

IT/NETWORK MANAGEMENT
National Gypsum: Executing
Customer Service Via Satellite
page 6

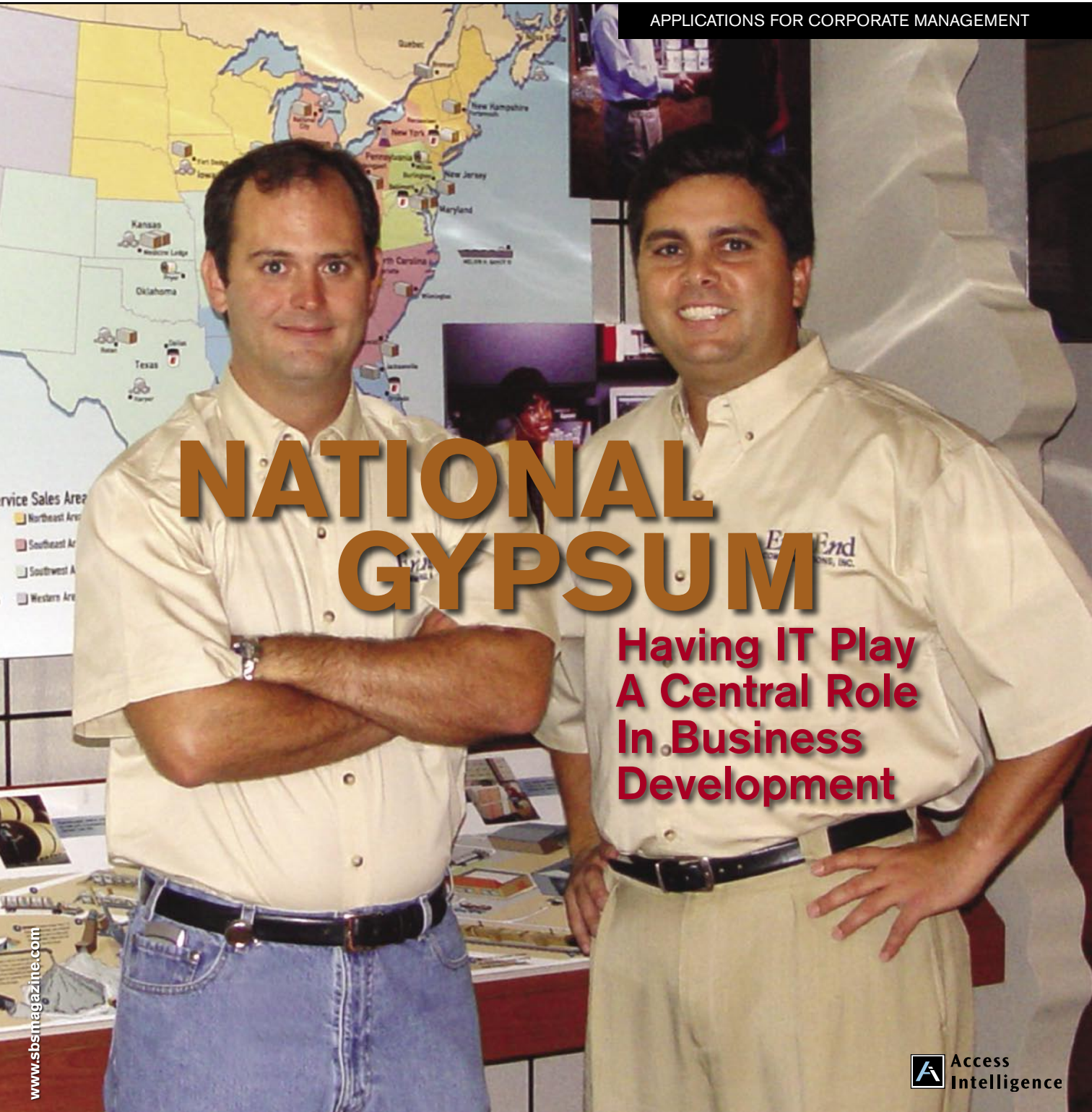
CORPORATE TRAINING
Establishing A Satellite Network: What You
Need To Know To Get Corporate Buy-In
page 12

EXECUTIVE MANAGEMENT
Off-Peak Transmissions:
Strategically Delivering Information
page 18

SEPTEMBER 2005

SATELLITE BUSINESS SOLUTIONS

APPLICATIONS FOR CORPORATE MANAGEMENT



NATIONAL GYPSUM

**Having IT Play
A Central Role
In Business
Development**

» **CASE STUDY**

**NATIONAL GYPSUM:
Increasing Productivity With Satellite**

BY NICK MITSIS

For National Gypsum's IT department, its network is more than just an afterthought: it is an integral part of the company's success and is considered as important to growing the business as are the long-term projections of where the next production plant will be constructed.

National Gypsum, based in Charlotte, NC, is a privately-held wallboard and building materials company that operates more than 42 facilities throughout the United States and Canada. Likewise, the company is vertically integrated — owning quarries, production plants and logistic operations.



National Gypsum has implemented a network that provides customers with access to data about their orders, shipments and account information.



» CASE STUDY

Given the diversity of this organization, seamless connectivity and robust communications are two of National Gypsum's most significant commodities. Even though cost containment remains a top agenda item for company executives, understanding the value of providing employees and customers with a robust portal for information exchange has not gone un-noticed, both in investment and execution.

National Gypsum has implemented a network that provides customers with access to data about their orders, shipments and account information. Recognizing that significant time and money was being spent collecting data from the quarries and inputted by a data entry individual back at headquarters, the company propelled itself atop today's industry landscape with a satellite-enabled hybrid network.

"Prior to the satellite network installation at the quarries, we were operating with a lot of inefficiencies," says Mike Whisenant, communications services manager, in charge of all voice and data network operations for National Gypsum. "Take, for example the quarry work. Prior to our upgrade with satellite, the field workers would take inventory of the rock they were producing and call it in to either headquarters or the production plants where someone else would key it in. There

was a lot of wasted time and energy, not to mention a lot of room for error." In addition to the manual inputting of data that passed through three to four hands, the management facilities used to be relocated from site to site, costing both time and money. "They would literally pick them up with a crane and move them to where operations were being conducted at the quarry. Once operations would move to another part of the quarry, they would need to pick the management facility up again," adds Whisenant.

In addition, National Gypsum had some in-house applications for equipment maintenance on an inventory level as well as record control that needed to function on a more robust level. National Gypsum workers also needed to gain Web access to Caterpillar Lift Trucks, headquartered in Houston, Tex. Caterpillar, or Cat Trucks as they are more commonly referred to, supplies National Gypsum with the large hauling vehicles at their quarries. Likewise, Caterpillar needs to have updated maintenance records on its vehicles so it can better serve its customer base.

Given the remoteness of the quarry locations, the tight schedules for rock production and the need for routine or emergency truck repairs, maintenance crews had to be able to access Web application portals back at Caterpillar so seamless troubleshooting could occur with minimal disruption to daily operations. According to Whisenant, truck maintenance crews would have to write the reports up by hand and either phone or fax in the problems. "These enterprise applications are all bandwidth and latency sensitive and getting connectivity to these remote locations was impossible without satellite," says Whisenant.

Minimizing truck down time was one of the main drivers for the upgrade. The five quarry sites became connected via satellite.

Successfully Fusing Satellite And Terrestrial Networks

Working within the confines of an established network, Whisenant needed a

seamless solution for incorporating satellite connectivity into the company's communication portal. Like most network managers, Whisenant needed strategic partners who could deliver on the network infrastructure expectations set forth by executives at National Gypsum. With a budget of less than \$100,000. Whisenant went to work.

He began with an initial screening of vendors, looking not only for his near-term "must haves" but also those who would be able to provide long-term service. "In the end, we needed from our network service providers an ability to deliver a solution that would enable us to deploy and provide the connectivity for customer access our clients needed. If they could not deliver that, they failed the selection process," says Whisenant. He turned to End II End Communications Inc., a provider of network security and optimization software for broadband Wide Area Networks (WANs). End II End went to work and solved the remote connectivity problem Whisenant was experiencing while seamlessly integrating his most isolated remote sites to the established VPN. Through this partnership, a network of secure satellite-based communications links brought online between National Gypsum's Charlotte data center and its remote quarry offices in National City, MI, Fort Dodge, IA, Harper, TX, Rotan, TX and Winkelman, AZ. "End II End's satellite VPN is the only one that works with all my applications and eliminated the latency issues that arise with VPNs and satellite connections. Our remote employees can now get fast and easy access to the information they need."

The process began in 2004 and spanned 45 days. The most challenging aspect of the installation, according to Whisenant, was getting the equipment to each site. "We did it on a staggered project schedule, having a satellite installer and a LAN technician set up the satellite, install the End II End solution and build a LAN at each of the five sites. For the first time in National Gypsum's 86 year history, the quarries are now a fully integrated part

NATIONAL GYPSUM FACTS AND FIGURES

HEADQUARTERS:
Charlotte, N.C.

2004 REVENUES:
More than \$1 billion

EMPLOYEES:
2,600

I.T. EMPLOYEES:
34

I.T. BUDGET:
\$9.3 million

“It was initially installed for those equipment manufactures to gain access for maintenance and for our inventory control, yet we are finding more applications and uses for the satellite network which makes it an excellent investment.”

Mike Whisenant, National Gypsum

of the enterprise,” says End II End’s CEO, John Dwyer. By the end of December, all sites were fully linked up to the existing network. “We started with our records department. In our evaluation process, we tested different satellite carriers and different VPN technologies to connect back to our internal network,” Whisenant says. He adds, “National Gypsum chose SDN Global as its broadband satellite service provider. SDN, uses satellite technology to provide a range of connectivity, remote asset management and data continuity solutions for enterprise applications. Whisenant also stated that without End II End’s security and optimization software, satellite would not have met his security and performance requirements.

“Once the initial installation was completed, we were online and functioning. There were no major obstacles we had to overcome and we continue to receive excellent service and technical support from our partners,” adds Whisenant.

Today, National Gypsum has not only already begun to realize a return on its initial investment; it uses its robust hybrid network for a variety of applications beyond data entry. “We have a diverse mix of Web applications, email to Microsoft Exchange server, mainframe communications and documental/records retention applications,” says Whisenant. “It was initially installed for those equipment manufactures to gain access for maintenance and for our inventory control, yet we are finding more applications and uses for the satellite network which makes it an excellent investment.”

All of National Gypsum’s internal communications published out of the corporate communications department goes over the

network to the quarries. Therefore, this network upgrade not only benefits customer relations, but also assists National Gypsum in mainlining employee communications through efficiently disseminating corporate information on a regular basis.

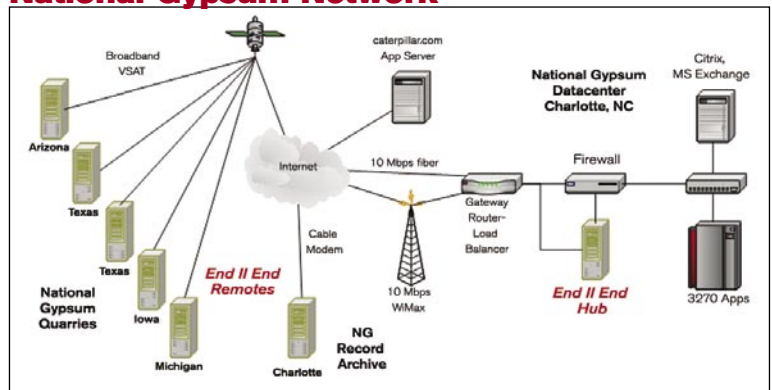
Key Benefits Achieved

Two of the main benefits National Gypsum has garnered are the ability to get data

business success.”

For future growth, National Gypsum is looking into other uses for its satellite-enabled network, such as disaster recovery and emergency communications. “We have implemented a WIMAX connection, through an End II End partner, Wind-Channel Communications, to ensure our customers will not lose connectivity, either when our terrestrial connection is accident-

National Gypsum Network



National Gypsum enterprise applications are all bandwidth and latency sensitive and getting connectivity to these remote locations was impossible without satellite.

logged more efficiently and to simplify the maintenance on its fleet of trucks. Without the hybrid network disseminating information throughout the entire enterprise, such streamlined business objectives would not have been possible. Whisenant says that National Gypsum’s IT department is central to its ability to deliver customer service and keep its competitive edge. “We are one of the first in our industry to centralize our customer service center and now we have a very seamless maintenance system,” Whisenant says. “As far as our relations with our customers go, we have become a very critical component of the

tally spliced or during an emergency situation.” Whisenant is also considering using End II End’s VPN failover option with satellite for backup connections to the remaining 37 locations currently linked to the data center via terrestrial service.

In addition IT executives are examining options for streaming live video company-wide, enhanced corporate training and more internal communications. “We have not settled on a platform that will give us everything we want to do, but we are looking.” ■

Nick Mitsis is the Editor of Satellite

Source: End II End Communications.