



# Health Information Technology: Invest in Sustainable Healthcare Efficiency

## The American Recovery and Reinvestment Act in Healthcare

The American Recovery and Reinvestment Act (ARRA) of 2009 includes more than \$30 billion for healthcare IT investments, ranging from electronic health records to telemedicine and health information exchange. Cisco and our partners can show you how to qualify for this funding, as well as how to use it to build a sustainable advantage.

### Introduction

This one-time infusion of ARRA money to support IT investments is an opportunity for healthcare organizations to gain sustainable benefits:

- To build a healthcare IT infrastructure to support new applications that add to efficiency, collaboration, and improved care
- To increase security technologies that protect patient information
- To deliver vital healthcare information when and where caregivers need it

Unlocking the value of electronic health records requires technology beyond what is specified in ARRA. Implementing the right infrastructure provides opportunities to do more. For example, a robust infrastructure can help support new revenue streams for hospitals that host electronic health records for other providers or create health exchange services. The right network infrastructure provides a foundation to improve caregiver efficiency and the quality of care while promoting information access and confidence in highly secure information protection.

In Title XXX, Part 2, Subtitle B, Section 3011, ARRA says that, to qualify for funds, healthcare providers need to:

- Ensure that patient information is secure
- Make sure that systems are interoperable
- Support quality data reporting
- Exchange health information with other organizations

### Cisco Has Solutions to Help You Make the Most of the Stimulus

ARRA says that "one of its principal goals is to use information technology to improve healthcare quality and efficiency through the authorized and secure electronic exchange and use of health information." That has long been the goal of Cisco healthcare solutions too. Here is how Cisco is already helping healthcare providers meet ARRA goals today.

A primary goal of the legislation is to develop a "health information technology architecture that will support the nationwide electronic exchange and use of health information in a secure, private, and accurate manner."

The Cisco® Medical-Grade Network framework is optimized for healthcare environments. It provides a foundation for connecting healthcare providers for improved interoperability, security, availability, productivity, and flexibility. Above all, the Cisco Medical-Grade Network is designed to be resilient, protected, responsive, and interactive, a robust foundation for healthcare solutions. A healthcare organization in Illinois links medical devices to the network to transmit patients' vital signs. Clinicians use cart-based computers to access data on the network and different clinical applications. Mobile voice communications allow caregivers to keep in touch as they go about their duties. A redundant data center can act as a disaster recovery system.

Another mention in ARRA is the desire "to provide investments needed to increase economic efficiency by spurring technological advances in science and health." The Cisco healthcare solutions provide advances that "improve the quality and efficiency of healthcare":

- Cisco Connected Imaging Solutions optimize storage, access, and collaborative use of medical images to increase productivity and reduce costs. For example, a radiology group in Arizona estimated cost savings of \$30,000 in annual service-provider contracts and \$60,000 in annual communications expenses.
- Cisco Clinical Workflow Solutions help streamline workflows and improve communication among clinicians. A hospital in Illinois implemented a Cisco Unified Wireless Network for simplified network management, resulting in significant time savings, streamlined work processes, and improved productivity.

ARRA sets the stage for innovations with telemedicine technologies. Cisco Care-at-a-Distance Solutions support clinical care that is unbounded by distance, physical location, or setting. For example, the Healthcare Interpreter Network has allowed participating hospitals to improve patient satisfaction and quality of care, as well as medical staff productivity. The system has also delivered cost savings to hospitals with reduced cost-per-minute charges for language interpreters.



In addition, the legislation highlights the need for “technologies and best practices that enhance the protection of health information by all holders of individually identifiable health information.” Cisco Healthcare Technology Foundations are comprehensive healthcare IT infrastructure solutions that help support security, reliability, and regulatory compliance. The new network at the one university medical center extends privacy and patient care applications over a large campus, while integrated security supports regulatory compliance and safeguards the network and the data traversing it. Virtualization helps separate traffic and secure data, and nonstop communications supports efficient patient care.

### For the Sustainable Benefits You Need

Network infrastructure projects can create immediate cost savings in healthcare facilities as they can:

- Lower telecommunications costs, including leased-line and long-distance charges
- Cut costs of telephone extension moves, additions, and changes
- Reduce capital and operational costs by unifying previously separate voice, data, and video networks
- Help reduce energy costs by enabling facilities staff to centrally monitor and control environmental systems such as heating, ventilation, air conditioning, environmental sensors, and building access controls
- Save time, money, and environmental impact of travel by enabling collaboration and training with Cisco WebEx™ and Cisco TelePresence™ solutions
- Reduce staff time spent looking for mobile equipment such as wheelchairs and IV pumps; with radio frequency ID (RFID) tags affixed to assets, staff can see their locations superimposed on a floor plan

Cisco solutions also provide sustainable advantages that can add long-term benefits to patients and providers:

- **Enhance productivity and workflow:** Caregivers spend a significant portion of their days trying to reach other hospital personnel. With Cisco solutions, hospitals can quickly notify caregivers or physicians on wireless IP phones when lab results are ready. Radiologists can see whether referring physicians are available before taking the time to contact them, improving imaging workflows. Nurse-call requests can be directed to the appropriate caregiver on a mobile device.
- **Improve outcomes and quality of care:** With wireless IP phones and presence information, caregivers can more quickly reach people and obtain vital diagnostic and treatment information. The network infrastructure also supports video to allow dietitians and other specialists to work with patients in flexible locations. The same videophones

can be provided at the bedside or exam room for people with hearing impairments and for non-native speakers, enabling cost-effective interpretive services.

- **Transform the patient experience and staff satisfaction:** Patient requests are met sooner when they can indicate the nature of their need, for instance, for ice or medication, by pushing a button on a bedside IP phone. Nurses can spend less time walking and more on patient care when they bring their workspace with them. Healthcare providers can extend their outreach programs with telemedicine, remote monitoring, and community web portals.



### Why Cisco?

Cisco helps unlock organizations' untapped potential by addressing executive priorities for efficiency, adaptability, clinical effectiveness, and healthier revenue through the strategic use of technology.

Cisco is an industry leader in networking solutions and is active in international initiatives to accelerate the interoperability and connectivity of disparate systems for improved access to vital healthcare information and services.

Cisco works with healthcare industry leaders including application developers, system and service providers, device manufacturers, and medical technology vendors to help drive this transformation.

### Invest in the Future Today

To learn more about the American Recovery and Reinvestment Act and available funding, visit the Cisco.com Stimulus Resource Center at: [www.cisco.com/go/govstimulus](http://www.cisco.com/go/govstimulus)



**Americas Headquarters**  
Cisco Systems, Inc.  
San Jose, CA

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
Singapore

**Europe Headquarters**  
Cisco Systems International BV  
Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

CCDE, CCENT, CCSI, Cisco Eos, Cisco HealthPresence, the Cisco logo, Cisco Lumin, Cisco Nexus, Cisco Nurse Connect, Cisco Stackpower, Cisco StadiumVision, Cisco TelePresence, Cisco WebEx, DCE, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registrar, Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0903R)