# Deliver Exceptional Care Delivery and Patient Experiences with VMware

VMware Cross-Cloud Services for Healthcare

**Get Started** 







## VMware's commitment to enabling healthcare

Today's patients want more information, choice, and transparency in their care. Technology is answering these calls and transforming how today's leading healthcare organizations operate. From storing, managing and sharing patient information to remote patient monitoring and digital therapeutics, nearly every facet of today's healthcare is evolving.

As a leading technology partner to healthcare organizations globaly, VMware continue to commit to delivering innovative technologies that provide an integrated digital health platform from the cloud to the home, providing a platform for digital healthcare innovation and ultimately better patient outcomes.



## Reshaping healthcare and the patient experience

There has been a fundamental shift in healthcare delivery around the world. As health organizations from providers and systems to labs and pharma—were forced to respond to an unprecedented health crisis, it also raised awareness of the growing power of healthcare consumers. Enabled by new delivery models and empowered with new healthcare choices, consumers are raising their expectations and creating opportunities for new market entrants. As providers take steps to embrace digital healthcare, they're also facing new challenges that require reinventing how care is delivered and managed.



Data accessibility and interoperability, such as that called for in the U.S. CURES Act, will contribute to unprecedented data growth today, approximately 30% of the world's data volume is being generated by the healthcare industry, and that number is expected to increase.

Due to the fundamental shift in recent years, which stretched healthcare teams thin and resulted in unprecedented frustration and burnout among teams, finding and retaining clinical and non-clinical staff is more difficult than ever. According to new data, the United States could see an estimated shortage of between 37,800 and 124,000 physicians by 2034, including shortfalls in both primary and specialty care, and nearly half of all nurses surveyed indicate they intend to leave or may leave their positions in the next six months.









## Five factors influencing healthcare technology investment

### 1. Government mandates

Leveraging technology to improve and streamline reimbursement, create greater collaboration and transparency among systems and providers, and support the roll-out of new care initiatives that expand patient access and provider reach, such as remote monitoring and telehealth.

### 2. Increased competition

Healthcare organizations are under increasing competitive pressure as new care models emerge. Patient relationships have expanded beyond providers and systems to include pharma, payers and even big tech as the consumerization of healthcare accelerates.

### 3. Cybersecurity

According to information from the department of Health and Human Services there has been a threefold increase in health data security breaches in three years — impacting nearly 50 million people in the United States. This shift to remote working and CURES Act requirements for data sharing have only increased the attack vectores open to bad actors.

### 4. Infrastructure modernization

Healthcare is moving to the Cloud. Leading EHR vendors have enabled the hosting of their critical infrastructure in public cloud environments, remote work is now a necessity for attracting and retaining staff and access to AI and ML is foundational to population health management innovation.

### 5. Emerging opportunities

Organizations have an opportunity to unlock the potential of new care approaches, such as remote care, the collection of near real-time patient information via connected devices and leveraging AI/ML to develop insights that drive innovations in patient care.

In 2021, **45 million individuals were** affected by healthcare attacks up from 34 million in 2020.<sup>1</sup>

<sup>1.</sup> Fierce Healthcare. "Healthcare data breaches hit all-time high in 2021, impacting 45M people," February 2022







## VMware empowers healthcare to deliver next-generation patient experiences

VMware empowers your healthcare organization to deliver exceptional next-generation patient experiences. Our solutions accelerate your healthcare cloud transformation, deliver cloud-native patient focused apps, and empower your hybrid workforce, securely aligning teams with the data and resources they need to support patients at every stage of their care journey.

- Deliver an integrated digital health platform that connects and secures providers, patients and data from the cloud to the home.
- Modernize your infrastructure and application investments with VMware Cross-Cloud<sup>™</sup> services.
- Scale innovation while lowering risk and design and integrate new capabilities quickly without compromising patient outcomes.
- Break down silos and connect care teams, support staff, and remote workers through frictionless hybrid working.



### VMware is the #1 trusted vendor for enterprise workloads running across clouds

Healthcare runs on VMware — 35 of the World's top 40 hospitals and 20 of the US Top 20 hospitals run VMware

300K+ global organizations run VMware

20+ years innovating and reducing complexity around enterprise apps and driving IT modernization

Primary contributor to Cloud Native Computing Foundation

Leading effort to make Kubernetes accessible to everyone





## VMware Cross-Cloud services for healthcare

VMware Cross-Cloud services empower healthcare organizations to connect patients and providers with data, insights, and resources driving the next wave of consumerdriven healthcare. Through a consistent, cross-cloud infrastructure, healthcare organizations can build, run, and secure applications across any cloud, increase governance, control all apps, and facilitate an anywhere workforce without jeopardizing security.

### Enterprise-grade cloud infrastructure

Migrate and modernize existing mission-critical apps including EHR, HIT, HR, and ERP applications, modernize imaging, virtual desktops, and DR, and connect to AI/ML and BI tools and services across any cloud.

### Anywhere workspace and edge

Ensure secure onboarding, remote access and collaboration tools for non-clinical employees. Support virtual and distributed clinical care—connecting sites, providers, and patients with the right information at the right time with "Tap, Turn, Treat," access and device choice.

### Security and networking

Achieve simpler, faster, and smarter security by leveraging the intrinsic attributes of VMware solutions to enable users to access any app on any cloud over any connection securely.

### Modern application development

Give developers the autonomy to build modern patient facing and internal apps on the right cloud while giving IT Ops the ability to control and manage policies and security of apps and infrastructure across all clouds and development environments.

### Multi-cloud management

Automate previously manual tasks and deliver optimization capabilities that maximize performance.









## VMware Cross Cloud Services to deliver a modern platform for healthcare innovation.



Modernize HIT through cloud transformation Migrate and Scale existing infrastructure and applications into a Hybrid on-premises and Cloud environment with a single infrastructure management platform.



Empower the hybrid workforce Securely enable a hybrid workforce to enable secure anywhere work and frictionless access to patients and patient information from any device.



patient engagement

Secure, run, and manage modern applications consistently across all clouds, accelerating research while modernizing the digital patient and provider experience.

## Run cloud-native apps at scale and deliver cloud native digital







## Modernize HIT through cloud transformation

Make the move to hybrid cloud — securely and efficiently. Migrate and scale existing infrastructure and applications to deliver a modern platform for digital healthcare delivery.



### Migrate from on-premises to Cross-Cloud Healthcare Information Technology (HIT) infrastructure

Take advantage of the scale and services of public clouds and enable a single operations experience using the existing skills of VMware administrators to drive workload migration, visibility and automation across all clouds. Use the cloud to replace co-located or acquired datacenters for disaster recovery and high availability (DR/HA) operation.

### Combat ransomware and cyber attacks

Deliver security as a built-in distributed service across your control points of users, devices, workloads, and networks.

### Modernize and optimize enterprise applications

VMware helps healthcare organizations to safely move towards minimizing the on-premises datacenter footprint by gaining multi cloud agility and leverage across cloud services—all with Zero Trust protection that keeps data safe.



VMware SASE capabilities enable healthcare organizations to securely connect remote sites and ensure predictable performance, availability, and improved security.







### Connect healthcare delivery sites







## Empower connected care and the hybrid workforce

Meet patients where they are, lower the barriers to equitable care and securely enable a hybrid workforce to enable secure anywhere work and frictionless access to patients and patient information from any device.



VMware Workspace ONE delivers unified endpoint management, virtual desktops, and identity and access management for a complete work-from-anywhere solution.





Create a secure platform for patient and provider communications, including integration with video conferencing (e.g., Teams, Zoom) for improved performance.

### Create engaging inpatient digital experiences

Deliver a single point of management for Windows, mobile and rugged devices. Devices can be used to fulfill a range of uses including being locked to only specific applications, or securely shared between individuals.













### Empower the distributed workforce and align to remote requirements

### Deliver anywhere point of care

Enable fast, secure access to patient information and secure access to Windows and mobile applications.

### Advance telehealth and digital care services







## Deliver cloud native digital patient engagement

With VMware, healthcare organizations can secure, run, and manage modern applications consistently across all clouds, accelerating research while modernizing the digital patient and provider experience.



Own the digital patient experience VMware Tanzu helps IT, security, and application teams work better together to enable a customer-centric approach to digital patient experience projects.



interoperability



VMware Tanzu and Tanzu Labs create an integrated data layer that lets healthcare teams analyze app portfolios to develop and execute a modernization strategy that aligns with business objectives and quickly delivers results.



## Integrate data and apps to power research and

### Drive digital therapeutics research and deployment

VMware provides a sustainable roadmap for application modernization that works with modern platforms to enable lasting improvement and meaningful outcomes.







As the healthcare experience changes, and consumers become more engaged with their care decisions, organizations must modernize and evolve as well. VMware is helping healthcare organizations meet the challenges of today's environment with a multi-cloud platform that accelerates healthcare innovation. We are empowering organizations to optimize capital by efficiently running and managing a cloud operating model, eliminating the complexity and cost of siloed infrastructure and solving hybrid working challenges to securely connect experiences everywhere. To learn more, visit vmware.com/solutions/industry/healthcare-it-solutions



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