

# ACN Report

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## New Conference Bridge

As part of our ongoing commitment to “technology evolution,” ACN is pleased to announce the addition of a new conferencing solution, the Compunetix Mini-Contex® conference bridge, to the ACN architecture.

The ACN Compunetix Mini-Contex is a rack-mountable audio conferencing solution that provides 48-port audio conferencing capacity. It offers an increased number of ports, full functionality and support for many conferencing call types. In addition, it is manufactured to ISO 9000 and Mil-Std-55110 standards, exceedingly high standards that guarantee the quality of the equipment and its performance capabilities. The Mini-Contex runs on a DOS platform, enhancing its reliability and reducing susceptibility to viruses.

The Mini-Contex supports multiple levels of end users and includes:

- Fully automated and agent-attended conference calls
- End-user scheduling via browser and popular groupware calendar programs
- End-user conference viewing and control via web browsers
- Remote administration and maintenance

The Mini-Contex offers several methods for establishing conferences. The first is a “Secure Blast Dial-out” option, which is a preset dial-out audio-conference with added security. All sites/users are automatically called by the conference bridge and then prompted for a pass code,

*continued on page 2*

*The new  
ACN  
conference  
bridge.*



## On the Horizon: Enhancements to ACN

In the next few weeks, the ACN will be enhanced with the introduction of a dedicated PBX (private branch exchange), new conference bridges and the addition of a back-up voice mail system. These changes are being made to improve ACN's reliability and resiliency in the event of network disruption. In addition, the changes will serve to differentiate the ACN from the Critical Infrastructure Warning Information Network (CWIN) by providing PBXs for each network.

The ACN PBXs will be set up in such a way that both PBXs will mirror each other, providing additional redundancy to the network. This guarantees that should there be any disruption to the ACN as a result of one PBX suffering a problem, the other PBX will be able to step in and take over.



*ACN's new dedicated PBX  
and voicemail system*

The new voice mail system is designated to ACN only. The previous system had been shared with the Critical Infrastructure Warning Information Network (CWIN). With this change, the capacity of the system has increased, laying the foundation for possible expansion of the network. Users will not be affected during the implementation of these exciting changes.

These upgrades reaffirm ACN's commitment to national security and emergency preparedness (NS/EP) communications.

thus eliminating the possibility of having unauthorized individuals participating in the conference. In addition, it provides the ability to bar unauthorized users who attempt to join the call. A second method, the unattended DNIS (dialed number identification service) conferencing, enables the Mini-Contex to use DNIS/DID (direct inward dialed number) information provided by the telephone network. This information permits unattended conferencing that does not rely on pass codes. A third option is to dial a specific number, which automatically connects the user to the conference. A final method is to dial one specific access number and use assigned pass codes to distinguish among different conference groups.

The Mini-Contex allows the administrator to select among various types of conference calls. Conferences can be reserved, created, controlled and modified using simple touch-tone commands or using a standard Web browser.

The Mini-Contex contains significant security features designed to prevent unwanted intrusion, limit participation in sensitive conferences, and even contains a conference-level pass code feature, allowing conference hosts to create, mid-call, a second-level pass code for entry into an unattended conference. Authorized conferees can mute or un-mute themselves by pressing a configurable DTMF key sequence. When a conferee is muted, no other participants can hear that conferee speak.

We look forward to enhancing your ACN experience with this upgrade, and will keep you posted as new technologies present further opportunity for improving ACN!

## Engineer's Corner: *Phone*

Between your workstation phone and the wall is a junction network, and the power source. If you ever lose connection to the Service Management Center (SMC).

The junction box is most often placed on the floor. Although it is set. The box can easily be kicked, causing the cables to be exposed to water. Though this might be an odd occurrence, it is exposed to liquids, including rainwater or, more likely, an

# The Emerging Role of VoIP

Voice over Internet Protocol (VoIP), the technology used in the ACN network, is gaining a greater role in communications.

VoIP has many benefits, offering potential cost savings for both businesses and personal users. For businesses, the central administration of a VoIP system lowers the labor costs involved in making system moves, adds, and changes. This is coupled with the lower cost of bandwidth. VoIP systems also provide greater flexibility, applications, and customization. For the home user, VoIP is often a lower cost solution. Service for the home user combines local calling, long distance, voicemail, and other features, usually for one price.

Currently, government and universities are the biggest users of VoIP technology. Although cost saving is important to these organizations, the ability to converge voice and data on the same network seems to be the greatest advantage. In 2003, the Commerce Department combined 13 data networks and 130 separate telephone networks into a single VoIP network. The US military uses VoIP because such networks are easier to deploy in the field and for mobile users. VoIP serves the military for more than just operations. VoIP networks are currently in use in Iraq, boosting morale by allowing personnel to contact their friends and families through e-mail, videoconferencing, and voice connections.

VoIP service for home and business is growing. Various market reports have estimated that there are about 100,000 VoIP users in the United States, and that figure is expected to grow dramatically in the next few years. New companies have formed to offer VoIP solutions for home and business users. Traditional telecommunications and cable companies are not far behind in VoIP developments. By the end of 2003, many companies announced VoIP service offerings.

Though VoIP use has many benefits, it also has its challenges. The large initial investment of setting up a VoIP system might be prohibitive for businesses. Technical issues, such as connecting with public 911 systems and disability access, still need to be resolved. The biggest challenge overall to VoIP is not technical, but regulatory. Since VoIP enables the convergence of voice and data, it presents certain difficulties with regard to regulation and taxation.

To address regulatory issues, the Federal Communications Commission (FCC) held its first VoIP forum in December 2003. The FCC focused on the implications of regulation upon the burgeoning VoIP industry and the existing telecommunications companies. The purpose of the forum was to gather facts and to hear the opinions of those in the communications industry. No decisions or policy directives resulted from the discussions.

In the three years since the ACN redesign, VoIP has evolved from cutting edge technology to a significant player in the communications arena.

## *Junction, What's Your Function?*

on box, which serves as the connecting point between the phone, the ACN  
vity to the network, it is important that you check this box before contacting

ugh this is a convenient place, it can often lead to problems with the phone  
be dislodged. It is also important that the junction box be located where  
warning for office equipment, a junction box can easily short circuit if  
ambitious cleaning person wielding a vigorous mop (really, it's happened!).



# Farewell Ron Thomas Program Manager, ACN

The NCS will say goodbye to Ron Thomas in mid-February when he retires after 40 years of Government service. His 30 years of experience in communications greatly benefited the evolution and success of the ACN network.

Since 2000, when Ron joined the NCS, his contributions and dedication to the ACN Program ensured the smooth transition of the ACN from an industry-funded network to one managed and maintained by the Federal Government. Ron's guidance and management of the program has seen the installation of more than 30 operational ACN sites, ready for any potential national security/emergency preparedness events or disasters.

His careful attention and management of the ACN Program helped to provide a platform for the creation of the Critical Infrastructure Warning Information Network (CWIN) whose architectural backbone is based on the ACN concept.

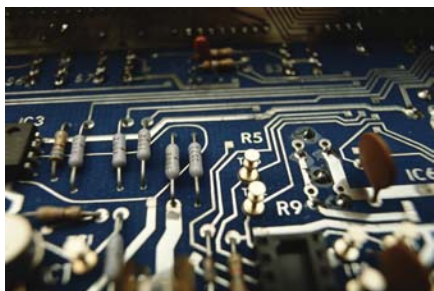
Ron Thomas's dedication to the ACN Program will be missed. Good luck to him as he moves on to the next chapter in his life!

## Updated ACN Web Site Launched

The NCS web site was recently updated and features a new and improved format and design. The ACN web site followed its lead and was also updated to reflect current information and changes in format. The new site displays ACN history, contact information, and a "What's New?" section. It was officially launched in early December. Please visit the new ACN web site by clicking on the link for "Services" at <http://www.ncs.gov/>.



## Did You Know?



Standard telephones are made up of about 200 separate parts, many requiring an unusual degree of accuracy during production and assembly. A telephone network, after adding other components such as cabling, switchboards, and other apparatus, can have separate parts numbering over 100,000. Compared to some automobiles containing merely 3,000 parts, there is no contest; phones definitely have more parts - or bits. And now with VoIP, that rings even truer (ha!).

## 2004 Test Schedule

The monthly ACN test occurs on the third Monday of each month between 10am and 2pm EST.

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