ACN Report

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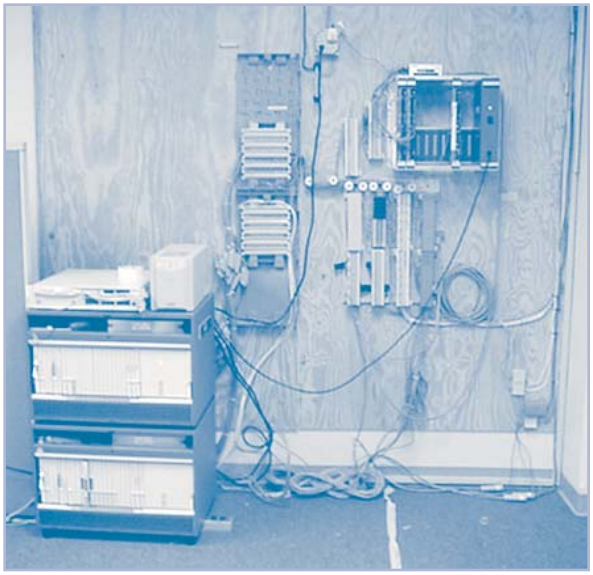
Network Overview

The Alerting and Coordination Network (ACN) has changed dramatically in the past few months and has reached a Hybrid Communications state. Endpoints are transitioned daily across the country from analog service to digital connectivity. Both IP endpoints and Point-to-Point analog circuits are being incorporated into the network, providing a seamless application supporting both requirements. This capability is due to the newly enhanced PBXs, which allow for both IP and standard telephone services. The most exciting change to the network is the transition to a Multi-Protocol Label Switching (MPLS) environment. This environment enables the network to differentiate between classes of service, facilitating uninterrupted delivery of service. Network enhancements are being made regularly, providing the latest technologies in support of the network and its users.



ACN equipment in the process of installation

The ACN Installation Process

When an order has been placed to transfer service to the new ACN, the point of contact (POC) at the facility in question will be contacted to coordinate the site surveys, installations, and equipment delivery.

Within 45-60 days of the order, AT&T will install a T-1 line to support AT&T's connection to the ACN network. AT&T will need to obtain access within the facility to conduct a site survey. The POC will also be contacted to determine who will be installing the inside wiring within the facility. This wiring is required to connect the T-1 from the Main Point of Presence within the facility to the AT&T equipment location, and also to connect the router to the RJ-45 data wall jack where the telephone will be connected.

Also, the Local Exchange Carrier (LEC) will be called upon to perform two separate functions. The first will be to install the local loop portion of the T-1 to the Main Point of Presence in the facility. However, they will not extend the T-1 beyond this point. The second function will be to install an analog telephone line into the facility, which will support the AT&T-provided equipment. This line will be installed to support remote configuration and monitoring

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of the AT&T-provided Cisco router and will be terminated in the Paradyne modem. This analog line will be terminated in the room where the router and modem are to be located.

During the initial site survey, a location for the ACN phone will be selected. Should the facility wish to change the location, the Circuit Provisioner should be notified immediately to allow time for any order changes. Some important space and equipment requirements are listed below:

1. Desktop space: The space should be sufficient to accommodate a VoIP telephone. The total space required is approximately one square foot, but this equipment must remain at least three feet away from any secure equipment.
2. Access to a power source: The ACN equipment requires standard 110V power.
3. Data wall jack: An RJ-45 data wall jack for the end user equipment should be installed relatively close to a power outlet and the equipment location. The ACN equipment comes with a 14-foot Category 5e cable to connect the equipment to the data jack. Any cabling for longer distances will be the responsibility of the user.
4. AT&T provided Cisco Router and Paradyne Modem: AT&T will be installing a dedicated router and modem. Preferably, the router should be located in the telephone wiring closet and within 100-300 feet of the user equipment. The router is a 2U rack mount device and should be mounted in a rack (not provided) if space is available.

Two significant deliveries will be made to the facility.

1. AT&T-provided Cisco router and Paradyne modem: The POC will be asked to receive the shipment. An AT&T technician will then be dispatched to install the equipment.
2. Telephone equipment: The Logistics Manager will ship the telephone equipment. The facility POC will be asked to notify the Logistics Manager upon receipt and provide the serial number for verification.

Once the T-1 line has been tested and accepted, a Service Management Center technician will contact the POC to assist in the installation of the ACN telephone equipment, perform a voice test, and provide an assigned extension number. The POC is responsible for terminating any previous connectivity to the ACN network once the above steps have been completed.

It is important to note that the services and telephone are on a digital Virtual Private Network and are not connected to an analog line or the Public Switched Network. Questions regarding equipment placement, or the activities listed above can be directed to Ms. Leta Bennafield, (703) 738-3524. For further information regarding this network, please contact Mr. Ron Thomas, (703) 607-4963, National Communications System.

The ACN services and telephone are on a digital Virtual Private Network

ACN equipment ready to ship

ACN Installation Checklist

1. Complete site survey and submit to Provisioning Engineer
2. Install analog line
3. Install local loop for T-1
4. Extend inside wiring of analog line to location where AT&T router will be placed
5. Extend inside wiring of T-1 line to location where AT&T router will be placed
6. Extend connection from router to location where VoIP telephone set will be placed
7. Install AT&T router and modem (performed by AT&T)
8. Receive telephone equipment from Logistics Manager
9. Contact Logistics Manager to verify serial numbers of equipment
10. Schedule equipment test date with Service Management Center
11. Conduct test call
12. Service begins

The Avaya 4620IP Phone

Engineer's Corner: *New Monitoring Software*

As mentioned in the previous issue of ACN Report, new monitoring software is being implemented on the network. The software has been installed and is being tested. Here is a breakdown of the capabilities this software will bring to the network:

System Management

- **Site Administration:** Allows for administration of PBXs and Voice Mail from anywhere on the network.
- **Voice Announcement over LAN Manager:** Enables administrators to use the LAN to transfer recorded announcements to the users. It allows the storage of announcements on the server in a WAV file. Once stored, announcements can be easily added, changed, removed, backed-up, copied, restored, or have their status checked. In conjunction with the Announcement Board, "Meet-Me-Conference" capabilities can also be gained.

Network Management

- **MultiService Network Manager:** Allows administrators easy access to configure, monitor, and control network switches on a network-wide level. The application allows management of the Local Area Networks, Quality of Service (QoS), and access list. The application automatically displays a centralized list of hosts in the network, and correlates between IP addresses, MAC addresses, and device port connectivity.
- **Policy Manager:** Allows the administrator to set a particular QoS level for important types of network traffic, such as delay-sensitive voice traffic, or for a specific group of users. Allows the implementation of consistent QoS, security, and end user level policies across the network.
- **VoIP Monitoring Manager:** Provides the administrator the ability to monitor VoIP network quality. The application receives QoS statistics from IP end points and displays the data via graphs and reports so administrators can isolate voice quality problems and send traps when poor voice quality is detected.

With the VisAbility Suite, the administrator will be able to "passively" monitor the network with real time accuracy and then "actively" start troubleshooting and re-engineering where needed. Administrators can monitor "cause-and-effect" of hardware, software, stress, and engineering that is applied to the network at any given time.

Service Management Center (SMC)

Hours of Operations

The Service Management Center (SMC) is dedicated to providing the finest service available. Its experienced staff of associates implements and manages complex and varied telecommunications solutions 24 hours per day, 7 days per week 365 days per year, providing assistance to clients via a toll free number and e-mail.

Skill of Staff

SMC associates address connectivity and network issues promptly, providing excellent, knowledgeable service to clients. The center is manned with highly skilled employees averaging 10 years of experience in provisioning, implementing, testing, and full life cycle management of both satellite and terrestrial circuits.

Its engineers and other senior technical personnel provide a seamless internal escalation path. Senior Engineers are always available, ensuring the fastest resolution possible.

24/7 Help Desk
877-441-9330

ACN ONNET
Ext. 4357 (HELP)

What's Coming

The SMC is constantly improving its network management processes, software, and hardware. It is planning the addition of software to enhance the monitoring, visibility, and proactive troubleshooting capabilities as well as to automate and expedite return to service with auto-ticket/notification ability. It also plans to update service by providing a view into incident reports via a web portal. This will allow the convenient and real time tracking of incidents through return to service.

2003 Test Schedule Dates & Times

10am - 2pm EST

February 12

March 12

April 9

May 7

June 11

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877-441-9330

ACN ONNET
Ext. 4357 (HELP)

Did You Know?

Long-distance service opened between New York and Chicago over 800 miles of open wire line in 1892. Only 14 years before, in 1878, Alexander Graham Bell predicted that someday "a man in one part of the country may communicate by word of mouth with another in a distant place."

Points of Contact

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