

Marrying Telephones with Computers

Subhead: Is Voice-over IP right for you?

Excerpt:

Open any technology magazine and you'll likely be hit with a veritable alphabet soup of acronyms and lofty terms. With all the new technology—laptops, cell phones, pagers, PDAs, desktops—information is coming at us faster than ever. Emails, voice messages, snail mail, interoffice memos, meeting notices, and data transmissions all threaten to overwhelm us.

The challenge is how to manage all that communication. How do you decide what's right for your business? Read on, and take notes.

One Big Happy Family

In most businesses, people still talk over phone lines and send data over networks or the Internet. In fact, many data lines can't carry high-quality voice messages. But that's changing.

New technology makes it possible to use your computer to do it all—make phone calls, check voice messages and email, send data, download photos, update calendars and sit in on video conferences. If it can be digitized, it can be accessed. And it doesn't matter if you're using a laptop in San Diego, a desktop in Shanghai, or a PDA in Jamaica.

Sounds great, doesn't it? This concept, known as convergence or integration, is indeed the hot topic of the day. But actually making it work—without going in the red for the conceivable future—can be challenging.

Sneak Peek into the Future

Just to whet your appetite, let's see how convergence can work. Kimberly Morris-Cheeseman at Cisco provided this intriguing scenario.

Jennifer is a busy sales manager with a hectic travel schedule. From her laptop, she uses Outlook to schedule meetings and keep detailed contact lists. Her cell phone has an integrated PDA so she can dial her phone from her contact list and keep track of missed calls. She can also plug in from anywhere to open corporate directories and check email from her sales staff. Not bad. The only problem is that her phone system and computer network don't communicate directly.

Consider how Jennifer's life could change if her phone system came under the umbrella of the corporate network. From her laptop, she could select a contact in Outlook, click on an IP phone icon, and bingo! she's dialing. Since she likes using her laptop for everything, she has her voice messages appear as email so she can select which messages she wants to hear first (versus having to listen to them chronologically). If someone speaks too fast, she can slow down the message to note important information rather than replaying the entire message. She can even check the status of a FED EX package she sent yesterday with a single click on her IP phone.

With an integrated system, Jennifer could save up to an hour a day just making calls and checking voicemails. And that's just Jennifer. Imagine the productivity gained when you multiply those benefits across hundreds or even thousands of employees.

Voice-over IP versus Traditional Phone Systems

With all the new technology and terminology, there's a lot of confusion about the options available when it comes to integrating phone systems with computer networks.

You're likely to hear a lot of buzzwords about what's broadly known as Voice-over IP, or VoIP. You may also hear about IP phones, which essentially use VoIP technology.

Here's how VoIP differs from traditional phone systems. When a call is made in a traditional phone system, a dedicated circuit is established for the duration of the call. No one else can use that circuit until it's freed up. Calls are typically routed through an external public service telephone network.

When a call is made using VoIP, call data is divided into "packets" that are routed through your computer network. One of these packets includes the destination of the call, typically four or

five digits. VoIP enables data packets to be shared over a computer network, making the entire network more efficient, and bypassing a phone system.

To use VoIP, you must have a broadband connection, such as a cable modem, DSL, or a local/wide area network. Broadband connections use Internet Protocol (the "IP" in VoIP) to communicate data.

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