

The right move for 2008 SQL and Windows Server EOS

How Carbonite® Migrate simplifies complex projects

With both Microsoft Windows Server 2008/2008 R2 and SQL Server 2008/2008 R2 approaching their end of support (EOS) dates, IT organizations have a few options:

- Upgrade their on-premises systems
- Adopt a cloud-based server platform
- Do nothing

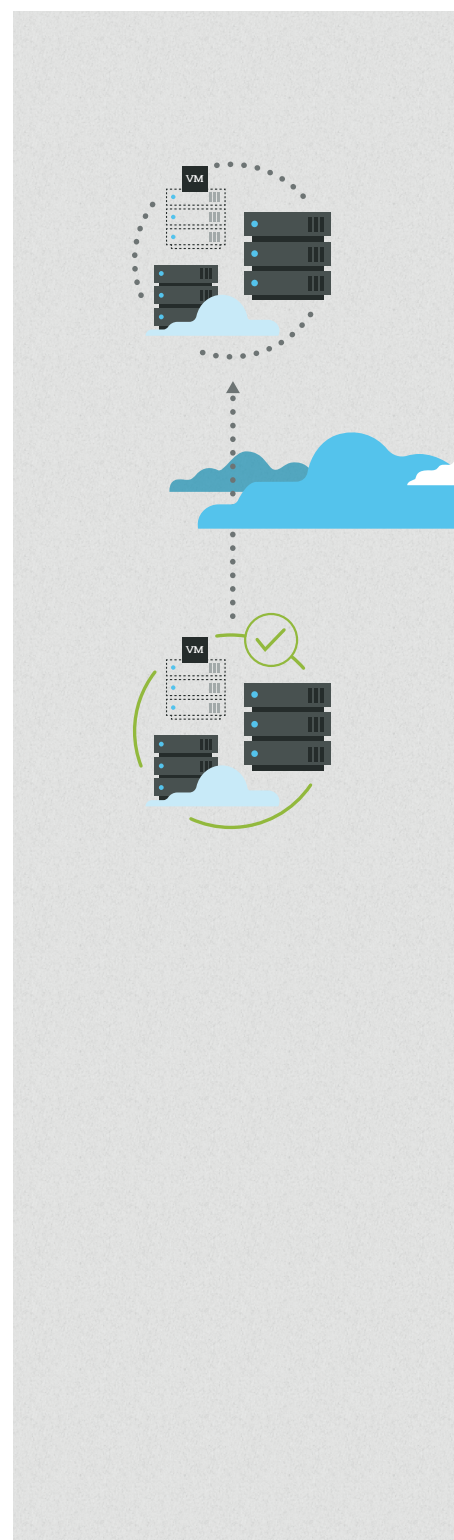
For most businesses, the risks of running outdated applications narrows the decision down to two choices: upgrading on-premises or re-hosting in the cloud. Either way, large quantities of data will have to be migrated from one system to another. Both paths can be simplified by using Carbonite® Migrate to facilitate the move.

EOS on the horizon

Over the next 12 months and beyond, multiple existing and upcoming support-related events will drive the need for server migration and modernization.

Pending EOS events¹

	End Mainstream Support	End Extended Support
SQL Server 2008 and 2008 R2	July 8, 2014	July 9, 2019
Windows Server 2008 and 2008 R2	January 13, 2015	January 14, 2020
SQL Server 2012	July 11, 2017	July 12, 2022
Windows Server 2012 and 2012 R2	October 9, 2018	October 10, 2023
SQL Server 2014	July 9, 2019	July 9, 2024
SQL Server 2016	July 13, 2021	July 14, 2026
SQL Server 2017	Oct 11, 2022	Oct 12, 2027



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Free tools

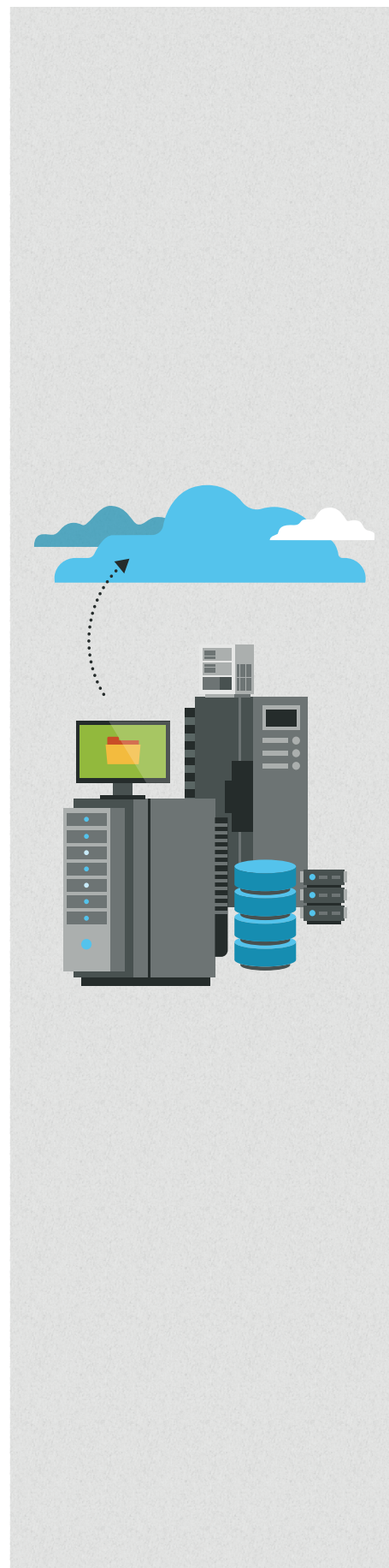
Heavy workloads — of roughly 5 TB or more — can be challenging for free migration tools, which are not always adequately equipped for multi-cloud architectures. A purpose-built tool like Carbonite® Migrate offers extensive automation and orchestration, from discovery to server provisioning and migration cutover. Additionally, the real-time replication engine in Carbonite® Migrate means businesses don't have to choose between data loss and downtime. It gives administrators the ability to comprehensively test post-cutover functionality on the target using an up-to-the-second synchronized copy of live production data rather than a static and outdated point-in-time snapshot. There's no impact to users in the production environment during migration setup and testing. When it's time to cut over, the testing protocol instills a high degree of confidence that the replicated environment will function once traffic starts pointing to it. This same level of confidence can be elusive when working with free migration tools.

Migration and modernization with Carbonite®

Carbonite® Migrate offers several options for server platforms approaching their EOS dates. There's the option to perform a like-to-like migration of a complete server — or just the data on the server — to a cloud-based infrastructure-as-a-service (IaaS) platform, a hypervisor or a physical server. There's also a modernization option, going from a lower OS version of SQL Server to a higher version still under support, which allows you combine multiple business goals into a single project to achieve the least possible impact on production uptime.

There are benefits to each approach. A full-server migration with Carbonite® Migrate facilitates an entire lift-and-shift operation from anywhere (on-premises, private cloud, public cloud) to anywhere. Additionally, a full-server migration with Carbonite® Migrate does the following:

- Captures the entire server workload without needing to know application or OS configuration details
- Supports standalone server configurations
- Uses real-time replication to keep the target in sync and ensure near-zero downtime
- Supports numerous applications, including most versions of SQL Server, and Windows Server 2008 and above
- Supports cloud orchestration



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Data-only migration moves data from a source server located anywhere to a file system on the same or higher version of an OS located anywhere. Other characteristics include:

- Captures only the data you identify for migration, allowing granular selection of volumes, folders or files (Windows Server)
- Captures only the SQL Server workload and orchestrates all instance data and configuration migration (SQL Server)
- Uses real-time replication to keep the target in sync and ensure near zero downtime
- Supports SQL Server and Windows Server 2008 and above

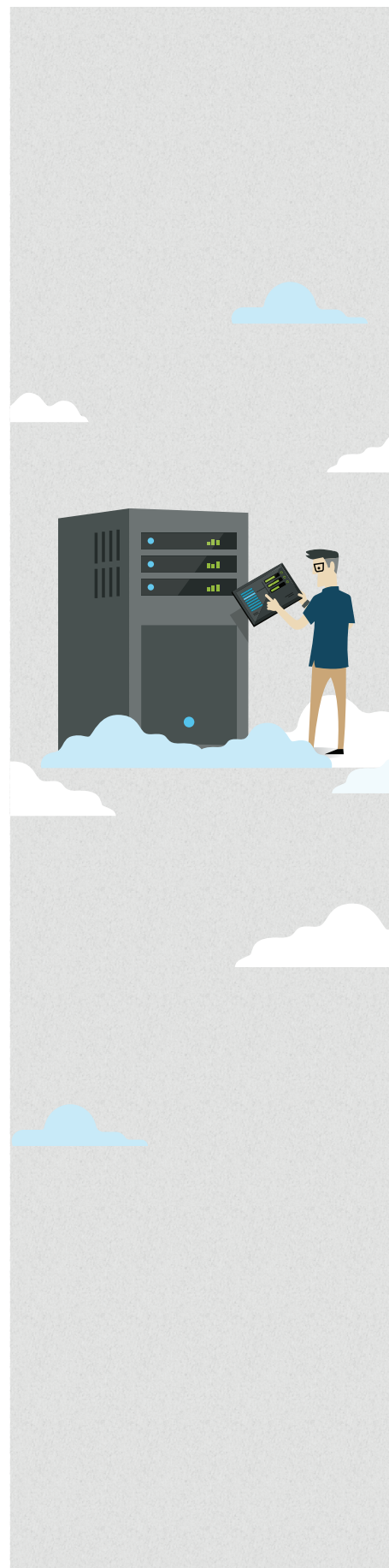
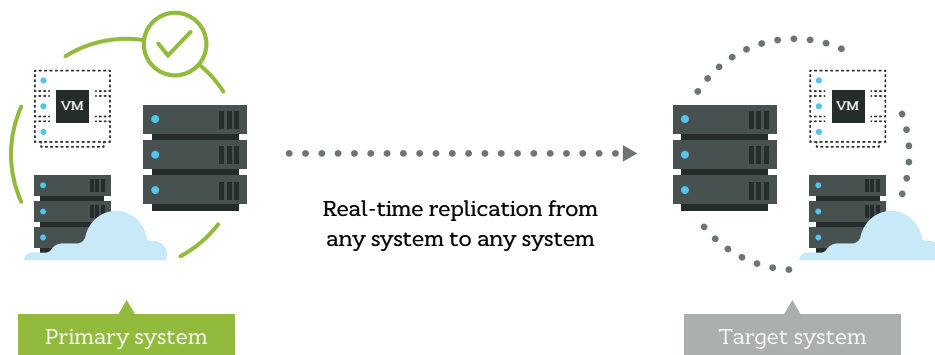
Modernizing SQL Server with Carbonite® Migrate allows businesses to migrate and upgrade in-flight. This approach captures the SQL Server user databases plus SQL Server objects and metadata, and it orchestrates the modernization to the higher version of SQL Server. It supports file-based replication for structured and unstructured SQL data, including FILESTREAM data type.

Carbonite® Migrate gives businesses the option to migrate multiple SQL Server instances into a single target default or named instance for consolidation, or to take databases or instances from a single SQL Server and distribute those to multiple standalone or clustered targets. Database filenames and locations can also be changed and realigned in-flight.

Carbonite® Migrate for EOS – Illustrative overview

Carbonite® Migrate byte-level replication

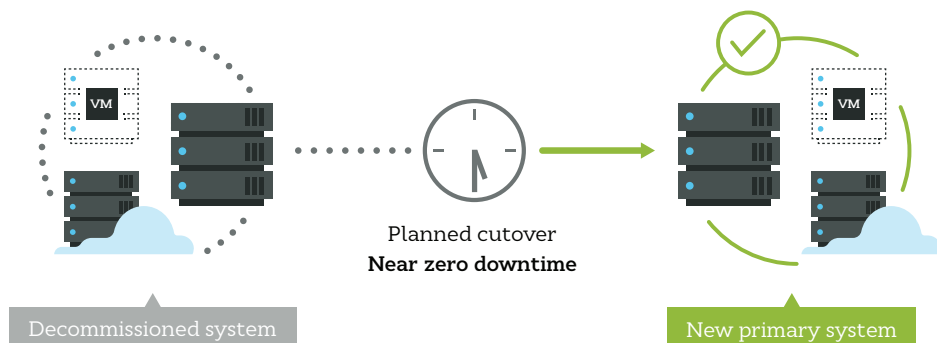
The Carbonite® replication engine keeps replica servers synchronized in real-time, using the smallest amount of bandwidth necessary to mirror byte-level changes between the source and target.



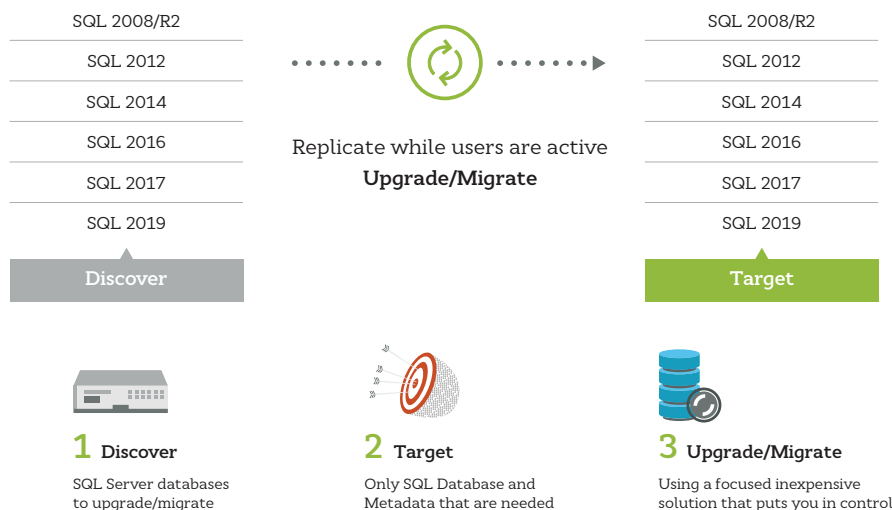
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Carbonite® Migrate cutover

Carbonite® helps businesses and service providers meet extremely aggressive SLAs, including RPOs within seconds.

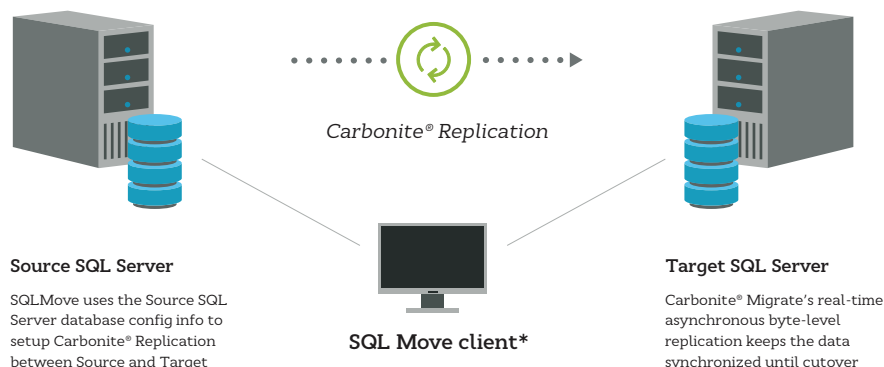


Carbonite® Migrate for SQL migration / modernization

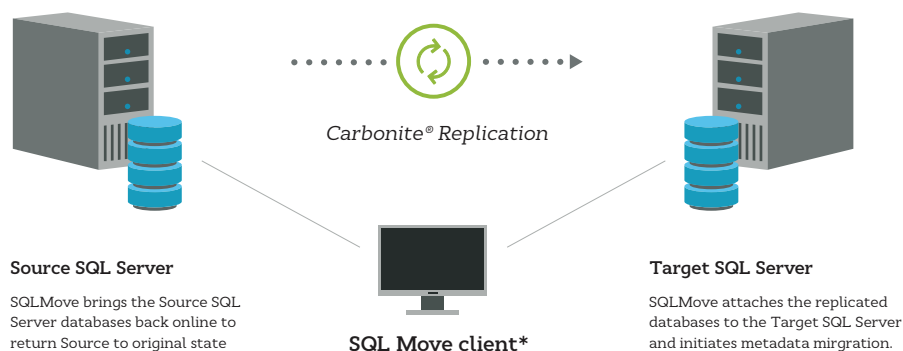


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SQL migration setup



SQL migration cutover

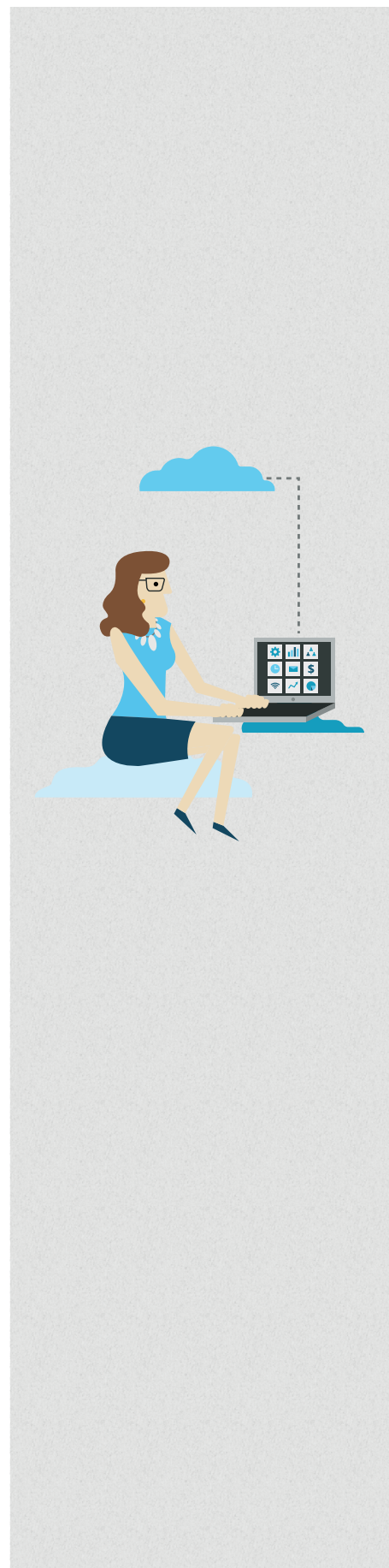


Migration and innovation

More and more organizations are taking a multi-cloud approach to IT modernization, leveraging multiple public, private and hybrid cloud options in a bid to drive business value. This emphasizes the need for repeatable, platform-independent data migration within a multi-cloud environment.

Carbonite® Migrate handles event-driven workload migrations for servers approaching EOS, as well as ongoing migrations for frequent updates, upgrades and maintenance. It ensures safe, predictable cutover windows, minimizing the chance of downtime that is commonly associated with moving large quantities of data. This, in turn, removes the barriers to updating or upgrading systems, giving decision-makers greater flexibility and agility to run the business.

Carbonite® solutions help IT decision-makers overcome traditional obstacles to getting projects approved and completed successfully.



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Traditional obstacles to buy-in

Carbonite® Migrate is engineered — both from a technology standpoint and in terms of total cost of ownership — to address obstacles and attain stakeholder buy-in. When barriers prove too steep, Carbonite® offers an option to co-manage or outsource the project through Carbonite® Professional Services. Our migration experts are available to get projects off the ground or across the finish line with a range of migration services, including migration readiness and planning for both like-to-like or complete modernization migrations.

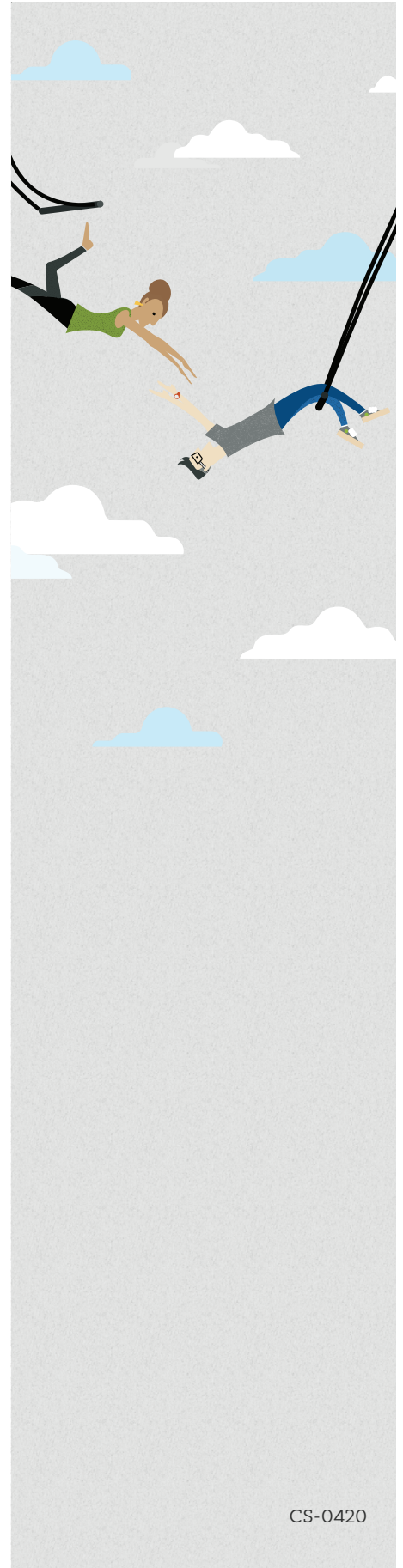
Next steps

As a leading provider of data protection solutions, we work with a large network of Partners that commonly help businesses where data migration is not a native skill set. If you have additional questions or would like to learn more about working with or as a Carbonite® Partner, we encourage you to contact us or visit Carbonite.com.

Contact us to learn more

877-542-8637

DataProtectionSales@carbonite.com



1. Microsoft support website, Microsoft support lifecycle, as of February 2019.