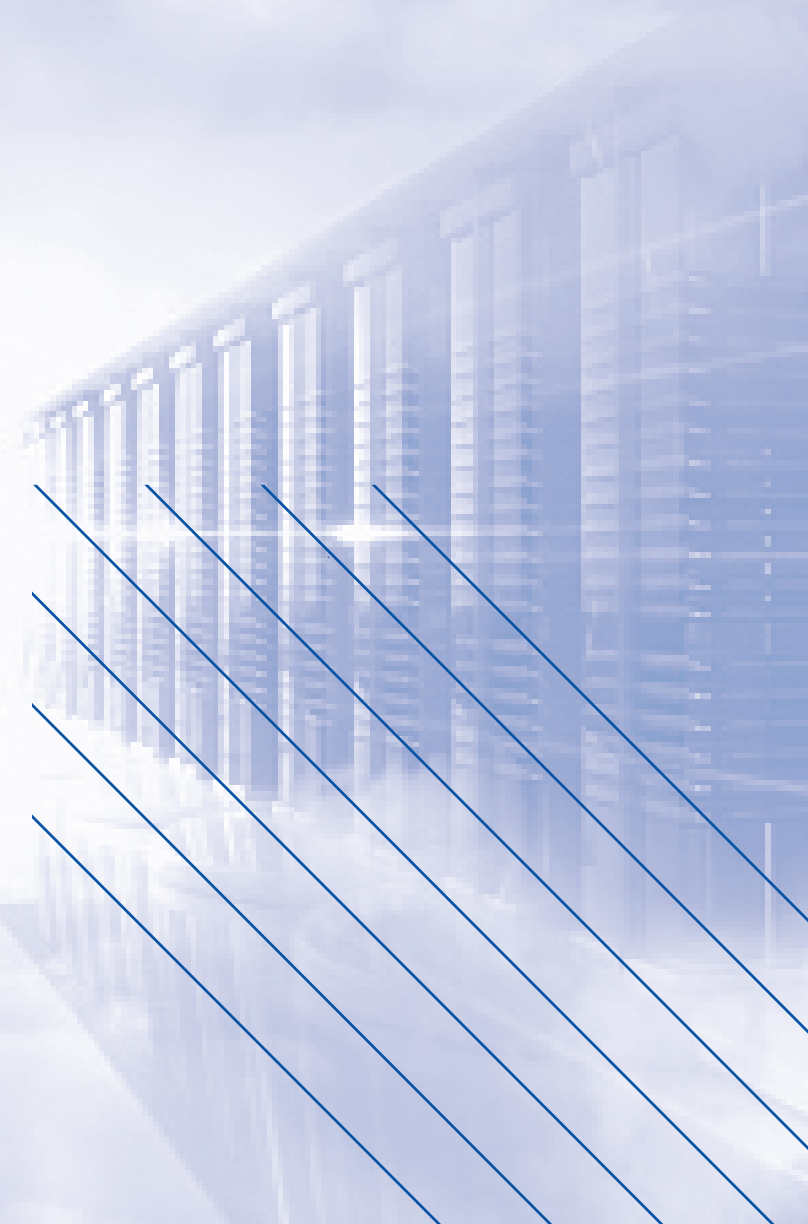


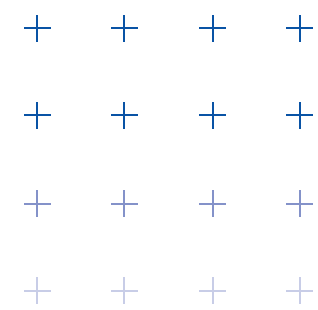
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The final barrier to cloud adoption

The ability to perform efficient
data migration is the new
standard for business agility





The pain of migrating data

Not long ago, the biggest concern for IT decision makers considering moving workloads to the cloud was security. That's no longer the case. While security concerns persist, they're accompanied by a different but familiar obstacle to cloud adoption: the pain of migrating data.

Migrating data doesn't have to be painful. Purpose-built tools enable efficient data migration that doesn't lead to downtime or create risks for data loss. A data migration project using tools that automate procedures and allow real-time testing can reduce the amount of downtime from hours or days to minutes or seconds.

This e-book summarizes the major pain points for IT pros tasked with performing migrations. It breaks down the flaws in traditional approaches, and illustrates how modern tools help businesses stay agile by taking the pain out of data migration.

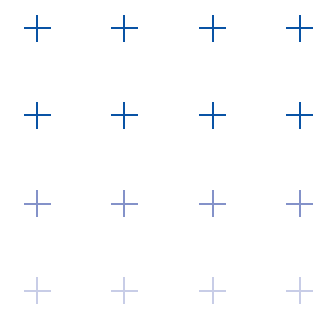
“Cloud security fears persist, but data migration is a bigger issue.”

CIO Magazine¹

Traditional data migration causes major headaches:

- Hours or days of downtime while servers replicate and stakeholders verify functionality
- Data loss and migration failures due to inadequate tools and inability to test
- Key internal resources diverted from strategic initiatives

¹ CIO.com, “Cloud security fears persist, but data migration is a bigger issue,” <http://www.cio.com/article/3188022/cloud-computing/cloud-security-fears-persist-but-data-migration-is-a-bigger-issue.html>.



Why migrate?

Public cloud platforms like Amazon Web Services (AWS) and Microsoft Azure are disruptive technology innovations that help businesses lower expenditures and stretch resources further with less infrastructure. But if businesses can't migrate efficiently, it limits their ability to leverage new technology platforms and increases the risk of getting locked into a platform. That's risky. What happens when the vendor sunsets the platform? Now there's no choice but to migrate, or continue to run on an unsupported legacy platform.

This brings security into question as vulnerabilities emerge due to the absence of periodic software patches. Sooner or later, businesses will be forced to migrate as the platforms they're on reach their end of life. So, they're better served by onboarding the necessary resources to perform efficient, non-disruptive migration for one-off projects, disaster scenarios and, ultimately, to protect long-term agility and competitiveness.

Top 10 reasons why businesses migrate:²

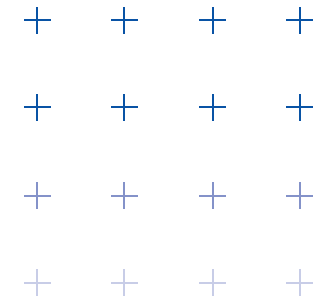
1. Replace unsupported hardware
2. Improve performance
3. Upgrade storage hardware
4. Consolidate servers
5. Adopt virtualization technology
6. Move to a different data center
7. Reduce cost of management
8. Migrate to a different platform
9. Adopt a cloud platform
10. Consolidate databases

Should you migrate?

Key questions to ask when considering a data migration project:

- What does a replacement system look like?
- What inhibitors are preventing change?
- Are there internal resources and knowledge to leverage?
- What problems emerged in past migrations?
- Can you currently move from any one platform to any other one, free from any hardware or operating system restrictions?

² Vision Solutions, "2017 State of Resilience Report."



Migration challenges

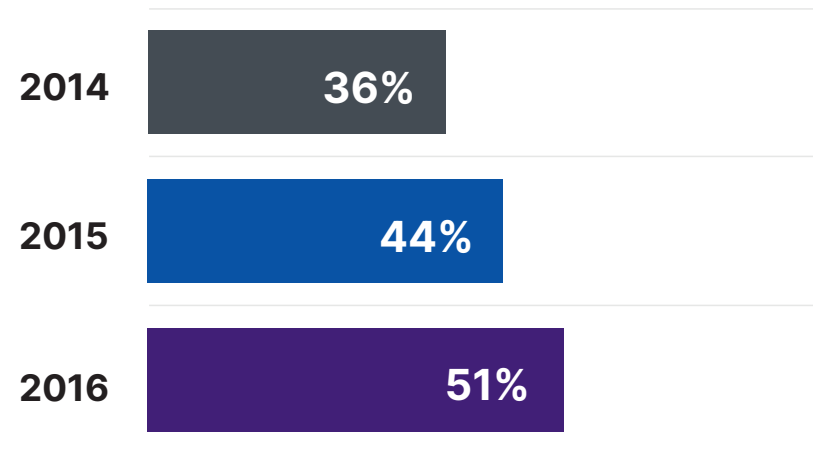
The allure of consolidation and cost savings are the main drivers behind cloud adoption. But businesses are reluctant to move from one vendor to another due to the cost and complexity associated with moving data out of the cloud or between clouds.³

66% of businesses postponed a migration due to concerns about the cost of downtime.²

In many cases where businesses are reluctant to take on a large migration project, it's because they've been burned in the past. Half of businesses performing migrations experience failures.²

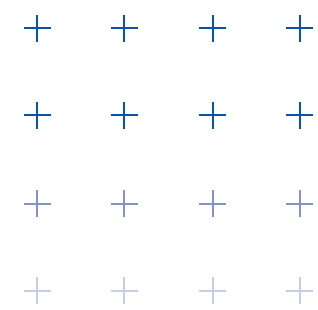
The biggest problem businesses face when performing data migrations is that they're unable to start applications on the new server in the required timeframe. Today's IT systems have complex dependencies. Even system architects can fail to grasp the complexity of the relationships between different enterprise components. If front-end and back-end servers can't talk to each other like they used to, additional time and resources are necessary. Late discovery of issues often results in overtime for staff, downtime for users and lost productivity for everyone.

Percentage of migration failures



² Vision Solutions, "2017 State of Resilience Report."

³ Gartner, "The Financial Case for Moving to the Cloud," www.gartner.com/smarterwithgartner/the-financial-case-for-moving-to-the-cloud/.



Three common migration mistakes



Cost calculations

If there's a chance of downtime on a mission-critical application, that cost should be factored into the overall cost of migration. Anytime a user can't access that data, there's a cost. Businesses usually require high levels of uptime—close to 100%—for critical systems and data. Prior to migration, IT decision makers should consider all cost factors before choosing a course of action. Factors for calculating the cost of migration include:

- Installation and configuration
- User acceptance testing
- Post-migration tasks
- Downtime per application
- Software cost



No post-cutover plan

For migration to be non-disruptive, all dependencies need to be accounted for prior to cutover through a process called “discovery.” When cross-dependencies are discovered post-cutover, it can cause ripple effects in later phases of the migration. Cross-dependency issues may arise after users have begun using the new platform. These issues may necessitate moving back to the old system. IT staff tasked with performing migrations need to consider options for returning to the original source without losing data that gets generated post-cutover.



Inadequate tools

The rapid rate of cloud adoption has led to a proliferation of free vendor tools for getting data onto their platform. But free tools carry hidden costs.

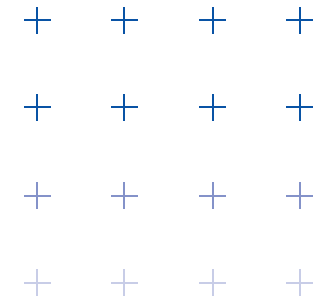
The high cost of “free” vendor tools:

- Not scalable – They're designed for one-off use on one platform.
- Not compliant – They introduce the risk for data loss.
- Not testable – Most don't perform real-time replication.

Modern IT encompasses a range of physical servers and virtual deployments in either VMware or Hyper-V. Moving all that data using free tools requires a separate one for each platform. Performing migrations one at a time, capturing just the data (not the entire server), a large project could take months and consume more resources than necessary.

There's also added risk for data loss with free tools because they typically use snapshotting technology to replicate data, where the interval between each snapshot represents potential data loss. Businesses with critical servers and applications, especially in regulated industries, require zero or near-zero data loss to maintain compliance and certifications.

Snapshots are good for recovering data from a point in time, but they're not great for testing. Although they allow manual testing once the snapshot has been created, there's no option for testing a real-time version in the cloud.

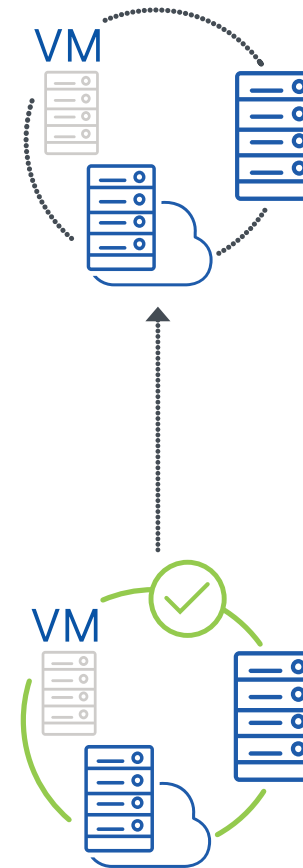


Agility and migration

The rapid rate of technology innovation combined with the tightening of the software development lifecycle makes the ability to perform efficient, reliable data migration an absolute necessity for today's businesses. The alternative is to miss out on opportunities to lower costs, reduce infrastructure, simplify IT tasks and free up resources for strategic initiatives. Businesses in regulated industries need a process that does not introduce the risk for data loss into the migration process like free tools do. For critical data and applications, a solution that ensures zero or near-zero data loss is essential. Whether it's part of a planned migration project or a disaster recovery effort, non-disruptive data migration is essential to protect IT investments.

Carbonite® Migrate

Carbonite Migrate automates data transfer in real time. It replicates the entire server so everything can talk like it used to. At cutover, it automates turning the target machine into the production machine. Migrate talks to the DNS servers, updates records and automatically redirects to the new server. Migrate allows end-to-end testing and full reporting that support both internal and external compliance. It uses byte-level replication to eliminate the risk of data loss for tier 1 applications and data.



Contact us to learn more – Carbonite US

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About Carbonite and Webroot

Carbonite and Webroot, OpenText companies, harness the cloud and artificial intelligence to provide comprehensive cyber resilience solutions for businesses, individuals, and managed service providers. Cyber resilience means being able to stay up and running, even in the face of cyberattacks and data loss. That's why we've combined forces to provide endpoint protection, network protection, security awareness training, and data backup and disaster recovery solutions, as well as threat intelligence services used by market leading technology providers worldwide. Leveraging the power of machine learning to protect millions of businesses and individuals, we secure the connected world. Carbonite and Webroot operate globally across North America, Europe, Australia, and Asia. Discover cyber resilience at carbonite.com and webroot.com.