

## **A Brief Introduction to Albuquerque's Telephone System by dual**

### **Introduction**

Albuquerque, New Mexico is a 300 year old city with a rich natural history. Albuquerque also has a telephone system that is as interesting as its history is rich. This article provides an overview of the telephone system in general, and then expands upon the explanation by focusing on Albuquerque's phone system.

### **General Description**

In 1984, divestiture created seven Regional Bell Operating Companies, or RBOCs. They were Ameritech, Bell Atlantic, Bellsouth, NYNEX, PacTel, Southwestern Bell, and US West.

RBOCs provide dial tone to local subscribers within respective LATAs. LATAs, Local Access and Transport Areas, were also created from divestiture, and are areas that define local calling boundaries. Interexchange carriers (IXCs) transport calls between LATAs. One of the best know IXCs is AT&T.

Interexchange carriers and RBOCs transport calls between each other using tandem offices. Tandem offices only transport calls and data, and do not provide dial tone to the subscriber. Tandem trunks connect tandem offices to each other, as well as tandem offices to central offices.

A central office (CO) is the next step to the subscriber. A CO is an often large, unmarked building where subscriber lines, or loops, are concentrated, and from whence line voltage and dial tone are provided. The term loop comes from the pair of wires that runs from the CO to the subscriber.

Each CO is designated with a Common Language Location Identification, or CLLI code, pronounced "silly." A CLLI code is an eleven-character, alphanumeric code that uniquely identifies telecommunications equipment and their location.

With regards to outside plant (OSP) facilities, F1 is the feeder cable from the CO to a feeder distribution interface (FDI) or serving area interface (SAI). It is at such an interface that cross-connects are made to an F2 feeder cable that distributes loops to subscribers' interfaces.

### **Albuquerque's System**

Again, US West was the RBOC created from divestiture that served the southwest US. Qwest acquired US West on June 30, 2000.

Qwest is now the Incumbent Local Exchange Carrier (ILEC) for 14 states: Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, and New Mexico.

All of New Mexico is contained in LATA 664. All inter-LATA calls handled by the IXC AT&T are transported to the Monroe Switch in Phoenix, Arizona. The major fiber egress from Albuquerque follows the south side of Interstate 40 westward.

The entirety of New Mexico uses Numbering Plan Area (NPA), or area code, 505. All of 505 is homed on a Northern Telecom DMS-200 tandem at Albuquerque Main, 400 Tijeras Ave. NW, CLLI code ALBQNMMA03T. Main is one of three tandem switches in Albuquerque. The tandems are:

- ALBQNMMA03T Access DMS-200
- ALBQNMMA05T Local/TOPS DMS-200
- ALBQNMEA1GT E911 DMS-100

The first two are located at the office mentioned above. The last, ALBQNMEA1GT, is located at Albuquerque East, 120 Sierra Dr. NE.

To remain concise, one CO is described in particular, Albuquerque Northeast. Albuquerque Northeast is one of the three major switches in Albuquerque mentioned here, and serves Albuquerque's Northeast Heights.

Albuquerque Northeast, ALBQNMNEDS0, is located at 9509 Menaul Blvd. NE. It houses a Lucent Technologies 5ESS, Release 5E15.1. It serves 13 exchanges and houses the capacity of approximately 99,000 subscriber loops, currently of which 63,000 are in use.

From the CO to the subscriber, a pay station line is described so as not to infringe upon subscriber privacy.

The line in focus is an FSH, formerly Qwest, pay phone located at the southeast corner of Wyoming and Montgomery, 8400 Montgomery Blvd. NE. The number is 505-296-9866.

This particular loop is approximately 8,300 feet long -- 6,555 feet of 24 ga. wire and 1,800 feet of 26 ga. wire. Telecommunications companies measure loops in kilofeet, 1,000 foot segments. This loop is then 8.3 kft.

The F1 is 27 x 466, which in context is the cable and pair designation for the subscriber loop.

## **Conclusion**

As Albuquerque expands, so does its telephony infrastructure. A new NPA is planned for New Mexico, 575. DSL capacity is constantly added. The community must keep aware of the ever-changing telecommunications landscape and share any knowledge thereof with unbridled openness.

Thanks to Steen for his input.

## **Images**

[ALBQ EAST](#)

[ALBQ MAIN](#)

[ALBQ NORTHEAST](#)