



The Cisco HealthPresence Solution: Expand the Boundaries of Healthcare

What You Will Learn

The Cisco HealthPresence™ solution is a communication and collaboration platform that lets patients interact with doctors who may be hundreds of miles away within a clinical setting. It is an integrated solution that helps healthcare providers, enterprise organizations, and retailers:

- Make healthcare more affordable
- Make healthcare more accessible
- Increase the efficiency of care delivery
- Increase the availability and flow of medical information

Challenges in Healthcare

Today's healthcare providers are having to deal with several important issues, including rapidly increasing patient loads, a widespread shortage of qualified medical professionals, and the rising cost of providing care.

- **Increasing patient loads:** Populations around the world continue to grow and people are, on average, living longer lives. According to the BBC news agency, researchers predict that more than half of babies now born in the United Kingdom and other wealthy nations will live to be 100 years old. The patient load is increasing, with more patients requiring regular or ongoing treatment. Emergency rooms (ERs) are overcrowded. The uninsured typically use ERs as their primary source of healthcare, and research shows that insured patients are using ERs because it's inconvenient to see their regular care provider.
- **Shortage of medical professionals:** The *Journal of the American Medical Association* reports a steady decline in the number of U.S. medical-student graduates choosing primary care, and the research group Frost & Sullivan estimates that the ratio of healthcare staff per U.S. citizen is lower than the required amount by more than 40 percent. Staff demands are expected to triple over the next 25 years, with the crisis peaking between 2010 and 2020. For people living in remote or rural areas, far away from specialists, the shortage of medical professionals can be a particularly pressing issue, as specialists may be located hundreds of miles away.

- **Rising cost of providing care:** In countries around the world, healthcare costs are accounting for an increasing portion of gross domestic product (GDP). According to the Organization for Economic Co-operation and Development, healthcare spending in 2007 accounted for between 9 and 10 percent of GDP in most European countries with nationalized healthcare systems, and in the United States it accounted for 16 percent of GDP. Costs are predicted to continue to increase worldwide. For patients, the cost of receiving care is also going up, especially for those who live far away from their caregiver and have to travel for treatment.

The Cisco HealthPresence Solution

Using the network as a platform, the Cisco HealthPresence solution combines high-definition video, advanced audio, and network-transmitted medical data to create an environment similar to what people experience when they visit their doctor or health specialist. It can be configured to support many locations and uses presence and skill-based routing to connect patients to the most appropriate expert. Designed for use by an attendant who is a licensed healthcare professional, it extends the reach of providers and specialists, and it can be used to redirect unnecessary ED and ER visits to low-cost clinics. It increases productivity by using scarce resources more efficiently, and it lowers healthcare costs by making delivery more streamlined. The Cisco HealthPresence solution creates a dynamic environment for patient care, delivers a true-to-life experience between the patient and the provider, and helps improve lives by making it easier to access care.

Healthcare and Public Sector Benefits

Healthcare providers of all types, as well as government agencies and educational institutions, can address many issues with the Cisco HealthPresence solution. Doctors can diagnose and treat distant patients without traveling, and a single specialist can treat many more patients. Care can be extended to underserved, remote, and rural areas, and patients can be easily referred to other doctors and specialists. The Cisco HealthPresence solution lets care providers make better use of scarce resources and reduce the use of ambulance and helicopter transportation. It can be used as the foundation for an advanced telehealth network, so it can help care providers, especially in the United States, take advantage of government stimulus funding.

"I found the Cisco HealthPresence visit wasn't any different from a visit to my regular family physician, except it was on campus and more convenient. The diagnostics were much faster and the quality of consultation experience was better than what I'd expected."

—Shashi Kiran, San Jose Trial Patient

Enterprise Benefits

Large corporate sites, manufacturing facilities, and other large-scale operations can establish onsite healthcare services based on the Cisco HealthPresence solution to help lower healthcare costs and reduce absenteeism. With an onsite clinic, employees don't need to take a day off to travel to routine appointments, and when routine checks are more accessible, they're more likely to happen. This can lead to a healthier workforce and fewer health-related absences.

Retail Benefits

Drugstores and other retailers already provide limited healthcare services such as cholesterol checks and diabetes screening. Using the Cisco HealthPresence solution, these services can expand to include more sophisticated wellness and healthcare services. Retailers can give the "worried well," the underinsured, and the uninsured access to a physician, and can then provide patients with the prescription drugs and medical supplies they need. Retailers can also use the Cisco HealthPresence solution to provide care in nursing homes, using periodic remote visits to renew prescriptions or check on elderly patients who have chronic illnesses without requiring them to travel.

An Integrated Solution

The Cisco HealthPresence solution combines Cisco TelePresence, Cisco® Vitals Software, Cisco Session Management Application, and medical devices from third-party vendors that gather and transmit physiological data.

- Cisco TelePresence enables a realistic face-to-face experience, leading the local and remote participants to feel that they are there “in person.” Integrating high-definition video and advanced audio, it helps deliver a positive user experience with low latency and high reliability.
- Cisco Vitals Software is used for session management data, transmission of medical data, and to help view electronic medical records (EMR). It manages the session between the patient and the doctor, allowing the data, video, and audio from the medical devices to be intelligently routed across the network. Healthcare providers can see the data immediately and can view a patient’s history in tandem with instrument readings.
- Cisco Session Management Application provides interoperability with Cisco Unified Communications, with intelligent routing and management. The system supports one-touch dialing and, because it uses Microsoft Outlook calendar for scheduling, is easy for most people to operate.
- The integrated medical devices include a high-resolution general-examination camera, a telephonic stethoscope, an ear/nose/throat (ENT) scope, and a vital signs monitor for blood pressure, temperature, pulse rate, and pulse oximetry. Together, these devices generate data that help the healthcare provider examine the patient.

The Medical Grade Network

The Cisco HealthPresence solution builds on the Cisco Medical Grade Network framework, which is optimized for healthcare environments and provides a foundation for connecting healthcare technologies. This framework empowers healthcare organizations to map their clinical and business requirements to technology solutions for improved interoperability, security, availability, productivity, and flexibility.

In pilot programs, Cisco HealthPresence consistently has approval ratings above 90 percent.

Why Cisco?

Cisco has a global presence anchored by teams of professionals who can address the necessary culture and clinical process changes, combined with leading technologies that improve the cost of healthcare services and make them easier to access. Through our vision and innovative network technologies, Cisco is helping to bring about a future in which healthcare stakeholders across the continuum of care can respond to patients more efficiently, expand innovative healthcare initiatives, and continue to transform care and the care experience.

Cisco Advanced Services help make networks, the applications used by the Cisco HealthPresence solution, and the people who use them work better together. Using a Lifecycle Services approach, Cisco provides fixed-price planning, design, and optimization services to help increase business value and return on investment.

Learn More Today

To learn more about the Cisco HealthPresence solution and how it can extend the boundaries of healthcare, contact your Cisco representative or visit: <http://www.cisco.com/go/healthcare>



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