Research Report

The Avoidable Cost of Downtime

NOVEMBER 2010

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Executive Summary

In November 2010, CA Technologies commissioned independent research* to explore North American organizations' experiences of IT downtime and data recovery. Data analysis from the 200 organizations surveyed has provided invaluable insights into how downtime impacts financial performance and an organization's ability to operate effectively.

The research shows that throughout North America, IT outages are frequent and lengthy. During these periods, business critical systems are interrupted, leading to a significant reduction in the ability of a company to generate revenue. The financial losses associated with IT outages quickly escalate the longer businesses take to fix them.

THE KEY FINDINGS OF THE SURVEY ARE:

- North American businesses are collectively losing $26.5 billion in revenue each year through IT downtime and data recovery. On average, each company loses $159,331 per year.
- North American businesses collectively suffer from 1,661,321 hours of IT downtime each year. That's an average of 10 hours per company, per year.
- During these periods, when business critical systems are interrupted, companies estimate that their ability to generate revenue is reduced by 29%.
- Post IT downtime, (i.e. when IT systems are up and running), there's an additional delay of 7.5 hours per year at each firm during which time data is still being recovered. Across North America, that's another 1,255,220 hours when business operations aren't fully operational.
- In this post-outage period when data recovery is taking place, company revenue generation is still severely hampered, down by an average of 17%.

Much of the financial impact highlighted in the survey can be avoided through better system and data protection and recovery strategies. This will reduce both the frequency and length of IT outages.

Furthermore, many companies endure longer than necessary interruptions to their IT systems, because their data protection policies aren't robust enough. Organizations often focus their efforts on backing up data securely, while neglecting to consider how quickly they can recover their data in the event of a failure. This 'speed of recovery' is a good starting point for businesses planning or re-evaluating their disaster recovery needs. And for the most critical systems and applications, a high availability solution should be considered to minimize system and application downtime. These findings are consistent with the European phase of the research, in which 1,808 companies were surveyed across 11 countries.

*by Coleman Parkes Research Ltd.

TOTAL REVENUE LOSS

Region	Revenue loss ($ billions)
North America	26.5
Europe	23.5

The total amount of revenue loss caused by IT downtime and data recovery is $26.5 billion across companies in North America. This is higher than companies in Europe ($23.5 billion).

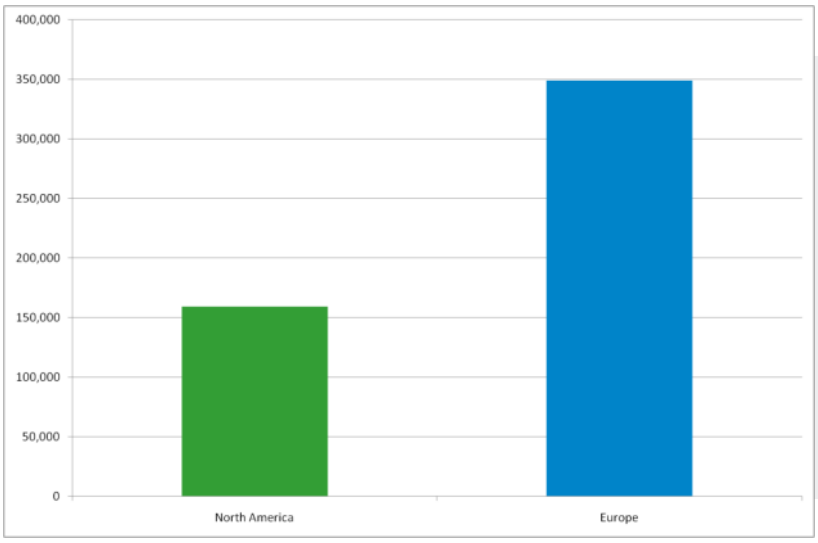
Sector	Revenue loss ($ billions)
Retail	18.18
Public sector	4.46
Finance	2.29
Manufacturing	1.57

Company Size	Revenue loss ($ billions)
Small	15.05
Medium	1.097
Large	10.34

The retail sector as a whole is hit significantly hardest by IT downtime, losing $18.18 billion per year. This was over four times higher than the next hardest-hit sector: the public sector ($4.46 billion lost per year). The manufacturing sector was affected the least by IT outages, losing $1.57 billion through lost revenue.

Small companies lose the most revenue through IT downtime: $15.05 billion per year. This is largely due to the large number of companies of this size in the country, in comparison to medium and large companies.

AVERAGE REVENUE LOSS



Looking at revenue loss at a company level, the average North American organization loses over $150,000 a year through IT downtime. This was less than half the revenue loss of European organizations, the average of which lost just under $350,000 a year. The primary reason for this is that the duration of IT outages in Europe was longer.

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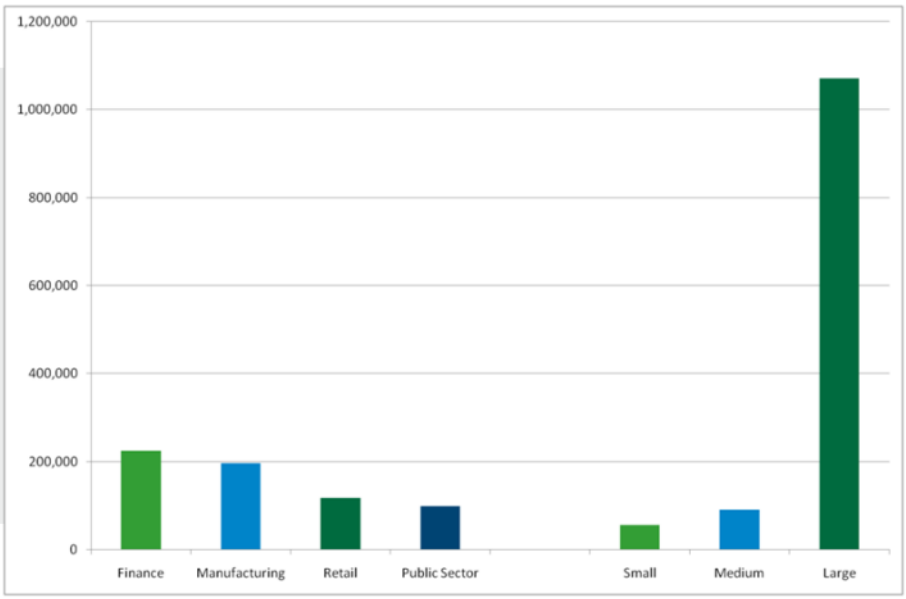
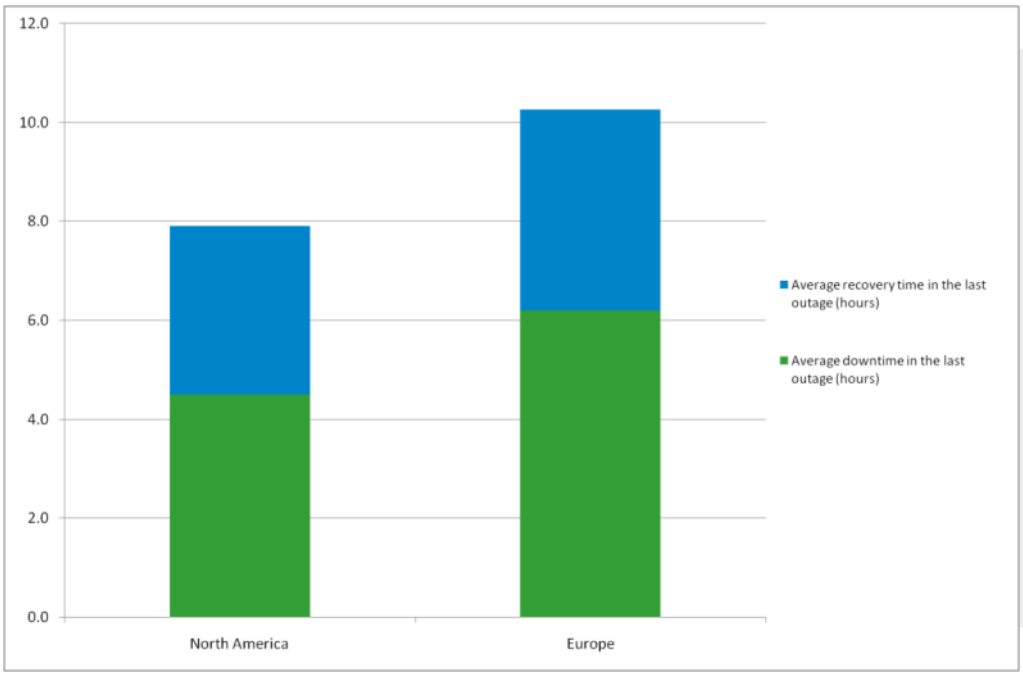
Revenue loss per company was highest for financial institutions ($224,297 per year) and lowest for the public sector ($99,094). The reason for this is likely to be that the financial sector has higher revenue-generating potential, as we were investigating actual revenue loss rather than loss as a percentage of the total revenue generated. The financial sector did not exhibit higher levels of downtime than the other sectors. Similarly, large companies lost far more revenue per year through downtime than either small or medium (over $1 million per year as compared to $90,787 for medium-sized companies and $55,112 for small). Large companies, in fact, experienced less downtime per year than their smaller counterparts.

Revenue Lost By Sector
Financial Services: $224,297
Manufacturing: $196,000 +
Retail: $117,000+
Public Sector: $ 99,094

Revenue Lost By Company Size
Small: $55,112
Medium: $90,787
Large: $1 M +

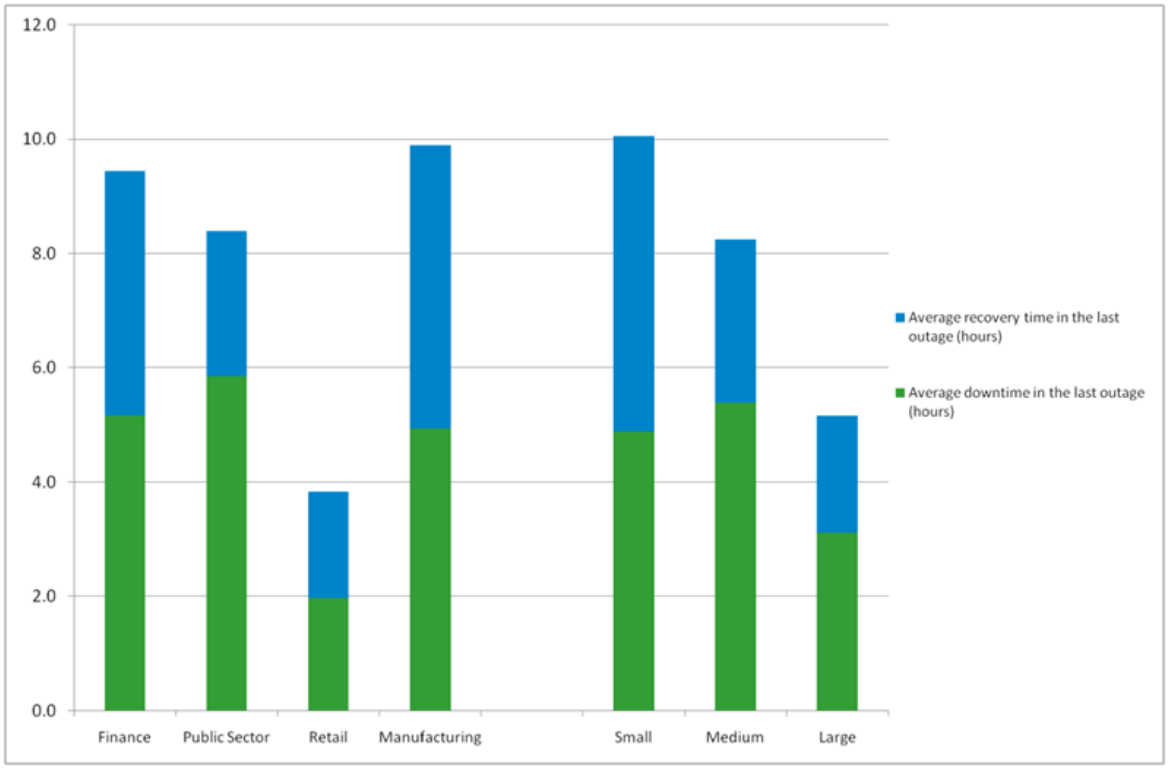


DOWNTIME AND RECOVERY TIME IN THE LAST OUTAGE

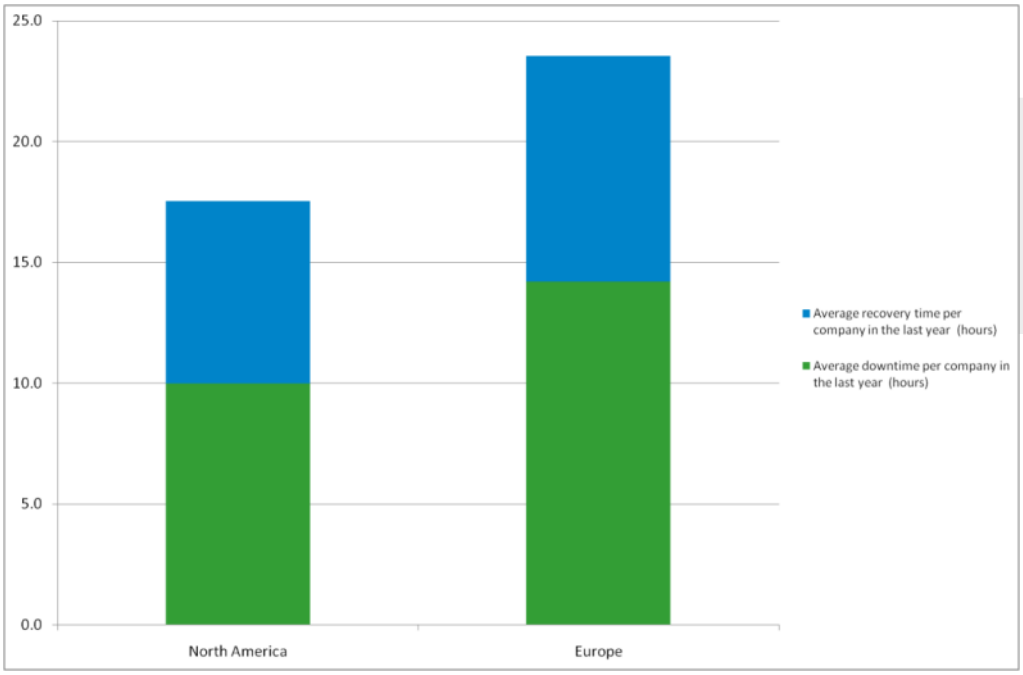


Each service outage cost North American companies 4.5 hours of downtime and 3.4 hours of recovery time (the length of time it took between the systems and applications coming back up and all data being fully recovered and available). This compared favorably to European companies which experienced on average 6.2 hours of downtime and 4.1 hours of recovery time.

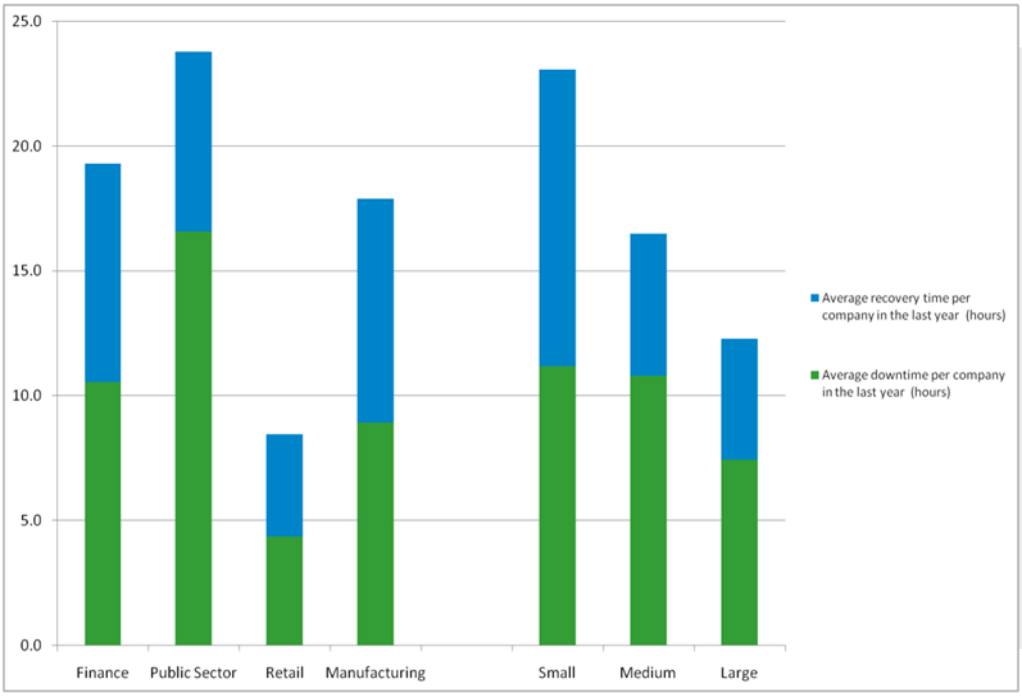
Although the public sector experienced the longest periods of downtime per outage at 5.9 hours, the time it took to recover data following an outage was actually shorter than the finance and manufacturing sectors. The retail sector experienced significantly shorter periods of downtime and recovery time than the other three sectors: a total of 3.8 hours compared to 8.4 for the public sector, 9.4 for finance and 9.9 for manufacturing.



DOWNTIME AND RECOVERY TIME IN THE LAST YEAR



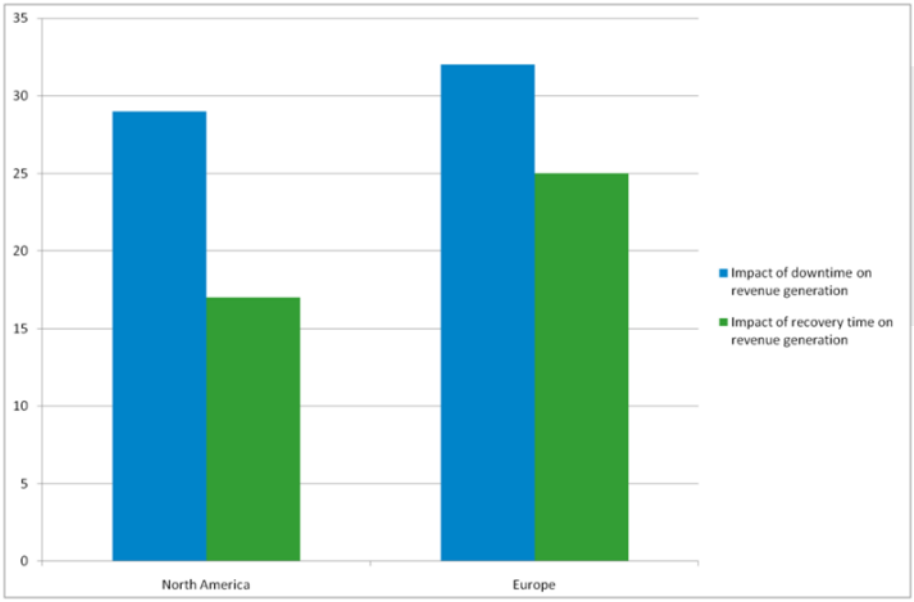
Similarly, Europe experienced more downtime and recovery time in the last year than North America (14.2 hours compared to 10.0 hours).



As the public sector experienced more service outages a year than the other sectors, its total amount of downtime and recovery time was the highest (23.8 hours in the last year). The retail sector experienced significantly less: 8.4 hours. The most likely reason for this is that less of the sector's revenue is affected by IT systems when compared to finance, public sector and manufacturing.

IMPACT OF DOWNTIME AND RECOVERY TIME ON REVENUE GENERATION

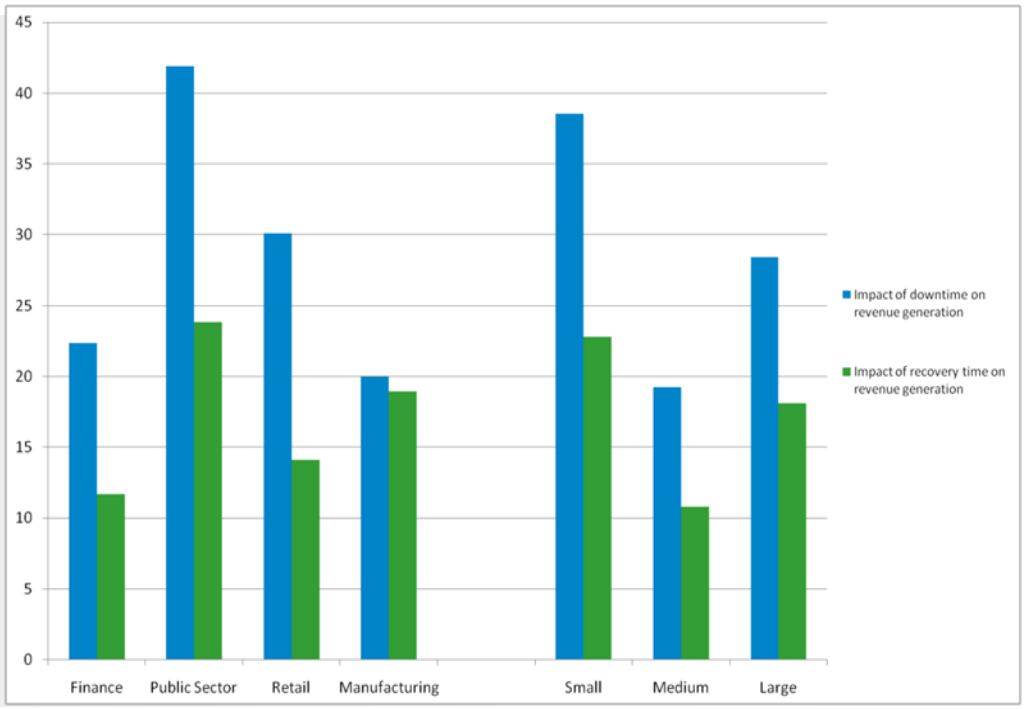
Respondents were asked what effect service outages had on the potential of the company to generate revenue. In North America, when business-critical systems are compromised, the ability of a company to generate revenue dropped by 29% during periods of downtime (32% in Europe). When the systems were up and running but data was still being recovered, the ability of a company to generate revenue improved, but this still had a significant effect (17%, compared with 25% in Europe).



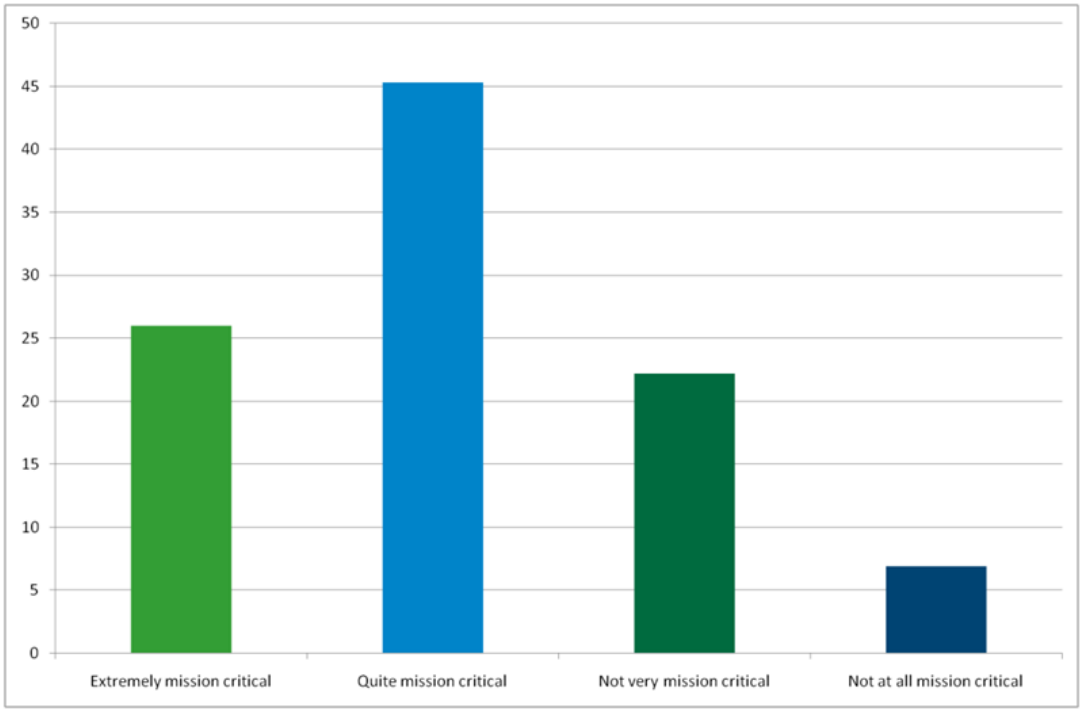
When business-critical systems are compromised, North American organizations estimate that their ability to generate revenue is reduced by nearly a third (29%) of normal levels.

Small companies suffer the most during periods of downtime, showing the least ability to generate revenue (39% compared to 19% for medium-sized companies and 28% for large companies).

There were significant differences between the market segments when asked about the impact on revenue generation. During downtime, the public sector estimated that its revenue-generating potential dropped by 42%. In the manufacturing sector however, downtime was estimated to have less of an effect: just 20%. All of the sectors stated that recovery time had a significantly lower impact on revenue generation than downtime with the exception of the manufacturing sector: this sector still thought that revenue would drop by 19% at this time.

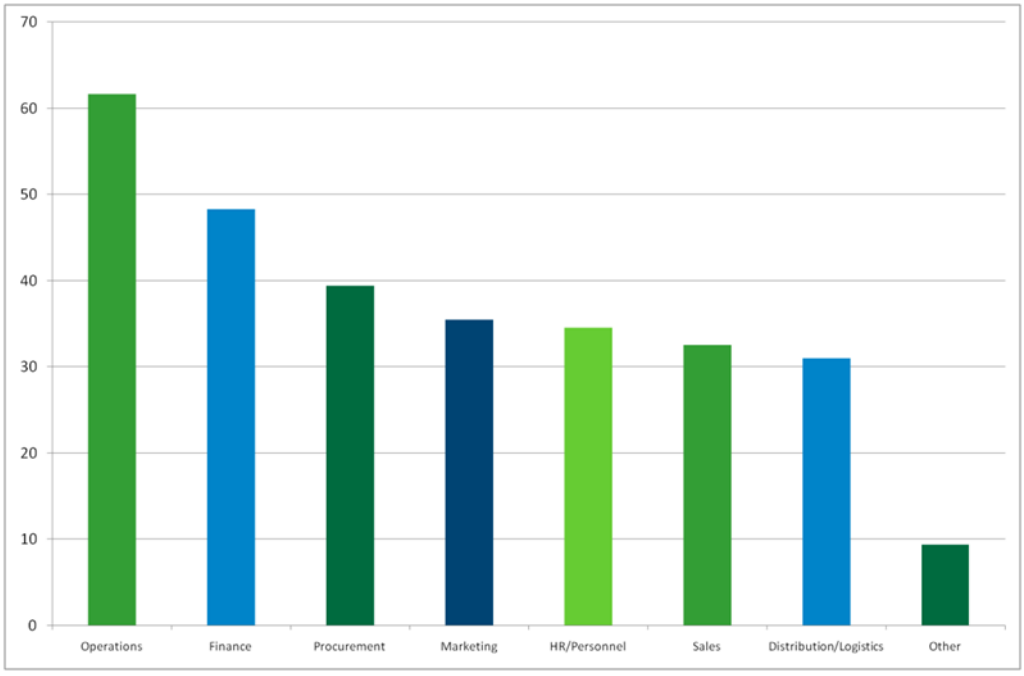


71% of companies said that the systems/applications affected by the most recent period of IT downtime were mission critical. Over a quarter (26%) said they were extremely mission critical. Only 7% thought they were not at all critical.



DEPARTMENTS AFFECTED

Departments affected most by IT downtime were operations (62%), finance (48%) and procurement (39%).



Conclusions

The Avoidable Cost of Downtime 2010 Report demonstrates the impact IT outages have on North American business, and that many organizations across North America are wasting a significant opportunity when it comes to generating revenue by not having the tools and procedures in place to quickly recover from an inevitable outage to IT services.

This issue is affecting organizations across North America, independent of company size or market segment. This is also the case for European companies which, due to the longer periods of downtime and recovery time experienced, are losing more than double the amount of revenue as those in North America. For many years IT departments have focused on efficient ways to take backup copies of key data, and not on the speed of recovery. The goal of a backup was to enable an organization to recover, but little attention was paid to how fast that recovery should take.

Today there are system and data protection, recovery and availability solutions available that enable an organization to maximize revenue generation potential by recovering key applications and systems extremely quickly, protecting businesses from both physical failure and logical data corruption, while minimizing data loss.

TIPS AND ADVICE ON AVOIDING THE COST OF DOWNTIME

- Identify business critical systems and data. The first step in minimizing the impact downtime has on an organization is to identify the applications and data that directly drive revenue. All too often organizations take a generic approach to data protection, applying the same policy and process to all data. When a recovery is needed, the availability of critical systems is hampered by the need to also recover non-critical data in a generic process.

- Design the infrastructure to minimize the frequency of IT outages. A Bare Metal Restore (BMR) solution will help speed system recovery after a server crash. But for critical business systems and applications, invest in infrastructure solutions that provide the highest levels of availability. This will include such technologies as clustered servers, replicated storage and high availability software.

- Implement a data protection solution to deliver high speed recovery. Disk-based backup technologies allow faster recovery times and replication solutions provide continuous data protection (often referred to as CDP), helping eliminate any data loss or damage between periodic backups and snapshots. Replication technology is a perfect complement to any backup solution for critical data and databases. Make sure the solutions in place protect against logical corruption of data as well as physical failure. Granularity of the backup will drive more granular recovery – meaning focus can be given to critical data first.

- Work with the right partner. No one solution is correct for every business and therefore it is important to work with specialized data protection partners who can understand the specific needs of an organization and help deliver a comprehensive solution.

Methodology

The fieldwork was conducted in November 2010 by Coleman Parkes Research*. 200 online interviews were carefully conducted with CIO/IT directors/IT managers where appropriate across companies in North America.

Fieldwork was conducted in an equal split across the following market segments:

Finance
Public sector
Retail
Manufacturing

Fieldwork was also carried out in an even split across companies of the following sizes:

50-499 employees ('small')
500-999 employees ('medium')
1000+ employees ('large')

1808 online interviews were carefully conducted across the following countries in Europe: UK, France, Germany, Spain, Italy, Belgium, the Netherlands, Norway, Sweden, Finland and Denmark.

CALCULATING LOST REVENUE

The total amount of revenue lost due to avoidable IT outages takes into account the total number of hours of downtime when systems are offline; the total number of hours between systems restoration and recovery of all data; the overall, average revenue generation per company size/market segment; the impact on revenue generation during both of these periods and the overall number of avoidable IT outages a year.

Universe estimates for the three different company size categories and average revenue figures for each size category were obtained from published sources. This data was used to gross up the impact on revenue information obtained from the survey. Sensitivity checks completed on relevant survey findings confirmed that it was not necessary to apply company size weights to individual survey records.

*Research carried out by Coleman Parkes Research Ltd

Resources to reduce the impact of IT Downtime

To find out more about how you can reduce IT Downtime please visit: arcserve.com/us

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CA Technologies is an IT management software and solutions company with expertise across all IT environments—from mainframe and physical to virtual and cloud. CA Technologies manages and secures IT environments, enabling our customers to deliver more flexible IT services.Our solutions help our customers gain a level of deep insight into and exceptional control over complex, mixed IT environments. It's that level of insight and control that enables IT organizations to power business agility.

About Coleman Parkes www.coleman-parkes.co.uk

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