

### Harnessing Hybrid IT in Healthcare

In today's healthcare market, rapid technological innovation and changing expectations of patients and consumers are posing challenges like never before. In order to adapt to this disruption, healthcare providers need to meet intensifying demands to boost efficiency and agility, while offering an enhanced user experience. In addition, healthcare CIOs must also balance stringent security and privacy regulations. More than ever, healthcare IT leaders depend on technology investments to achieve these goals and differentiate their organizations in what has become a highly competitive healthcare environment.

The right mix of hybrid IT solutions can determine an organization's level of success with meeting patient demands and keeping pace with change.

Read more...



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#### It's Time to Embrace the Cloud

FEATURE

Is your healthcare organization ready to embrace the cloud? Here's why now's the time.

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The right mix of hybrid IT solutions can determine an organization's level of success with meeting patient demands and keeping pace with change.

We offer this eGUIDE to shed light on the benefits of a hybrid IT approach within your healthcare organization. Included, you will find articles on hybrid IT solution use and customer success stories.

As experts in hybrid IT solutions, OneNeck is committed to helping our customers support best practices, mitigate costs, improve service levels and meet industry compliance regulations. We can help you understand your best options and realize the benefits of a hybrid IT solution.

We start with an IT assessment in which we examine your complete environment to help you make the right technology choices for your organization and provide the roadmap of hybrid IT solutions including cloud, hardware and applications that will support your growth and agility, while reducing cost and risk, allowing you to move forward with confidence.

This eGUIDE is just another tool to demystify hybrid IT so you can begin to gain maximum benefit from your hybrid IT strategy.





### **Banner Health**

Headquartered in Phoenix, Arizona, Banner Health is the largest private employer in the state. They have 29 hospitals and other related healthcare entities and services in Arizona and six other states. Banner Health is recognized as one of the country's top health systems for clinical quality and consistency. Banner has more than 47,000 employees who rely on access to the system's network to ensure patient care maintains its high standard of quality. And Banner Health serves more than 300,000 patients per year, a number that is expected to grow significantly over time.

#### **The Challenge**

Implementing a policy management and control platform throughout a multi-state business is tough in the best of circumstances. But when it's in a mission-critical environment at one of the largest healthcare networks in the West, the challenges are magnified exponentially. Not only was Banner Health dealing with a wide variety of physical structures, devices and the technical expertise of end users, they also have to take into account privacy issues and other regulations. That's why the IT leaders at Banner Health selected OneNeck<sup>®</sup> IT Solutions to implement a policy management and control platform for their wired and wireless network for their hospitals and health centers.

Banner Health needed a system-wide policy management and control platform for wired, wireless and VPN that supports bring your own device (BYOD), guest access and secure access. The policy needed to ensure both easy access and compliance with HIPAA requirements. This need was even more complicated by the proliferation of non-corporate owned devices being used by doctors and other healthcare professionals. Banner Health had to implement a secure policy-based network access solution that would be easy for users to navigate while adhering to Banner Health's security policies.



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Case Study

Mountain Park Health Center: Connecting IT operations across five locations

As their patient base has continued to grow, the organization's IT operations began to lag. Mountain Park knew they needed to establish a scalable IT environment that would reduce downtime, increase security and meet data back-up and recovery needs.







#### **The Solution**

After a series of meetings and conference calls to review the project goals with several potential partners, Banner Health selected OneNeck because the company demonstrated an ability to understand this cutting-edge Cisco technology platform and Banner Health's unique environment. The implementation of such a wide-scale program could be fraught with difficulties. That's why Banner Health worked with OneNeck's professional services group to design and implement a custom pilot solution program at five Banner Health facilities before rolling the program out to every facility in their system. The scope of the project was for both the wired and wireless infrastructure, which included a wired and wireless identity-based network access initiative. The Cisco Systems Identity Services Engine (ISE) was an integral part of the OneNeck solution and included licensing for 30,000 devices.

Two switches were integrated into each of the five locations with no more than five SSIDs at each. This infrastructure supported nearly 750 wireless endpoints across the pilot locations to ensure uninterrupted access for all users. The solution was also integrated with Banner Health's existing network, desktop and exchange environments to address Banner Health's Mobile Device Management (MDM) and load balancing architecture to provide a seamless solution.

In addition to the design and installation of the system, OneNeck led dedicated knowledge transfer sessions detailing information specific to the operation and maintenance of the ISE solution in Banner Health's unique environment. Ultimately, the program will be rolled out to all 29 locations across seven states and include more than 100,000 licenses.

#### The Benefits

Banner Health now has comprehensive network security policies for both corporate and non-corporate owned devices. This makes it easier for users to get the information when and where they need it in a manner that's most convenient for them without compromising patient information or any sensitive data.

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### 6 Key Benefits Driving Healthcare to the Cloud

Cloud computing has entered the mainstream as organizations take advantage of the cloud's agility, scalability and cost-effectiveness. Along with most industries, the healthcare industry is one that is experiencing brisk cloud adoption. According to a survey by The Economist's Intelligence Unit, 51 percent of executives polled believed that the cloud will be a moderate or major factor in healthcare in the next year, while 81 percent believed that would happen within three years.

There's no question that the cloud is changing not only the way care is being delivered, but also the relationship between the doctor and the patient.

#### What are the driving factors?

Faster and more effective care: The cloud enables healthcare providers to access patient information 24/7, when and where they need it. The cloud provides fast, reliable access to data through any Internet-enabled device, regardless of the provider's location on campus — or even off-campus. Medical Internet of Things (IoT) devices enables doctors to remotely monitor and track patient status and vitals and proactively detect health issues, enabling them to quickly resolve them.

- Better patient satisfaction: In today's fast-paced world, patients expect care when and where it's convenient for them. Thanks to the cloud, there's a growing trend to provide "virtual" doctor visits and remote consultations, leading to more satisfied patients.
- Streamlined patient care: Providers are able to instantly share records to improve communication and collaboration throughout the entire healthcare ecosystem. This helps eliminate duplication of services and treatments, allows for better integration of care across providers and lowers the chance of a missed or incorrect diagnosis.
- Optimized technology investments: The cloud eliminates the cost of maintaining an on-premise infrastructure and easily accommodates the high growth of electronic health records. Cloud-based storage easily scales to the need of the organization without the additional hardware or IT overhead, enabling even the smallest healthcare organization to take advantage of the latest technology advancements.
- Increased security: Healthcare organizations have been a high target for a data breach due to the value of the data found in healthcare records. In a traditional data center, securing the personally identifiable information (PII) requires a great deal



#### Video Case Study

Des Moines Orthopaedic Surgeons (DMOS) Realizes Cost Savings with ReliaCloud

When DMOS made the decision to move their critical data to the cloud, they partnered with OneNeck to make it happen.







of personnel and resources. The right cloud provider will place a high priority on maintaining a high level of security with the most up-to-date technology, allowing healthcare organizations to focus on patient care, not on securing systems.

Improved compliance: The Health Insurance Portability and Accountability Act (HIPAA) requires providers to not only secure patient information, but to also provide patients with timely and easy access to their medical records. Cloud-based patient portals help meet that requirement by giving patients instant, 24/7 access to their health information.

The healthcare industry is rapidly transforming, and healthcare organizations need to quickly adapt to offer the best care and protect their patient's privacy. In addition, new government regulations often mean reassessing IT initiatives to meet compliance mandates. At OneNeck, we understand the current demands placed on healthcare providers, and we recognize the need for reliable, secure and flexible IT applications, systems and processes.



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### **Today's Healthcare Demands Always-on Mobility**

Today's healthcare organizations face unique challenges to provide a high standard of care, all while protecting sensitive patient data. The delivery of quality healthcare requires technology that provides physicians and medical staff with "anytime, anywhere" access to view patient's X-rays, radiology, MRI images, etc. from their mobile devices. Patients expect fast, accurate answers — providers need immediate access to up-to-the-minute data from any device they choose.

Real-time access to patient records from anywhere inside the medical office or hospital means that providers are using laptops, tablets and other Wi-Fi-enabled medical devices. Bandwidth intensive applications, such as medical imaging for radiology and cardiology, pose challenges to delivering fast, stable and secure Wi-Fi access. Patients also expect convenient Wi-Fi access during their visit or stay for their applications and streaming services, whether it is from their beds or the waiting room. As a result, separating provider and patient Wi-Fi access is critically important to the security of the data on the network.

#### Securing Healthcare's Wi-Fi

As healthcare organizations increasingly rely on mobile access to advanced clinical applications, electronic health records and connected medical devices, they must commit to investing in the right Wi-Fi solution that improves both



Video

### Why is a Mobility Strategy a Must?

Listen in as Mike Keemle, OneNeck network and mobility expert, details why you need a mobility strategy, and best practices when implementing one.





staff productivity and patient satisfaction — and protects patient privacy and data. At OneNeck IT Solutions, we leverage Cisco's mobility technology to design and implement a customized approach that provides seamless and reliable access to data that physicians and staff need while enabling them to focus on the patient, not the technology in their hands – all while providing all patients and guests with reliable Wi-Fi.

Our highly-certified experts develop mobility solutions that meet the needs of each unique healthcare organization with reliable, robust, secure, always-on connectivity to improve the efficiency of medical staff and patient satisfaction.

Benefits include:

- Always-on, robust wireless network for staff and patients across the entire campus, regardless of location.
- Highly reliable connections for all medical devices and applications for up-to-the-minute patient health status.
- Privacy and security protection by quickly identifying questionable devices on the network.
- Consistent Wi-Fi, mobile check-in and real-time notifications that improve patient satisfaction scores.

- Faster access to medical files and laboratory images at the patient's bedside by identifying high-congestion areas and throttling bandwidth as needed.
- Separate health data from guest access, protecting data privacy and complying with HIPAA mandates.
- Customize and scale the solution based on your organization's unique needs.
- Centralized policy and management to provide uniform and secure connectivity and real-time analytics for faster resolution of wireless issues.

OneNeck's mobility architects have extensive experience working with healthcare organizations to transform their infrastructure to meet modern demands. As a Cisco Gold Partner, we will work with you to design a robust mobility solution that meets medical staff and patient requirements, giving you the freedom to do what you do best — provide excellent care to your patients.



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At-A-Glance

OneNeck for Healthcare – At A Glance

Want to know what OneNeck does to help healthcare organizations around the globe?







### **Can Hybrid Cloud Simplify Healthcare?**

Healthcare has experienced industry consolidation, narrowing margins and an explosion of data, the combination of which is forcing the industry to look for more innovative and cost-effective solutions. At the same time, this same healthcare has historically tended to approach cloud-based services with extreme caution. Regulatory constraints can mean big penalties for non-compliance – and the cloud hasn't always been the proven platform that it is today. Industry trends are now pointing towards healthcare organizations making the move from only on-premises and hosted solutions to incorporate the hybrid cloud too.

The complexity of the healthcare market means that the move to the cloud must be a thoughtful one, but one that can bring many rewards. A hybrid cloud model has great potential to decrease the time to deploy applications and ensure a faster response as new business challenges arise. With the cloud, IT staff can be freed up to work on further innovation to create a more efficient healthcare environment, provide a higher level of patient service and satisfaction and a more cost-effective environment.

While healthcare's expansion to include the cloud is evolving, concerns do still exist throughout the industry. Is the cloud secure? Is it compatible with pivotal regulatory initiatives like the Health Insurance Portability and Accountability Act (HIPAA), Health Information Technology for Economic and Clinical Health Act (HITECH) and Payment Card Industry Data Security Standard (PCI DSS)?

Healthcare CIOs are facing industry pressure to transform and are treading the waters carefully to gain a better



Solution Sheet

#### Connecting patients and providers with the technologies that power healthcare delivery

Healthcare systems are under constant pressure to improve patient experience and engagement, increase care provider efficiencies, ensure regulatory compliance and meet security requirements. And all this must be done while reducing costs and investing in technologies that enable improved quality of care and patient outcomes.



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understanding of the benefits as well as the limitations of the cloud as it relates to their organization. Hospitals, academic institutions and manufacturers are working to solve industry problems, such as a decrease in clinical miscommunications, and to improve patient care across departments, hospitals and freestanding clinics. CIOs are working through the security and compliance barriers that hinder healthcare provider cloud adoption, as well as performance and interoperability concerns.

Gartner has predicted that by 2019, public cloud service providers will handle 20% of healthcare provider IT workloads. (Source: Gartner, G00281681) Budget constraints are one driver pushing hybrid cloud adoption forward, but without a solid strategy, governance, policies and controls, unnecessary risk and expense can result. Gartner has put forth several recommendations for CIOs including:

- Gain experience in selecting, monitoring and managing cloud service providers by first subscribing for services that do not involve protected health information (PHI).
- Pay close attention to cloud subscription licensing agreements. IT procurement professionals will be challenged to

negotiate better deals, as they have in the past, using perpetual licensing rights and entitlements.

- Use the same criteria for establishing a trusted relationship with a cloud service provider that you would for a remote hosting arrangement.
- Don't do business with any cloud service provider that will not sign a HIPAA Business Associate Agreement (BAA) or adhere to a regional regulatory counterpart, such as the European Data Protection Directive 95/46/EC.

The hybrid cloud has a great potential to simplify healthcare operations, and the right partner can ensure your success.

At OneNeck, we have expertise in guiding healthcare organizations down the cloud path, ensuring that they improve operations and save costs while meeting all of their compliance and security regulations. Whether they choose to colocate their critical data in one of our top-tier data center facilities or utilize our secure, hosted private cloud, ReliaCloud, or even utilize some form of public cloud, we guide you each step of the way to ensure your data remains secure and on the right cloud, or clouds, for your healthcare organization.



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