Digitally Connecting Local Governments in North Carolina

Philip Young

Long before computers existed, people networked—through social events, shared academic experiences, professional organizations, work, neighbors, relatives, friends of friends. Networking is as old as conversation and the bare feet that originally carried messages back and forth within a village or from village to village. Papyrus and ink, roads and horses, waterways and ships led to significant leaps in networking in the ancient world as these new technologies emerged and civilization spread. In modern industrial nations, especially the United States, networking technology has vastly expanded to include telephones, fax machines, overnight mail, e-mail, and the Internet. Even with all the advances in technology, the reasons for networking remain the same: to share or find reliable and accurate information, when it is needed, to solve problems, maintain and create relationships, and generate a sense of community.

The Institute of Government (IOG) at The University of North Carolina at Chapel Hill currently helps North Carolina local and state officials network successfully among themselves and with IOG faculty. The IOG functions as a hub for reliable and accurate information about legal issues in various areas of governmental concern, such as zoning, contracting, purchasing, local government law, and criminal law. This article describes one of the IOG's current networking technologies, listservs.

The IOG's history of networking in the state reaches back to 1931. From then to the early 1990s, the IOG used basically four networking technologies: roads to drive to locations to teach, telephones and mail for advising, and publications. In 1994 the IOG added e-mail and in 1995 a Web site, NCINFO. Although e-mail and the Web site both expanded the bundle of networking tools, each had certain limitations in terms of reaching an ideal of networking communication—dynamic, immediate connections among a large group of peers and experts.[1]
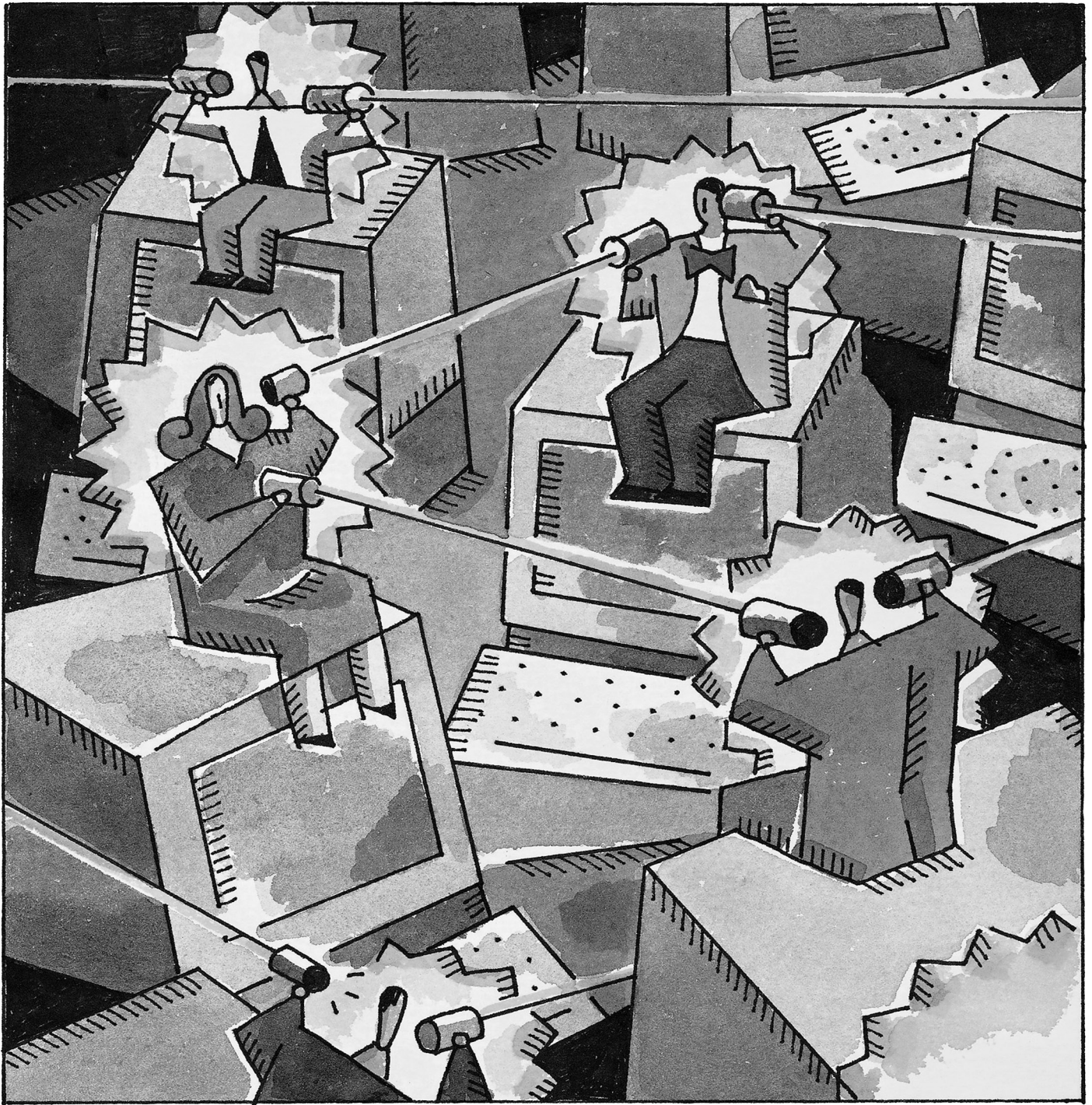
E-mail works similarly to telephone calls: it is best one-on-one and moderately good with a small group. But when you want to reach hundreds of people and allow all of them to interact, e-mail quickly shows its shortcomings.

A Web site can overcome some of the problems of sharing information with a large group. Hundreds, thousands, and even hundreds of thousands of people can obtain the same information from the same location. Such is the magnitude of the Internet; it is a world bulletin board to which people have access twenty-four hours a day, seven days a week. However, dynamic interchange does not occur with "static" Web pages—pages containing fixed information. Someone with a specific question is much more likely to make a telephone call or send an e-mail than to search a Web site for an answer, especially if he or she needs the answer quickly. Enter listservs.

> **As a planning director in a city of 20,000, with 3 planners, I find the listserv to be like having a planning staff of 10.**
>
> —*Jeff Hatling, planning director, Kernersville (member of the ncplan listserv)*

What the Listserv Is—A Killer Application for Networking

"Killer application" is jargon in the computer industry for "an application program that intentionally or unintentionally gets you to make the decision to buy the system the application runs on."[2] More loosely defined, a killer application is something a computer user cannot live without. A listserv is a killer application because it subsumes multiple e-mail addresses under a single one, thus allowing all the listserv members to share an address. To accomplish the same feat using an e-mail application alone (say, Microsoft's Outlook or Netscape's Messenger), each member would have to create a "group" (a list of e-mail addresses that the member wants to be related under a single heading) in his or her own e-mail application. If someone left the group, everyone would have to update his or her list. The listserv solves this problem by centralizing the list of members in a single database and attaching that list to a single e-mail address—for example, humanresources@listserv.unc.edu or ncpublicworks@listserv.unc.edu. Each member simply sends a new e-mail message to the single address, and the message goes to every member of the list. When a new member joins or an old member leaves, the change is made to the central database, and users just keep sending messages to the single address without worrying about making changes to a group in their own e-mail address book.

One of the IOG's largest and most active listservs, ncplan, contained 593 members on February 11, 2002. Imagine creating that list in your own e-mail application, getting the other 592

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I am on several listservs as I wear many hats in a small organization (finance, purchasing, human resources, instructional technology, and geographic information systems). Being a "jack of all trades and master of none" confronted with limited time and unlimited responsibilities, [I find that] the listserv helps me keep up with what's going on in the state and feel more comfortable that I am directing operations in compliance with applicable laws and best practices.

—Martha Ziegler, director of administration and finance, Asheville (member of the nclgba listserv, among others)

members to create the same list in their e-mail applications, and all of you keeping the list updated—not an easy solution for sharing accurate and reliable information quickly.

Local governments in North Carolina have a great need for this kind of knowledge sharing. Small as well as large administrative units are responsible for all the areas in which government performs. Administrators working in each of those areas, and in many cases across several areas, form a peer group

IOG Listservs

Name	Client Group	List Administrator	Administrator's E-mail Address
buslic	Business licensing	Philip Young	young@iogmail.iog.unc.edu
ccmanagers	City/county managers	William Rivenbark	rivenbark@iogmail.iog.unc.edu
clerks	City/county clerks	Fleming Bell	bell@iogmail.iog.unc.edu
dssattorneylist	Department of Social Services attorneys	Janet Mason	mason@iogmail.iog.unc.edu
fodg	Facilitation and organization development	John Stephens	stephens@iogmail.iog.unc.edu
humanresources	Human resources administrators	Diane Juffras	juffras@iogmail.iog.unc.edu
instofgovpubs	Publication buyers	Katrina Hunt	huntk@iogmail.iog.unc.edu
iogcriminal	Criminal lawyers	Robert Farb	farb@iogmail.iog.unc.edu
lglaw	Local government lawyers	Fleming Bell	bell@iogmail.iog.unc.edu
ncard	Registrars of deeds	William Campbell	campbell@iogmail.iog.unc.edu
ncfinance	Finance officers	Gregory Allison	allison@iogmail.iog.unc.edu
ncgis	Geographic Information System administrators	Philip Young	young@iogmail.iog.unc.edu
nclgba	Budget association members	Maureen Berner	berner@iogmail.iog.unc.edu
nclgisa	Instructional technology administrators	Philip Young	young@iogmail.iog.unc.edu
ncplan	Planners	David Owens	owens@iogmail.iog.unc.edu
ncpma	Property mappers	William Campbell	campbell@iogmail.iog.unc.edu
ncpublicworks	Public works administrators	Richard Whisnant	whisnant@iogmail.iog.unc.edu
ncpurchasing	Purchasing agents	Frayda Bluestein	bluestein@iogmail.iog.unc.edu
ptax	Tax administrators	Joseph Hunt	huntj@iogmail.iog.unc.edu
soilconservation	Soil and water conservation specialists	Richard Whisnant	whisnant@iogmail.iog.unc.edu
waste	Waste managers	Richard Whisnant	whisnant@iogmail.iog.unc.edu

that can network through conferences, associations, telephones, letters, and e-mail.

Taking all the forms of networking mentioned earlier, a person can "kluge" an impressive, if sometimes inconsistent, networking system. (Coined in 1962 as a noun, "kluge" means "a system and especially a computer system made up of poorly matched components.")[3] Add a listserv to an area of specialization, attach all the e-mails of the peer group, and include some outside experts, and

local government officials have a consistent, reliable, and comprehensive networking system that is free and easy to use. Instead of one person taking repeated telephone calls from different people about the same issue, informing only those who call, an e-mail to a listserv shares the question and the answer with all the members, *and* creates an electronic file of the exchange that can be recalled from an archive of the messages.

Besides connecting a group of e-mail users under a single e-mail address, a

listserv works well with what is currently the most comprehensive electronic foundation in the state—the telephone system. A listserv can run efficiently and effectively across existing telephone lines, which reach into almost every home and business in North Carolina. So every local government can participate with minimum cost and maximum benefits. Even local governments that are not currently online will likely find joining surprisingly easy and not particularly costly, especially considering the benefits.

The IOG currently maintains twenty-one public listservs for government officials (see the sidebar, opposite).

What a Local Government Needs to Join a Listserv

To join a listserv, a local government needs an office with a telephone jack and a power outlet. Building from that simple foundation, the government will have to purchase a computer with a modem, a standard feature on almost all computers. (A computer with a modem, a monitor, and speakers now can be purchased for as little as $600.)

Most computers purchased through a major distributor (such as Compaq, Dell, or Gateway) or a major retailer (such as Best Buy, Circuit City, or Walmart) will come with a subscription to an Internet service provider (ISP), usually Microsoft Network (MSN) or America Online (AOL). On-screen instructions will take you through the procedures for setting up Internet and e-mail accounts. If an ISP subscription does not come with your computer, your next step is to contact an ISP, which might be a local phone company or a national provider (such as Mind-spring or Earthlink) or the State of North Carolina Information Tech-nology Services at (800) 722-3946. Most basic Internet service rates are about $20 per month.

Once you have set up an Internet and e-mail service, you can direct the computer to connect to the Internet by having the modem dial the number for the provider and establish a link. Then you have access to the Internet, and you can begin to send e-mail to and receive it from IOG listservs.

How the IOG List-servs Work

The University of North Carolina at Chapel Hill manages the listserv applica-tion. Members can receive their messages through e-mail or view their messages through a Web browser (Internet Explorer, Netscape Navigator, or Opera). Membership in a listserv generally is restricted to local or state officials working in the area of specialization covered by the listserv, and to the IOG faculty member who administers the list.

There are several ways to join a listserv. The fastest way is to go to a listserv entry page on the Web (for example, http://www.cpt.unc.edu/ technicalassistance/appmanagement/ listservscreenshot1.htm; see below) and follow the instructions there. After you have entered your membership in-formation, your request to join will be logged in and sent to the list adminis-trator. If you do not have a clearly designated city, county, or state e-mail

I am constantly being asked to gather data or poll the assessors and collectors regarding legislative issues. Our ptax listserv [the listserv for tax administrators] has proven to be the very best tool available to reach my colleagues in one quick and massive stroke. Ptax has enabled us to respond to legislative issues in a very efficient and effective manner.

—W. A. (Pete) Rodda, tax assessor/collector, Forsyth County (member of the ptax listserv)

address (name/title@ci. cityname.nc.us, name/ title@co.countyname. nc.us, or name/title@ ncmail.net), you may be contacted via e-mail by the list administra-tor or the NCINFO director at the IOG (who administers all the lists) to verify your position.

A second way to join a listserv is to call the NCINFO director at (919) 962-0592 and request to be put on a listserv. A third way is to send a request by e-mail to young@iogmail. iog.unc.edu.

What to Expect after Joining

The listservs connect a large number of peers, so e-mail traffic may at first seem heavy to new members. A member's amount of e-mail may rapidly expand if he or she is a clerk or a manager in a small municipality who participates in several listservs to accommodate the many hats he or she wears. A single ac-tive listserv like ncpurchasing or human-resources can produce 5–20 messages daily. A clerk or a manager trying to follow conversations on multiple list-servs might face 25–100 messages a day. Fortunately, most e-mail applications have methods for automatically routing and managing incoming mail. The listserv application offers several ways to receive or retrieve messages. They are discussed next.

E-Mail Management through a Web Browser

Once a member joins a listserv, the default setting for message delivery is to receive e-mail as it is posted to the listserv. So each time a message is sent to the listserv address, that message goes out to the membership.

A member who accesses the listserv through a Web browser (Internet Ex-plorer, Netscape Navigator, or Opera) will find an option called Your Settings that will allow him or her to change the

IOG's Web site includes instructions for joining each listserv. For example, the screen shot here tells users how to join the ptax listserv.
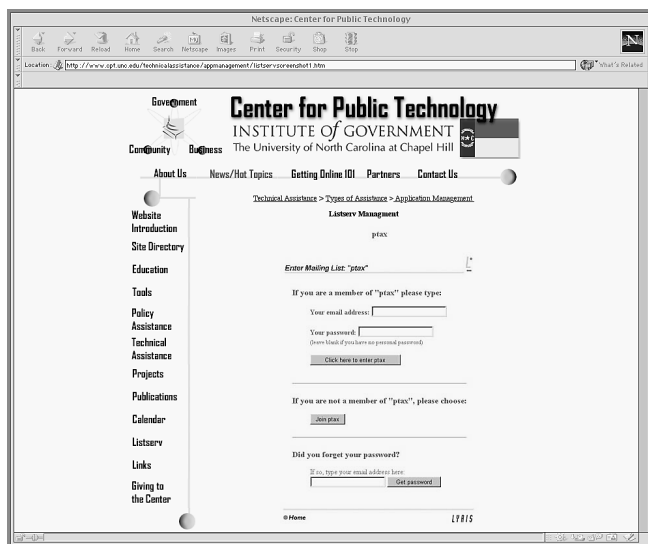
delivery method, or Status, to one of the following:

- Index—one daily message with only the subject lines for that day (recommended)
- Digest—one daily message with all the contributions for the day (not recommended)
- Mimedigest—one daily message with all the contributions for that day in MIME format (not recommended)
- Nomail—no mail to be received from this mailing list (not recommended)

Among the Web browser options, Index is recommended because it mixes the "pushing" advantage of a listserv with the "pulling" feature of a Web browser. That is, it sends the member a single message daily but requires the member to go through a Web browser to read the contributions. Compared with management through an e-mail application (see the next section), though, this option adds a layer of work to the responsibility of the user, which may deter him or her from getting the most out of the service.

The Digest method is not recommended because the messages are not sent in plain-text formats. Instead, they come with codes used to make messages look "pretty" (special fonts, colors, backgrounds, etc.). The digest messages therefore can be difficult to decipher. Mimedigest messages also cause problems for e-mail applications because they often contain text and code not related to the content of the messages. The No-mail option is not recommended because a member may forget about the listserv and miss important discussions.

Viewing listserv messages through a Web browser has advantages and disadvantages. On the positive side, it allows you to get to messages anywhere you can get online with a computer. If you are away from the office for a few days or are on vacation and cannot let go of work, you can go online and read the listserv messages.

However, you cannot download listserv attachments through a Web browser. If you choose to use the Index option and a member of the listserv sends an attachment (a form or a policy document, for example), you will have to e-mail that member directly and ask him or her

to send the attachment to you. Of course, viewing messages exclusively online helps prevent viruses from entering your computer through attachments.

E-Mail Management through an E-Mail Application

The best solution is to receive e-mail as it is contributed to the listserv, but to set up folders for it, then apply rules (in Microsoft Outlook) or filters (in Netscape Messenger) to route it to designated folders as it is delivered. Using a rule or a filter allows you automatically to divert incoming mail from the inbox (the main mailbox) and have it waiting in a folder for review at certain times of the day or week. Deleting unnecessary or unread mail becomes easier because all the mail is organized in folders. Also, messages that contain important information can be kept for future reference.

Unfortunately the instructions for setting a rule or a filter are not the same, even from version to version of the same software. So, for example, if you are using Microsoft Outlook, the instructions may be different between Outlook Express 98 and Outlook 98, and even between the latter and Outlook 2000. When you seek help with any software application, it is important that you know which version of the application you are using, because you probably will be asked.

Since the process for setting up rules or filters can be tricky, feel free to contact the NCINFO director at (919) 962-0592 to get started. If the NCINFO director cannot help you or you cannot get in touch with anyone in a timely fashion, the next-best solution is to get technical help from Microsoft's customer service at (800) 936-5700 (for a fee of $35 per request) or Netscape's customer service at (800) 411-0707 (for "low cost assistance"). If you currently have online access, you can see a sample of Net-

scape Messenger's filtering process for Netscape Messenger 4.7 on the Center for Public Technology's page about e-mail management at www.cpt.unc.edu/ technicalassistance/appmanagement/email.html.

How to Avoid Viruses

An important concern in joining a listserv is that an increase in e-mail traffic leads to greater chances of getting a virus sent to your computer. No one should be using a computer without virus protection software installed, running, and regularly updated. The IOG has a policy of addressing virus-infected messages as quickly as possible. The NCINFO director monitors all listservs for virus problems. As soon as one is detected, the offending account is removed from the listserv, and the member is notified that his or her account has been suspended until the infected machine has been cleaned. Once the machine has been cleaned and the member confirms that the proper action has been taken, he or she is allowed back on the list.

Many times I am able to look back at saved responses to earlier questions and avoid contacting my counterparts in other organizations to ask for info on how they pay, administer benefits, discipline employees, etc. My only problem is …how to sift through all the info that my peers put out there!

—*Judith Carton, human resources director, Burke County (member of the humanresources listserv)*

Members can help police the listservs. The first person to spot or receive a virus message can contact the NCINFO director immediately and, if possible, contact the member whose account sent the virus. (Most virus messages are sent automatically by a virus program that taps into the address book of the infected machine and sends itself out to every member of the address book without the owner's knowledge. So be nice when you call; don't accuse the member of personally sending you a virus.)

Another concern of listserv subscribers is whether the IOG can shield them from viruses sent by other members. Unfortunately, although computer users can easily install and use virus protection software, making virus protection a part of the listserv system itself is more

difficult. The university has resisted efforts to install filters for electronic messages, including those that may contain viruses, for two reasons. First, the university considers itself a common carrier, like a telephone company, and common carriers typically do not filter the information that they carry. Second, adding virus protection to the listserv software would be very costly. Until the NCINFO director finds a way to resolve these two problems, it is easier for listserv users to take responsibility for obtaining virus protection on their own computers.

How to Use a Listserv

Once you join a listserv and your account becomes active, you will begin receiving messages. To send a new message to the listserv, you need only address a new e-mail message to the listserv using the following convention: listserv name@listserv.unc.edu (so, for example, humanresources@listserv.unc.edu or clerks@listserv.unc.edu).

Because the listservs generate so much traffic, it is important to know and try to follow some listserv "netiquette" (proper or good behavior in sending and replying to e-mail).

• *Write meaningful subject lines when posting a message.* If you have a question, say, about Web use policy for employees, don't just write "question" in the subject line. Instead, write "I have a question about Web use policy for employees" or simply "Web use policy for employees." Vague or ambiguous subject lines force members to open the e-mail to see if it has any relevance for them. Fellow members will become quickly frustrated if they open an e-mail only to discover that the question is not of interest to them. Meaningful subject lines allow members to scan messages and skip over ones that do not interest them without worrying that they are missing important information.

• *Remember that, by default, your reply will go to all the members of the listserv.* The listserv promotes public discussion. In most but not all cases, answers should be shared. When only the sender should receive your reply, you should open a new e-mail message,

insert the intended member's e-mail address, and send the new message to the intended member. If you try to shortcut the reply by clicking on and selecting the individual e-mail address from the original message (and thus not starting a new e-mail), the default control can and will likely override the single-address reply and send the message to everyone on the listserv.

• *Avoid sending simple replies to all the members of the listserv.* If a member has answered a question sufficiently, resist sending replies to the listserv that say, "Ditto," "Yes," "Us too," and the like. Instead, send these simple replies directly to the sender. The sender may want them to get a sense of how many members solved the problem or answered the question the same way, but all the listserv members do not need this information. If they want to know how many people agreed, they can e-mail the original sender.

• *If you are a new member, do not request a reply to your first (possibly test) message.* Another default setting for new accounts is that members receive copies of their messages after they have sent them. If you are a new member sending a test message, you will receive a copy of your e-mail. If you do not, contact the NCINFO director at (919) 962-0592. If you are a veteran member, resist the urge to reply to test messages. Such replies create unnecessary e-mail.

Toward a Networking Ideal: Expanded Listservs

The IOG hopes to continue to expand the number of listservs and the membership of the current listservs. Its vision is a listserv for each area of specialization, with a faculty member to support the listserv and with every local and state employee who works in that area of specialization on the list.

How realistic is this vision? Considering that e-mail works effectively with the existing telephone infrastructure, having every local government official possess an e-mail address is quite feasible. The number of members that should be

on any list can be determined by the structure of state and local government in North Carolina. For example, a complete clerks listserv (for county clerks, city clerks, etc.) would have 100 clerks from the counties and 700-plus from the municipalities (assuming that all have clerks or a person who performs the duties of clerk). As of February 11, 2002, the clerks listserv had 273 members. So the IOG has a way to go.

Another goal is to maintain the integrity of the listservs in providing accurate and reliable information supported and sustained by knowledgeable peers and IOG faculty members. Ideally, there would be a faculty member for each area of specialization. In reality, the IOG creates only listservs that it can support with a faculty member. Unfortunately the IOG has had to turn down requests for listservs for lack of a faculty sponsor. If you are a member of a local government area that uses the IOG and one of its faculty members for support and there is not a listserv for your group, contact the faculty member to discuss whether creation of a listserv for your group makes sense.

An easily attainable goal is to maximize the number of people who participate in each listserv. If you are a member of one of the groups already served and you do not currently subscribe, consider joining. You may contact the NCINFO director for help. No other current networking option or technology will allow you to achieve the shared knowledge and dynamic interchange that the listservs provide. With proper management tools, proper security tools and knowledge, and peer effort to use listserv netiquette, everyone can participate in community discussion and problem solving.

Notes

1. As used in networking communications, "dynamic" describes active solicitation of information that results in immediate replies: at least on the same work day, at best within a few minutes or hours.

2. From Whatis.com, available at http://searchSolaris.techtarget.com/sDefinition/0,,sid12_gci212442,00.html.

3. *Merriam-Webster Dictionary*, available at www.m-w.com/cgi-bin/dictionary.