



Making The Business Case For IP-Telephony

Eric Krapf

Will convergence save you money? How will you know? More importantly, how will you prove it?

You know that IP-telephony is the wave of the future. You know you'll be buying it for your enterprise... someday. So how do you know if now is the right time?

One way to know is, do you *have* to buy *something* now? Chances are, if you require voice infrastructure today, you'll be looking at a system that is, at minimum, IP-capable. By the same token, where you have a very recent upgrade or lease, you're likely not interested in making a major change immediately.

That leaves a big grey area in the middle. How do you plan for migrating sites that don't need immediate attention, but where IP-telephony could offer some immediate benefits?

You look at the business case. And while that may sound like a simple answer, it really isn't. In fact, in many ways, the exercise of making the business case for IP-telephony could be seen as a dry run for the subsequent implementation process. To do it right, you have to know your current network (which may be a process of getting re-acquainted). Then you have to understand the new technology's cost implications, so you can figure out how much IP-telephony to roll out, when and where.

If it sounds like you'll be spending significant time and possibly even some money going through the business case exercise, you probably will.

The Triggers

The first thing that will affect *how* you make the business case is *why* you're making it. Said Mark Ricca, executive vice president at InfoTech, a New Jersey-based consultancy that works with end users: "If we step back

and look at the classical triggers for replacement/upgrade of a telecommunication system, there are just a handful: You've got greenfield situations and new locations. You've got real estate-driven events—relocation or renovation, a good time to look at upgrading infrastructure, tweaking a system, exploring IT solutions." There are also finance-driven events, like a lease expiring or depreciation on a PBX being completed.

"Then you've got system limitations or deficiencies," Ricca continued. "This is where the end user isn't relocating, specifically, but recognizes that the existing vehicle has limitations in either feature, function, capacity, application, accommodations, reliability" or a combination of all of these.

When you find yourself in this position and begin to consider IP-telephony as an option, you'll most likely be required to come up with a business case supporting the migration decision. For a lot of companies, a business case needs to be done to satisfy standard practices. In other words, the benefits of IP-telephony may seem clear, but you'll need to tally up the costs—in equipment, services and other expenses of acquiring, installing and operating the new infrastructure. These are weighed against anticipated benefits, in cost savings or cost avoidance. You can reasonably expect additional benefits, which you may not be able to include in the business case calculations because they're difficult to quantify on the front end (see "Productivity" section below).

An infrastructure transformation of the potential magnitude of an IP-telephony migration will require participation from the other major enterprise stakeholders. Ricca sees large enterprises approaching the issue of the IP-telephony business case via a four-legged management structure:

- **IT organization:** Examines the technology concerns and considerations.
- **Strategic business units:** They bring to the table their concerns about how the migration

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will help them do their jobs, serve their (i.e., the enterprise's) customers and compete more effectively in the marketplace.

■ **Financial:** They “come in playing hardball,” Ricca said. “They’ve got X number of dollars to spend in a fiscal year, and they want to know, is this expenditure worth it?” A related question: How does it compare to other investment projects? Also, what’s the ROI? What’s the total cost of operations? What financing arrangements would be available from the channel or the manufacturer?

■ **Legal and purchasing:** Their job is to make sure the I’s are dotted and the T’s crossed.

In certain cases, choosing an IP-telephony solution makes obvious sense: If you’re in the position where you *have* to make a purchase for a given site or sites, why buy old technology that may not be supported much longer?

However, even in situations where you don’t *have* to make a move, you might decide you *want* to start the migration—to reduce your telecom spend, according to John Dretler, senior VP at AnchorPoint, a consultancy that specializes in helping enterprises control telecom expenses.

“I think most CFOs are saying, I need to [reduce] my telecom spend—Gee, I’ve heard voice over IP can help me do that,” Dretler said. “If you told the guy he could [reduce] his spend 20 percent, and voice over IP wasn’t included in that, that’d be OK.

“Now, it’s not likely that that’s going to happen,” Dretler continued. “It’s more likely that one of the ways you’re going to achieve the direct cost reduction—as well as what I’ll call the soft benefit of increased employee productivity—is with voice over IP technology.”

How exactly does IP-telephony save money? According to Dretler, “It enables someone to reduce the cost per call. It enables you to reduce the number of vendors that you’re dealing with. And it may be less expensive in a box for box replacement than a PBX.”

The Baseline: Preparing To Prepare

And how does IP-telephony accomplish these things? That’s where the business case comes in. But before you can make a business case, you have to know what you’re building the case upon—you have to know the elements and costs of running your voice network now.

InfoTech’s Mark Ricca breaks this effort down into what he calls ROI Lite and ROI Complete. The elements of ROI Lite, according to Ricca: “It’s network, it’s existing

hardware, it’s service and maintenance, it’s applications, it’s down time, all the traditional considerations, and if at all possible, dipping into some softer areas such as time spent away from desks by the mobile workers and telecommuters. What are the areas that can be positively impacted, potentially, by an effective IT solution?” The ROI Lite is “quick and dirty,” intended mainly to ascertain whether you should pursue the matter or drop it without taking any action, Ricca said.

That’s a consideration, because doing an ROI Complete will probably involve either devoting significant staff time of your own, or engaging an outside professional to do the work. Ricca characterizes the ROI Complete as “Super detail. Some real insights into the business of the business, the individuals that are mobile, call center information, but grueling detail. And I can tell you, having been an end user at American Express, it’s not readily at hand. It might take days or weeks to gather all the information that could be conceivably needed.”

ROI Analysis Tools

So now you’ve got a fix on what you’re spending, at a level of granularity you’re comfortable with. At this point, you’ll probably encounter one or more ROI tools.

The vendors will tell you that the ROI tools they provide should be just one element of your decision-making process. “It’s definitely an advisory tool,” said Peter Brockmann, VP of marketing, enterprise voice solutions for 3Com. “There’s a set of assumptions you have to make to be able to complete the analysis—assumptions about how many calls, what’s your busy-hour attempts, those types of fundamentals.”

Mark Ricca said the vendor ROI tool should be seen as a piece of the business-case puzzle. You can help yourself decide how much weight to give such a tool by finding out a little more about how the vendor developed and maintains it. For example, 3Com notes that its tool was created by an independent consulting company, Alinean, rather than directly by the vendor, and that the tool’s ROI calculations are based on information from companies within the verticals examined by the tool.

Another important factor is how often the vendor updates the tool. “This is not like where you do your taxes once a year or you get a physical checkup once a year,” Ricca said. “It literally should be a living and changing tool.”

**IP-telephony
saves money
by reducing the
cost per call**

Another powerful argument for IP-telephony: Reduced op-ex

Making The Case

So you'll look to your own investigations, perhaps supplemented by a vendor ROI tool, to quantify whether or not it makes sense for you to start your IP migration. What conclusions are you likely to reach?

The obvious caveat here is that every enterprise is different. Everyone's coming in with a different installed base, network configuration, user demand, etc. But there's pretty broad agreement that the business case benefits break down into three tiers of savings and/or cost avoidance, which loosely correspond to three levels of IP-telephony equipment/software deployment (Table 1):

Savings Opportunity/Benefit	IP-Telephony Equipment
Network	Media Gateways & Software Call Controller
Operational expenses	IP Phones, Management System
Productivity	Convergence Applications

For example, you might be able to make a pretty straightforward business case that the cost of TDM-IP gateways can easily be recovered via the savings they produce in the cost of interoffice voice traffic. John Dretler, the AnchorPoint consultant, described this as reducing your cost per call.

"If I'm able to design my network effectively, I'm going to have traffic carried over a fixed cost, and now the more traffic I can pump over it, I'm going to be able to reduce my cost per unit or in some cases, maybe have no cost per unit," Dretler explained.

Indeed, no matter what you may have heard about long distance charges falling to around a penny per minute, it's still pretty tough to beat free or nearly free. Enterprises have reported saving more than 40 percent on their long distance costs by packetizing their wide area voice traffic.

Another big winner in this area is basic audioconferencing, where per-minute rates can still hover in the 20-cent-per-minute range. Though it requires capability beyond a basic TDM-IP translation gateway, the savings are substantial: At the VoiceCon 2004 conference, several end user speakers said they were able to cut their conferencing costs in half by going to IP-telephony in the wide area, since all internal audio-conferences could then be carried without the service provider charge.

The IP-PBX Migration

Of course, not every enterprise can cost-justify a broad IP-telephony migration based just on network savings. But there is a powerful argument for many enterprises to consider IP-telephony all the way out to the end-user desktop, and that reason is reduced operational expenses.

The operational expense that has drawn the most attention in connection with IP-telephony savings is moves, adds and changes (MACs). An IP telephone's network address is tied to the device itself, not the port it plugs into. This means that, unlike TDM phones, IP sets can be unplugged from one location and connected somewhere else, and the user's features and service will follow him or her transparently—whether the user has moved to a neighboring office or an office in a neighboring state.

Some companies pay telcos or resellers for MACs, while others do the work themselves. Either way, it can be an expensive proposition for certain types of businesses. For example, Merrill Lynch has estimated that it spends \$110 for each MAC that has to be performed, so the savings here can add up quickly. Then again, they might not. This is one of those factors that depends on the nature of your enterprise. If your users rarely move and your workforce isn't growing significantly, the savings here may not be so huge.

But in other areas, we clearly see the opportunity for op-ex savings, primarily related to the migration to true network convergence, i.e., carrying voice and data over a single infrastructure. Some IP phones support Ethernet "pass through" to LAN ports, meaning you can install one set of wires instead of two. Of course, this savings is primarily useful for greenfield locations; an existing site probably already has two sets of wires to each desktop.

For the enterprise overall, converging the infrastructure offers the opportunity to centralize provisioning, management, help desk, billing and chargeback for all voice and data systems, said AnchorPoint's John Dretler.

To see how this improves things, he continued, "The typical example is, [currently] a department moves, and they'll call one group to order the phone service, and they'll call another group to order a data circuit....So now you've got two work orders that have to be generated, that go out to multiple vendors, that are going to be handled by two different technicians. They're

going to be handled inefficiently” (see “The Op-Ex Benefits Of IP-Telephony”).

Such inefficiency has implications for the enterprise’s revenues as well as its costs, noted 3Com’s Peter Brockmann. Unwieldy provisioning means a department might not get what it needs, when it needs it. “If you were a salesperson or a revenue-responsible person, you’re waiting and waiting and waiting to use your phone, and you can’t because you’re waiting for IT and telecom to finish their job,” he said.

The Op-Ex Benefits Of IP-Telephony

- Single point of contact for customer voice and data orders—one help desk process
- Reduced technical staff for network and network equipment design
- Reduced network management staff as a result of having one network, not two
- Reduced number of external vendors to manage
- Reduced number of invoices to process
- Simplified chargeback
- Reduced move, add and change costs

Source: AnchorPoint

Productivity: A “Soft” Cost?

The final potential area of savings or cost avoidance is probably the most controversial: Productivity.

There’s widespread intuitive belief—but precious little hard data to support the idea—that IP-telephony can make knowledge workers much more efficient. It stands to reason that if, for example, users can set up data-sharing conferences on an *ad hoc* basis, or if unified messaging allows users to have their email read via text-to-speech while they’re driving to work, this will translate into more work getting done.

And in some vertical industries, this can translate directly into more revenue. Prudential Northwest Properties, a 3Com customer, believes this to be the case.

Real estate agents make money when they’re on the road, out of the office. Yet increasingly, leads come in via email, and the “shelf life” of a typical email lead is less than 20 minutes, the company claims. By deploying an IP messaging component of the 3Com Convergence Applications Suite, agents were able to call in and get these email leads, and as a result they report more qualified leads since migrating to the new system.

Still, Prudential Northwest Properties leaned on hard cost savings to make its IP-telephony ROI, which the company says came in at less than 36 months’ payback time. Primarily, the savings came from installing a centralized voice mail server, which saved \$7,000 a month in payments to a service provider, and was more efficient than the need, in the legacy TDM environment, for a server at every office.

This seems to reflect the current thinking about productivity or “soft” costs. As Peter Brockmann put it, “People tend to make the case on the hard dollars, allowing the soft dollars to accrue naturally to the business.”

John Dretler has seen a similar attitude: “Our experience is that, once CFOs build a business case on the hard savings, then they’re willing to include the soft savings. If they can’t build the hard business case to get an ROI that meets their requirements on the hard savings, they’re not going to use soft savings to get there.”

Nevertheless, it is possible to estimate some of the savings you can reasonably expect to achieve with IP-telephony. This is spelled out in greater detail in the accompanying article on “Convergence Applications” (see pp. 15–18).

Conclusion

Few enterprises are likely to pursue a business case for a forklift upgrade to IP-telephony, but you do need to be thinking about building a business case for the right kind of migration to the all-IP future that lies somewhere beyond the current horizon. There are savings to be captured and ROI to be shown on some of the early steps, as AnchorPoint’s John Dretler explains:

“The guys who are really pushing the envelope on voice over IP and taking it to the enterprise are the ones who are looking at it from a financial standpoint, and then within the context of a financial opportunity, they’re saying, This architecture change will enable us to reap significant financial savings.”

InfoTech’s Mark Ricca suggests a further step that vendors and consultants could take: Do an ROI on the ROI. In other words, make an intensive study and attempt to quantify some of the benefits that, on the front end, seem hard to pin down: “ROI on the ROI, I think, is a shrewd business practice that could work for both the customer, as well as build experience for future sales and future promises....Proof points are going to be an absolute necessity going forward.” □