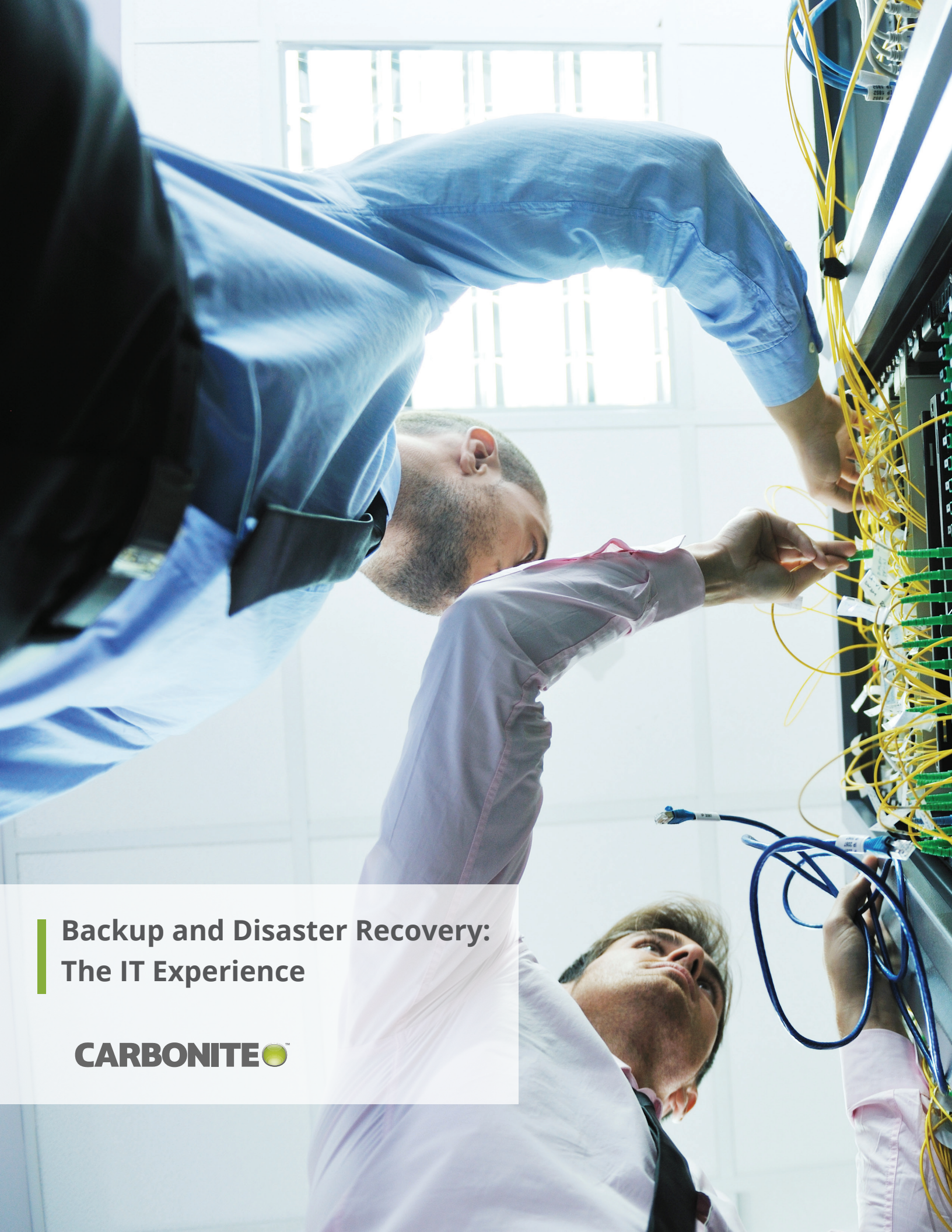
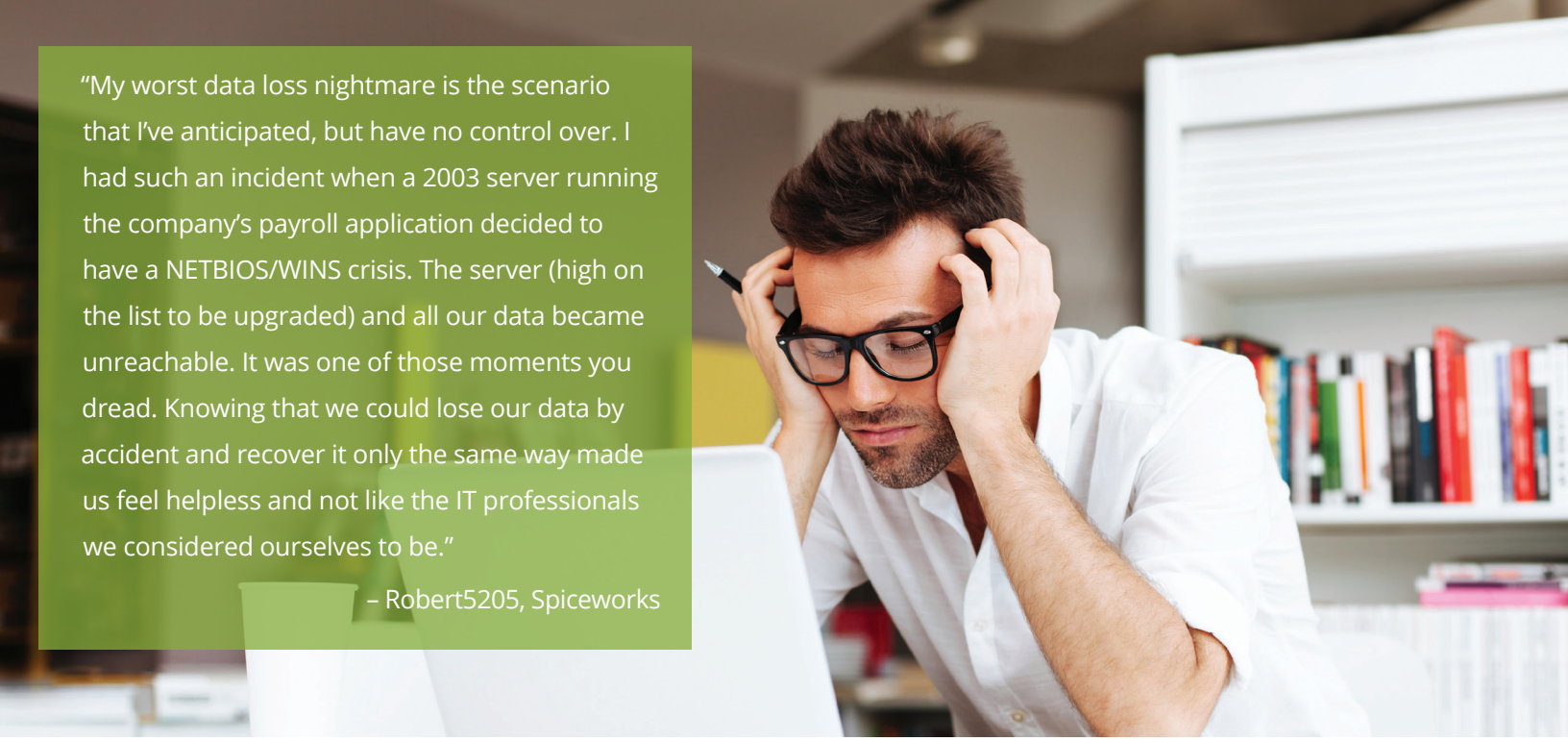


Backup and Disaster Recovery: The IT Experience

CARBONITE

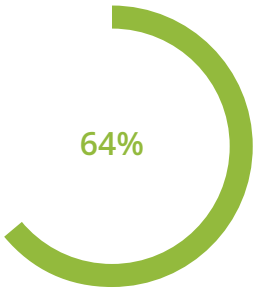


"My worst data loss nightmare is the scenario that I've anticipated, but have no control over. I had such an incident when a 2003 server running the company's payroll application decided to have a NETBIOS/WINS crisis. The server (high on the list to be upgraded) and all our data became unreachable. It was one of those moments you dread. Knowing that we could lose our data by accident and recover it only the same way made us feel helpless and not like the IT professionals we considered ourselves to be."

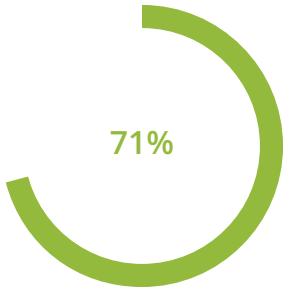
– Robert5205, Spiceworks

DNA OF A DISASTER

It's the moment every IT department dreads: A data loss event takes your business offline and the countdown clock begins. Despite spending countless hours safeguarding against and preparing for this moment, the impact of downtime is immediate and all-consuming.



64% of IT pros say a data loss event is literally a life or death situation for their small business[1]



71% of IT departments say recovery is the priority, and must be accomplished within 24 hours or less[1]

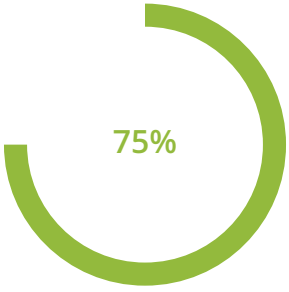
While IT pros can't always avoid data loss events, they can prepare for them to ensure minimal downtime. To better understand the IT experience during a data disaster, Carbonite commissioned Spiceworks Voice of IT to survey IT pros regarding disaster recovery practices and perceptions. All survey respondents were based in the U.S., have influence over backup/disaster recovery purchase decisions and work at companies with 250 or fewer employees. **This eBook will explore the impact of downtime and data loss on IT departments**.

MISSION IMPOSSIBLE?

THE IMPACT OF DATA LOSS ON IT

IT professionals harbor a healthy fear of data loss, and with good reason:

48% of IT pros have experienced a disaster that required recovering data in the past year[1]



75% of SMBs report that the threat of downtime is their biggest driver for purchasing business continuity solutions[2]

According to IDC, 80% of small businesses have experienced downtime at some point in the past, with costs ranging from $82,200 to $256,000 for a single event.[2] What does this mean for IT? Every minute counts in a data recovery scenario – to the tune of $137 to $427 per minute. While most organizations cannot avoid experiencing data loss altogether, all are depending on IT professionals to take the necessary measures to reduce downtime and, in effect, negative business impact.

STRIKE A DEAL FOR DATA?

If there's one thing we learned from talking with IT pros, it's that they **don't like losing data**. Here's a list of things they would gladly give up instead of losing their organizations' data:

Internet connection

Cell service

Internal organ

Wedding ring

Robot lawnmower

Bacon!

While natural disasters, such as hurricanes and floods, tend to grab more attention, the source of most forms of data loss and downtime has nothing to do with weather.

When we asked IT pros what they considered to be the highest risk factors for data loss, they cited technology failures first, followed closely by man-made disasters and security incidents.[1]

Perceived risk factors for data loss

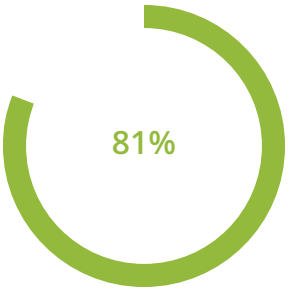
Technology Failures	Man-Made Disasters	Security Incidents
65%	**60%**	**59%**

Surprisingly, IT security concerns are lowest on the list at 59%, despite the growing number of incidences affecting small businesses.[1] Security incidents have grown 48% since 2013, making them yet another source of concern for IT.[4] Conversely, when it comes to the disasters IT professionals actually reported experiencing in the last year, man-made disasters top the list, followed by technology incidents and IT security incidents.[1]

Actual risk factors for data loss

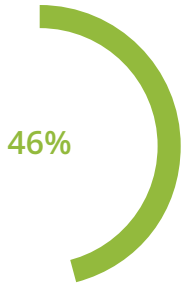
Man-Made Disasters	Technology Failures	Security Incidents
65%	**29%**	**22%**

Whatever the reason for a data loss event, its impact on the IT department is almost always all-consuming.



IT pros say that data loss events consume **81%** of their IT resources, on average[1]

For 57% of IT departments, these disasters demand 100% of resources, meaning that other critical IT functions fall by the wayside for the duration.[1] In fact, among those organizations that experienced a data loss event last year, **46% reported that loss of productivity/efficiency** was the biggest hurdle they faced. Many also reported increased help desk calls and system downtime.[1]



46% of IT departments report that a loss of productivity/efficiency is the biggest hurdle they face[1]

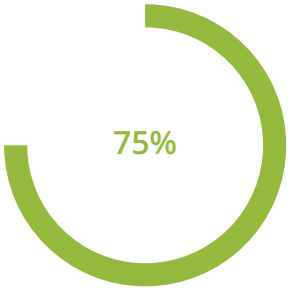
29% of IT departments report an increase in help desk calls[1]

29% of IT departments report an increase in system downtime[1]

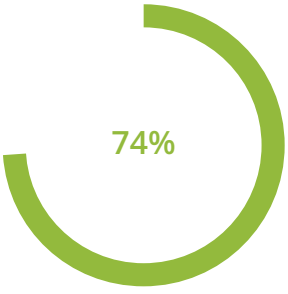
DATA BACKUP AND RECOVERY:
PRACTICES & CONSIDERATIONS

When it comes to backup and recovery solutions, Hyper-V and VMWare backup, granular file backup and restore, and bare metal backup and restore are considered the most critical backup and disaster recovery strategies and are those most commonly used by IT professionals.[1]

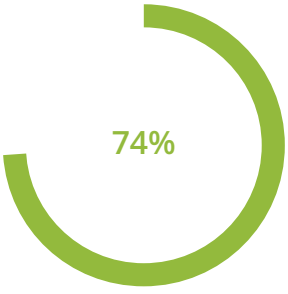
Critical features for disaster backup and recovery solutions (as told by IT pros)



75% consider Hyper-V and VMWare backup critical to their BDR strategy[1]



74% consider granular file backup and restore critical to their BDR strategy[1]



74% consider bare metal backup and restore critical to their BDR strategy[1]

Other critical strategies include local failover (68%), hybrid copies of data (63%), granular database restore (60%) and encryption (59%).[1]

While 91% of organizations back up data primarily on premise, a growing number also back up off-premise, either at a location they own (44%) or at a hosted location (29%).[1] According to IDC, nearly 65% of small businesses back up to tape, about 58% rely on a replication approach and almost 30% back up to the cloud.[2] It is important to note the growing trend toward hybrid (local and cloud) backup strategies.

54% of IT pros are currently using a hybrid backup strategy[1]

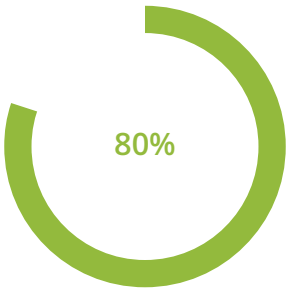
PRODUCT SPOTLIGHT: CARBONITE SERVER BACKUP

SMBs want...	Carbonite Server Backup delivers...
HYPER-V AND VMWARE BACKUP	• Backs up Hyper-V VMs at the hypervisor level so you only have to install the software once • Can be installed on individual VMWare VMs • Quick recovery of an entire VM or granular file-level data
GRANULAR FILE BACKUP AND RESTORE	• Application specific, VSS-based backups for SQL, Exchange, SharePoint, MySQL, Oracle and Exchange Online • Selectively recover lost data like database records, Exchange mailboxes etc. • Full, incremental, and differential backup type
BARE METAL BACKUP AND RESTORE	• Image backup protects a server's operating system, settings, applications and files to enable bare metal recovery • Restore to dissimilar hardware

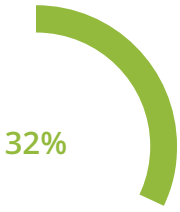
"The thing I like most about Carbonite is the active backup... **It means the difference between losing very important data and actually having it protected so we can acess it**. If we were to lose something, I can't imagine how catastropic it would be." Read Ken's story here.

– Ken Johnson, PH.D., President and Chairman, Rose City Urgent Care

As small businesses increasingly turn to cloud computing, data analysis, mobility and social communications to drive innovation – and move core business functions including payroll, email, human resources and customer relationship management (CRM) to the cloud – their dependence on cloud technologies continues to grow. According to Aberdeen, 80% of small businesses report some sort of Software-as-a-Service application in their organizations and 32% report having already lost SaaS data.[5] IT departments are increasingly being tasked with ensuring "always on" access to and security of their organizations' cloud data.



80% of small businesses report some sort of Software-as-a-Service applications in their organizations



32% of small businesses report having already lost SaaS data

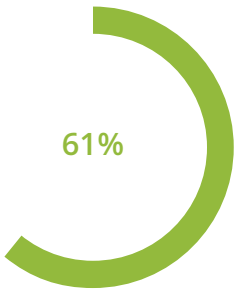
In fact, small businesses report that mission-critical applications make up 10-20% of their total application portfolio, according to IDC.[2] Among companies' top three most critical systems are email, IT infrastructure and systems management, and industry-specific applications.[2] The same IDC study reveals that 61% of small businesses say that recovery times for these mission-critical applications must be four hours or less but, in reality, recovery often takes much longer.[2]

44% of SMBs reported that mission-critical applications make up 10-20% of their total application portfolio

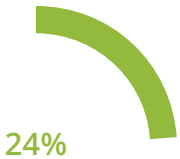
Downtime costs include lost productivity when employees can't access critical applications such as email.

Mission-Critical Applications as cited by SMBs[2]

Email Systems	IT Infrastructure and Systems Management	Industry-specific Applications	Web Serving and Internet Content/Video
65.7%	39.5%	31.2%	28.8%



61% of SMBs expect full recovery for mission-critical applications in no less than four hours[4]



Only **24%** of IT pros said they could recover in less than 4 hours[1]

A BETTER WAY:

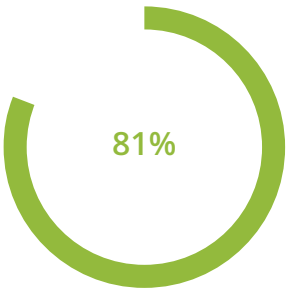
BUSINESS CONTINUITY FOR SMALL BUSINESS

For IT pros, the Holy Grail of disaster recovery is achieving zero downtime. While this is not a reality for most small businesses today, this is increasingly becoming a factor in IT purchasing decisions. **As mentioned, threat of downtime is the single biggest driver of business continuity purchases for three-quarters of IT professionals.**[2] A majority of Spiceworks survey respondents also cited reliability as the most important factor they consider when evaluating backup and recovery solutions, followed by security and cost.[1]

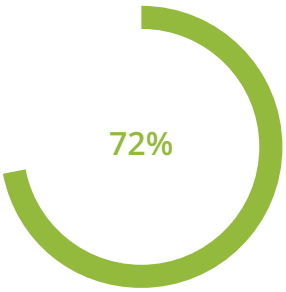
Factors when evaluating backup and recovery solutions

Reliability	Security	Cost
68%	44%	33%

The ability to leverage cloud technologies to increase agility and reduce costs is growing in importance to IT departments. With resources worn thin in disaster recovery scenarios, IT needs immediate access to backup and recovery solutions from anywhere and at any time. These pressures have necessitated a shift from traditional backup solutions to business continuity/disaster recovery.



81% of SMBs are currently using business continuity solutions[2]



72% of SMBs are planning to increase investments over the next two years[2]

However, business continuity doesn't mean the same thing for small businesses as it does larger organizations. IT professionals at small businesses are bound by cost, infrastructure and resource restrictions that render many popular enterprise business continuity offerings inappropriate for their needs. According to IDC, to be effective for small businesses, business continuity solutions must be:

- **Holistic**, providing a range of business continuity services, from data protection and recovery to archiving/data retention to replication and availability
- **Simple**, eliminating infrastructure and operational complexity
- **Cost-effective**, offering reduced capex and an economically viable fit with a typical SMB business continuity budget
- **Cloud-enabled**, meeting public and/or hybrid cloud deployment requirements and offering offsite data protection and disaster recovery and a predictable opex model

RIGHT-SIZED DISASTER RECOVERY
FOR SMALL BUSINESS

While data disasters are always daunting for IT professionals, smart planning, strategic investments and continued innovation in backup and recovery solutions are drastically reducing downtime and, in turn, the negative business impact of data loss events. As IT strives to achieve zero-downtime scenarios, disaster recovery solutions that are purpose-built for small businesses are emerging to meet their needs.

Based on the disaster recovery needs of IT professionals working in small and mid-size businesses, we have developed a suite of disaster recovery solutions that meet their unique requirements for **power**, **value**, **simplicity** and **security**.

POWER

Full-featured solutions that rival enterprise products in recovery time objectives, customization and compliance, without the complexity.

SIMPLICITY

Simple, seamless solutions that protect business-critical data and minimize downtime without the overhead associated with traditional on-premise solutions.

VALUE

Cost-effective solutions that combine on-premise and cloud accessibility, predictable pricing and the opportunity to work with a single vendor.

SECURITY

Proven, modern technology that provides peace of mind that data and businesses are safe.

To learn more about Carbonite's comprehensive suite of disaster recovery solutions,please visit: **http://www.carbonite.com/online-business-backup-plans.**

NONSTOP PROTECTION FOR NONSTOP BUSINESS

Carbonite provides cloud and hybrid backup solutions for better protection and faster recovery of all your business data.

carbonite.com

CARBONITE™

Sources:

1. Spiceworks: Carbonite Backup & Disaster Recovery Research; June 2015
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4. Price Waterhouse Coopers: The Global State of Information Security Survey 2015; October 2014
5. Aberdeen Group: Who are Heavy users of SaaS Applications?; January 2013