

Cisco IP Telephony Solution Helps Agriculture Leader A. Duda and Sons, Inc. Cut Costs and Expand Services

A. Duda and Sons depends on its Cisco converged voice and data network to provide cost-effective, reliable communication between its headquarters and branch offices across the United States.

“Our Cisco IP telephony solution helped us reduce our network operating expenses by 20 percent while giving us the flexibility to customize our voice capabilities to help our employees be more productive,” says Alan Newton, vice president of Information Services at DUDA.

Background

Established in 1926 by Slovakian-born Andrew Duda as a family produce business, today, DUDA is a leading grower, shipper, marketer and exporter of fresh fruits and vegetables in the United States. DUDA is a year-round supplier of celery, radishes, lettuce, onions and sweet corn grown in the U.S. and Mexico and also produces sugarcane, sod and beef. A DUDA subsidiary, The Viera Co., manages the company’s non-agricultural land holdings. The company headquarters are located in Central Florida, and DUDA has an additional 19 business locations across the U.S.

The Challenge

Voice and data networks play a critical role at DUDA, supporting key business activities like order entry, shipping, payroll, and finance. As the company grew, extending its operations to Texas and California, it became more and more costly to operate and manage the two separate networks.

Management at DUDA determined that a converged network that combined voice and data traffic on the same IP infrastructure could reduce administrative costs, while providing an easier path for growth and new applications. DUDA began looking for a technology platform that could support converged voice and data networking at locations that ranged in size from just fifteen employees to several hundred. Because no two offices had exactly the same user equipment and systems, the platform DUDA selected would have to be flexible enough to support a wide variety of phone and software applications.

“Some of our offices focus on sales, while others include production and sales staff in the same location, so our network has to meet a variety of needs,” explains John Kane, director of Networking and Communications Services at DUDA.

The Solution

After evaluating a number of options, DUDA decided to deploy a Cisco Systems IP telephony solution. Cisco was the only vendor with products that provided both the scalability and full range of features the company needed.



“Other products we looked at included low-end systems that were designed for small satellite offices, which wouldn’t scale well,” Kane says. “Most vendors either didn’t have a fully functional solution immediately available, or they offered combinations of traditional and IP telephony that were too expensive.”

Working closely with Veytec, an authorized Cisco reseller, which provided highly effective end-user training, DUDA installed a standardized system based on Cisco multiservice routers at each of its offices, including the Cisco 3810, 1700, and 3600 Series routers. The Cisco 3600 Series router provides a high-performance, modular architecture that delivers support for IP telephony and multiprotocol data routing at larger sites, while the Cisco 3810 and 1700 Series routers provide these features for smaller branch offices.

To provide user access, segment traffic, and to help maximize available bandwidth, DUDA has also deployed Cisco Catalyst® 2950, Catalyst 3524-PWR XL, and Catalyst 6000 Series switches. The Catalyst switches provide the following features to enhance the performance of an IP telephony solution:

- Voice virtual LANs (VLANs) to create a separate path for voice traffic, simplifying network administration and troubleshooting
- Advanced quality of service (QoS), so voice traffic can be prioritized over less delay-sensitive traffic
- Port security to isolate voice traffic and prevent eavesdropping

The Catalyst 3524-PWR XL also provides network-based inline power, which eliminates the need to connect each IP phone to a wall outlet or other power source.

Each office router connects to DUDA headquarters in Oviedo, Florida via a Frame Relay WAN link. Cisco CallManager software provides support for call handling and processing, while Cisco Unity™ software handles voice mail. Using the programmable Cisco IP Phone 7960G and 7940G supported by inline power from the Cisco Catalyst 3524XL-PWR XL switch, employees enjoy customized, feature-rich phone communication. Because the Cisco IP phone system deployed by DUDA treats telephones the same way as other network devices, administrators can configure and manage them much more easily than with a traditional analog public branch exchange (PBX).

“The Cisco CallManager gives us the flexibility to go in and make a change whenever we need to, and to check our system’s status at any time,” Kane explains. “There’s a great deal of flexibility in how we can design, or redesign, the system. We can add an Auto Attendant feature to locations where it’s needed, or customize phones for specific offices. For telephony, each site is unique in terms of how people use their phones. While one office might need only basic telephony, others might require support for call center environments, paging, and administrative conference capabilities. The Cisco solution lets us accommodate all of these needs using the same technology.”

The versatile Cisco IP network has also enabled DUDA to deploy its phones using innovative new technologies. For example, in locations where the cost of traditional wired connectivity would be prohibitive, the company has deployed Cisco Aironet® bridges to extend secure, wireless voice and data connectivity throughout its office campuses—at broadband speeds.

“We’ve actually connected ten phones and several PCs and printers over our Cisco wireless bridge at our corporate offices,” Kane says. “Our old wired connection had gone down, and it would have cost a huge amount of money to dig up the parking lot to reconnect to the building 850 feet away. The system has been in place for over a year, and even with Florida’s ugly weather and storms we have not had a single outage.”

To protect sensitive business traffic as it runs over the network, DUDA has implemented robust security measures throughout its infrastructure.



“We use both a Cisco router with access lists and a Cisco PIX[®] 506 firewall to secure our internal network from the outside world,” says Dave Emmer, corporate network manager at DUDA. “Inside the network, the voice and data run on separate virtual LANs using Cisco routers and switches, and there are access lists between them to prevent unauthorized access between the networks.”

Results

DUDA's new Cisco network now supports more than 600 phone users, and the company is in the process of deploying the system to additional locations. Early return on investment studies show that the system has dramatically reduced network management costs.

“The system has provided great benefits in terms of moves, adds, and changes,” says Kane. “Our remote response time [to implement moves, adds or changes] has dropped by 65 percent, and our total cost is down 55 percent. At the end of the day, the total system deployment provided a 20-percent savings compared to the way we were doing it.”

Because DUDA's IP telephony traffic runs over its existing Frame Relay WAN, the company can also use its network to support convenient four-digit dialing between sites, avoiding additional long distance charges.

Next Steps

As DUDA continues to grow, the company plans to further enhance its network to support new applications such as Cisco IP Integrated Contact Distribution (IP ICD) customer contact center solutions.

“Our Cisco IP telephony solution enabled us to justify the cost of moving to more advanced networking throughout our organization,” says Kane. “We're now positioned to take advantage of a variety of new technologies that were simply not possible under the old system—and we've actually cut our costs while doing it.”

Contact:

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Sidebar

A. DUDA and Sons, Inc.

- Established in 1926, as A. Duda & Sons, Inc.
- Leading grower, shipper, marketer, and exporter of fresh fruits and vegetables
- Headquarters in central Florida
- 19 business locations across the United States



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