

Law Practice Management

TECHNOLOGY

How to Collect YOUR E-MAIL— Anywhere or Almost Anywhere

Got your e-mail working? All the bugs worked out of the modem, software and phone connection? It's become routine, and you're comfortable? Well, your comfort level may plummet if your work takes you abroad. Here's what to expect.

By David W. Maher

Retrieving e-mail when you are traveling is not always easy, but the problems are really multiplied when you are on a little jaunt around the world.

My conventional and orderly existence was upset recently by an appointment to an international committee, the Internet International Ad Hoc Committee, or IAHC, charged with restructuring the domain name system of the Internet. Our meetings have taken place in Washington, D.C., San Jose, California, and Geneva, Switzerland, and my travel schedule has become complex.

In January and February this year, I went around the world, heading west from Chicago. Because the 11 members of IAHC reside in Australia, Japan, Israel, Switzerland and three time zones of the U.S., e-mail among us

is generated nearly 24 hours every day, and most of it requires prompt attention. I have become chained to my laptop as a result, and have become an instant expert on e-mail retrieval in various countries.

When I learned I was going to be on a panel at a conference in Hong Kong, followed by a meeting in Switzerland, I found it is significantly cheaper to travel around the world than to make two round trips, first from Chicago to the Far East and then Chicago to Europe. Since my wife works almost half the year in Egypt and I could stop to visit her, it was obvious that circumnavigating was the way to go.

A Problems of Plugs and Volts

If you need to retrieve e-mail in countries



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outside the U.S. (or any country other than where you reside), you have to plan ahead. Most people are well aware that electrical power is different in most countries from the 110 volts we use in North America. Most people are also aware the power plugs are different, as well. A number of years ago, the situation got worse when safety considerations dictated new three-prong plugs for many purposes. Great Britain, for example, now requires a unique power plug that is not compatible with those used in most other European countries. This problem is relatively simple to solve. A kit of international power plugs can be purchased in almost any large city.

The next question is what to do about the voltage? Fortunately, most laptops have built-in power supplies that simply do not care whether they are fed 110 or 220 volts (or anything in between). However, if you are using an external modem, it may need a voltage converter. Most portable external modems operate on batteries or a plug-in AC power supply. The AC power supply generally requires 110 volts, and if you are in a 220-volt area, you need a converter.

I solved this problem by using a PCMCIA modem, which operates off the internal power of my laptop.

Voltage fluctuations and spikes are a universal concern, and in "third-world" countries, the reliability of the public power supply may be very uncertain. The answer is a surge suppressor, and there are now a variety of such devices small enough to fit in your laptop case.

Just be sure your surge suppressor will plug into the international plugs you plan to use. In one country, I found mine did not. I prayed a lot about the power supply for a couple of days, and escaped with my laptop still alive.

Testy Phones

Now we get to the tricky part—the telephone systems. The International Telecommunications Union (ITU) has done wonders in making phone systems compatible worldwide, so we can make international calls with results as good as calls next door. The ITU has not, however, made phone hardware compatible. Even in the U.S., there are digital systems that can fry your modem if you connect unwittingly.

The first travel essential (even for domestic travel) is a line tester. IBM makes an excellent one that sells for approximately \$35. It is about the size of a \$200 fountain pen and plugs into the standard U.S. RJ-11 phone

jack. It tells you first whether there is a live phone line, and then whether the line is analog (the U.S. standard) or digital (which operates on a much higher current level and can destroy a modem). If the tester says you have an analog line, then go ahead and plug in your modem. If the line is digital, read on.

When you leave North America, you find that nearly every country in the world has adopted its own unique plug and jack system for connecting phone hardware. There are at least two good sources for plug adapters you will need: TeleAdapt and Magellan's. TeleAdapt has the advantage of offices in London, England, and Sydney, Australia (more on this later). Both companies offer adapters for nearly every different country and phone system in the world.

A full set of adapters will set you back about \$450 and may overstuff your laptop case. I limited my order to the adapters needed for the countries I intended to visit. Each of them lets you unplug the local phone, plug in the adapter to the wall and then plug in the local phone to the adapter. Your modem, with an RJ-11 plug, also plugs into a separate RJ-11 jack in the adapter. The resulting hookup lets you continue to use the phone as well as the modem.

You well may ask, what if the hotel does not use plugs of any kind and presents you with a phone hardwired into a hole in the wall? In that case, you need at least a screwdriver, knife and plugs with alligator clips, plus a fair knowledge of telephone wiring (i.e., the significance of the red and green leads and how to find them). If you don't want to get into this, then go to the hotel's concierge or business office and look for other solutions.

It is beyond the scope of this article to describe all the variations of phone plug and jack hardware. I highly recommend TeleAdapt's booklets on the subject, which tell you practically everything you will ever need to know, wherever you may be.

Working in the Real World

Let's assume now you have arrived in Hong Kong. You have plugged your laptop power plug into the Great Britain three-prong power plug adapter (yes, Hong Kong still uses British power and telephone hardware). You have connected your modem to the adapter, which plugs into the British-type phone jack.

What number do you call? I have been a CompuServe user for 17 years, and it has the great advantage of offering a local phone number in vast numbers of cities all over the

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world. If you subscribe to CompuServe, connecting to its local phone number should be easy.

Nothing, however, is easy in international telephony. First, you have to determine whether the CompuServe number is for its own network or for one of its contract network service providers. If it is CompuServe's own network, then the connection is the same as the one you probably use in the U.S. If the number connects to one of the service providers, then you have to go into your CompuServe software and change the "network" setting under "sessions settings."

So far, so good. You know how to adjust the phone number you are dialing, and in most hotels, you know to add "9" or "0" before the number to get the outside line. In Hong Kong, this works like a charm. You get your e-mail from CompuServe, send out replies, and everything is okay.

Suppose you are not a subscriber to CompuServe. I will not pose as an expert on other systems, but I am informed the procedures are not all that different. Many service providers allow local phone connections throughout the world, and as long as you are dealing with local phone numbers, you are in good shape, e-mail-wise.

Having mastered (I thought) CompuServe

in Hong Kong, I thought I would use my pcAnywhere software to connect to my firm's WAN in the U.S. so I could check my intrafirm e-mail and look at some documents. This requires calling a U.S. phone number, and you never, never use a hotel long-distance system unless you really want to contribute to this profit center. A much better idea is to use a local phone number that connects you to your long-distance carrier, whether it is AT&T, MCI or Sprint. This means you first dial the local phone number, then wait for the automated voice to tell you to dial the U.S. number, then dial the number, then wait for a musical tone, then enter your credit card number and then wait for the U.S. phone to answer.

I have learned a lot about the "automated script writing" abilities of pcAnywhere. It turns out that all the procedures described above can be entered into the log-in procedures of pcAnywhere, using prefixes and suffixes and a lot of experimentation with commas to provide the appropriate delays between operations. It took me a while, but I got it to work.

Our firm, however, has two long-distance carriers. One of them is preferred, from a rate standpoint, but its international calling procedures require actually talking to a real, live operator. This appears to be beyond the capabilities of any hardware or software now known. As a result, I was forced to use the more expensive of our two carriers, because it was the one that allowed total automation.

Next Stop: The Middle East

On to Dubai for a brief and pleasant stop-over and change of planes. On the plane from Hong Kong, I had a seatmate who is in the communications business. We had a fascinating discussion about the Internet and other issues of mutual concern. Among other things, he told me Dubai does not have a service provider for CompuServe, but you can make a relatively easy long-distance call to Oman or Kuwait, where there is a contract service provider.

I am sorry to admit that Dubai defeated me. I foolishly forgot to change the network setting on my CompuServe software, so nothing would connect. Incidentally, the phone jack in the Dubai hotel was an RJ-11, and the power plug was European 220-volt standard, so it would have worked if jet lag hadn't fogged my brain.

The next stop was Cairo, then Luxor, where my wife works. By this time, my mind had caught up with my body, and I remembered to change the CompuServe network

setting. The result again was successful receipt and sending of e-mail, with no hitches except that the CompuServe service provider in Cairo tends to get overloaded at times during the day. The rule is "keep trying"; you will eventually get through—albeit at a maximum rate of 9,600-baud.

In most Cairo and Luxor hotels, your RJ-11 will connect to the phone jack. The power supply is 220 volts, using a European two-prong plug. In Luxor, Aswan and other cities popular for tourism, you will have to make a long-distance call to the Cairo service provider, but the rates are reasonable. Alexandria has its own local phone number for CompuServe.

E-mail Heaven? Not!

After a great week of R&R in Egypt, I moved on to Frankfurt, Germany, the country of Goethe, Beethoven and high technology. In Frankfurt, I was fortunate enough to stay in a hotel of unparalleled luxury and comfort. The well-equipped desk in the room had a Lucite device that provided a digital readout of the time and, for telephone messages, a readout announcing the number and times of the calls, with instructions in the language of your choice on how to get your voice mail. The Lucite device also had an RJ-11 jack, two German phone system jacks—and wonder of wonders, an ISDN jack(!), something I have never seen in a U.S. hotel. I thought I had arrived in e-mail paradise. No need for adapters, no getting down on hands and knees to find the jack in the baseboard behind the furniture. There was even a power outlet in the desk lamp (three-prong German standard 220).

I started to "jack in" at 9 a.m. Three hours later, and after two telephone calls to a technician in London, I finally succeeded in connecting to the 28.8-baud local CompuServe number in Frankfurt.

As I said, nothing is easy in international telephony. This hotel uses a switchboard that does not respond to normal modem signals. A laminated plastic information sheet on the desk in my room told me, in German and English, there were work-arounds for the modem protocols. I started out by trying all of these, with no success. I thought, however, thanks to my outstanding foresight, I had a solution. One of the devices I bought from TeleAdapt before leaving was a black box powered by two 9-volt batteries, which connects between the handset of a telephone and the desk set. It is designed specifically for digital phone systems, or the situation in the Frankfurt hotel where the switchboard

does not recognize modems. I confidently plugged in all the required connections, dialed out, and got the same results—nothing.

One of the nice things about TeleAdapt is that it provides phone numbers of its offices in England and Australia and encourages you to call if you have trouble with its products. I called London once and got some helpful advice. The thing still didn't work. I called London again and learned a whole lot about modems, the theory of switchboards, and the German telephone system. Applying this crash course in telephony, I started experimenting and, at about noon, connected.

It turned out that using my black box, and after experimentation with its settings, I had to pick up the handset, dial "9" to get a line out, and then start the modem, which is connected to the black box between the handset and desk set. After connecting, you set down the handset without hanging up until the session is completed.

Cruising Home

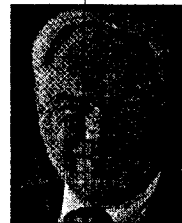
The rest of the trip was easy. Geneva requires a two-prong standard European power plug and a phone adapter that is subtly but significantly different from the German or French adapters. There is also the problem that Germany, France and Switzerland have updated their phone hardware in the past few years, so it is advisable to carry both the old and new versions of the phone adapters for these countries.

Geneva has a CompuServe network connection with 28.8-baud service. In Geneva, I had to perform minor surgery on the bed hardware to get at the phone jack, but that required only brute force. There was no intellectual challenge comparable to that in Frankfurt.

Finally, I stayed one night at the airport hotel in Frankfurt. After the prior Frankfurt hotel experience, I was ready. Out came the black box. Five minutes or so of connecting plugs and readjusting the CompuServe software got me connected.

It was nice to get back to Chicago—110 volts and RJ-11's, just like God intended we should make phone calls. ■

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