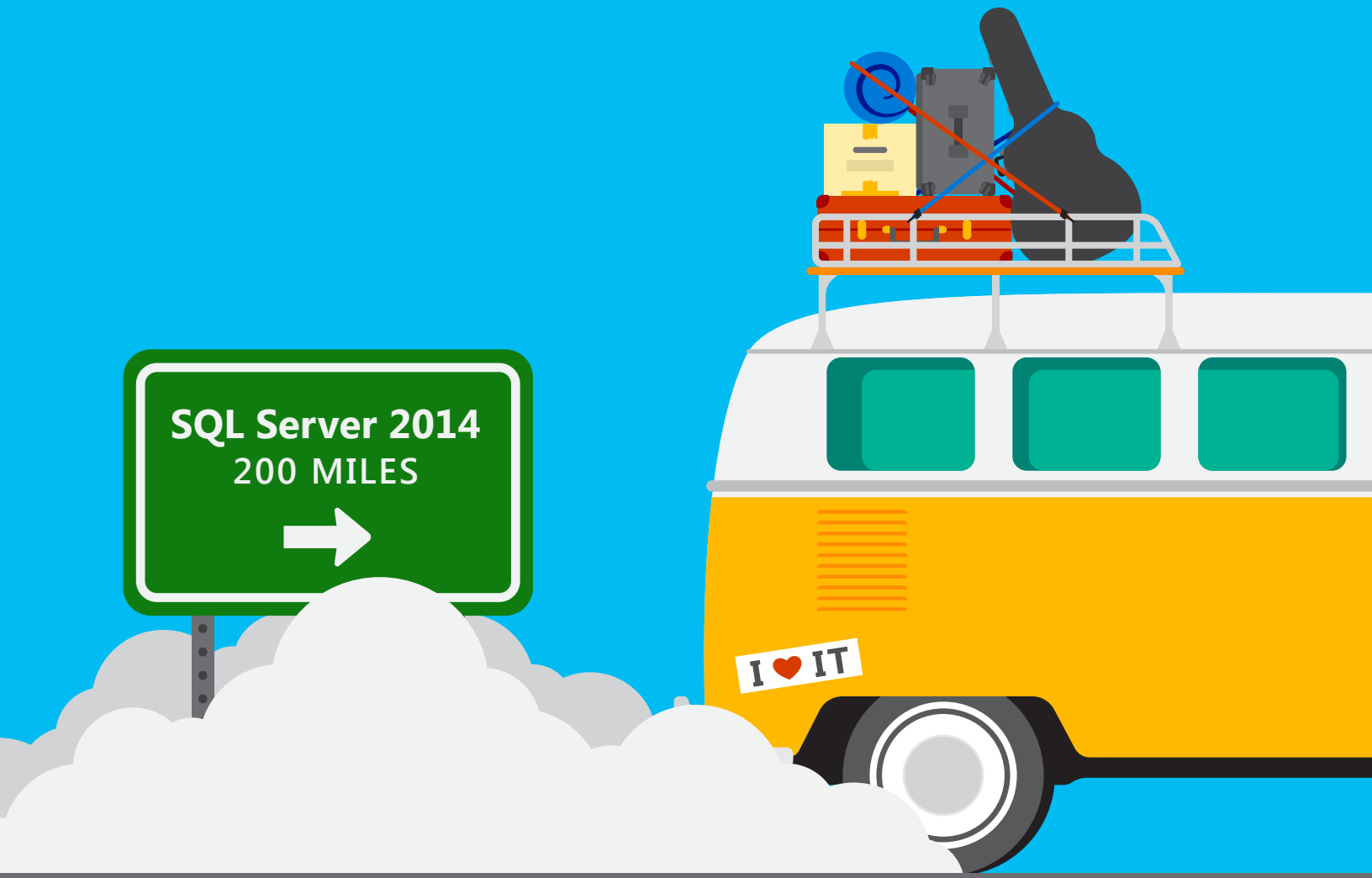
Saying Goodbye to a Classic

IT pros upgrade from Microsoft SQL Server 2005



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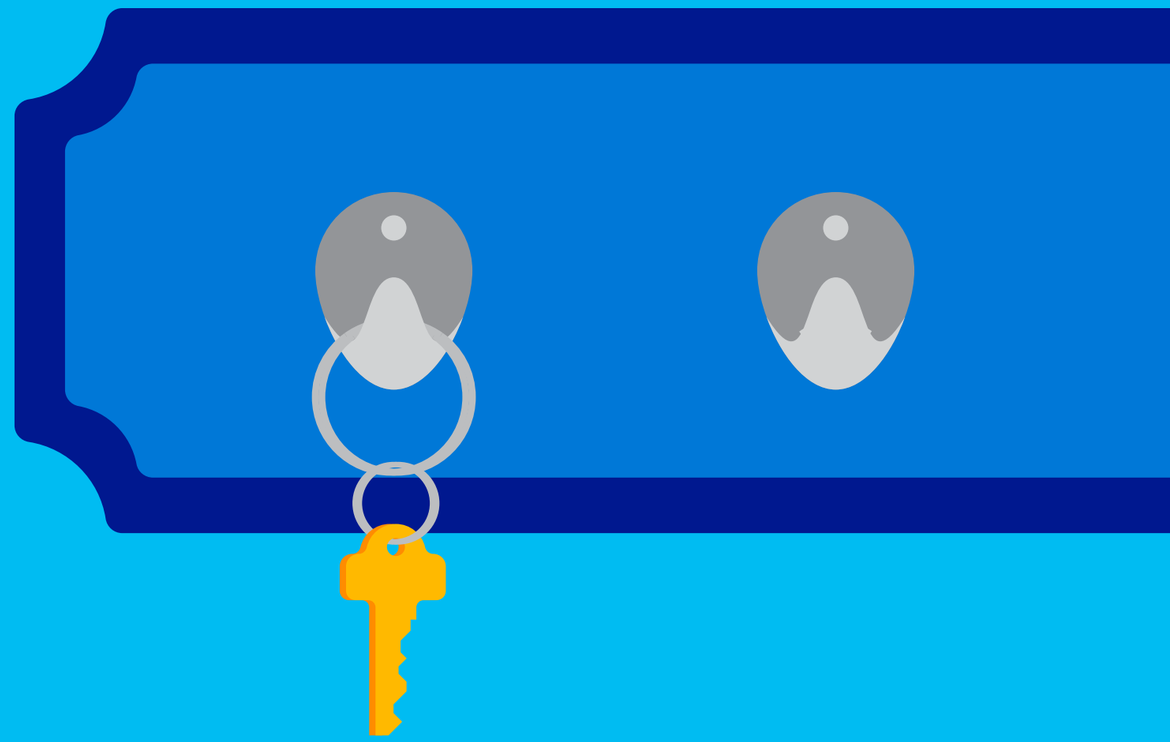


Introduction

Microsoft SQL Server 2005 is now more than 10 years old… and while it's gotten you this far, it's time to move on. Plus, there's more under the hood on newer versions of SQL Server… such as faster transactions and queries, higher availability, greater scale, and the built-in intelligence that modern applications demand. IT pros from a recent Spiceworks survey were excited about these benefits and others, including performance gains, greater security and manageability, support for different types of data, business intelligence capabilities, reporting, and cloud integration.

These are benefits required of today's modern data platforms. And now's a great time to modernize, since extended support for SQL Server 2005 ends on April 12, 2016. If you're still running SQL Server 2005, your data center could really use a tune up. End of Support (EOS) translates to no new updates, hotfixes or security patches after that date—which means any organization continuing to use the unsupported product is opening itself up to serious security and compliance risks.

So what's it going to be? Will your organization hold back its SQL Server upgrade out of loyalty (or inertia)—or seize the opportunity to take new features out for a spin? Read on to see what your colleagues have already learned about migration, and some expectations for the future.

Survey Information

As IT pro decision makers worldwide prepare for the end of SQL Server 2005, Spiceworks asked 516 of them to share their plans. This report offers a closer look at their migration practices, from how they're planning to stage the process, to what may be holding them back, to what's inspiring them to try something new.

Getting in Gear

SQL Server 2005 was definitely a popular model in its day. Nearly half of the surveyed organizations report using it, and more than three quarters (79%) are aware that end of support (EOS) is coming up fast. The majority are already fully or partially migrated, with the remainder following close behind as soon as they can.

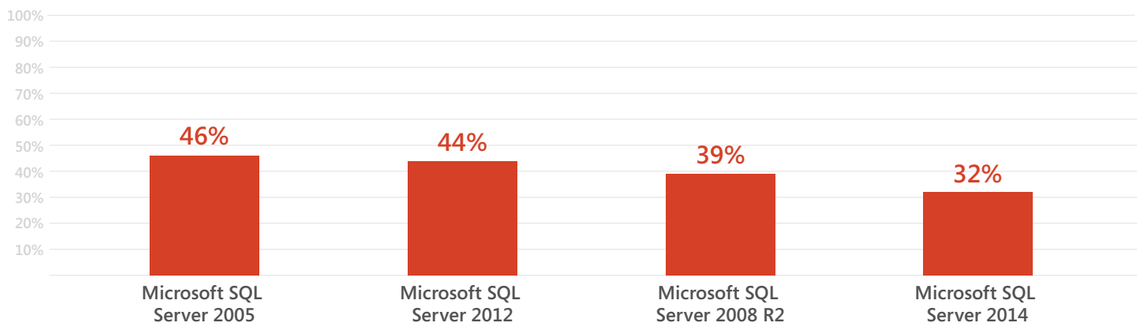
Those who've completed their migration say the process took less than the two- to three-month timeframe they were expecting. Most are migrating ten or fewer instances, and most are virtualizing— although some are migrating to physical servers or overwriting old instances, and a few are moving to the cloud. Most are headed to SQL Server 2012 or 2014, citing better performance, security and licensing.

Who's in the Driver's Seat?

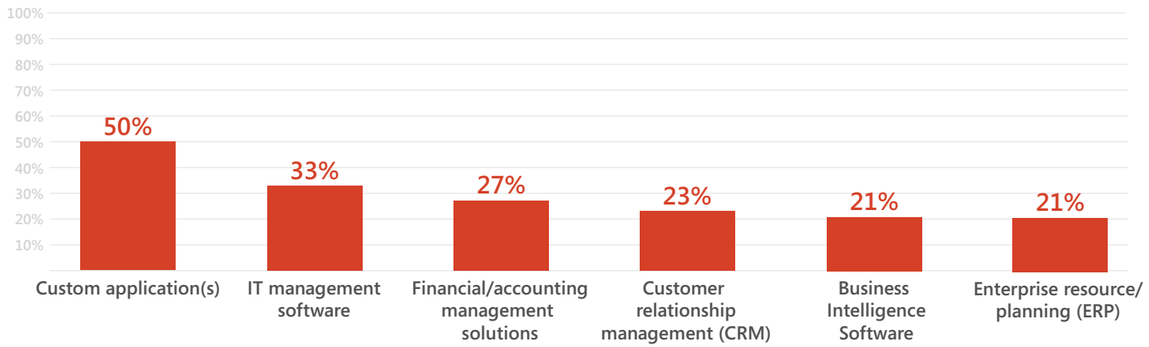
Almost 80% of IT pros surveyed acknowledge they're aware that SQL Server 2005 will reach end of support on April 12, 2016, and about half have already upgraded their workloads. Of those not currently using SQL Server 2005, 53% finished their migration between six months and a year ago, and 47% finished within the past six months.

But some are still using SQL Server 2005 to support custom and critical apps like management and financial software. These are applications that likely will benefit from new features in SQL Server like AlwaysOn availability groups, in-memory performance, and new security features.

Most Common SQL Server Versions in Use:

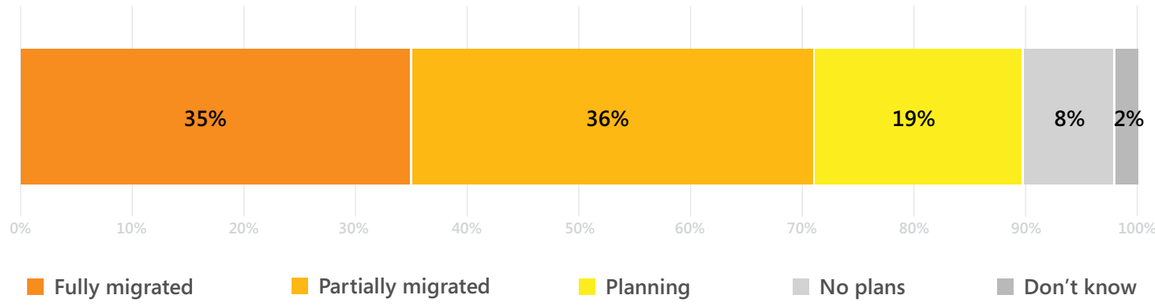


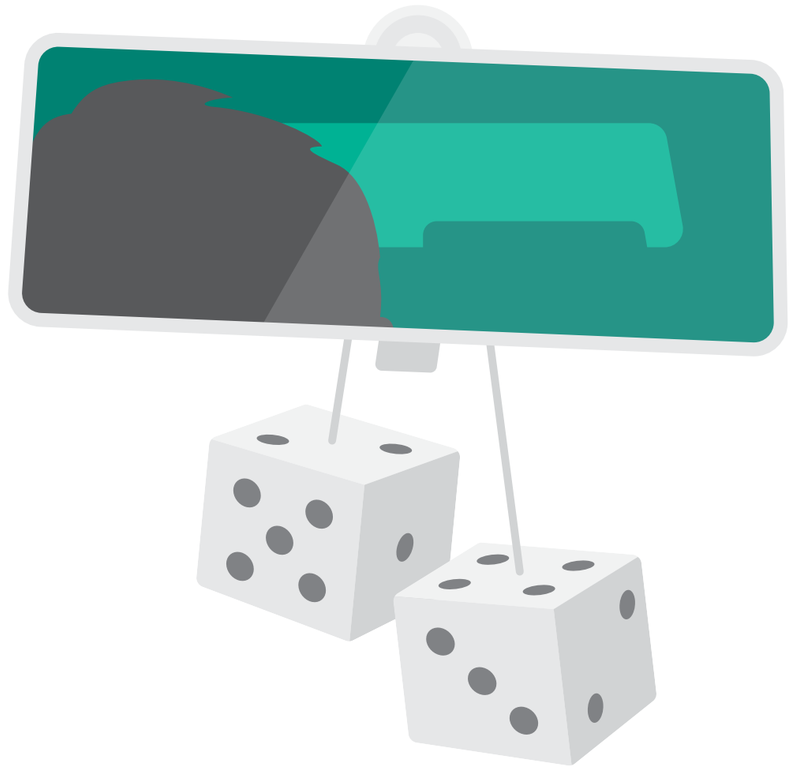
Top Apps Currently Supported by SQL Server 2005:



Almost three-quarters of surveyed organizations are fully or partially migrated, while almost 20% are in the planning process—and only 10% either have no plans to migrate at all or aren't sure what they're going to do.

State of Migration:



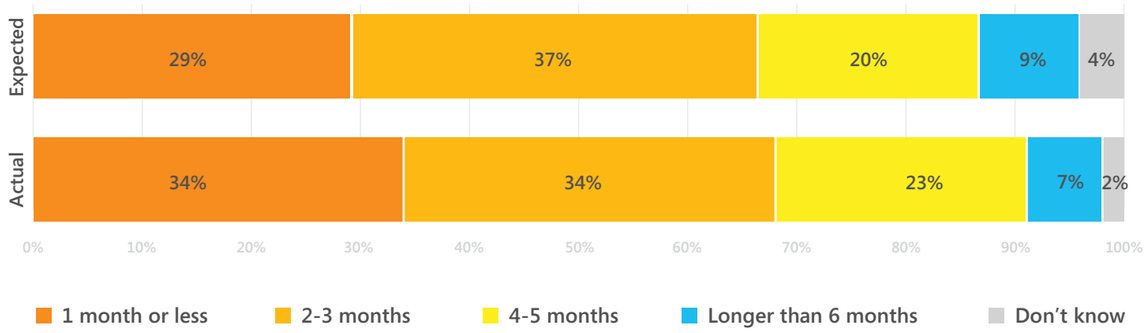


Mapping the Migration Route

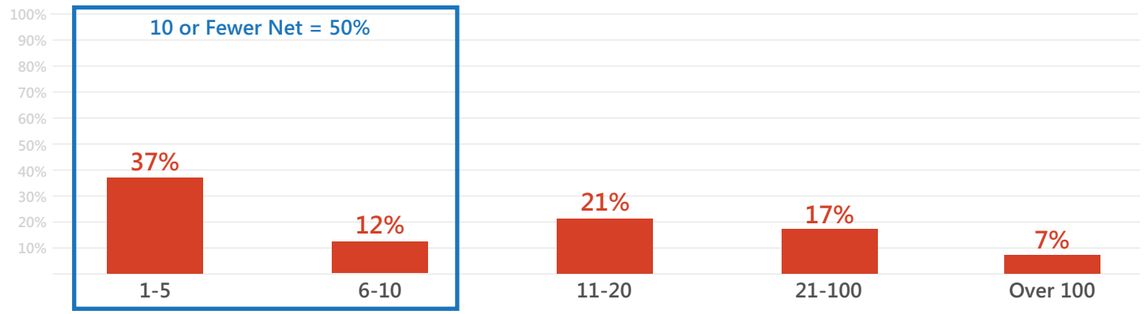
Here's some good news: Migrations are taking a bit less time than IT pros first thought. While most respondents *expected* the process to take two to three months, about a third of those who've already upgraded say it *actually* took a month or less. Half of the organizations surveyed are migrating 10 or fewer SQL Server 2005 instances.

Mission-critical data is a top priority both for those already partially through the process (64%) and for those who are still planning their migration (72%). The importance of this data may factor into both choices: Those who migrated quickly may be thinking the best way to protect the data is to migrate to a newer platform with current performance, availability, security and scalability as soon as possible. Those taking *more* time may be doing so in order to think through complex migrations involving data that's vital to their operations.

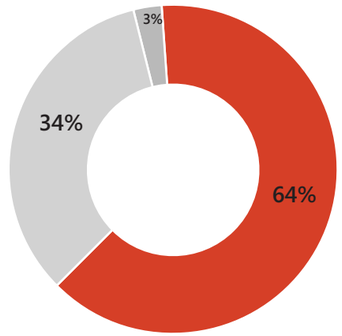
Time Required for Migration:



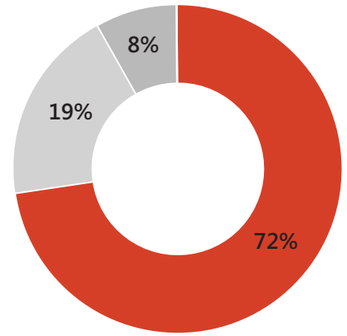
Number of SQL Server 2005 Migration Instances:



Percentage of IT Pros Who've Migrated Mission-Critical Data:
(Asked of those partially migrated)



Percentage of IT Pros Who Will Prioritize Migration of Mission-Critical Data:
(Asked of those planning to migrate)



Yes
No
Don't know

Where to Next?

According to the survey, the vast majority of organizations are migrating either to SQL Server 2014 or SQL Server 2012—and those with a known budget for the migration list it at an average of $116,950.

Top 3 Data Management Systems Migrated/Migrating to:

42% SQL Server 2014

39% SQL Server 2012

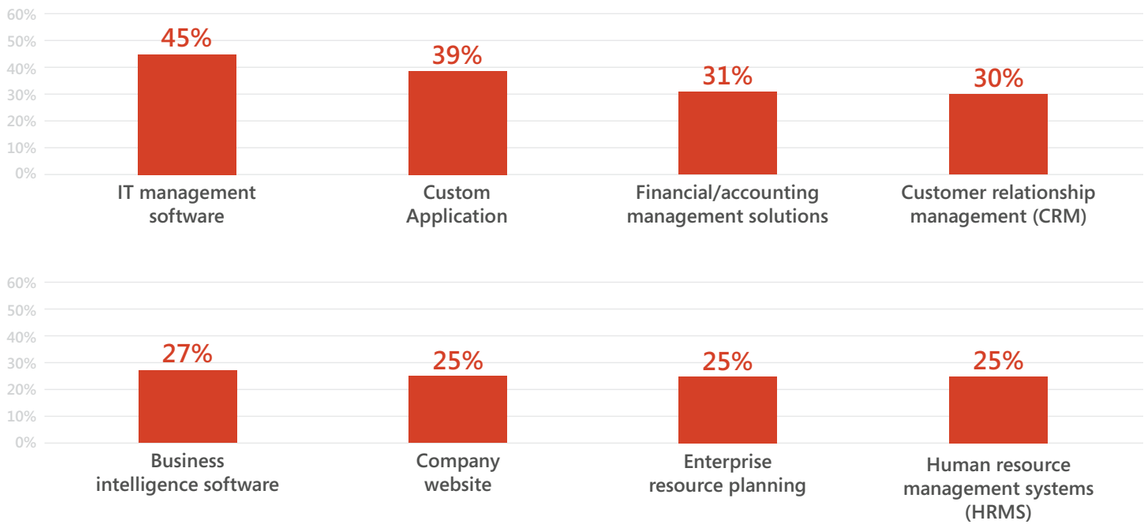
16% SQL Server 208 R2

They'll be using these upgraded SQL Server versions primarily to support IT management software, custom applications and critical apps such as financial and accounting software, customer relationship management solutions, business intelligence software, websites and enterprise resource planning.

Those still planning their upgrade should keep in mind that SQL Server 2008 and 2008 R2 will come to EOS in just another few years. But Microsoft continues to make improvements in database technology, and the soon-to be released SQL 2016 will be further motivation to upgrade to the latest version.

Top Application Types Supported by a New SQL Server:

(Asked of those who migrated or are planning to migrate to a new SQL Server)



What's driving the migration? IT pros in the survey list performance, security features and the fact that they already own licenses as the primary reasons. They also say that moving to SQL Server 2012 or 2014 allows them to maintain a consistent platform, which will be easier to upgrade and manage and will be compatible with their existing hardware investments.

Top 10 Reasons for Migrating to New Version of SQL Server:

(Asked of those who migrated or are planning to migrate to a new SQL Server)

1. Performance
2. Security features
3. Already own licenses
4. Ease of upgrade
5. Ease of management
6. Hardware compatibility
7. High availability
8. Scalability
9. Types of data supported
10. Cost

And what are the new features IT pros are most looking forward to using? The top prize goes to AlwaysOn Availability Groups (45%), a high-availability failover solution for disaster recovery that supports up to nine availability replicas.

For customers looking for performance, SQL Server 2014 has been benchmarked to be 13x faster than SQL Server 2005--and that's before new in-memory features are applied. Respondents also point to In-Memory OLTP (30%) and In-Memory Columnstore (27%), new in-memory processing capabilities, as features they can't wait to try out.

Taking the High Road

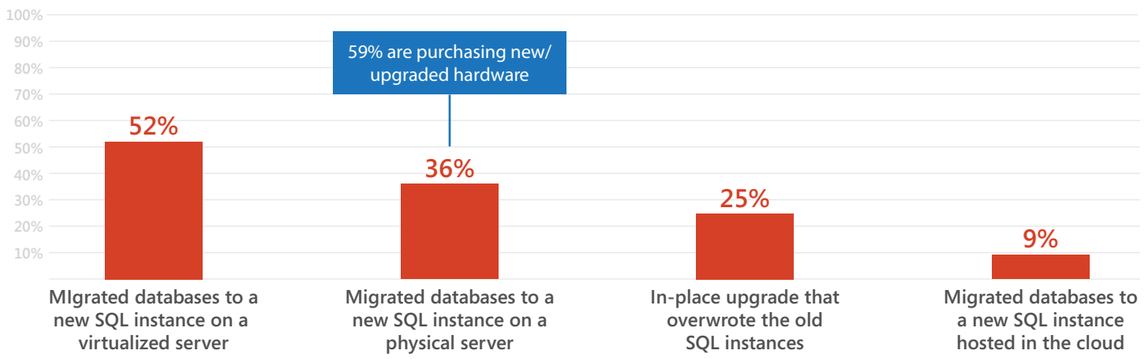
Now that you know where your fellow IT professionals are heading, here's how they're planning to get there. More than half are migrating databases to a new SQL Server instance on a virtualized server. However, approximately a third of participating organizations are also migrating to instances on physical servers—and almost 60% of those are purchasing new or upgraded hardware to get it done.

Less common is overwriting old instances, chosen by about a quarter of respondents. Very few (9%) plan to migrate to the cloud, perhaps because of the critical nature of the applications they've been supporting on their SQL Server 2005 instances.

Those who are moving to cloud solutions are doing so primarily to reduce costs (66%), although about half also point to a need for greater capacity, the demands of distributed infrastructure and the ease of scalability.

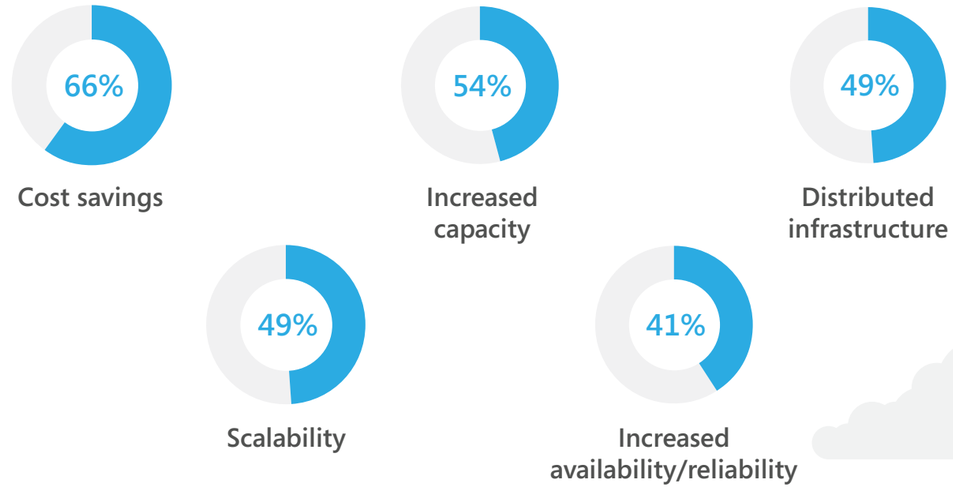
Migration Approach:

(Asked of those fully, partially, or planning to migrate)



Top 5 Reasons for Migrating to Cloud:

(Asked of those who have moved or are moving to cloud)

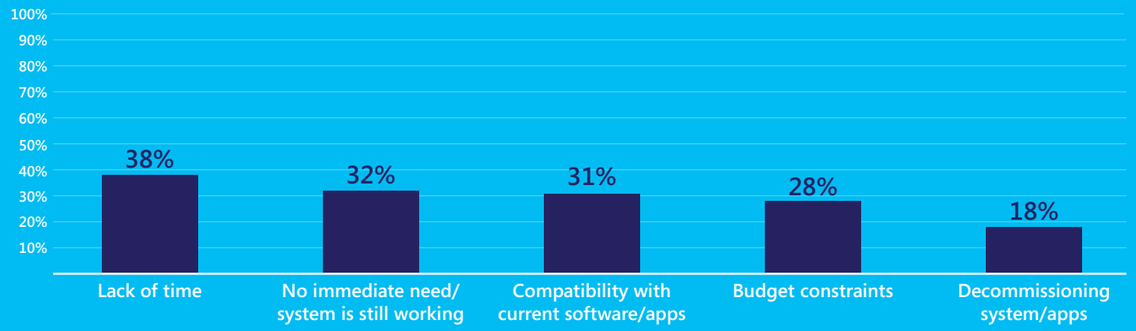


Dodging Obstacles Along the Way

Those are the benefits; but what about barriers? Specifically, what's keeping organizations from partially or fully migrating away from SQL Server 2005? The biggest impediment to migrating away from SQL Server 2005 appears to be lack of time (38%). Beyond that, other IT pros don't see an immediate need or believe their system is still working as it is; like the compatibility with other apps; or feel their hands are tied by budget constraints.

Top 5 Barriers to Full Migration:

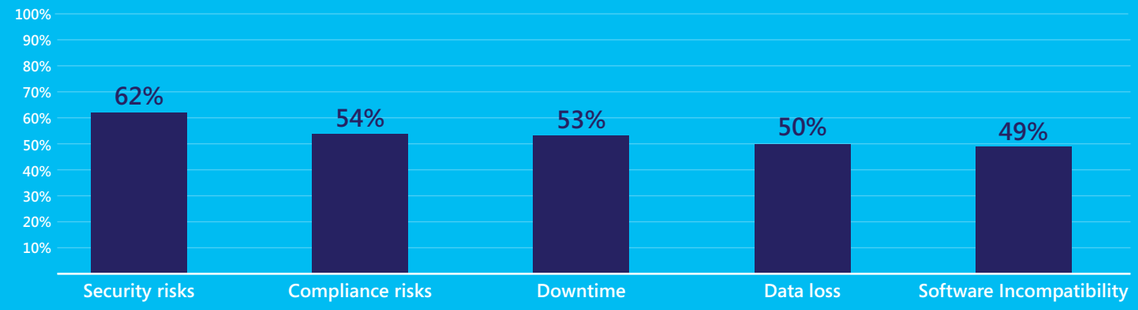
(Asked of those not fully migrated)



This doesn't mean IT pros don't have the occasional second thought. The single biggest concern regarding unsupported SQL Server 2005 instances is, of course, security, followed by compliance risks, downtime and data loss.

Top 5 Concerns with Unsupported SQL Server 2005:

(Those who are concerned, very concerned or extremely concerned on a 5-point scale)



These concerns are valid, if for no other reason than because SQL Server 2005 came out *10 years ago*—long before the advent of some of today's most pressing security issues. For instance, flash back to 2005 and imagine the blank looks you'd get if you broke into a Web 2.0 discussion to talk about extortion hacks or the Internet of Things.

Or just think about the fact that 90% of all the data in the world has been generated over the last two years.[2] Newer versions of SQL Server offer features like data warehousing, business intelligence and advanced analytics to help make sense of all that data—features that SQL Server 2005 simply doesn't have.

What's more, any organization bound by standards such as PCI DSS or regulations like HIPAA must maintain up-to-date, patched databases, so they'll be out of compliance if they're using SQL Server 2005 after EOS.[3] New versions of SQL Server will also address IT pro concerns around downtime and data loss.

Yet most IT pros in organizations that *don't* expect to complete a migration before EOS tell us they're not doing anything in particular to mitigate the risks. In most cases, that's because they've already moved their mission-critical apps and say anything left behind is either not particularly important, or only used internally. Yet these systems may present a weakness that gives cybercriminals a path to apps that *are* critical.

"Organizations still relying on SQL Server 2005, even with extended support in place, are already under threat from a community of hackers and cybercriminals who have spent 10 years poking holes into the system. Once those systems no longer receive security patches, every application and service that touches them is susceptible to data theft and corruption."

– Robert Sheldon, *SearchSQLServer*[1]

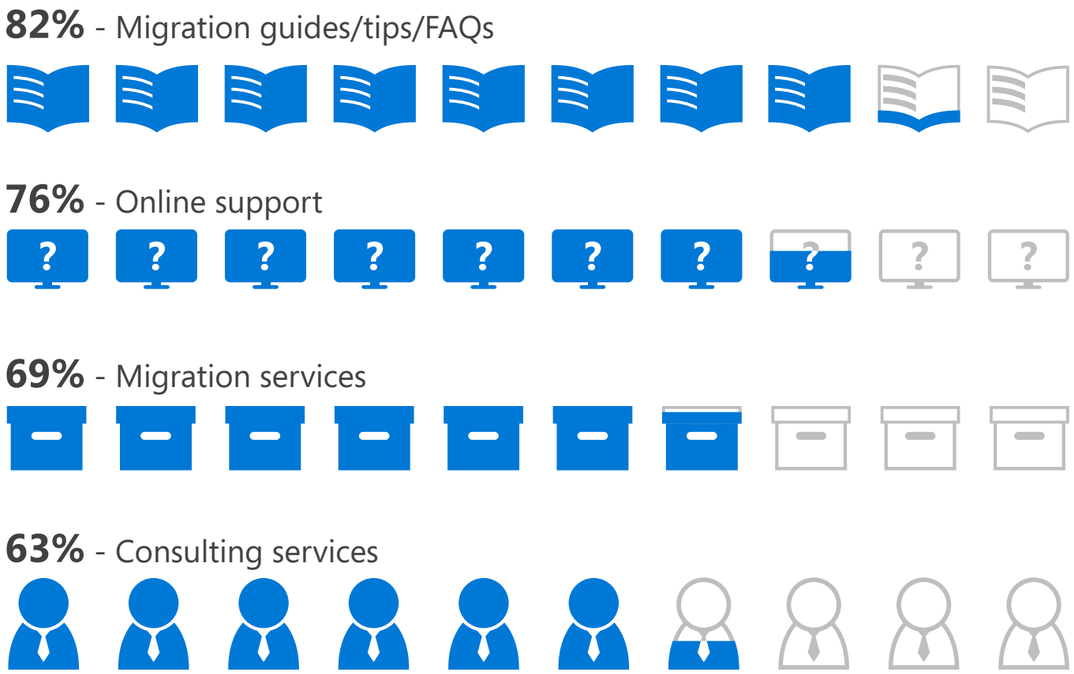
Asking for Directions

If you haven't started your migration or are still in the middle of the process, there's a lot of information and support out there to help. IT pros who've been there report that IT forums, Internet searches and vendor websites are their go-to resources for support. They also rely on vendor services like migration guides and online support.

Top 5 Migration Resources:

1. IT forums and communities
2. Internet searches
3. Manufacturer/vendor websites
4. Peer recommendations
5. White papers

Useful Vendor Resources/Services:



Conclusion

Over the last decade, SQL Server 2005 was a faithful vehicle, keeping your data safe and available. If you've been waiting to make a change, migrating your workloads may not take as much time and effort as you think. But the time to move is now. Modernizing your data platform before the SQL Server 2005 EOS date will help you safeguard your mission-critical apps against both yesterday's limitations and today's emerging threats. It will also give you the opportunity to evaluate your entire install base and make some big improvements—among them, taking advantage of the breakthrough performance, cloud capabilities and data analytics features that new versions have to offer.

The keys are in your hands. We'll see you on the road!

Upgrade Now ›

"Although SQL Server will continue to run (at least, that is the hope), the lack of any type of support—particularly, security updates—is a significant enough concern that just about anyone running SQL Server 2005 better have a plan. They also better be ready to act on that plan quickly."

– Robert Sheldon, *SearchSQLServer*[1]

Microsoft

About the Survey

Microsoft commissioned Spiceworks to conduct an online survey in February 2016 to examine Microsoft SQL Server 2005 migration practices, including stages, drivers, barriers and migration plans. A total of 516 surveys were collected from around the world from companies of all sizes, in industries including IT, government, manufacturing and healthcare. Respondents were IT decision-makers working for organizations currently using SQL Server 2005, or that had migrated off SQL Server 2005 within the past 12 months.

Sources:

[1] "SQL Server 2005 end of life is closing in: Are you ready?," *TechTarget*, December 2015. http://searchsqlserver.techtarget.com/feature/SQL-Server-2005-end-of-life-is-closing-in-Are-you-ready

[2] "Every Day Big Data Statistics – 2.5 Quintillion Bytes of Data Created Daily," *VCloudNews*, April 2015. http://www.vcloudnews.com/every-day-big-data-statistics-2-5-quintillion-bytes-of-data-created-daily/

[3] "What end of support for SQL Server 2005 means for CIOs," *CIO,* November 2015. http://www.cio.com/article/3007062/servers/what-end-of-support-for-sql-server-2005-means-for-cios.html