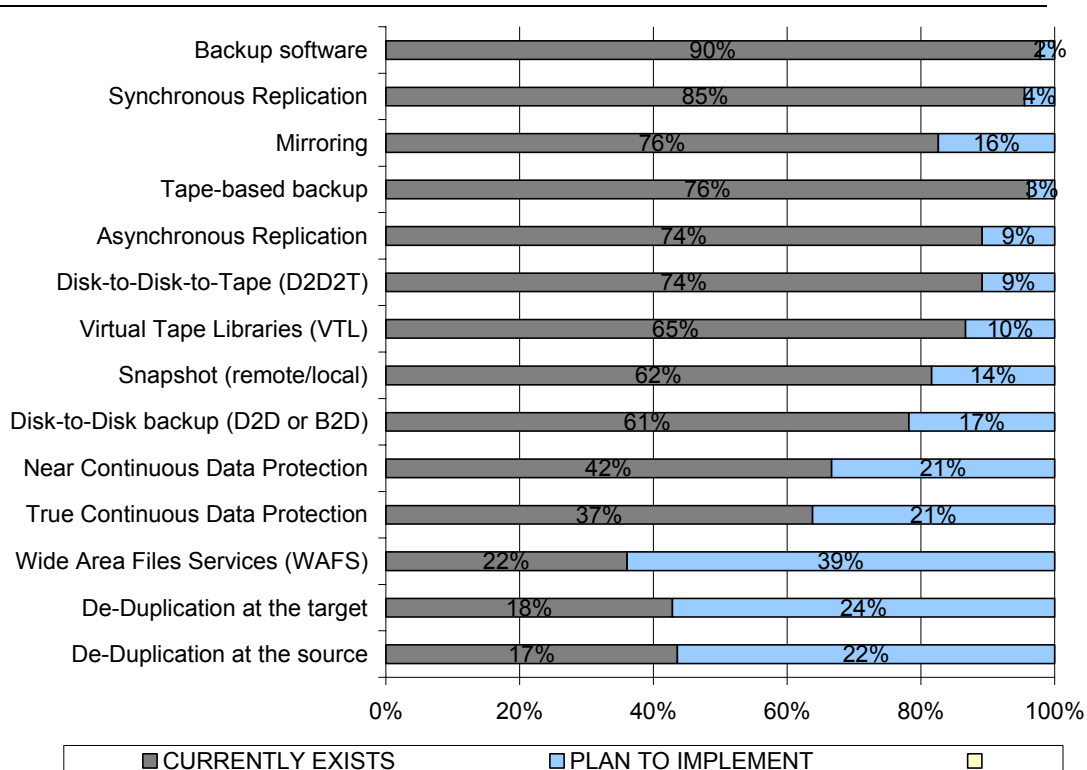
"It's often difficult to apply data-center quality standards to remote offices when it comes to data protection and recovery, but government and legal compliance rules don't distinguish between data stored within the data center and data stored at a remote office or branch," according to an anonymous storage administrator.

Figure 6: Operational Level in which RM Policies are Implemented within BIC, Average, and Laggard organizations



Source: Aberdeen Group, August 2007

Figure 7: Technology Implementations by BIC Organizations



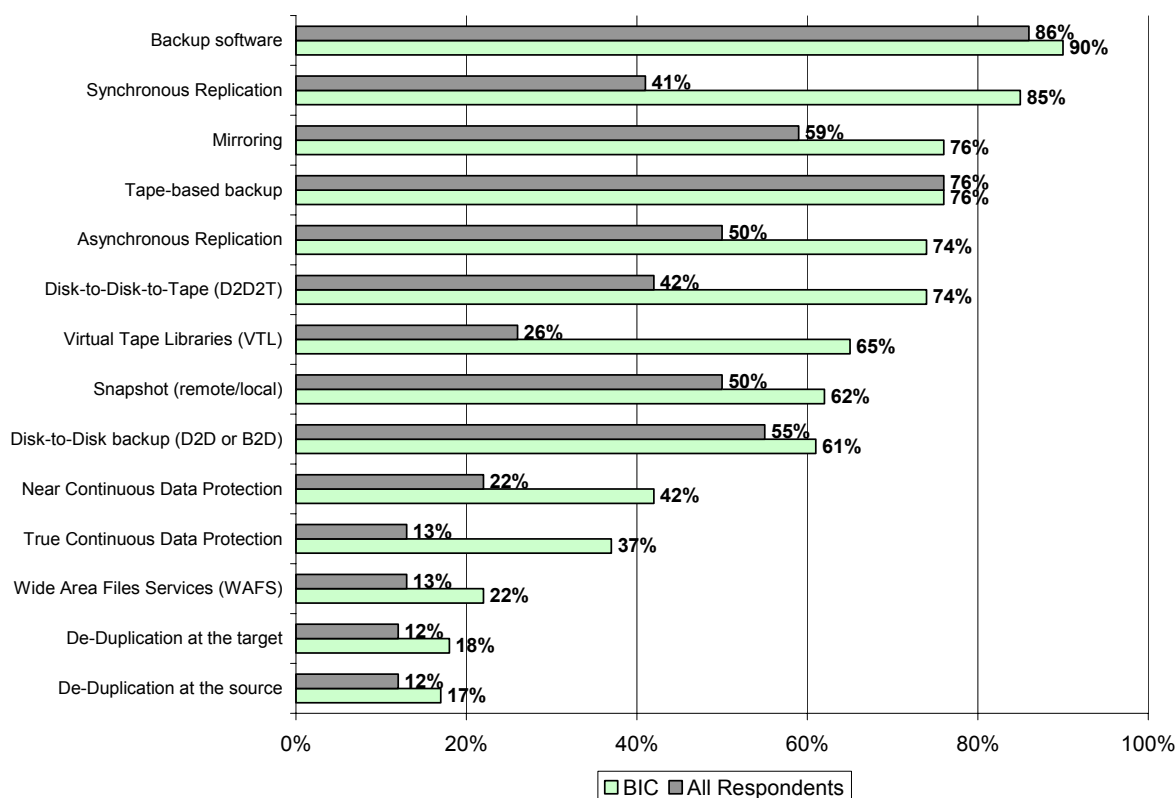
Source: Aberdeen Group, August 2007

Organizational Capabilities and Technology Enablers

The essential ingredients of a well-designed data protection and recovery management implementation include:

- Centralized, enterprise-wide data protection & recovery management strategy.
- C-level executive focus on data protection and recovery management strategy, policies, and guaranteed capabilities.
- Data protection and recovery management policies (including detailed SLAs) are understood by all internal users from all levels and ranks within the company.
- Tiered storage based strategy including: D2D2T, VTL, replication, and other disk based technologies enabling data migration between tiers, play a strong role in enabling data recovery.

Figure 8: Technology Implementations between BIC and Overall Respondents



Source: Aberdeen Group, August 2007

Aberdeen Insights – Technology

Companies have a wide array of technologies and support applications to choose from in order to implement their required RTO-and RPO-based SLA policies. Technologies that were given a high rating by BIC companies include: D2D2T, VTL, and Synchronous replication. Furthermore, to leverage such technologies, BIC organizations have deployed a tiered storage infrastructure as well as automated data migration tools and support applications. Also, BIC performers indicated that they test their recovery management support systems regularly to make sure they are healthy in case a disaster strikes.

Chapter Three: Required Actions

Whether a company doesn't have a defined recovery management "play-plan" or it is trying to move its data recovery practices and performance from "Laggard" to "Industry Average" or "Industry Average" to "Best-in-Class," the following actions will help spur the necessary performance improvements:

Organizations Without a Defined Strategy

- Create a Data Protection and Recovery Management (DPRM) strategy that includes defined SLAs with measurable RTOs and RPOs.
- Implement DPRM policies that adhere to the organization's business and applications needs.

Laggard & Average Steps to Success

- Make DPRM a C-level executive priority. Many initiatives suffer because they are perceived as IT issues. DPRM needs to be a top-down objective to ensure the allocation of necessary budget and resources.
- Create and implement a centralized DPRM strategy that includes well-defined SLA policies with RTO and RPO components.
- Put in place a management system to regularly test and monitor the performance and health of the organization's DPRM process and policies.
- Invest in tiered storage infrastructure and data migration technologies.
- Consider disk based backup, recovery and archiving technologies like D2D, D2D2T or VTL.

Best-in-Class Steps to Success

- Continue C-level focus on recovery management as an overall company objective.
- Companies can not back up data and archive it to an offsite location for protection. They need to become more proficient in the ability to recover data. Recovery management is a relatively new area. However, there are various products and offerings available within the industry. An educated end-user can choose among them based on their DPRM and compliance needs.
- Share knowledge and experience on RTO- and RPO-based SLAs tried-and-true DPRM practices and policies throughout the enterprise.
- Keep abreast of DPRM technologies and tool developments, particularly management tools. Staying up-to-date on the evolution of centralized management products will ensure investment protection and enable monitoring of the health and performance of their DPRM process.

Fast Facts

- ✓ **51%** of all respondents do not have any internal SLAs for their applications that include RPOs and RTOs
- ✓ **25%** of Best-in-Class organizations consider "better ROI compared to other options" as a tipping point to use managed services for remote office backups.
- ✓ **28%** of the overall respondents that have defined SLAs, plan to eliminate tape from their environments completely. Another 28% will only use tape for off-site disaster recovery.

- Continuously evaluate and test new data protection technologies. These technologies will continue to evolve and mature. Understanding advancements will allow customers to select those that integrate best into their existing environment and infrastructure.

Aberdeen Insights – Conclusion

Data protection practices have changed dramatically within the last 18-24 months. Once comprised solely of backup applications and tape, usually to be stored within an off-site location, today's data protection practices are increasingly relying on evolving tiered storage policies and disk-based backup/restore technologies. That is because data stored on disks can be recovered at a faster rate than information that is stored on tape. In addition to the advances made in technologies, companies are faced increased external pressures to recovery data at a faster pace. As a result, data recovery management policies have taken on a more prioritized ranking within companies.

The ability to monitor and manage those recovery technologies need to become part of a company-wide, centralized data protection and recovery management initiative, one that involves conducting a an impact assessment of the businesses' data applications so that organizations can foretell how much certain applications' downtime could cost the company.

AberdeenGroup surveyed more than 200 companies and found that Best-in-Class companies are ahead of the curve in laying the groundwork for best practices for data protection and, specifically, recovery management. These companies have translated their data protection and recovery management strategy into guaranteed recoverability of data and business applications across the organization. Best-in-Class companies also have a better handle on whether such policies and processes are readily available, healthy and are tuned to best performance.

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Appendix A: Research Methodology

Between June and July 2007, AberdeenGroup examined the way companies treat their recovery management needs and capabilities, the experiences, and intentions of more than 200 enterprises in a diverse set of industries.

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

- The level and the degree to which companies focus on their recovery management and compliance needs.
- How companies deploy and leverage different technologies for recovery management.
- Current and planned use of different recovery management and disaster recovery technologies.
- The benefits, if any, that have been derived from centralizing the enterprise recovery management and disaster recovery policies.

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on Data Protection Recovery Management and disaster recovery strategies, experiences, and results.

The study aimed to identify emerging best practices for Data Protection & Recovery Management tools usage and provide a framework by which readers could assess their own management capabilities.

Responding enterprises included the following:

- **Job title/function:** The research sample included respondents with the following job titles: managers (30%); directors (13%); consultants (12%); senior managers that includes CEOs, COOs and presidents (11%); CIOs (10%); CFOs (3%); and vice presidents (5%), others (16%)
- **Industry:** The research sample included respondents from various verticals that include: high technology/software (24%); finance/banking/accounting (15%); education (14%); telecommunications (11%); computer equipment and peripherals (11%); and the public sector (11%).
- **Geography:** The majority of respondents (53%) were from North America and Europe (25%). The remaining respondents were from the Asia-Pacific region (14%), and Middle East/Africa (5%) and South/Central American Caribbean (3%).
- **Company size:** 42% of respondents were from enterprises with (annual revenues under \$50 million, while 11% were from companies with annual revenues of more than \$5billion, 42% where companies with annual revenues ranging from \$50 million to \$5billion.

Table 4: PACE Framework

PACE Key
<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. data protection and recovery management platforms, backup applications, tiered infrastructure, SLAs, test tools, and management)</p>

Source: Aberdeen Group, August 2007

Table 5: Maturity Framework

Maturity Framework Key
<p>The Aberdeen Maturity Framework defines enterprises as falling into one of the following three levels of practices and performance:</p> <p>Best in class (20%) — Data Protection and Recovery Management (DPRM) practices that are the best currently being employed and significantly superior to the industry norm, and result in the top industry performance.</p> <p>Industry norm (50%) — DPRM practices that represent the average or norm, and result in average industry performance.</p> <p>Laggards (30%) —DPRM 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 tools & 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, August 2007

**Table 6: Relationship between PACE and
Competitive Framework**

PACE and Competitive Framework How They Interact
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.

Source: Aberdeen Group, August 2007

Appendix B: **Related Aberdeen Research**

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

- [The Professional Services](#)
 - Consulting for Information and Data Storage Benchmark report/ July 2006
- [The Information Governance Benchmark Report](#)
 - A Needed Strategy for the Enterprise Backed By Viable Solutions/ July 2006
- [Data Protection Benchmark Report](#)
 - The Road to Recovery/ Sept. 2006
- [iSCSI Benchmark Report](#)
 - Pushing its Way Deeper into the Enterprise/ October 2006
- [Justifying the Cost of Uptime](#)
 - Server and Storage Virtualization Strategies/ March 2007
- [The Importance of High Availability](#)
 - Continuous Applications and Data Recovery/ March 2007

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

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Acronis is a global provider of affordable, scalable storage management and disaster recovery software that helps enterprises and SMBs safeguard their information and assures the availability, security, integrity and recoverability of their infrastructure. Acronis'

patented disk imaging and disk management technology have won broad industry acclaim for data protection, backup and recovery, system deployment, and migration for both physical and virtual servers. A global company, Acronis has offices in the United States, Europe and Asia and sells its products both direct and through enterprise resellers.

For additional information on Acronis:

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Burlington, MA 01803

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ExaGrid Systems is the leader in cost-effective disk-based backup solutions. The ExaGrid system is a turnkey, plug-and-play solution that sits behind existing backup applications and enables

faster and more reliable backups and restores. Customers report that backup windows are reduced by 30 to 80 percent. ExaGrid's patented byte-level data de-duplication and last backup compression, coupled with high quality SATA storage, is on average 25 to 30 percent the price of standard drives without data de-duplication. This unique approach reduces the amount of disk space needed by at least 20 to 1.

For additional information on Exagrid Systems:

2000 West Park Drive
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Overland Storage offers the most complete set of smart, affordable data protection appliances that help midrange and distributed enterprises ensure data is constantly protected, readily available and always there. Overland Storage

brings enterprise-class capabilities to mid-range customers through affordable and reliable solutions that reduce the backup window, improve data recovery speed, simplify short- and long-term data retention and make cost-effective disaster recovery a reality for all. Overland products include award-winning NEO SERIES® and ARCvault™ tape libraries, REO SERIES™ disk-based backup appliances with VTL capabilities, and ULTAMUS™ RAID high-performance, high-density storage.

For additional information on Overland Storage:

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Vision Solutions, Inc. is the world's leading provider of high availability, disaster recovery and data management solutions for the IBM® System i and System p markets. With a portfolio that spans the industry's most innovative and trusted HA solutions from ORION™, MIMIX® and iTera™ brands, Vision keeps critical businesses information continuously protected and available. Affordable and easy to use, Vision products help to ensure business continuity, increase productivity, reduce operating costs and satisfy compliance requirements. Vision also offers advanced cluster management and systems management solutions, and support for i5/OS®, Windows®, and AIX® operating environments.

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