Business Continuity and Disaster Recovery: Don’t Go it Alone

Aberdeen recently conducted a survey of IT professionals focused on the plans and processes that organizations adopt for continued business operations and recovery in case of a disaster. Business continuance (BC) plans, processes, and technologies are combined with an organization’s capabilities to ensure maximum uptime of critical applications.

Business continuance and disaster recovery (DR) are often thought of as the same discipline, yet they are not. BC plans are put in place to allow a company to carry on normal business operations, whereas DR plans are the actions that are performed when BC and high availability plans did not work or were never put in place.

The High Cost of Downtime

In today’s online global economy, IT end-users and customers of an organization demand access to applications 24 hours a day, seven days a week. The time that it takes an organization to recover from a system’s downtime or data loss can lead to financial peril or, in some cases, cause a business to close its doors! Aberdeen’s May 2013 survey, IT Business Preparedness: A Combination of Business Continuity and Disaster Recovery, found that the average cost per hour of downtime was over $163,000 (Figure 1). This Analyst Insight will focus on the actions, capabilities, and technology enablers that Best-in-Class organizations possess, practice, and utilize to continue business operations.

Figure 1: Regardless of Size — Downtime Hurts

“Know the cost of the consequences of not being ready — stakeholders tend to balk at the perceived high cost of preparedness, until they are shown the cost of response / recovery.”

~ IT Manager, More than $1.5 Billion Canadian Utility Company

Organization Size Criteria

Organization size for the purposes of this report was determined by the following criteria:

√ Small, under $50 million in annual revenue
√ Mid-Sized, between $50 million and $1 billion in annual revenue
√ Large, over $1 billion in annual revenue

Source: Aberdeen Group, May 2013
Determining the Best-in-Class

Best-in-Class criteria for this report was determined by ranking top performers that had the least number of downtime events, the shortest time experienced per event, least time to recover per event, shortest length of time to recover, and highest percentage rate of critical application availability. Aberdeen’s study found that the number of downtime events over the past 12 months for Best-in-Class organizations was less than one event compared to over two for Average and close to four downtime events recorded for Laggard organizations (Table 1).

Table 1: Best-in-Class Limit Downtime Events

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Best-in-Class</th>
<th>Average</th>
<th>Laggard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of downtime events in the last 12 months</td>
<td>0.56</td>
<td>2.26</td>
<td>3.92</td>
</tr>
<tr>
<td>Average amount of downtime in last 12 months</td>
<td>9.81 minutes</td>
<td>89.51 minutes</td>
<td>17.82 hours</td>
</tr>
<tr>
<td>Longest downtime event</td>
<td>12.67 minutes</td>
<td>4.78 hours</td>
<td>43.71 hours</td>
</tr>
<tr>
<td>Critical application availability</td>
<td>99.90%</td>
<td>99.62%</td>
<td>99.58%</td>
</tr>
<tr>
<td>Length of time to recover from last downtime event</td>
<td>1.13 hours</td>
<td>5.18 hours</td>
<td>27.11 hours</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, May 2013

Top Pressure: Risk of Business Interruption

The May 2013 Aberdeen survey found that 72% of IT professionals cited risk of business interruption, and 47% named business or regulatory requirements, as top pressures leading them to initiate a BC plan. Cost of downtime and loss of critical data rounded out the top four pressures that drove companies to explore BC solutions (Figure 2).
Virtualization and Critical Application Availability

Virtualized infrastructures allow great agility compared to traditional physical environments, Aberdeen’s April 2013 report *Virtualization: Gateway to Business Continuity*, found a key factor driving companies to virtualize their servers and applications was enhanced disaster recovery capabilities.

Aberdeen’s 2013 BC / DR survey asked respondents what actions they had undertaken in order to maintain business critical services. Thirty-four percent (34%) said that determining which applications are critical was a top action. Another top action undertaken was to determine the recovery time objective and recovery point objective of each application, thus leading companies to upgrade their current BC / DR plans.

**Definitions**

*Business continuity (BC) planning* is focused on disaster prevention, allowing a company to survive and continue business operations during a natural or man-made crisis.

*Disaster recovery (DR) planning* is focused on the process of restoring the necessary components of the IT infrastructure, if BC and high availability processes failed or were never in place.

“Start now — do not delay. Any planning and processes that you implement or even consider now will save significant time if you ever need to implement DR.”

~ CIO, More than $500 Million, UK, Office Supply Distributor

---

**Figure 2: Top Pressures Leading to BC Initiatives**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>44%</td>
<td>Cost of downtime</td>
</tr>
<tr>
<td>47%</td>
<td>Business or regulatory</td>
</tr>
<tr>
<td>72%</td>
<td>Risk of business</td>
</tr>
<tr>
<td>37%</td>
<td>Loss of business critical data</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, May 2013

---

**Figure 3: Key Actions to Take**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>34%</td>
<td>Upgrade or change BC / DR plan</td>
</tr>
<tr>
<td>34%</td>
<td>Virtualize servers and storage environment</td>
</tr>
<tr>
<td>34%</td>
<td>Determine which applications are critical to continued business operations</td>
</tr>
<tr>
<td>20%</td>
<td>Make critical applications highly available</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, May 2013
Best-in-Class Document, Measure, and Educate

Aberdeen’s May 2013 BC / DR survey uncovered several alarming statistics. For example, only 62% of all respondents have a BC / DR operations procedure document in place, only 55% have a standardized BC / DR that can be measured, and a mere 37% of responding organizations educate their IT staff on how to proceed during a crisis.

By comparison, Best-in-Class companies’ document their BC / DR requirements and procedures, and they measure results (Figure 4). They also educate their staff on how to implement documented processes in the event of a man-made, natural, or IT disaster. The delta between Best-in-Class and Laggards is astonishing; the mere fact that only 55% of all organizations have a document in place is frightening!

Figure 4: Best-In-Class Train and Educate Staff

Don’t Go it Alone

Aberdeen’s survey also measured performance capabilities of the survey respondents. We measured the IT organizations’ ability to determine their objectives, track their performance, and test their BC / DR system. Only 28% of Laggards and 50% of Industry Average organizations test their BC / DR systems on a regular basis (Figure 5). This is the single most important practice an organization can conduct to determine preparedness.

If you determine that your organization does not have the native capabilities mentioned above, then you should consider outsourcing. There are many reputable companies to consult with when determining your exact needs. These organizations can provide a complete solution or augment your staff, technologies, and facilities.

“Make sure you ask the question, ‘What could go wrong and what’s the worst that can happen?’”

~ IT Consultant, More than $200 Billion, US, Energy Company

“Seek out several experts and listen to what they have to say and make your decisions based upon that advice.”

~ IT Manager, US, City
Virtualized Fault-Tolerant Servers

Aberdeen’s survey polled our respondents as to which technology enablers they currently or plan to use in support of their BC / DR initiatives. Server virtualization and the use of fault tolerant servers topped the list (Figure 6). Of all respondents surveyed, 84% currently or plan to implement server virtualization, and 67% currently or plan to use fault-tolerant servers to increase uptime. Virtualizing server infrastructures provides many benefits to organizations. Multiple virtual machines can run on a single physical machine, greatly reducing capital expenditures, allowing the organization to purchase less hardware to support services and applications. While this is quite an architectural and technology advantage, it increases the chance of multiple applications and servers failing in the event of a physical server failing. Fault-tolerant servers are a natural fit for virtual server infrastructures, and the combination is a powerful step towards zero downtime.

Figure 6: Virtualize Applications on Fault-Tolerant Servers

Source: Aberdeen Group, May 2013


**Review, Investigate, Survey, Consult (RISC)**

Business continuity and disaster recovery implementation is a critical process that every IT organization must accomplish. Before a company spends valuable resources and monies, there are steps that need to be taken. They are as follows:

- **Review**
  - The number of downtime events experienced in the past 12 months
  - The average amount of downtime per event in the past 12 months
  - The longest downtime event in the past 12 months
  - The amount of downtime of critical applications in the past 12 months
  - Length of time to recover from the last downtime event

- **Investigate** — Calculate your cost of downtime. Cost per hour of downtime is calculated by adding labor costs per hour to the revenue lost per hour. 
  
  **Labor Cost per Hour of Downtime** — Company A has revenue of $1 Billion and 2,500 employees, average annual employee benefits are $85,000 per employee, and each employee works 40 hours per week. An outage affects 80% of the workforce, resulting in $82,000 per hour cost for labor during an outage. 

  **Revenue Lost per Hour of Downtime** — Company A is a global company, deriving revenue 5 days a week. Assuming an outage affects 50% of revenue, revenue lost per hour equals $57,000. When combining the two figures above, we discover then that the total cost to Company A for one hour of downtime is approximately $139,000.

- **Survey** — Ask end users and/or customers which applications they cannot live without. This will determine which applications your organization needs to make highly available.

- **Consult** — Best-in-Class IT organizations have far superior knowledge and performance capabilities which is evident in Figures 5 and 6. It is imperative that organizations engage industry experts in business continuity, high availability, and disaster recovery.

IT system availability is critical for most, if not all, businesses and organizations. If you think that you cannot afford a business continuity plan, it probably means you can’t afford not to have one. Consult with BC / DR experts and technology companies.

For more information on this or other research topics, please visit [www.aberdeen.com](http://www.aberdeen.com).

“Build it into your system with risk mitigation as a requirement.”

~ Director, Information Technology, More than $20 Billion, US, Defense Company
Related Research

<table>
<thead>
<tr>
<th>Virtualization: Gateway to Business Continuity; April 2013</th>
<th>Cloud Storage: Lower Cost and Increase Uptime; April 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steps to Take Before Choosing a Business Continuity Partner; January 2013</td>
<td>Lessons From Sandy: Business Continuance vs. Disaster Recovery and Why Organizations Need Both; January 2013</td>
</tr>
</tbody>
</table>

Author: Robert Bready, Research Director, IT Infrastructure (robert.bready@aberdeen.com)

For more than two decades, Aberdeen's research has been helping corporations worldwide become Best-in-Class. Having benchmarked the performance of more than 644,000 companies, Aberdeen is uniquely positioned to provide organizations with the facts that matter — the facts that enable companies to get ahead and drive results. That's why our research is relied on by more than 2.5 million readers in over 40 countries, 90% of the Fortune 1,000, and 93% of the Technology 500.

As a Harte-Hanks Company, Aberdeen's research provides insight and analysis to the Harte-Hanks community of local, regional, national and international marketing executives. Combined, we help our customers leverage the power of insight to deliver innovative multichannel marketing programs that drive business-changing results. For additional information, visit Aberdeen http://www.aberdeen.com or call (617) 854-5200, or to learn more about Harte-Hanks, call (800) 456-9748 or go to http://www.harte-hanks.com.

This document is the result of primary research performed by Aberdeen Group. Aberdeen Group's methodologies provide for objective fact-based research and represent the best analysis available at the time of publication. Unless otherwise noted, the entire contents of this publication are copyrighted by Aberdeen Group, Inc. and may not be reproduced, distributed, archived, or transmitted in any form or by any means without prior written consent by Aberdeen Group, Inc. (2012a)