



Technology  
Provider  
Platinum 2019



SQL Server 2008 and SQL Server R2

# WHICH WAY NOW?

# END OF THE ROAD FOR SQL SERVER 2008 AND SQL SERVER R2

On 9 July 2019, Microsoft ended extended technical support for SQL Server 2008 and SQL Server R2 [SQL 2008/ R2]. Mainstream support ended in July 2014.

There will be no further patches or security updates, which means that if you're running any of the estimated 20 million<sup>1</sup> global server instances of SQL 2008/ R2, you potentially face major compliance issues and security risks.

Many organisations have been slow to respond. However, those running business critical databases on outdated software need to act quickly, to avoid the risk of disruption to their business. Whilst the possibility of further security support does still exist, this is proving to be prohibitively expensive and complicated, and will normally require a commitment to additional licensing, subscriptions or enrolment.

"Computacenter understand the many options available to our customers and the complexity around whether to invest in building capability on-premises or utilising public cloud providers. Our role is to help them understand the challenges they will face and build the security and governance to guarantee success."

**Kevin Stavers, Director, Platform and Hybrid IT, UK and Ireland, Computacenter**

# FROM KEEPING THE LIGHTS ON TO LIGHTING THE WAY AHEAD

There are four fully-supported versions of SQL Server today – 2012, 2014, 2016 and 2017 – and they all offer improved functionality over SQL 2008/ R2, at a lower cost.

Indeed, if you're currently paying for SQL 2008/ R2 Enterprise level licenses, there's a good chance that all the features you need are now available at the Standard level<sup>2</sup> – at a significantly lower cost.

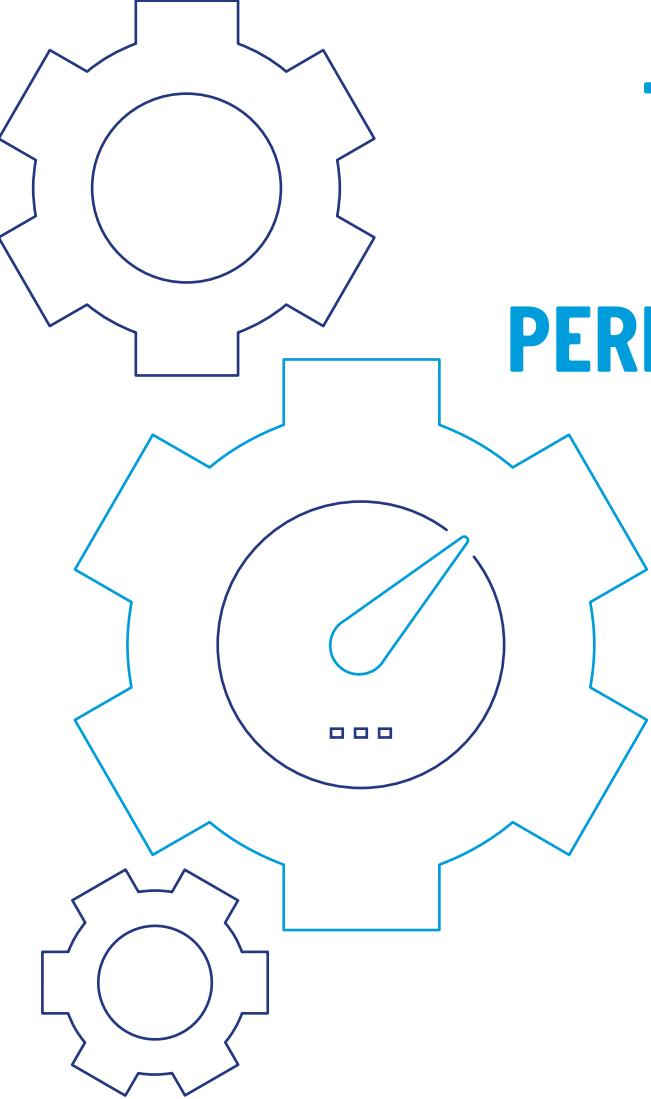
Updating your SQL 2008/ R2 database licenses opens up a range of positive outcomes, helping to reduce TCO, improve business agility, drive innovation, and future-proof your business. Over 60% of global GDP will be digitised by 2022<sup>3</sup>, with growth driven by digitally-enhanced offerings, operations and relationships. In a fast-moving world, the ability to compete effectively already depends on your overall business agility which, in turn, relies on highly adaptable IT systems.

For many industries and organisations, technology is fundamental to delivering on both strategic and tactical targets. This is why organisations with advanced digital transformation programmes have IT leaders that are over six times more likely<sup>4</sup> to be involved in helping develop overall business strategy than at those running legacy hardware (60% versus 9%).

However, seventy-one percent of IT organisations cite legacy infrastructure as the biggest barrier to business transformation.<sup>5</sup> Outdated IT infrastructure slows down product innovation and time-to-market by a factor of six, according to a 2017 estimate by the Enterprise Strategy Group.



<sup>3</sup> 'Worldwide IT Industry 2019 Predictions', IDC FutureScape, 2018 ([4 'Research Proves IT Transformation's Persistent Link to Agility, Innovation, and Business Value', Enterprise Strategy Group, 2018 \(<https://www.dell EMC.com/content/dam/uumem/production-design-assets/en/whitepaper/pdf/ESG-Research-Insights-Paper-Dell-EMC-Intel-Mar-2018.pdf>\). <sup>5</sup> 'How IT Transformation Maturity Drives IT Agility, Innovation, and Improved Business Outcomes', ESG, 2017 \(<https://www.emc.com/collateral/analyst-reports/esg-dell-emc-it-transformation-maturity-report.pdf>\).](http://www.idc.com/getdoc.jsp?containerId=WC20181030)



# THE RIGHT PLATFORM FOR HIGH PERFORMANCE

Modern software runs best on modern hardware, and this means that when updating your SQL 2008/ R2 licenses you'll also need to review your server environment.

Most physical Data Centers will not disappear in the next 10 years. The average server age is increasing. In 2015 it was around five years, while in 2017 it was approximately seven years.<sup>6</sup> As servers age beyond their optimal replacement cycle, their relative performance declines and support costs increase.

Between year one and year five of operation, server performance drops 39%; annual support costs per server increase 148%; annual application management costs increase 40%; and unplanned downtime hours rise 62%.<sup>7</sup>

The amount of data created across the world is still expanding exponentially. Remaining competitive, typically means running the very latest data-hungry, AI, IoT and 5G applications, and keeping far larger amounts of data closer to the CPU. Looking beyond heavyweight processing power, and there is now a much stronger performance imperative for than before, demanding a whole new approach to memory.

As Data Center experts, Computacenter helps customers to enhance and refresh their traditional Data Center infrastructure with simplified, optimised, secure and compliant solutions. We are modernising expensive legacy IT, by designing the next generation of Data Centers at scale – built and deployed from our Integration Centers across the globe.

“If you’re running SQL 2008 then you may be constrained in your ambitions to modernise your applications. As application software has been updated, it may be incompatible on this old version of SQL server.”

**Paul Bray, Chief Technology Officer, UK and Ireland, Computacenter**

<sup>6</sup>‘Server Market Insights’, CMR, 2018.

<sup>7</sup>‘Why Upgrade Your Server Infrastructure Now?’, IDC, 2016 [[www.emc.com/collateral/analyst-reports/idc-why-upgrade-server-infrastructure.pdf](http://www.emc.com/collateral/analyst-reports/idc-why-upgrade-server-infrastructure.pdf)].

Working closely with Microsoft, Intel has developed an optimised, high-performance SQL Server configuration:



#### HARDWARE: INTEL® XEON® SCALABLE PROCESSOR

- Up to 4x faster performance, as compared with 4-5 year old servers<sup>5</sup>
- 7x number of cores and 4-16x more memory over 8 year-old servers
- Supports Intel® Optane™ DC persistent memory technology
- Intel® Optane™ SSDs deliver unprecedented performance and storage support



#### SOFTWARE: MICROSOFT SQL SERVER 2017

- Hybrid Data Center platform
- Built for next generation flash storage
- Software-defined compute, storage and networking
- Enhanced security
- Running on Windows Server 2016/ 2019

UP TO  
**30x**  
AI PERFORMANCE WITH  
INTEL® DL BOOST  
COMPARED TO INTEL® XEON® PLATINUM 8180 PROCESSOR  
JULY 2017

NEW INTEL® XEON® PLATINUM 9200 PROCESSORS

**2x**  
AVERAGE PERFORMANCE IMPROVEMENT  
COMPARED TO INTEL® XEON® PLATINUM 8180 PROCESSOR

Intel has recently launched the second generation of Xeon® Scalable Processors, which offer further performance improvements over the bench test figures above.

The Intel Xeon Scalable platform was specifically designed for Data Center modernisation. It's truly ground-breaking and capable of delivering performance improvements and agile services. That means stronger operational efficiencies, increased productivity and further improvements to your TCO.

Intel Optane Persistent Memory

Boost the Performance of Data-Intensive Applications

Deliver more Server Instances, Improve Service Scalability and TCO



intel OPTANE™





# INTEL AND COMPUTACENTER: A POWERFUL PARTNERSHIP

Computacenter and Intel are ideally placed to help you deliver Data Center modernisation. We have a close working relationship, having collaborated on numerous major projects:

## Producer of AI software opens up new routes to market around the world

Computacenter provided access to its outstanding technical knowledge, network of industry partnerships and global Data Center infrastructure, running Intel® Xeon® Scalable Processors. The customer became able to provision AI solutions for their customers around the world more efficiently and cost-effectively.

## Multi-national pharmaceutical and biopharmaceutical company moves complex workloads to the cloud

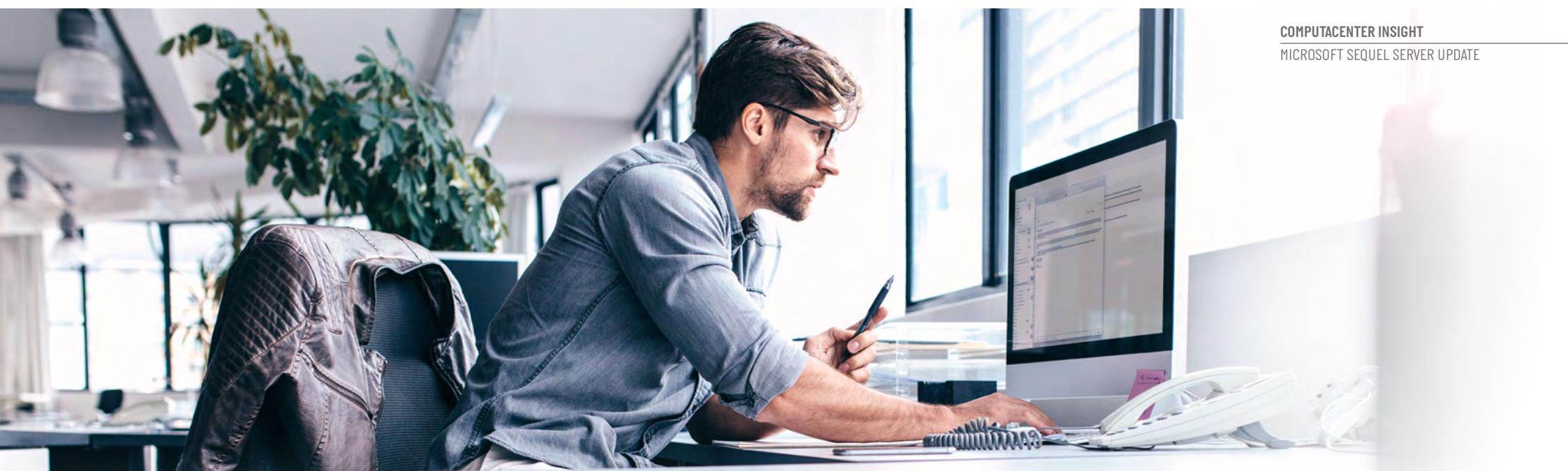
Computacenter helped the organisation implement its hybrid and multi-cloud strategy, based on Intel technology, and using existing tools to support complex workloads. We sourced complex technology in multiple regions and delivered a platform that supports rapid workload deployment at minimum cost.

## Global bank implements new internal cloud platform on an 'as a service' model

Computacenter, working with Intel, helped deliver a flexible new IT platform to enable the bank to achieve its aggressive growth aspirations. The result was more strategic IT, reduced CapEx, and the global delivery of an industrialised, fully-integrated, 'evergreen' technology platform.

## Prestigious, multi-national law firm implements a new IaaS Data Center platform

Computacenter designed, built and procured the new Data Center platform, using hyper-converged Intel technology. All IT, business and financial requirements were addressed. The customer reduced costs and risk improved overall productivity, and now has a flexible platform for future growth.



### Well-known global financial services business migrates to the public cloud

Computacenter took its customer on an end-to-end cloud migration journey – from project conception and planning through to the full adoption of Microsoft Azure public cloud running on Intel® Xeon® Scalable Processors. The result was dramatically reduced IT operational costs.

### Mutual life insurance and pensions giant migrates its Data Center

Computacenter provided professional services to support the migration of the customer's production Data Center. Technical specialists shared their expertise, helping reduce the risk of business disruption. The project is now running ahead of schedule and delivering improved performance earlier than expected.

### IT systems provider in healthcare sector implements hyper-converged infrastructure (HCI)

Computacenter acted as trusted IT advisors and evaluated three different server-storage solutions before finally recommending HCI in the Data Center, based on Intel® Xeon® Scalable Processors. The result was far greater automation, efficiency and flexibility, and improved IT at two UK hospitals.

# ACCELERATING YOUR JOURNEY TO THE CLOUD

Modernising your Data Center is key to becoming cloud ready. This means that in the future, you'll be able to exploit the flexibility, availability and scalability of the public cloud, along with reduced hardware costs, usage-based billing and lower management and maintenance costs.



However, for a variety of reasons, including data sensitivity, latency and industry regulation, public cloud may not be the destination for all of your applications. As a result, most enterprises are now using a mix of private clouds, public clouds and on-premises infrastructure.

At Computacenter, we help customers develop a strategy and roadmap to run public cloud at enterprise scale and implement it according to our 'best-architected framework' to meet their requirements.

"Generally speaking, attitudes towards public cloud are warming, even among those industries that have traditionally been a bit more reserved. SQL on Microsoft Azure is a very credible platform strategy moving forwards."

**Paul Bray, Chief Technology Officer,  
UK and Ireland, Computacenter**



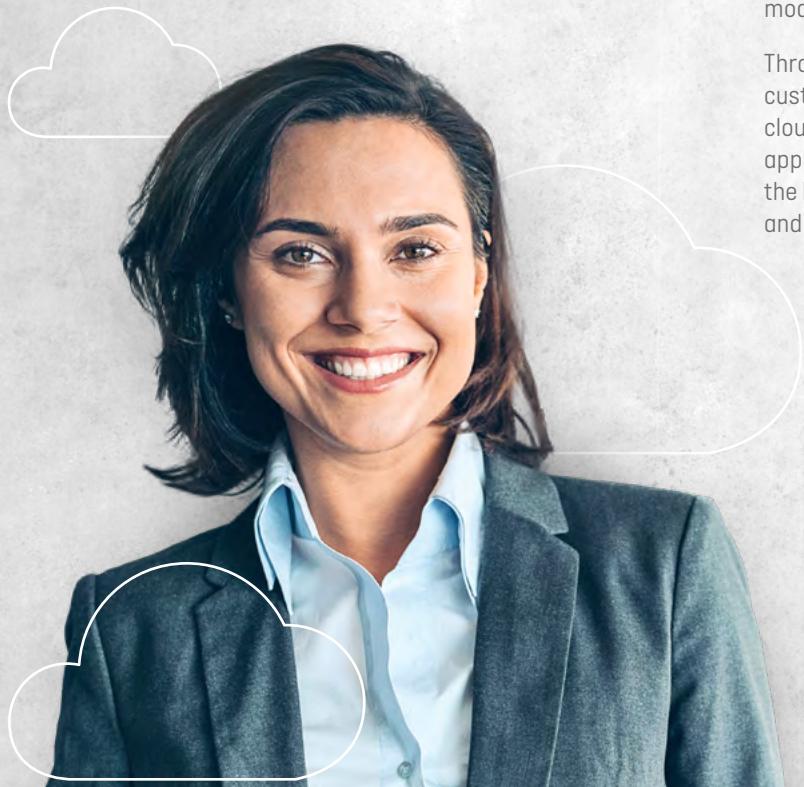


We apply best practices across our customer's public cloud operations to scale public cloud while optimising operations, using our migration factory: a completely governed process to transform workloads throughout the enterprise.

For organisations looking to migrate SQL workloads to the public cloud, Microsoft Azure is widely regarded as the best-in-class cloud IaaS – with the largest number of CPU threads and biggest memory allocation.

Additionally, there is the choice of SQL Server licenses – with full control of the database engine – or Azure SQL Database Managed Instances [DBaaS]. The latter are fully-managed databases running on SQL Server, but provided as an automatically-maintained cloud service.

# HELP IS AT HAND



Whatever your plans for Data Center modernisation, you need a partner that can support your journey – one with the widest possible range of knowledge and skills. And one that can provide you with the best advice for both your desired strategic outcomes and the specific practical needs of each of your databases.

At Computacenter, we are experts at helping customers to build enhanced and next generation Data Centers for modern operations.

Through the Digital Power portfolio, we enable our customers to Source, Transform and Manage their clouds and Data Centers, building platforms for existing applications and future digital services, to modernise the Data Center, adopt public cloud, enable multi-cloud and accelerate digital business.

We help customers to source technology at any scale, preconfigured and ready to deploy. We build next generation platforms combining industry leading infrastructure with automation tools to change the way IT delivers services

We hold over 200 vendor accreditations. Our people hold over 10,000 vendor technical certifications. These partnerships add value to our customers in making digital work, helping us to give impartial advice.

Our breadth of partners enables us to integrate technologies and create solutions perfectly aligned to our customer's requirements, unlocking the true value of data to accelerate digital business, whilst mitigating the risks of change.

**DIGITAL**  
Cloud accelerating business  
**Power.**

ACCELERATE DIGITAL BUSINESS

ADOPT PUBLIC CLOUD

ENABLE MULTI-CLOUD

MODERNISE THE DATA CENTER

# THE COMPUTACENTER ENGAGEMENT MODEL FOR SQL 2008/R2 UPDATE



## 1 IDENTIFY:

Explore the details of your current situation and immediate challenges. Also consider the wider transformational perspective, looking at how change might impact and benefit your business.

## 2 BUILD THE CASE:

- Deploy Microsoft tools to fully analyse your technical environment
- Interview system owners to understand how they are set up and used
- Assess your workloads as candidates for cloud, hybrid or on-premises
- Create and deliver your best-practice recommendations in a report.

## 3 DEPLOY:

Migrate your workloads in accordance with the established plan, and with the additional option to optimise them once they're relocated in their target environments.

With Data Center experience spanning decades, Computacenter offers the full range of knowledge and skills to complete this journey.

We follow a three-stage engagement process – from uncovering the details of your current infrastructure; to defining the optimal outcome and create a compelling business case for change; and finally executing on the plan.

The assessment phase lasts three working weeks, and your migration and update programme can then be planned as a separate deployment project.

The Computacenter transformation framework allows us to quickly determine the best roadmap for each customers' needs. Our global solution centers enable customers to prove their solution will work and deliver results – before it is implemented in their business. And our global Integration Centers give us the ability to configure and ship infrastructure at any scale, every day.

As a leading, independent technology partner, we can help you to deliver true digital transformation. We're trusted by world-leading corporates and public sector organisations to source, manage and transform technology infrastructures. Our customers are located in over 70 countries worldwide, and we have major offices in 8 countries, infrastructure in 13 additional countries and provide support in another 50 countries.

# IN SUMMARY

- Extended support for SQL 2008/ R2 Licenses ended on 9 July 2019
- You must act now to avoid the risk of serious compliance issues and security risks or punitive charges for ad-hoc emergency support
- There are major benefits to upgrading your SQL 2008/ R2 Licenses – and all the currently-supported versions of SQL Server offer much improved functionality
- Upgrading your SQL Server licences may well require re-platforming and renovation of your data center, and in virtually every case, the Intel® Xeon® Scalable platform is the best option for performance and efficiency at a lower TCO
- Modernising your data centre successfully today will also enable the flexibility of multi-cloud, decrease your technical debt, Improve data security and compliance, support expanding workloads and enable the re-platforming of apps for faster time to market
- We'll help you to audit your entire SQL Server estate, and to match workloads to the best operating model, whether that's on-premises, public cloud or a hybrid or multi-cloud solution
- Our Digital Power framework will ensure that you get this right, by giving you access to exactly the right mix of infrastructure technologies and expertise for your business

For more information about how Computacenter can help you on your digital workplace journey, please contact your account manager.

Making digital work.

# GET IN TOUCH

For more information about Computacenter's partnership with Intel and how it helps to accelerate business in a hybrid IT landscape, please contact your Computacenter Account Manager.

You can also find out how Digital Power solutions from Computacenter fuel digital transformation by harnessing the energy of cloud by visiting:

[Learn more here](#)

**Enabling users and their business**

Computacenter is the leading independent provider of IT infrastructure services and solutions to large corporate and public sector organisations. We help our customers to source, transform and manage their IT infrastructures and to deliver digital transformations. Computacenter is a public company quoted on the London FTSE 250 and employs approx. 15,000 people worldwide.



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