GLOSSARY

AAI: Attendant Answer Incoming: An incoming interconnect trunk line which

rings the attendant phone. The AAI line type is set by the A:3 attribute.

Administrative Station: A push-button telephone (with or without a display) connected to a multi-

link line. It receives dial tone from the system and can call any station directly. Depending on the programming of its line type, defined by the A: 1

attribute, it can perform paging and other functions.

Architectural Number: The assigned number that is used to dial a station. The station's extension

number. Frequently the room number where the station is located.

Attendant Phone: The phone on the Administrative Line listed at Location Code 64000. All in-

coming AAI calls and hot-line calls ring this phone.

Attribute: Any of three (A:, B:, and Z:) user-programmable parameter which, in general,

affects an individual line. The architectural number (N:) may also be referred

to as an attribute.

Auto-release Mode: A TC4400 Call Control Console mode in which the attendant may transfer a

call without first talking to the target extension (see Pre-screening).

B:Attributes: Options associated with each line type. B: attributes vary with the line type.

(Refer to the Programming Section KI - 1584).

Bus: One or more conductors used as a path for transmitting information from any

of several sources to any of several destinations. A main route for collecting

or distributing logical or audio signals within the system.

Call: Dialing a phone or a station directly. This requires a DTMF push-button

phone programmed as an administrative phone.

Call-In: A request from a staff station to be called by an administrative phone. The

architectural number of the staff station is stored in memory and appears on

a visual display.

Call Pickup: A function that enables an authorized phone to take a call away from an at-

tendant line.

Central Office: A telephone-company office containing the equipment that powers the

customers telephones, connects their calls, etc.

COA: Central Office Adapter: An FCC and DOC approved device

(TC4171) used to interconnect the Telecenter IV with a central-office trunk

or a PBX.

CPU: Central **Processing Unit (TC4410):** The TCIV's microprocessor and

memory.

Drawings and Data

CRT3: Slimline style, dial-less phone with a ringer and universal wall or desk mount

terminal block. Use for multi-link or single-link staff applications.

DISA: Dial-In System Answer: An incoming trunk line to which the TCIV

provides dial tone, allowing the caller to dial any number in the system and perform any function allowed by the options set for the DISA line. The DISA

line type is set by the A: **13** attribute.

DIL: Direct Inward Line: An incoming trunk line which can be programmed to

directly ring any administrative phone. The DIL line type is set by the A: 123

attribute.

Display Phone: Any Telccenter telephone with a built in LCD (Liquid Crystal Display).

DTMF: Dual-Tone Multi-Frequency: The signalling method used by a standard

pushbutton phone. The tone generated by each key is a combination of two tones determined by the key's position on the ${\bf 3}$ (vertical) by 4 (horizontal)

keypad matrix. Each column and row is associated with a particular tone.

DTMF Receiver: Provides dial tone and busy signals and interprets dialing for the system. May

also be referred to as an originating register.

E&M Signaling arrangement using separate paths for signaling and voice signals.

The "M" lead (derived from "mouth") transmits ground or battery while incoming signals are received as either grounded or open connections on the "E" lead (derived from "ear"). This interface between a PBX and a TCIV enables TCIV extensions to hold the PBX and PBX extensions to hold the TCIV without using the keep-alive process. It eliminates timing problems associated with using ring voltage to signal the start and stop of service

requests between systems.

Emergency Call-In: Also referred to as a priority call-in, emergency call-ins take precedence over

normal call-ins and give repeated audible beeps.

Executive Override: The ability of an Administrative Phone or the TC4400 Call Control Console to

break into an ongoing call. See the Programming Section Kl-1584.

Extension: A typical single telephone on a TCIV or PBX.

Flags: On/Off signals that can be set by the user to regulate specific system opera-

tions. They appear as Attribute digits on the display.

Ground Start: A type of interconnect trunk line which, in addition to the usual loop-start re-

quirements, a 2 second ground pulse is required to receive dial tone from the

CO or PBX..

Hierarchical Authority: The different degrees of over-lapping access administrative phones have to

groups of special-page lines.

Hold Key: A TC4400 Call Control Console key used to hold a line or trunk.

Drawings and Data

Hot Line: A multi-link staff phone which, when taken off-hook, causes a call-in to ring

the attendant phone listed in Location Code 64000. The Hot-Line line type is

set with the A:3 attribute.

Hunt: Automatic search for a line that is not busy. This may be controlled by the A:8

attribute or, in special cases, a rotary hunt can be specified with the single-

digit dialing location codes.

Intercom Mode: The way in which a speaker communicates with a telephone. Its single-line

channel switches between Talk and Listen through a VOX (voice operated

switch), the TC4160 VCM2 (Voice Control Module).

Interconnect: Connection of the Telecenter IV with outside lines (from a central office, a

PBX, or another Telecenter system).

KIA2: A standard ITT key-phone system that can be used with the Telecenter

system in conjunction with interconnect lines.

Keep-Alive: Periodic DTMF signal from an outside caller to maintain a connection with a

Telecenter speaker (see Supervision).

KSU: Key System Unit: A generic mnemonic used to describe any control

unit that is used in conjunction with a key phone.

LCD: Liquid Crystal Display: The built-in display in certain administrative

phones (TC42 11 and TC4250).

Line: The wiring that connects remote station or an outside system to the terminals

of a TC4110 (SC25), TC4120 (SCC25), or TC4150 (LLM).

Link: One of 16 communication paths used to connect any two or more LLM lines.

LLM-16: Line Link Module: The TC4150 provides 16 independant lines and CPU

controlled switching connections to the common 16 links for switching multi-link phones (staff and administrative). Also referred to as simply, LLM, the TC4001 comes equipped with one (LLM-0) and thirty-one (31) additional

LLM's can be added as required to meet system requirements.

Location Code: Memory locations which contain data affecting system operations. Generally,

location codes may be divided into four groups: System Characteristics, Line Authorizations, Call Control Console Parameters, and Graphic Displays

Controls. Each location contains a number betweeen 0 and 65535.

Loop Start: A service request made by completing a DC circuit path between the two

sides of a balanced telephone line; the typical current is 30 to 60 ma DC.

MIO: Main Input/Output: This module provides the interface between the CPU

and the other system circuitry.

Module: A circuit board dedicated to a specific function in the system.

Drawings and Data

Monitored Extension: An administrative phone having visual indicator and direct select pushbutton

on the TC4400 Call Control Console.

MTGIOO: Multi-tone Generator: An option which installs in the TC4001 to provide

chimes and tones.

Multi-Link: Having multiple potential communications paths. A multi-link line may be

connected to any of the TCIV's sixteen links.

Multi-Link Phone: A phone which is wired to a line connected to a TC4150 LLM1G. These lines

are programmed for staff or administrative stations and can be rung.

Network Assembly: A terminal block (and circuitry) that provides interconnections among the

parts in a phone, and between it and outside lines.

Night Answer: Setting which allows calls to the attendant lines to be answered by any ad-

ministrative phone by dialing #30.

Node: An ending or dividing point of a communication path. Each physical number

is a node, providing both transmit and receive. Each remote station, using

any mix of telephones, speakers, and call switches, is a node.

Normal Call-Ins: Call-ins that are announced by a beep at the administrative phone and are

stored in the systems memory in the order received. (See also Emergency/

Priority Call-Ins).

Operator Key: A TC4400 Call Control Console keys used for Telecenter functions, also

called referred to as, "Telecenter Key".

Page Key: A key on the TC4400 Call Control Console used for quick access to paging

(normally this access is to the "A" music channel only) to allow pre-selection

of an area established on the switch panel.

Paging: The process of making an announcement over several speakers (Zone Page)

or all speakers (All-Page) at the same time.

PBX: Private **Branch Exchange:** A non TCIV electronic switchboard which

may be connected to a TCIV.

Physical Number: There are 5 12 physical numbers in the TCIV. They relate to the physical

modules and terminals of expansion circuits. Some are reserved for system use (i.e.: DTMF receivers 1 and 2 goes to physical lines 0 and 1 (P:O and P: 1)

respectively.

Port: A device through which information is transferred between the microproces-

sor and the outside world. The TCIV provides a serial port on the MIO to which a personal computer with a communication program may be attached for troubleshooting purposes, to run system diagnostics, or to program the

system.

Pre-Screen Mode: A TC4400 Call Control Console mode of operation where transfers automati-

cally allow a private preliminary conversation with any recipient (see Auto-

release mode).

Priority Call-In: See Emergency Call-in.

Privacy Mode: A remote switch setting that prevents a caller from listening to the room

through the speaker. The switch must be set to Normal to allow communication from the speaker to the caller; however, the caller may still transmit through the speaker with the switch set to Private. For privacy, the switch

grounds the speaker-transformer center-tap.

Programming: User data stored in non-volatile memory and referred to by the main program

to control the system. Also, the process of placing data into memory.

Release Key: A TC4400 Call Control Console key used to disconnect from the selected line

or trunk.

SC25, SCC25: Speaker Control Modules: Each module provides 25 latching relays. The

TC4 110 (SC25) plugs into the back of a switch panel and the TC4120 (SCC25) comes equipped with a chassis for mounting. Collectively referred to as SC's, the SC25 services speakers and the SCC25 services single-link staff phones or speakers. All SCC25's serving single-link staff phones are bused to

a shared line on a TC4150 LLM.

Service Request: A signal requesting service from the central equipment -- typically, the off-

hook current started by picking up a phone to complete a DC path. (See

loop-start).

Single-Link: Having only one possible telephone communication path.

Single-Link Phone: A staff phone that is wired to an SCC25 board and bused with all other

single-link staff phones to a common line on a TC4150 LLM. Single-link Staff Phones have no ringers and are called via a speaker which is co-located on

the same physical number of a parallel SC25 or SCC25.

Special Page: Paging via a separate amplifier and speakers wired to an LLM line. Calls to a

Special Page Line are queued on a first-come first-served basis and hierarchi-

cally restricted to specified groups of administrative phones.

Staff Station: A location where there is some combination of speakers, phones, and call-in

switches to facilitate communication with an administrator.

Station: A set of remote equipment providing communication services to a single user.

Supervision: A signal telling the system to maintain a connection -- e.g., loop current or

Keep-Alive.

Telecenter Key: A TC4400 Call Control Console key used for Telecenter functions, also called

"Operator Key".

Drawings and Data	
TC4001:	TCIV Main Central Assembly: The TC4001 contains the basic operational components of a TCIV system: CPU (Central Processor Unit); MI0 (Main Input/Output module); one VCM2 (Voice Controlled Amplifier Module); and, an LLM (Line Link Module),
TC4110:	Speaker Control Board (SC25)
TC4120:	Speaker Control Board (SCC25)
TC4140:	Central Processor Unit
TC4150:	LLM16 Line Link Module
TC4160:	VCM2 Voice Controlled Module
TC4165:	VCM2 Expansion Chassis: Holds 4 extra VCM2's.
TC4170:	COA Expansion Chassis: Each holds 11 COA modules.
TC4171:	Central Office Adapter module:
TC4200:	Vacuum Fluorescent Display (VFD):
TC4202:	Single-Line Administrative Phone
TC4211:	Single Line Administrative Phone with display (LCD)
TC4250:	Five Line key telephone
TC4400:	Call Control Console (CON)
TC4420:	Console Interface Adapter (CIA)
TM432:	Graphics Annunciator Module (GAM)
TMC433:	Graphics Annunciator Chassis
Trunk:	A line connecting two systems together or a line carrying more traffic than a typical extension. In the TCIV, "trunk" refers to interconnect lines.

VCM2:

Voice-Controlled Amplifier Module: Each TC4160 provides an intercom channel for phone-speaker communication which can be hands-free at the speaker end through the use of VOX (voice operated switch) technology. Normally, the VCM2 is in the Listen Mode, receiving room sounds and amplifying them to the phone user. When the phone user speaks, it switches to the Talk Mode and amplifies the phone user's voice through the speaker. Each VCM provides 12 watts audio power and can support 1-2 1 SC's. Using more VCM's results in more phone to speaker voice paths.

VFD:

Vacuum Fluorescent Display: A large, bright display (TC4200) that mounts on a wall to serve the users of one or more display phones. VFD's can be viewed comfortably from up to twenty feet away.

Zone:

Speaker Zone Groups: Each speaker can be included in from one to eight groups, determined by the Z: attributes. Pages and time signals can be sent to individual zones.