

## CENTREX SERVICE

Centrex is a new private branch exchange development designed to improve the service features available for our business customers. These service features have been divided into two categories—those included in the basic Centrex offering and those provided on an optional basis. A list of the features in each category will follow. Some of them will not be available in all of the equipment arrangements developed to provide this service. Those excluded for a particular equipment arrangement will be defined in the section of these Notes relative to that arrangement.

### Service Features Included in Basic Centrex Offering

1. Basic private branch exchange service including—
  - a. Attendant facilities individual to each Centrex customer
    1. Consoles
    2. 608A cord switchboards
    3. Existing cord switchboards (for some systems)
  - b. Three, four, or five digit intercom dialing between stations of the same Centrex customer (variations in systems)
  - c. Hunting groups
  - d. Restricted stations— incoming, outgoing, or both.
  - e. Night closing arrangements for the listed number of the Centrex customer.
2. Direct inward dialing (DID) to the stations of the Centrex customer.
3. Individual station identification on outgoing long distance calls—
  - a. Automatic identification on DDD calls.
  - b. CAMA operator identification on DDD calls.
  - c. Station billing on calls routed to a toll operator.
4. Transfer of a DID call to another station associated with the same Centrex customer.
5. Intercepting arrangements for vacant numbers within the number assignment allocated to a Centrex customer including—

- a. Recorded announcement (non-charge supervision)
- b. Attendant (charge supervision)

### Optional Service Features (individual to each Centrex customer)

1. Tie line operation
  - a. Dial repeating
  - b. Automatic
  - c. Ringdown (limited application)
  - d. Tandem switching
2. Foreign exchange lines
3. Conference circuits
  - a. Attendant controlled
  - b. Dial selected (in some systems only)
4. Toll restriction
5. Connection to customer's paging systems
6. Dictation trunks
7. Busy verification by attendant (some systems only)
8. Split connections to announce calls (some systems only)
9. "Camp-on" busy stations on attendant completed calls (some systems only)

Several equipment arrangements have been developed to provide Centrex service. These include both No. 5 crossbar and step-by-step equipment. To a customer, all equipment arrangements provide Centrex service. For Telephone Company clarification, however, the equipment arrangements have been classified into two groups—Centrex CO and Centrex CU.

**Centrex CO** locates the dial switching equipment on Telephone Company owned or leased premises. Each Centrex station will be served by a direct line on line facilities in this system. Normal station equipment and the attendant facilities will be located on the customer's premises. Floor space and power provided by the customer for a normal dial P.B.X. will not be required with this

arrangement. The dial equipment available for this type can be No. 5 crossbar or step-by-step equipment.

**Centrex CU** locates both the dial equipment and the attendant facilities on the customer's premises in floor space provided by the customer. This arrangement will usually be provided with 701B P.B.X. step-by-step equipment. It permits the addition of Centrex service to an existing dial P.B.X. and the retention of all the service features now in use by that customer.

**No. 5 Crossbar Centrex** will, in general, provide Centrex CO service. This system can terminate up to 100 Centrex customers or can combine a fewer number of Centrex customers with regular subscribers. Some of the latest service offerings, such as WATS, can also be terminated. Switching and common control equipment capacities as well as the route screening capabilities of the common control equipment will be controlling in the various types of subscribers included. All subscribers use in common the incoming and outgoing trunking facilities provided for this system. Multi-frequency, dial, and revertive pulsing incoming trunks can be provided. Automatic number identification for all subscribers, including individual Centrex stations, is possible since LAMA facilities will be included.

**Step-by-Step Centrex** can provide either Centrex CO or CU service. The Centrex CO arrangements can be provided to serve both regular and Centrex

customers in the same unit. In effect, a portion of a SXS central office can be assigned for Centrex application, the balance, used for regular service. Incoming traffic to this system can be routed over a common trunk group with distribution occurring at the 4th selectors for Centrex or regular subscriber termination. Outgoing trunks to other local central offices, toll operator, direct distant dialing, etc. can be used in common.

The dial equipment, both the DID train and the local train, must be individual to each Centrex customer. Crossconnection flexibility is provided to permit the addition or removal of equipment as required. Outgoing dial "9" trunks must terminate on the regular subscriber line facilities. Outgoing trunks to crossbar tandem can be common to both regular and Centrex customers. If ANI facilities are provided for the regular customers, these can be used by the Centrex customers if No. 1 or 350 type SXS equipment is provided for the switching train.

Centrex CU arrangements are individual to each Centrex customer. Incoming and outgoing traffic can be routed as described above except that it is individual to that customer only. At the present time only CAMA operator identification on DDD calls is available.

The details of the various Centrex systems available are covered in the following sections of these Notes. No attempt has been made to classify any one system specifically for CO or CU application.