580 digital switching system

L200

concept

Wescom's 580 Digital Switching System is the latest state of the art, nonblocking telecommunications switching system. PCM (pulse code modulated), microprocessor-controlled, the system has everything all of your customers want—in a single, universally applicable package.

Centrex I and II capabilities and automatic call distribution can be provided for up to 2400 lines and 576 trunks. The 580 is compatible with all current standard central office equipment: dial and manual PBXs, T-1 carrier and switched service networks (CCSA).

Without interrupting service, features and stations can be added to the modular 580 through the use of plug-in units. Lines and trunks may be added or changed. The single, universal software package used for every customer includes basic programs for all features, which can be enabled by implementing the proper class of service for a specific customer data base.

Minimal floor space is required. Designed for business, governmental, hotel, university or correctional institution use, ultimate emphasis of the 580 will be on applications in a small C.D.O. (community dial office). Use may be shared by a maximum of eight customer groups using up to 16 consoles, or operating without console facilities.

Designed to follow the traditionally high reliability standards of central office equipment, the 580 DSS includes automatic diagnostic maintenance software for fault isolation and repair verification. Its centralized maintenance concept provides for maintenance, traffic and "recent change" access from a remote location through the DDD network.

The system utilizes two unique concepts, in line with state of the art technology in switching and control, for greater reliability. The switching network is a four-wire, completely nonblocking, fully avail-

able, digital PCM device consisting of commercially available random access semiconductor memories. It handles PCM information compatible with North American CCITT standards (8 bit format, with $\mu=255$ and 1.544 M bits transmission) and interfaces directly with the commercial PCM carrier on a digital basis.

The control consists of a commercially available microprocessor in a multiprocessor configuration. This new configuration is considered to be the next generation telecommunication control organization-- and a viable alternative to the centralized multi-task monoprocessor system of today. The combination of these unique concepts results in programming simplicity and high reliability.

Costs are lower. The 580 is extremely economical in equipment cost, installation, maintenance, inventory, administration and telephone company engineering. Use of time division multiplexing to interface the digital transmission facilities makes it possible to simplify construction of the switching network and its control. In addition, the 580 DSS uses completely standard telephone handsets. No "special" bulky equipment to eat up desk space and increase expenditures.

Operation is easy. The 580 is simple to install, test and maintain. No special cooling devices are required. The 580 operates from a -48Vdc power plant, with or without batteries.
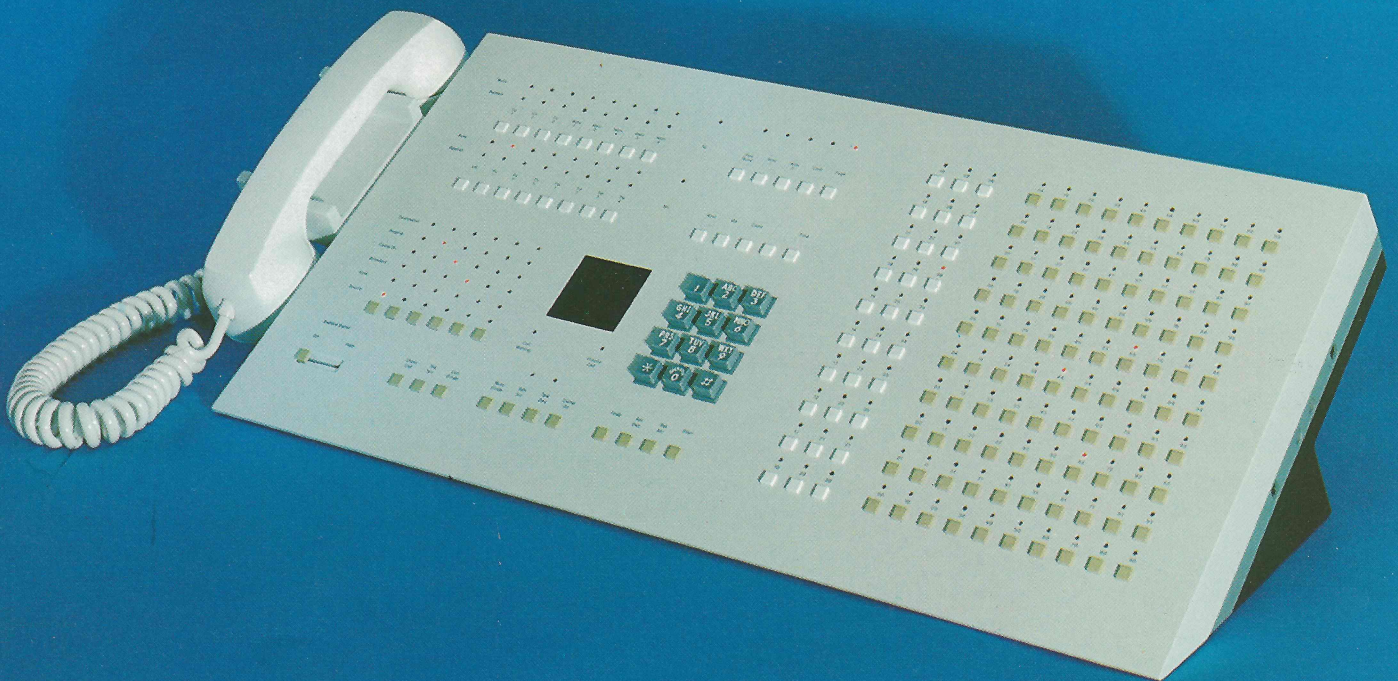
Automatic Attendant Recall
    Don't Answer
    Camp-On Busy
    Hold
    With Alphanumeric Display
Alphanumeric Displays
    Station Number
    Class of Service
Control of "Wake-Up" Service
Control of "Do Not Disturb" Service
Origination and Completion of All
    Types of Calls
Music on Hold and Camp-On
Chain Calling
Attendant Thru Dialing
Attendant Delayed Calls
Attendant Keysender (with overlap)
Priority Queue to Attendant
Attendant Call-Thru Test on Trunks
Outgoing Trunk Queue via Attendant
Attendant Transfer
Consoleless Operation

Station Restrictions
Station to Trunk (Access Denial)
Origination (Termination Only)
Termination (Origination Only)
Trunk-to-Station (Station-to-
    Station Only)
Toll Denial and Diversion
    Battery Reversal
    Digit Monitoring
Patient Call Diversion
    (incoming diversion by control
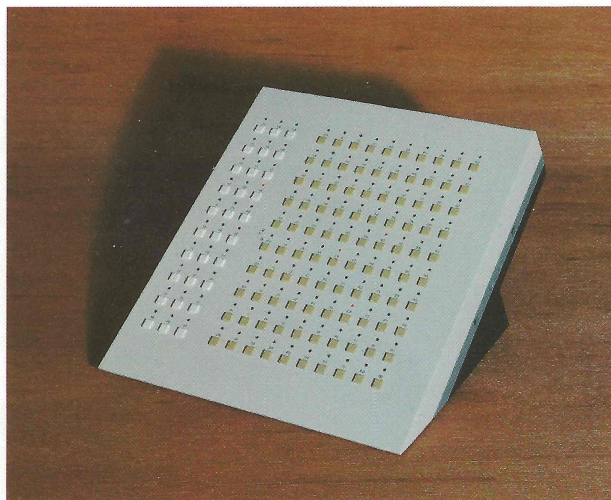   station)

Trunks and Trunk Operation
Central Office Trunks
    Ground Start
    Loop Start
Ringdown Trunks
Tie Trunks
    Loop Signaling
    E & M
Tandem Trunks

CCSA Trunks
DID Trunks (Listed Directory Number)
Attendant Completing Trunks to
    Satellite PBX
Digital Trunks (interface with T1
    Line)
Outgoing Trunk Queueing
    Station
    Attendant

Hotel/Motel Features
Station/Room Number Correlation
Message Waiting
Message Registration
Single Digit Service
LD Trunks
Wake-up Service
Do Not Disturb Service
Originate Number Display
Room to Room Dialing Restriction
Manual Lines
Toll Diversion
Station Dialing Restriction
Hotel/Motel Identification over
    CO Trunks
Room Number Display ("0"
    Calls)
Room Status

Console (below), Busy Lamp Field (right), exterior of a 580 cabinet (far right)
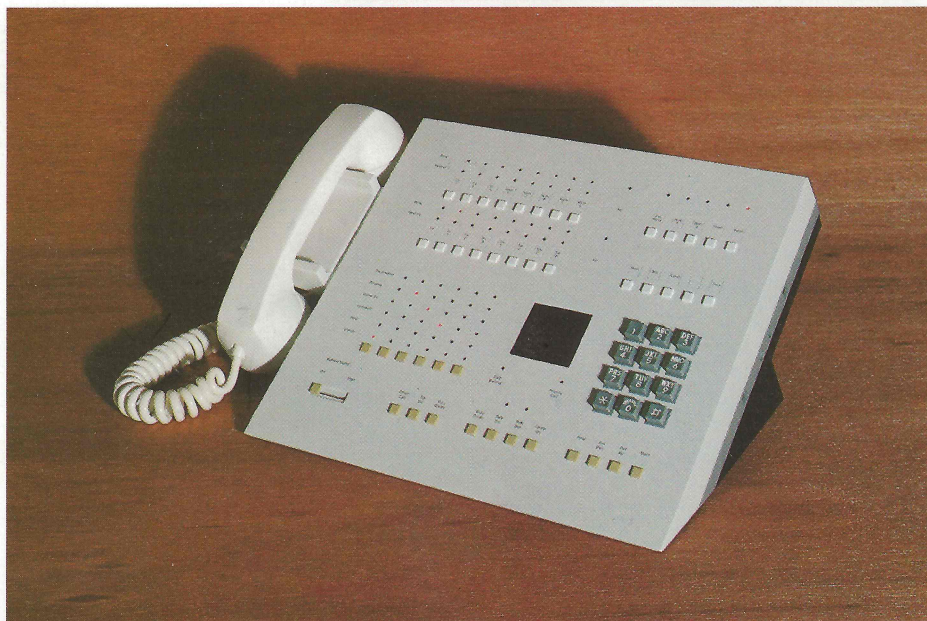
feature summary

size
up to 2400 lines, 576 trunks

flexibility
features, stations, lines and trunks may be added or changed without interrupting service.

compatibility
all current standard CO equipment, dial and manual PBXs, switched service networks (CCSA), and T-1 carrier (meets North American CCITT standards).

shared use
provides PBX and/or Centrex I and II series up to eight customers, 16 consoles.

remote maintenance
maintenance, traffic and "recent change" access furnished to remote locations through DDD network.

nonblocking
no shared paths, 36 ccs per line (less connect time). The PCM Digital Network design inherently provides "non-blocking".

less expensive
equipment, installation, maintenance, inventory, administration and telephone company engineering costs are lower. Handsets are standard, not bulky expensive special gear.

universal
a single software package makes the 580 universally applicable for business, hotel/motel, government, correctional institutions, universities, hospitals, ACD, CCSA, satellite main PBX.
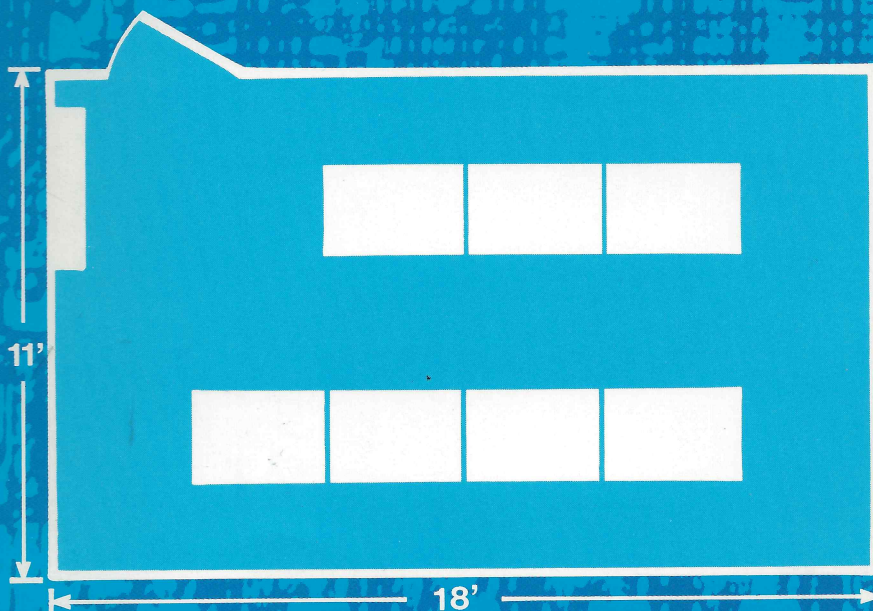
floor space
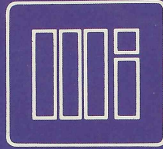minimal because of use of advanced state of the art technology.

environment
no special cooling units or blowers required

power
operates from -48Vdc

installation/additions
functional, modular design offers quick installation/addition/maintenance through use of plug-in units.

Typical floor plan for 580 DSS system of 1248 Lines and 288 Trunks.

11'

18'

WESCOM