

# Cancer Treatment Centers of America Enhances Patient Care and System Efficiency with Rock-Solid Architecture

Cisco Solution Helps Improve Communication, Increase Patient Outreach, and Fuel Growth for Unique Holistic-Treatment Hospitals.

EXECUTIVE SUMMARY
<p><b>CANCER TREATMENT CENTERS OF AMERICA</b></p> <ul style="list-style-type: none"> <li>• Healthcare</li> <li>• Headquarters in Schaumburg, Illinois with hospitals currently operating in Suburban-Chicago, Illinois; Tulsa, Oklahoma; Philadelphia, Pennsylvania; and an outpatient facility in Seattle, Washington. Hospital in Suburban-Phoenix, Arizona under construction, expected to open in 2009.</li> <li>• 2100 Employees</li> </ul>
<p><b>BUSINESS CHALLENGE</b></p> <ul style="list-style-type: none"> <li>• Improvement of telecommunications uptime needed to enhance effectiveness of marketing outreach programs and serve more patients</li> <li>• Special needs of patients require a consistent customer experience, with reliability and network support at the core</li> </ul>
<p><b>NETWORK SOLUTION</b></p> <ul style="list-style-type: none"> <li>• Robust, highly scalable system that can grow as the company grows to accommodate increasing demands</li> <li>• Reliable network support systems</li> </ul>
<p><b>BUSINESS RESULTS</b></p> <ul style="list-style-type: none"> <li>• Solution has facilitated and supported 35-40 percent growth, allowing CTCA to serve 49,856 patient visits annually.</li> <li>• Standardized IT solution has simplified expansion across country</li> </ul>

## Business Challenge

Cancer Treatment Centers of America (CTCA) specializes in the holistic and fully integrated treatment of advanced-stage cancer patients with four locations throughout the United States, one more under construction, and others planned. It is a completely patient-centered institution. The patient-centered model does not rely on physicians to refer patients to CTCA. As a result it is the only system in the country in which every patient is at CTCA because they personally choose to receive care at CTCA. No limits on treatment plans, length of stay, or any other issues are mandated by outside forces. The CTCA model includes transparent access to a complete array of diagnostic treatment resources that can serve even the most complex, advanced-stage forms of cancer. CTCA can schedule and deliver a complete array of diagnostic tests frequently within two days for every patient, and the results of those tests are followed immediately by a meeting with the patient to jointly determine the optimal treatment plan given the patient's unique needs. Such treatment plans are holistic, meaning

that CTCA not only attacks disease and eradicates tumors, but also provides patients with nutrition counseling, naturopathic medicine, psycho-social counseling, physical therapy and spiritual support to optimize the immune system and meet the special, whole-person needs of cancer patients. CTCA prides itself on its ability to integrate therapies better than any other cancer treatment organization.

Patients are drawn to CTCA through its outreach program, which includes direct response television and Internet strategies along with targeted media relations activities driven towards calling a toll-free number, sending an e-mail request, or engaging in a secure, on line chat over the Internet. Oncology Information Specialists are available by any of these channels 24x7x365, including holidays. This model requires extraordinary compassion and efficiency, along with clinical expertise, including a state-of-the-art network and telecommunications system to support these personalized interactions. "Our Call Center uptime was just 92 percent prior to beginning work with Cisco," says Dave Kawiecki, the lead network architect with CTCA. "This means that about one out

of every twelve cancer patients who had identified themselves as needing our unique form of care were not able to get through or were delayed in getting through. That was completely unacceptable.”

“Our core value is the Mother Standard<sup>®</sup>,” says CEO Steve Bonner. “That means we want to treat every patient and prospective patient as we would like our own mother to be treated. Clearly, we would have a huge challenge in delivering that standard, if the entry point does not pass that test.” Other problems included a telephone system that did not address data transmissions, different communications capabilities at different locations, the inability to differentiate between calls coming from within CTCA or outside, and a system backbone that was barely adequate for existing needs and not prepared to fuel growth. “Our system five years ago was a series of separate entities as opposed to an integrated network,” Bonner says. “We needed to integrate our systems, make a bet on Voice over Internet Protocol (VoIP), and build a communications backbone that would meet the growth needs we anticipated.”

**“Advanced-stage cancer patients have no time to waste. Our Cisco system has eliminated concerns about our network. As a result, our team is able to focus on our one-of-a-kind patient care and treatment model, which fuels our success.”**

—Steve Bonner, CEO, Cancer Treatment Centers of America

### Network Solution

CTCA needed a robust always available network infrastructure that was capable of fueling growth while providing its medical staff with the tools necessary to provide optimal care and accomplish its mission. The foundation for the Cisco<sup>®</sup> solution is end-to-end 6500 switching architecture supporting a Cisco Medical-Grade Network with sufficient redundancy for high availability and high performance. All options support the type of backup needed to make the network a reliable business growth engine.

The 6500 switching architecture and the 7200 series routers working with it, help support a versatile VoIP software platform, a wireless voice and data network, and video system. That enables remote clinical support from physicians not onsite who are able to offer their special expertise and expedite patient care. CTCA also uses Cisco’s Ironport messaging security technology to ensure a fast, reliable, and secure e-mail system. Time is critical in CTCA’s mission and Cisco products and solutions that save time can sometimes help save lives. In the future, CTCA will move to unify their applications and further enhance collaboration through Cisco Unified Communications Manager 6.0, Cisco TelePresence, Cisco Digital Media System and more.

According to Cisco account manager Tim Padden, the bottom line is redundancy and reliability are allowing CTCA to grow and get to more patients better, faster, quicker and over a secure network, enterprise wide. The reliability of the Cisco network has resulted in a highly superior and efficient patient acquisition process. It allows CTCA to execute their very unique clinical model from the very first customer touch and moving forward through the patient lifecycle. “If you looked at the build of the Cisco Unified Communications Manager and Cisco Unity platforms as well as the Cisco Unified Contact Center stack, it’s all built under a high availability model today,” he says. “And where it’s

going right now is a redundancy of the carrier transport systems at CTCA. That will ensure the high availability model.

CTCA is using the Cisco AP 1200 secure wireless network and is now deploying Cisco Unified Wireless IP Phone 7921G, a color wireless handset, to achieve its goal of complete, secure, wireless access at each site for nurse call systems. The wireless handsets allow the patient access to a CTCA clinician anywhere across the site. Along with complete wireless access at each site, the Cisco solution also offers total interoperability at each site with Microsoft CRM and all other vendor applications, further enabling CTCA's unique clinical model. According to Bonner, the Cisco solution has been mission critical for CTCA. "The VoIP system is the core of the network that will allow us, with the creation of one complete data center, and then a mirrored data center, to have the redundancy that is essential to our mission. The natural redundancy that resides inside the architecture of the Cisco system, plus the elimination of single points of failure, is really critical to that ability to use technology to provide high-quality, always-available patient care." According to CIO Chad Eckes, the contact center, which serves as the entry point for many of CTCA's patients and therefore is a key element of its growth, now has 99.998 percent uptime. "That's still not good enough," says Eckes. "We will not give up until we achieve and maintain 100 percent uptime."

**"In my career, I have never been serviced as well as our Cisco account team has serviced us. The Cisco team is always there for us, even to review a non-Cisco system that touches our network or phone system."**

—Chad Eckes, CIO, Cancer Treatment Centers of America

### **Business Results**

CTCA has enjoyed significant growth over the past few years, growth that in the opinion of Eckes "would not have happened without the Cisco solution." Call volumes into the contact center have increased 64 percent since implementing the new telecommunications network. "We have a near 100 percent direct marketing model," says Eckes. "Since we went with Cisco, we have been able to capture every inbound contact, route it appropriately and respond quickly, which has led to our growth." Since Cisco and CTCA teamed up, CTCA has opened new facilities in Tulsa and Philadelphia and has another under construction in suburban Phoenix, with more being planned. "The more people we can reach, the more people we can help," Bonner says. In all, CTCA handles 49,856 patient visits annually supported by the Cisco Unified Contact Center solution, which helped solve some of its customer contact center issues and helped simplify infrastructure construction of new facilities.

On the clinical side, Cisco's video solutions allow for remote diagnoses, clinical monitoring, surgical assistance, and pathology consultations with renowned specialists. "Time is of the essence for the patients who come to us," Bonner says. "The Cisco network has helped us offer the very best medical and diagnostic consultations without geography as an impediment."

## PRODUCT LIST

### Routing and Switching

- Cisco 6500 Switching Architecture
- Cisco 7200 series routers
- Cisco Integrated Services Routers
- Cisco ONS 15454 Optical network routers
- Cisco MDS 9500 Storage Area Network switches

### Security

- Cisco Adaptive Security Appliance
- Cisco Ironport Email Security Appliance
- Cisco Network Admission Control

### Wireless

- Cisco Aironet 1200 Series Access Points
- Cisco Wireless Analyzer

### Cisco Unified Communications

- Cisco Unified Communications Manager
- Cisco Unified Wireless IP Phone 7920, 7921G Models
- Cisco Unity
- Cisco Unified Survivable Remote Site Telephony
- Cisco Emergency Responder
- Cisco Unified Video Advantage
- Cisco Unified Contact Center Enterprise
- Cisco Agent Desktop
- Cisco Security Agent for Unified Communications Manager

Staff efficiency has also improved. “We now have a standard blueprint for each facility,” says Eckes. “This has allowed our IT department to become more efficient, and our network systems are easier to deploy, monitor and maintain. The system is so solid that we only need one technical support engineer at each site, and if someone at a particular site is suddenly unavailable, we can plug another technical support engineer into the situation remotely through the network and take control of that site as if they were there. We can also easily move network equipment from site to site, if necessary. Every time we simplify a support function, it means that we can invest more time and effort towards treating our patients and getting them well.”

### Next Steps

Cisco will be a key partner as CTCA moves toward its vision of an all-digital hospital in its new and existing facilities. “As far as IT is concerned, we are building enterprise consistency that benefits the patients we serve,” says Eckes. “We want a common, brand standard, footprint for every single hospital regardless of

location.” According to Padden, the next Cisco product under consideration for CTCA is Cisco TelePresence, an innovative, new technology that creates unique, in-person video experiences regardless of physical separation—over the network. Cisco TelePresence delivers:

- Greater productivity and acceleration of patient care services
- On demand medical consultations and business meetings
- Faster decision making and improved time to market
- In person patient consultations, on demand, matching the right expert with the right patient all the time with no geographic barriers, on demand.
- Improved communication and collaboration with co-workers, partners, and customers

### For More Information

To learn more about how infrastructure upgrades and the Cisco Unified Communications solutions they support can help your business achieve its goals, contact your Cisco representative or certified Cisco reseller today, or visit us on the Web at: <http://www.cisco.com/go/healthcare>.



**Americas Headquarters**  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

**Europe Headquarters**  
Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
www-europe.cisco.com  
Tel: +31 0 800 020 0791  
Fax: +31 0 20 357 1100

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