Toll center cutover meets today's needs

West Florida Telephone gets a face lift

Ray Blain

COVER STORY

SEPTEMBER 14, 1968, was an important day for the active telephone members of the McGehee family of Marianna, Fla. Second, third and fourth generations of the family were on hand when the West Florida Telephone Co. cut over its new toll center. The toll center is equipped with an ITT premium system of toll ticketing and with All Number Identification (ANI) for all private lines. The office meets the Via Net Loss (VNL) requirements and is classed as a non-deficient toll center. This reporter was fortunate in being able to attend the historic event.

Prior to the cutover, the company operated a partial toll center. Under this arrangment, its subscribers dialed "O" to reach four small nearby Florida exchanges. Toll calls to all other points were made by dialing "110" to reach the Bell System's toll center in Chipley, Fla. These calls were ticketed manually by the Bell operators.

With the establishment of the new toll center, Marianna subscribers can dial all toll calls direct by using the new DDD system. To make a station-to-station call, they dial "112," the area code and the telephone number. All other classes of toll calls, except motel and pay stations are made by dialing "110." To make a call from a pay station or motel or for any dial assistance, dial "O."

The improvement program providing DDD service cost three-quarters of a million dollars. The need for additional administrative and maintenance personnel as well as operators required to maintain the new service made it necessary to employ 14 additional people, bringing the total number of employes to 50.

The first step necessary in the new program was an analysis of services to determine capacity and load requirements in terms of types of services and volumes of calls. The many technical advancements and expanded volume proved the financial feasibility of the change. The completion time for this project has spanned four years of intensive engineering, and basic

consideration in planning and execution.

The planning stage, including all engineering considerations, studies required, and analysis of projected results, entailed more than two years work, the manufacture of equipment a year, and the actual installation, nine months. The prime contractor was ITT Telecommunications. The installation involved many additional workers and constant monitoring of equipment, scheduling and timing work load—both in the central office and outside plant.

The toll trunks connecting Marianna with the Bell Company in Chipley are provided by Lenkurt Type 45 carrier on open wire. Over the years, the West Florida Telephone Co. has not owned or maintained the terminal carrier equipment in the Marianna office. This equipment has now been purchased from Bell and relocated in the exchange. The prime contractor for this move was Trans American Communications of Atlanta. The West Florida Telephone Co. now has total responsibility for all functions of every class of service at the Marianna office with both toll equipment and maintenance personnel to support it.

In order to meet the high standard of VNL, considerable rearrangement of all local office facilities has been necessary. This involved complete rewiring of the existing power plant and the relocation of the toll switchboard and toll terminating facilities to another building. Electronic dust control has also been provided for the equipment room.

Even though the basic rates applied to West Florida subscribers in 1956 have not been changed, the company is able to add this extensive service improvement program without an increase in rates.

Automatic toll ticketing system

The features of the Marianna system are described below:

1. Toll calls are processed instantly with perforated tape for automatic billing operations. The tape is processed by Southern Computer Service in Dothan, Ala., about 35 miles from Marianna. They use an IBM 1401 with random access to rate and bill the calls. Southern Computer also does the billing function for West Florida Telephone. The ITT system has the flexibility of giving a printed ticket, but West Florida Telephone by-passes this step by going directly into the computer with tape. This tape is a 5 channel even parity tape which is opaque so that an optical reader can be used. The tape

Continued on page 41

THE NEW 7-position toll board in Marianna, Fla., gets the job done.

FROM PAGE 22

West Florida Telephone face lift

reader reads at 50 inches per second. The Bell Company sends Southern Computer updated cards every month so that the rating points can be kept current. The computer rates nationally on a coordinate basis, but rates Florida points on the old block and section method. The Florida Telephone Association is making a study to see if it is feasible to recommend to the Florida Public Service Commission that Florida go on the coordinate rating basis.

2. Automatic and accurate recording of data includes:

(a) Date of call.

(b) The equipment number of units involved.

(c) Calling director number.

(d) Area and number called.

(e) Rate and class mark.

(f) Precise time of connect and disconnect.

Register senders

The register is the heart of this automatic toll ticketing system controlling the access to most of the apparatus in the system. The register sender is activated by the calling subscriber in dialing the access codes, in this case, 112 or 110. When used in conjunction with the ITT Line Identifier (ANI) or operator trunk, the register senders are capable of handling all commonly accepted forms of calling number identification. As stated, all calls can be machine handled except Pay Station and motel calls.

When routing as well as final destination information is required, the register sender is used in conjunction with a translator which converts the terminating directory number into a new code number that contains both final destination and routing, and automatically relays it back to the register. The register remains in the connection either until the completion of outpulsing of the translated terminating number, or to the entry of the class mark by the PPCS operator at which time it transfers its own number, together with the originating and terminating number and class, to its associated ticketer and immediately seeks out another ticketer not already associated with an idle register.

Registers are provided in sufficient quantity to carry the dialing and sending of traffic only or to be held until released by the operator. Thus, the ratio of register to ticketers will vary (from about three to seven ticketers per register), depending upon the size and type of system.

Each toll call is automatically assigned its individual ticketer. In the West Florida case, the adapter called a routing repeater adapts the ticketer to ITT type 7-3 cross bar central office equipment. However, the routing repeater can adapt itself to any type of central office equipment.

The ticketer, assigned to its call, stays with that call until completion, storing the call identity data received from the register. The call being completed, the ticketer relays this data to the perforator controller to make a record of the call. Except for its associated routing repeater, these ticketers are the only elements of the automatic ticketing system which are required on a per call basis.

A clock-calendar dates and keeps accurate connect and disconnect times on each call. This information is transmitted to the printer controller as a nine digit figure such as 102122389 which is easily interpreted as Oct. 21, 22 38 and nine tenths o'clock (24-hour clock time.)

The charge for a toll call depends on when such call is made as well as how long it lasts. Therefore, the clock-calendar is designed to keep track of all daily high, medium and low rate periods as well as locating all Sundays and holidays and when special low rates apply—and compensates for the extra day which occurs each leap year. The clock-calendar introduces the daylight saving time change in April and October each year. It should be remembered that this clock-calendar does all these things completely automatically, without any need for daily, weekly, monthly, or yearly manual settings.

To safeguard the important time function of the ticketing system, clock-calendars are supplied in duplicate. Both operate simultaneously, each checking the other. In the event of commercial power failure, the clock-

THREE generations of of the McGehee family see their telephone company progress. They are Fred S. McGehee, Mrs. Shelley Sue McGehee and Jeff McGehee.

calendars automatically switch to the central office battery.

Conclusion

The DDD toll service arrangement now provided by the West Florida Telephone Co. is the best possible and most economical arrangement for everyone concerned. First, it eliminates dual responsibility for service, equipment maintenance and operation —never a desirable arrangement in the provision of good telephone service. Speed, accuracy and added "B" commission toll revenues are a few of the advantages of the new toll center automatic toll ticketing system. It also helps the West Florida Telephone Co. provide an updated and improved form of toll service while reducing operating time and costs to a fraction of that required for manual ticketing.

Since specialized personnel are not required for day-to-day operation of the ITT system of automatic toll ticketing, practically speaking, it de-emphasizes toll ticketing cost.

It is believed that Independent operating telephone companies everywhere will be well advised to investigate not only the possible use of Automatic Toll Ticketing systems in their area, but the full range of B compensations, line haul, toll investments etc. It is always good business to provide tomorrow's services today, and especially so if it can be accomplished with an increase in revenues. □