



The complete package

KATHLEEN LAVINE | BUSINESS JOURNAL

Terry Gold, CEO of Gold Systems in Boulder, talks with his assistant, Angela Lollar, over the unified communications system installed in his FJ Cruiser.

Unified communications brings together Internet services on the go

BY GREG AVERY
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The widespread adoption of Internet telephony in business has led to a new generation of technology, called “unified communications,” that blends access to email, voice phone calls, office calendars and video conferencing in ways unimaginable a few years ago.

Aside from making equipment purchases cheaper for businesses, it also makes people reachable virtually wherever and whenever they are, regardless of which form of communication they use.

Terry Gold’s company exemplifies what’s

possible with unified communications.

He’s CEO, president and co-founder of Gold Systems Inc., a Boulder technology company that designs voice-recognition software for telecommunications systems.

Call Gold, and an automated office attendant can route the call to whatever device he’s best reached at — his mobile phone, office phone, laptop computer or even his tricked-out FJ Cruiser SUV, in which he can hold streamed video conferences.

Gold envisions a day soon when people have a single phone number or email address through which all their business communication could happen instantaneously.

“We could do it today, but old habits die hard,” Gold said.

Modern communications systems turn phone calls, streaming video and Internet data to packets of digital data, meaning software on office computer servers can route and manage communications in place of traditional telecom switching systems.

In the past year, corporate adoption of unified communications, and companies selling fully integrated systems, has made unified communications mainstream.

Gold Systems helped create voice-interaction features of Microsoft’s unified communications products and built custom applica-

COMMUNICATIONS: Large part of UC market is up for grabs

tions on top of the core Microsoft product for large businesses, including Denver-based multinational company Gates Corp.

With the technology, a person can call in to check voicemail and have the systems read their email to them over the phone — or, conversely, log into email and check voicemail on a computer.

Microsoft's unified communications systems let users see who in their company or authorized network of people is currently reachable and who's on the phone, in an online chat with a client or in a live, in-person meeting. The "presence" function embodies the core benefit of unified communications — removing the lag time in communications between people.

Recently, at an out-of-town industry conference, Gold logged on to his laptop while in the audience of a workshop session. A client of Gold Systems using an instant message-like desktop program noticed that Gold was online and available for a question.

The pair discussed the client's question via instant message. Gold realized that a co-worker back in Boulder had information relevant to their discussion. That co-worker, Gold could tell, was at his desk in Boulder and available. Gold brought him into the conversation, and the client got his answer without the usual string of calls and emails.

"The vision is to make it so that you no longer make a call and get nobody when you need to get the right person at the right time," Gold said.

Such technology isn't just changing how professionals communicate — it's turning the established order of business telecommunications on its head.

Microsoft Corp. entered the unified communications market a year ago with products based on the company's ubiquitous email servers. Now the Redmond, Wash., software giant competes directly with traditional telecommunications companies such as Cisco Systems and Avaya Inc.

Unified communications is a market estimated to potentially be worth \$40 billion to \$50 billion.

Gartner Inc., a Stamford, Conn.-based analysis firm, labeled it the second-most-important business technology strategy behind green IT. Yet, some technology experts predict it could take a generation before it's pervasive.

One big reason is that the variety of capabilities lumped together in the term "unified communications" makes it hard for businesses to understand what's a sales pitch and what part of the technology is truly useful, said Zeus Kerravala, a Yankee Group telecommunications analyst.

"The UC market has been one that's largely a lot of hype," Kerravala said. "For corporations, it can be difficult to figure out what to deploy."

He estimated that annual sales of true unified communications technology — not counting email servers, instant messaging, VoIP phones and other things a business would buy even without a software platform unifying them — is probably close to \$2 billion.

That leaves a far larger chunk of the market still unclaimed — and the prize that technology providers are fighting to win.

Successful unified communications companies, he predicted, will be the ones that fashion the technology into industry-specific applications that improve business processes.

"That will turn UC from something that's nice to have into something that's necessary to have," he said.

He points to Avaya Inc. as a company succeeding with that strategy.

Basking Ridge, N.J.-based Avaya has been offering unified communications packages for more than two years. Some core features of its main product, Communication Manager, have roots dating to the 1980s, when the company was still part of AT&T's Bell Labs and later, when it was part of Lucent.

Today, Avaya is privately held and independent. It employs 1,100 people in Colorado labs, most of them at offices in Westminster, on 120th Street west of Interstate 25, where most of its unified communications technology is developed.

The reliance on an ever-larger number of devices, and increasing pressure to always be reachable, drives companies of all sizes to look at unified communications technology as a way to simplify how they communicate, said Steve Hardy, Avaya director of unified communications product and marketing.

The market won't give rise to a dominant product that everyone uses, he predicted, but rather will spur companies such as Avaya to adapt the technology to fit the gear businesses already have in place.

"There will not be one player; it will really be about integration into a host of different systems," Hardy said, and the one that does that best will be the most successful.

For a manufacturer, Avaya's system linked parts-tracking technology to the manufacturer's unified communications. The company previously had managers authorize the ordering of key parts, meaning a worker had to find a supervisor to sign off on orders that kept the whole assembly line productive.

Avaya's unified communications systems automatically sends a message to supervisors when parts inventories dip below a pre-set amount and gives the supervisor several ways — voice, instant message, email — to approve an order and have it sent to the supplier electronically.

"It takes less overall effort to build the product, and they make higher profits as a result," said David Chavez, director for Avaya strategy and technology, who's based at its Westminster office.

Similarly, a hospital communications system Avaya designed sends patient-release notification to every doctor and nurse whose authorization is needed before a patient goes home. A process that can take hours in a busy hospital can be handled remotely by all the caregivers at once.

Avaya is exploring ways to use embedded "tags" connected to phone conversations, similar to the way images and web content online are tagged to be found by search engines.

Tagging content of a call has obvious applications in customer-care call centers, Chavez said. If a caller's problem isn't resolved by one operator, software can determine the subject of the conversation and who best to transfer the call to.

For a typical office worker, systems could automatically search the Internet and pull up on their computer screen information that's relevant to what they're talking about at that moment.

Already, unified communications systems make it possible for a person's computer to find and display a LinkedIn profile or other online information about a caller while the phone is still ringing.

"The technology is there to start doing things radically differently. The question is whether the user is ready," Chavez said.