

E-book

Embracing the Future of Healthcare with Cloud Technology

A guide to moving to the cloud



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The cloud is ready to meet healthcare's changing needs

Many hospitals in the UK still rely on outdated systems for managing patient data and other essential functions, which can lead to inefficiencies and data security risks. IT modernisation is often a goal but faces many challenges, such as skill gaps, costs and security issues.

The cloud is increasingly an ideal direction for the future of UK healthcare. It's well-suited to address modern challenges that range from intensifying patient privacy mandates to the escalation of cybersecurity risks. It can also support the goal of all integrated care systems and their NHS trusts to have core digital capabilities, including electronic health records, in place by March 2025.

With a migration to the cloud, hospitals will be able to access data and applications easier instead of being limited to location-specific systems that are less cost effective and harder to manage.

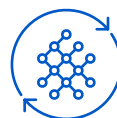
As technology continues to advance, UK healthcare providers must ensure that they can access these cutting-edge technologies so they can improve care delivery and patient outcomes.

Rackspace Technology is in a unique position to advise and implement a cloud solution with security at its core. Healthcare organisations working with Rackspace Technology can leverage both public and private cloud solutions to meet their modern needs.

This e-book explores the challenges and benefits of making a move to the cloud. We also share the story of how a major UK healthcare organisation, Central and North West London NHS Foundation Trust, worked with Rackspace Technology to fully transform its IT operation into a hybrid cloud environment that both secures patient data and drives greater innovation.

Challenges of moving to the cloud

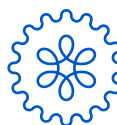
While moving to the cloud can deliver many benefits, there are also many challenges UK healthcare organisations may encounter during the transition, including:



1. Systems integration: One of the main challenges facing the healthcare system in the UK is the integration of different IT systems. There are many different solutions being used by healthcare providers, including electronic health records, patient administration systems and prescription systems. Integrating these multiple platforms can be difficult and time-consuming.



2. Data security: Data security is another major challenge. Patient data is sensitive and must be protected from cyberattacks and data breaches. The National Health Service (NHS) has experienced several high-profile data breaches in recent years, highlighting the need for stronger data security measures.



3. Interoperability: Many healthcare providers are still using legacy systems that are not compatible with newer technologies. The lack of interoperability makes it difficult to share patient data between systems.



4. Staff training: Healthcare IT requires staff to have specific skills and training to use the systems effectively. However, training staff can be costly and time-consuming, which can be a barrier to implementing new IT systems.



5. Funding: There is a constant need for funding to maintain and upgrade healthcare IT systems. The UK government has made some effort to increase funding, however, it remains a challenge to ensure that adequate funding is available.



6. Compliance: Healthcare IT systems and services need to be maintained to strict operating standards. Proactively identifying and addressing vulnerabilities that could impact the availability of the IT services is critical.

By maintaining awareness of these potential challenges, UK healthcare organisations can develop a robust plan to address them and ensure a successful transition to the cloud.



Migrating to the cloud

Moving to the cloud requires careful planning and a sound strategy. We recommend following these six critical steps on your cloud journey:

1

Assess your current infrastructure and applications: Establish which data and applications need to move immediately, and which can wait until after refactoring or reconfiguration. Are there applications that need to be rebuilt or replaced? What needs to remain on-premises due to regulations or sensitivity?

2

Choose the right cloud provider: Go with a cloud provider that meets your specific needs, including technical and legal requirements. When choosing a provider, you should consider their complete portfolio of offerings, security capabilities, ability to scale up or down quickly, latency and uptime metrics, pricing models and compliance certifications.

3

Perform a risk assessment: Healthcare organisations must regularly conduct a thorough risk assessment to identify potential security and compliance risks associated with moving sensitive patient data to the cloud. This assessment should cover all aspects of the cloud environment, including data storage, transmission and access protocols.

4

Develop a data migration plan: Moving sensitive patient data to the cloud requires a well-planned data migration strategy. This should include identifying which data will be moved to the cloud, how it will be moved, and which safeguards will be in place to ensure data integrity during the migration process.

5

Establish policies and procedures: You will need to establish clear policies and procedures for data access, storage and sharing in the cloud. This can include guidelines for user authentication, data backup and recovery, and incident response.

6

Train your staff: Your organisation should ensure that all staff members are properly trained on the use of cloud-based systems and understand your organisation's cloud-related policies and procedures. This can help prevent accidental data breaches and improve your overall security posture.

By carefully considering these factors, your organisation can improve its ability to successfully migrate to the cloud – and realise the benefits of improved efficiency, scalability and cost savings, while also keeping your patient data secure and compliant.

Benefits of moving to the cloud

Moving to the cloud is no longer an optional for modern healthcare organisations. It's critical for meeting today's business demands. Organisations that have already transformed their IT estate in the cloud are realising many benefits, including:



Cost savings: Cloud services can help you reduce the capital and operational expenses associated with maintaining on-premises hardware and software. Using a public cloud provider eliminates the need to purchase equipment and infrastructure. The provider is also responsible for maintenance and upgrades, which can free your in-house IT staff to focus efforts elsewhere.



Scalability: Cloud services can easily scale up or down depending on the needs of your organisation. This can help you avoid overprovisioning resources and enable you to adjust to fluctuating demands, including during a pandemic or disease outbreak.



Flexibility: Cloud services can be accessed from any location with an internet connection. This enables healthcare staff to work from anywhere, which improves productivity and collaboration.



Security: Cloud service providers invest heavily in security measures and can provide robust security solutions, including encryption, automated updates, access controls and regular audits.



Data analytics: Cloud services can enable healthcare organisations to collect and analyse large stores of data to gain insights into patient care and operations. This can help you make data-driven decisions and improve patient outcomes.



Disaster recovery: Cloud services can provide reliable disaster recovery solutions, ensuring that critical services are available even in the event of a disaster.



Patient data accessibility: Legacy systems make it difficult for clinicians to share information. Cloud computing allows medical professionals to share data, which gives them a more complete view of patients and supports better treatment protocols and outcomes.

By leveraging these cloud benefits, healthcare organisations can improve the quality of care they deliver, while reducing costs and increasing efficiency.



CNWL transformed IT with a hybrid cloud — including public, private and government cloud solutions

Founded in 2002, the [Central and North West London \(CNWL\) NHS Foundation Trust](#) provides healthcare services in London, Surrey and elsewhere. With a staff of over 8,500, it provides more than 300 services in 150 locations, as well as 40 partner sites. CNWL is the second largest non-acute National Health Service (NHS) Trust in England.

Prior to the COVID-19 pandemic, CNWL treated people in their homes, at clinics and in hospitals. But during the pandemic, the organisation expanded its remote services. Service categories include community health, sexual health, mental health, offender care, and addictions and substance misuse services.

CNWL's challenges

CNWL was facing enormous pressure to meet an intensifying demand for healthcare services, along with security for its ever-expanding volume of patient data. The organisation wanted a modern IT enterprise in the cloud.

Our cloud solution

Prior to the pandemic, CNWL partnered with Rackspace Technology to implement a long-term digital transformation project. It needed modern systems that could support the growing demand for its healthcare services. CNWL also needed to be cautious about cloud deployments due to the enormous amount of sensitive patient healthcare data it processes daily.



During the pandemic, Rackspace Technology pivoted to helping the organisation with [its IT demands](#), including setting up remote working capabilities.

After the lockdown, Rackspace Technology continued the transformation project — starting with a migration from legacy systems to Microsoft® Azure® public cloud, a Rackspace Private Cloud solution, and Rackspace Government Cloud.

Results

Since transforming from legacy to a hybrid cloud IT operation, CNWL has gained the agility and speed it needs to innovate, and the security required to keep its patient data secure. Among its new innovations is a digital auditing application that allows clinicians to collect data on their phones or computers instead of on paper. Another innovation is the use of QR codes on high-risk medications, which allows patients to watch videos instead of reading instructions.

[Read the whole story.](#)



“For the past three years, we’ve reduced our footprint, servers and workloads by about 20%. And we’ve reduced costs between 15% and 18% just through optimisation.”

Nigel Tazzyman, Deputy Director of ICT, CNWL NHS Foundation Trust

Rackspace Technology can accelerate your cloud journey with fully flexible managed services

As healthcare organisations continue to embrace a modern, cloud native mindset, their teams need to learn and embrace entirely new architectural methodologies. To ensure optimal performance, your IT team may need help from experts such as managed security service providers. Cloud experts can help them explore new ways to deploy, monitor and operate in the cloud, and provide critical insight into modern technologies, such as containers, serverless, IoT and machine learning.

As you pursue your cloud evolution, you may need more than just support. You may also need help understanding:

- How to scale your IT organisation in an agile world
- How to transform your environment
- How to streamline your operating models

As the traditional IT build and operate barriers continue to break down, new opportunities to accelerate innovation are opening up. This is why many organisations need more than the traditional managed services model, which is constrained to fit the boundaries of the past.

With groundbreaking new service models like Rackspace Elastic Engineering and Rackspace Modern Operations, you can gain flexible access to proven services and cloud certified professionals. These experts can help you achieve your business goals — so you can perform at the highest levels, while freeing your team to drive the results that make a difference to your organisation.

Talk to an expert today.

Contact Rackspace Technology at:

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About Rackspace Technology

Rackspace Technology is the multicloud solutions expert. We combine our expertise with the world's leading technologies — across applications, data and security — to deliver end-to-end solutions. We have a proven record of advising customers based on their business challenges, designing solutions that scale, building and managing those solutions, and optimising returns into the future.

As a global, multicloud technology services pioneer, we deliver innovative capabilities of the cloud to help customers build new revenue streams, increase efficiency and create incredible experiences. Named a best place to work, year after year according to Fortune, Forbes, and Glassdoor, we attract and develop world-class talent to deliver the best expertise to our customers. Everything we do is wrapped in our obsession with our customers' success — our Fanatical Experience® — so they can work faster, smarter and stay ahead of what's next.

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