

Digital Daze

by Cynthia Scanlon
photography by Mark Zemnick

“We’re competing in a global economy now, and American companies have to be more competitive.”

This statement comes from Adam Schrage, general manager of Electric Lightwave, a company that offers an integrated suite of communication solutions, including local and long distance telephone service, Internet, wide area networking (WAN), and video conferencing to medium- and large-sized businesses.

“The way we can take an existing labor pool that is more expensive than what we see in other countries and compete is by making them more effective and more productive,” he adds.

Most companies today would go along with this. And to achieve it, many businesses are now turning their attention and resources to digital technology. To answer the call, various major and minor players have thrown their hats into the ring, hoping to ride the burgeoning digital technology wave into the next century. This technology, the providers promise, will make our lives more efficient, easier and, perhaps, more enjoyable.

One of these key players, Cox Communications, realizes that most companies view the use of technology as an opportunity to be on the competitive edge of business, and Cox wants to work in alliance with these businesses to help shape the future. “We think that by making it simple, reliable and affordable, we can be their partner and help them stay competitive,” says Gregg T. Holmes, vice president and general manager of Cox Communications. “Small businesses don’t have the management information systems expertise or information technology people to troubleshoot issues, which is a role we can play for them. We want them to benefit from the product, not be burdened by it.”

Whether saint or sinner, the Telecommunications Act of 1996 is greatly responsible for giving companies the green light to cross over into different lines of the digital and telecommunications industry. For some of us, the new rules have been a godsend, for others a way to become even more confused.

“Every time there is a new technological innovation, there is a confusion period,” says Schrage. “All these technologies, whether they are computer or communications, oftentimes are unleashed initially with limited productivity gains, and as they figure out how things work, the productivity gains come in the second wave.”

Schrage adds this promised productivity is usually tested by someone willing to step to the forefront. One such company that has undertaken this challenge is Cellular One. The company has spent millions deploying the largest digital system in Arizona, more than 5,500 square miles of digital infrastructure that covers the entire Phoenix metro area, Casa Grande, Tucson, and Albuquerque. This CDMA digital network makes Cellular One one of the first wireless service providers to launch a digital network in Arizona. Because of the dual-mode digital/analog technology, Cellular One’s customers can use their phones in more than 5,500 cities across the U.S.

According to Greg Klimek, president of Cellular One, the company, which is a wholly owned subsidiary of Bell Atlantic Mobil, owned by Bell Atlantic, has more digital customers than any other wireless provider in the state.

“In the long term (this network) will improve our cost infrastructure, enable us to provide better pricing to our customers, and improve our quality of service,” says Klimek.

Klimek believes wireless communication will capture at least 40 percent of the market by the year 2000. “More and more people are getting into wireless as it becomes more affordable,” he says. “It’s a common occurrence now to see someone walking through the mall and talking on their cell phone.”

In fact, Klimek sees digital technology, specifically wireless communication, beginning to change lifestyles. “This started out as a business tool to help (business people) be more successful,” he says. “And it crossed over into the personal sector very fast and efficiently.”



Adam Schrage,
general manager of
Electric Lightwave

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In the studies it has conducted, Cellular One reports 35 percent of wireless users use their phones for business, 35 percent for personal, and the balance use it for both. "What has happened over the past few years is the people using it for personal and people using it for both has continued to grow," says Klimek.

This crossover, and indeed people using this technology for innovative and future business applications, comes as no surprise to Jack White, vice president and general manager for the southwest area for Norstan Communications, Inc. According to White, this technology will continue to grow while we will have to continue to question and adapt. "We are past the notion that we are waiting for the office of the future, because the office of the future never gets here," says White, adding he believes bigger questions are on the minds of people in business today.

"The small office environment is saying, 'Where can I use this technology to help me?' The large companies are all vigorously looking to maximize the technologies available today," he says. "The large guys are asking, 'How do I bring all this stuff together and control it in either a centralized or decentralized implementation? And oh, by the way, it's not my expertise. Can you manage it for me as well?'"

Norstan, which is a large system integrator and full-service provider of voice, video, and data communications systems and solutions, says most of their current vendors are working to deliver their technology into smaller business applications. "And customers don't want to look to 10 different vendors to get to one solution," he says. "We take that mystery away from them by doing it all for them."

The mission for Cox Communications, says Holmes, is to be a "full-blown, facilities-based communication provider offering fully integrated residential and commercial communication services with state-of-the-art technology." The goal is to speed communication between businesses and people in a community and provide access to information in a much quicker way so that companies can stay competitive. In the future, the company hopes to add digitally compressed video to its menu of services.

"Over the last five years, we've been in a pretty aggressive deployment mode here in the Valley and in areas throughout the country, so the capabilities can be available to the consumer," says Holmes. "Our goal is to provide the consumer with a better quality choice and let that serve as a value-added alternative."

Cellular One has recently upgraded its network in the Scottsdale Airpark, an upgrade that involved removing the old equipment and installing new digital/analog equipment, at a cost of millions of dollars. It is these kinds of upgrades, which have been performed by the company all over the state, that allow it to keep up with the new digital demand, says Klimek. "We can carry eight to 10 times the traffic over a digital site than we could on an analog cell site," he says. "We worked on this for three years before we launched it."

He says Cellular One's digital network means improved call clarity and reception of phone calls with LAN line quality, and the integration of caller ID, paging, and voice mail notification. The new digital phones, according to Klimek, give a user four to five times the battery time and two days of standby time. A traditional cellular phone provides 60 to 90 minutes of talk time and about 10 to 12 hours of standby time. "For people using digital for business, this is a dramatic breakthrough," says Klimek.

Despite the many new inroads and innovations, the industry is not without its challenges. Electric Lightwave's Schrage sees the continual drive toward mergers and acquisitions, where large companies are gobbling up smaller companies "at an alarming rate," as one of the biggest challenges to the technological field.

"We see it going from a relatively open playing field with lots of competitors to a playing field in the future where there will probably be 10 or so major players competing for every last piece of the communications pie," he says.

As would be expected, this movement toward mergers will affect pricing platforms for the entire industry, Schrage believes. "Having lots of companies competing for the same business encourages

innovation and price competition," he says. "In an industry where there are fewer players, the incentive is to move away from new technology and innovation and toward a collaborative pricing arrangement."

Schrage also sees trouble with the mergers in terms of overall



Greg Klimek, president of Cellular One

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Jack White, vice president and general manager for the southwest area for Norstan Communications, Inc.

customer service, specifically the trend of smaller players preparing themselves to be acquired as opposed to preparing themselves to provide great service. "It's difficult sometimes to compete against someone who is not pricing things to live for the long haul, (rather) they are setting up their whole platform to be bought by someone."

For Cellular One, the results of all this crossover as been somewhat the opposite experience from Electric Lightwave. "For the past ten years, we had one competitor, now we have four or five," says Klimek. "That drives us to be the best in the marketplace, to offer the best quality service and most attractive pricing to retain our customers."

According to Schrage, the demographics of Phoenix are also playing a key role in some of the challenges faced by digital technology companies. For instance, Electric Lightwave sees fewer major accounts here and many small- to medium-sized companies. Other markets, he says, have a stronger emphasis on corporate headquarters. The problem this poses is that the digital technology industry is a capital intensive one. It is not uncommon for a client to spend between \$50,000 and \$500,000 to install state-of-the-art fiber optics.

"That paradigm does not lend itself well to serving small companies," says Schrage. "There is also a very healthy shared tenant community here where the building owners want to sell their services to their tenants. It makes it very difficult to compete in those buildings."

But none of this really bothers Schrage or his staff at Electric Lightwave. "(Phoenix) is the most exciting market because we have more obstacles to overcome," he says. "It's a trickier puzzle to solve."

But the challenges will remain. To address some of these problems facing the industry now and in the future, Holmes says Cox Communications is taking steps to assure that their work force is

ready to meet the future of providing new technology.

"We've been pretty aggressive in the development of our people, and we've done a good job of evolving the culture of the organization," he says. "We used to offer one video product, and now we offer an array of telecommunications products, which means we've got to be much broader in how we approach the consumer."

He adds, "We've got to provide the latest in technology to the consumer so the equipment in their home does not become antiquated."

Cellular One also has challenges, namely being able to find quality phones to deliver its state-of-the-art wireless technology. Currently, the company works with a few telephone manufacturers and is waiting for a Motorola version to become commercially available. "We provide the service, but we do not manufacture the phones," Klimek says. "So we have to make sure the phones that we are selling are performing to their potential."

So where is all this technology going? Schrage believes we are heading toward a world where communication between people will be seamless. A world where all communications, whether they be telephone, television, or computer, can occur over a single platform based on standardized technology.

Norstan's White sees the future tied to the speed at which information has to travel. "Electronic commerce is picking up speed, and the Internet is going to be a major way for people to buy and sell," he says. "It's going to get bigger and faster, and I think it is unreasonable to expect all this to slow down."

He adds, "It's going to be a challenge for business people trying to solve problems as well as for the customer to understand what's available."

AB

Cynthia Scanlon is a Tempe free-lance writer.