

The Worried Executive's Guide: Preventing the Telephone Company's Disasters from Becoming Yours (Part 1 of 3)



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Date: Jun 9, 2006

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It may not have occurred to you that your phone company can have a disaster of its own, or that a disaster for them can quickly become one for you. In this three-part series, Leo Wrobel talks about ways to mitigate some of Mother Nature's fury by preparing in advance for catastrophe. Part 1 discusses some quick-and-dirty (and cheap!) ways to switch over incoming calls from your call center when it's swamped (maybe literally).

Just Can't Get Through to You

In today's organizations, telecommunications connectivity is king. Whether the application is an inbound call center answering 800 numbers or a server taking orders from thousands of web-enabled users, telecommunications is often the lynchpin of business. Stated another way, when the telecommunications network fails, the organization's cash register stops.

NOTE

For the sake of simplicity, we'll assume that the term *800 number* refers to any toll-free or pay-per-minute service although of course a variety of numbers can be used to provide such services.

In order to understand the dynamics in play here, consider the typical workstation at a service-oriented company. This is the front-line interface to the customer and the funnel through which cash enters the organization. This workstation can be engaged in any number of activities: selling airline tickets, trading stock, taking orders for that wonderful blending machine that just aired in a commercial on Channel 3.

Taking that last item as an example for a moment, imagine spending tens of thousands of dollars to air that commercial, only to have the people calling to purchase the blender greeted by an "All circuits are busy now" recording. Impulse buyers like these probably won't call back again later. Indeed, they may not even remember your number 10 seconds after Channel 33 returns to the evening movie.

Or consider the stockbroker. Someone who calls in to sell 10,000 shares of AT&T wants to make that transaction *now*. If that doesn't happen, these users can be pretty unforgiving. Someone attempting to use Joe's Brokerage might just decide that Jane's Brokerage would be a more reliable provider.

The same holds true for the airlines. Sure, if one airline is running a fantastic sale, the caller might be inclined to call back again later. But realistically speaking, how often does that happen? Carriers operate under essentially the same costs, and match each other's fares quickly whenever one puts tickets on sale. Unless the caller is a member of a particular airline's frequent flier club, he or she will probably hang up and come one else. Certainly a travel agent will do so unless a traveler specifies otherwise, because the agency's work time is valuable.

The reason I used these specific examples is that airlines, brokerages, and home shopping clubs often have elaborate telecommunications recovery plans for precisely these reasons. "That's e," you may say. "They can afford to have elaborate plans. But what about smaller businesses?" Surprisingly, having a telecommunications recovery plan may be much more affordable than you think, because a lot of the capital-intensive part of the process has already been accomplished by the telecommunications companies themselves. For example, did you know the following facts?

- There is *absolutely no reason* why your inbound 800 calls could not be answered at an alternate location within 10 minutes of a disaster
- There is *virtually no reason* why your company's main telephone numbers could not be answered at alternate location within one hour of a disaster
- There is *virtually no reason* why web-enabled services could not be redirected elsewhere within hours of a disaster.

Disaster Recovery Planning for 800 Calls

Each of these critical services has a readily available solution. In the case of 800 numbers, the name of the AT&T service for "rehomeing" such services is *command routing*. Other companies have different numbers but the concept is the same.

Let's say that your organization experiences a fire. Even if your building is gone all of the logic that switches your calls is still intact in the telco's central office (known as CO). Recognizing this fact, for more than 20 years the carrier has offered the ability to reroute calls to another working location. If an organization like yours were to call its 800 service provider right now, chances are that the switching process would take only minutes. We recommend asking immediately for a supervisor, and making it clear that a disaster has occurred. You should also have an alternate number for a branch office, home office, or disaster recovery center in your hand when you call. (That means figuring out in advance what that number is going to be, and putting it in your plan even that plan is only having the number in your BlackBerry!) The supervisor should be able to have your 800 numbers redirected almost immediately, perhaps even while you're still on the phone.

Ah, if only the recovery process were always that easy. What happens if you try to call your provider and *you* get the same "All circuits are busy now" recording that your customers are getting? That can happen. In a widespread disaster, the network will block many calls; for instance, as users jump off the landline network to wireless phones (thereby saturating the wireless network). Or perhaps the telephone company has experienced its own disaster simultaneously with yours. Hurricane Katrina brings this possibility clearly to mind. This is the reason why a disaster recovery plan for telecommunications needs to address multiple contingencies, ranging from a cut cable in your building to the loss of a city due to a hurricane or earthquake. In fact, I'll address precisely these kinds of disasters in parts 2 and 3 of this series. For this article, however, let's keep it simple and focus on a few concepts as well as steps you can take *right now* at little or no cost.

One of these immediate steps is setting up a service called *Remote Access to Call Forwarding* (RACF).

Disaster Recovery Planning for Local Calls

In much the same fashion as redirecting 800 numbers, "local" telephone numbers can be redirected to alternate locations. And if you're really clever about it, you can arrange your disaster plan to allow you to redirect incoming numbers yourself. This capability is important for several reasons. Consider the example I cited earlier, when I recommended that you immediately ask for a supervisor when redirecting 800 numbers. The same principle holds true when you call the local telephone company to redirect your local numbers. Now suppose you own a small heating and air conditioning company with 15 employees and are affected by a flood. Across the street, Citibank has a call center with 1,000 employees. Whose call do you suppose that telco supervisor will take first: yours or Citibank's? Or suppose that when you call the local telco you get a busy signal because many other companies are out of service and they're all calling. Your odds of timely restoration of your service just became about the same as being the seventh caller to a radio station for Garth Brooks concert tickets. By planning ahead, you can beat those odds.

As a result of installing remote access to call forwarding on critical lines, you're in control. You simply dial the access number given you by the telco and follow the simple voice instructions. If you want to hear how it works, dial this number right now: (972) 224-4900. You'll get the following voice prompt:

"This is your remote access service. Please use a touchtone phone. Please enter the number you want to be forwarded."

Since you're not a subscriber, you won't be allowed to go any further, but if you're a subscriber, the service would prompt you further:

1. Enter the number that you want to forward: say, (214) 888-1300.

2. Enter your four-digit personal identification number (PIN)
3. After the PIN is entered, the system asks what you want to do. Enter the same call forwarding code you would enter *if you were actually at that phone*. Generally this code is *72 or 72#.
4. Enter the number to which you want your call forwarded. This number can be your home phone, your cell phone or in fact, any working phone number in North America. (I've never tried forwarding to an international number, but there's no technical reason why that won't work)
5. Hang up. Immediately, all calls are forwarded to the alternate location.

What's the cost for this service? About \$103 per month.

I've recommended and used this service for large and small companies alike. One large client, a major airline based in Dallas, was plagued by the winter ice storms that sometimes hit the city. They had figured out the command routing for their 800 service a long time ago, and in fact were probably one of the first companies to use that service in the 1980s. The local service remained problematic for years, however. By setting up RACF on their local lines, the airline acquired the capability to forward hundreds of local lines to another call center every time Dallas had a weather event.

What's more, as it turned out, the Lucent 5ESS switch that served the airline's system had the capability to switch 98 "paths" at once to the alternate site. That meant that a caller dialing their number could be behind 98 other callers and still not get a busy signal! Moreover, the airline actually improved this service. By pointing their local numbers at their 800 numbers, they allowed the intelligent features in the 800 network to balance the unusual load and distribute it among multiple call centers. Finally, the data center manager for the airline accomplished all of this switching from the comfort of his own living room, and never had to call the service providers or leave during the ice storm all for three bucks a month! You just can't beat something like that.

Another example is a city in northern Texas whose city hall burned right to the ground. Even though the city hall building was gone, remember that the *network* was still intact. Despite the confusion of losing an entire building, calls from the public to the city were being answered at an alternate location—the county sheriff's department—within a hour of the fire. The city operated in this mode for several weeks. When the time came to move into a new, temporary city hall, switching the phones there was just as simple a process, and occurred in minutes.

There's no reason why you shouldn't call your service providers about these services today. Such services are extremely inexpensive insurance and go a long way toward maintaining command and control after a disaster.

Disaster Recovery Planning for Web-Enabled Services

But what if your organization never answers the phone at all? Think about companies that do all their business online. eBay comes to mind. I've bought and sold hundreds of items on eBay and never once spoken to anyone. For many companies, there's no storefront and no store phone—the Web becomes both. Welcome to the third concern for telecommunications-dependent organizations: the Internet.

Fortunately, at its essence the Internet itself is glorified, resurrected U.S. military technology from the 1970s. The idea at that time was that if the Soviets got mad enough at us, all of our telecommunications hubs might quickly find themselves in the upper atmosphere. This possibility presented an obvious problem for the war planners of the time. They needed a means of communications that didn't depend on hub-and-spoke technology but rather used lots of different paths. (In a true hub-and-spoke arrangement, obviously, if you take out the hub, nobody can talk to anybody. Also necessary was a protocol that was a little bit "smart" in that it didn't have to depend on intelligence in the hub to route messages. One descriptive term is "Distributed Intelligence with Nobody in Charge" (kind of like my office). This concept became Internet Protocol (IP).

If our military spending has ever generated such a thing as a peace dividend, IP would have to be a top contender. If your organization uses VoIP (Voice Over IP), for example, IP gives your phones a high degree of recoverability. It's possible to unplug an IP phone and plug it in again anywhere where high-speed Internet service exists, and begin answering your calls again. Hotels everywhere are installing high-speed Internet services so that's a lot of potential recovery centers.

Similarly, servers containing critical data can be reestablished at the same kinds of locations. Unlike many mainframes of the past, which required specific environmental conditions to operate, today most servers will do fine in a cool, dry place with halfway decent power and access to the Internet. This new reality again opens many recovery possibilities.

But it may not be that easy in all circumstances. What if no hotels are available, such as in the aftermath of Hurricane

Katrina in Louisiana? Or no gas to get to one, such as in the days preceding Hurricane Rita in Texas? These are just two of the "gotchas" that can surface unless you plan ahead. On the other hand, by taking only the three small and inexpensive steps described in this article, just look at how you can improve your command and control after a disaster. And the best part of all is that most of these recommendations have already been paid for by someone else!

Many other issues must be addressed in a telecommunications recovery plan so many, in fact, that I intend to devote the next two articles to discussing them in detail. Consider this: A few years ago, you would be reading this article in a magazine. Today, you are reading it on the Web. You didn't see a Web page back then, but now look at how convenient it is for us to find one another and discuss this important topic. This publisher's business has changed dramatically in the last few years. The question I put to you is this: What has changed with *your* business? I bet you can count more than a few things.

I hope you will find this article and the next few in this series to be useful. Remember, even the smallest and least expensive steps you take can add immeasurably to the survivability of your company after a disaster and to the well-being of everyone concerned. Best of luck to you, and stay tuned for more tips in upcoming articles.

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