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Chapter 1

General Description

The Program interface is a detailed menu-driven interface for programming DG 250. It also provides access to the diagnostic facilities of the system software. The Programs can be entered through any video display data terminal. The DG 250 has two serial ports. The first port on the top of the card is used for connecting the system to the data terminal for programming.

Access to the Program Interface is restricted to trained and qualified programmers as uncertified personnel can unknowingly cause serious damage to the communication system database.

The Terminal displays prompts and instructions in English, which are generated by the **DG 250**. The programmer can usually make an entry, skip to the next prompt or exit the programming function. Entries are made using a standard keyboard and the software supports standard keyboard strokes likes DELETE, BACKSPACE etc.

Entries are displayed as they are keyed in. All the commands are case insensitive. However the password, which you enter, is **case sensitive**. **Ctrl L** can be used for entering the last command again.

All the changes made into the system through the programming interface are real time (i.e the changes are made to the system as the command is executed).

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Chapter 2

Hardware Setup

Technical Specifications

Type of Switching : TDM / PCM

Type of Control : SPC

Extension Dialing

Pulse Dialing : 10 PPS +/- 10 %, Make Break = 1:2, IDP 60ms
DTMF Dialing : As per CCITT recommendation Q.23

Trunk Dialing

Pulse Dialing : 10 PPS +/- 10 %, Make Break = 1:2, IDP 60ms
DTMF Dialing : As per CCITT recommendation Q.23

Tones

- a. System Dial Tone : 500 Hz Continuous
- b. Ring Back Tone : 500 Hz
- c. Busy Tone : 500 Hz , .5 sec On & .5 sec off

Ringers

- a. Internal Call : 1000 ms / 3000ms / 1000ms / 3000ms
- b. External Call : 500ms / 100ms / 500ms / 1500ms
- c. Alarm Call : 300ms / 500ms / 300ms / 500ms

Transmission Parameters

- a. Return Loss : More than 18 db
- b. Insertion Loss : Less than 1 db
- c. Inter-Channel Cross Talk : Less than -65 dbm
- d. Idle Channel Noise : Less than -60 dbm
- e. Extension Loop resistance : 800 Ohm (excluding telephone instrument)
- f. Key phone loop resistance : 180 Ohm.

Environment

- a. Temperature : -5 Deg to 55 Degree
- b. Humidity : 95 % RH, Non-Condensing

Architecture of the system

The system is designed using advanced CMOS chips to ensure optimum processor speed and minimum power utilization. It is a micro controller based system with distributed processing. Each card in the system has a PTC (Positive Temperature Co-efficient) to ensure protection to the cards and also to act as an auto resettable fuse. Each card in the system is provided with SMPS to convert 24 volts DC into its own operating and logic voltages. The system has a combination of active and passive bus to ensure reliable communication between the cards. For e.g. if one card fails, it does not affect the performance of other cards. The architecture of the system is as under:

Range -:

- Module DG 250 Small - 32 Ports
- Module DG 250 Medium - 64 Ports
- Module DG 250 Large - 120 Ports
- Module DG 250 Extra Large - 248 Ports

Power supply unit (PSU) card

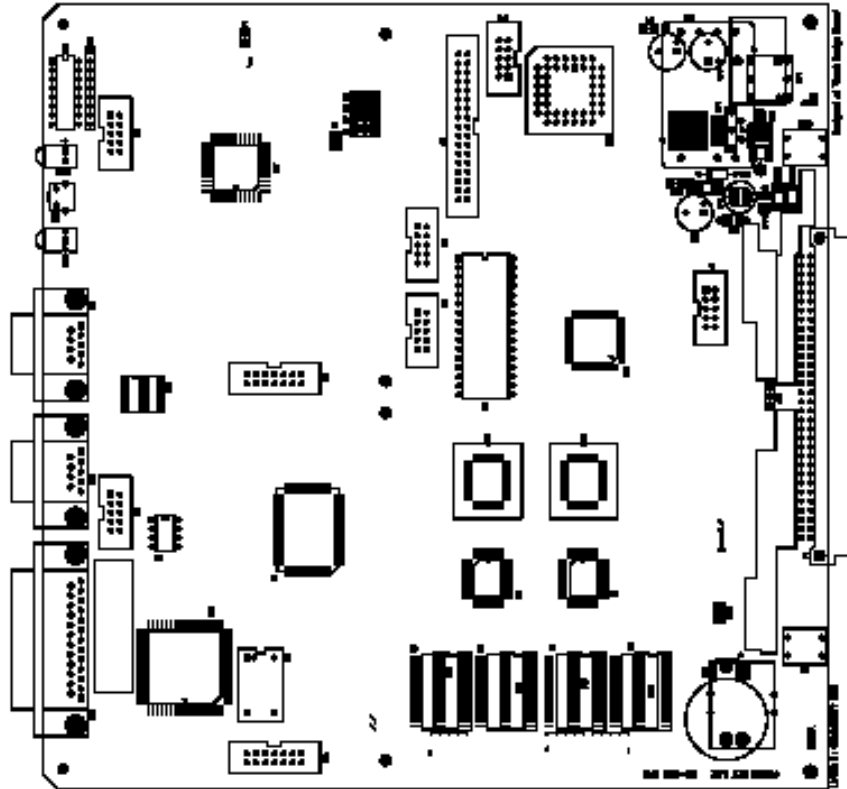
It has distributed power management to ensure minimal load on the PSU. It has an SMPS design and ensures constant current charging to the batteries connected to the system. It converts 230 volts AC into various operating voltages.

- a) 24 volts DC for power supply to all cards & for line voltage.
- b) 60 volts AC, 20 Hz. for ringer voltage for analog telephones.
- c) 28 Volt for Battery Charging.
- d) +48 Volt DC for Line Voltage (Optional).

Cards Description

CPU Card

Schematic Diagram of the DG 250 CPU.



The description of the various jumpers & the connectors of DG 250 CPU is as follows;

IO1	-	For the programming of CPLD IC U12
IO3 & IO6	-	For First E1/PRI Baby Card
IO2 & IO5	-	For Second E1/PRI Baby Card
IO4	-	For the programming of CPLD IC U15
IO7	-	9 Pin D SUB Serial Port for System Programming
IO8	-	9 Pin D SUB Serial Port for CTI Integration
IO9	-	Printer Port
IO10	-	Serial port of the Atmel 89C51 RD2 (U23)
SW2	-	DIP Switches
LED1	-	Run LED of Master microprocessor i.e. 186
LED3	-	Run LED of Slave controller i.e. Atmel 89C51RD2
SW1	-	CPU Reset Switch
J1	-	To upload the CPLD SW i.e. for U22
JP1	-	FRC to Second Rack
JP2	-	3-pin jumper & it is unused. No jumper should be placed.
P2	-	Unused & should be open.
P3 (Jumper Shorting)-		Short 2 & 3 if 2 nd E1/PRI card is used (Last 16 extensions of 250 ports get blocked for PRI). Short 1 & 2 if only one PRI is used.
P4(Jumper Shorting)-		Short 2 & 3 if 2 nd E1/PRI Card is used (2 nd Last 16 extensions of 250 ports get blocked for PRI) Short 1 & 2 if only one PRI is used.
P5(Jumper Shorting)-		Short 2 & 3 for the 1 st E1/PRI Card (3 rd Last 16 extensions of 250 ports get blocked for PRI) Short 1 & 2 if no PRI is used.
P6(Jumper Shorting)-		Short 2 & 3 for the 1 st E1/PRI Card (4 th Last 16 extensions of 250 ports get blocked for PRI) Short 1 & 2 if no PRI is used.
PP1	-	For +5 Vdc. It should remain shorted.
PP2	-	For providing 3.3 Vdc to CPLD Ics. Should remain shorted.

PP6

This is to keep the battery disconnected when the card is not to be used for a long time so that the battery doesn't discharge completely.

Setting of CPU DIP switches

The DG 250 CPU has got 8 dip switches (i.e. SW2). The function of these switches is as follows:-

SW2	ON	OFF
SW2-1	Booting from Flash ROM	for uploading the Flash
SW2-2	Booting from Flash ROM	For uploading the Flash
SW2-3	Reserved	
SW2-4	Debugging not allowed	Debugging Allowed
SW2-5	Reserved	
SW2-6	Reserved	
SW2-7	Reserved	
SW2-8	Standby	INIT ON

While installing the system for the first time SW2-1 & SW2-2 should be ON and rest all Switches i.e from SW2-3 to SW2-8 should be OFF. Basically this dipswitch setting is for HARD Reset. After all the cards have synchronized then put the 8th dip switch i.e SW2-8 in ON position. Then the programming can be done and it will be saved. If 8th Dip Switch is Kept in OFF position then all the programming done will be washed out as soon as the system will take a reset.

The Switches SW2-1 and SW2-2 are for uploading the flash in case you want to load a new software version. Put these switches in OFF position and the system will prompt for PRESS E TO ERASE FLASH on the hyperterminal connected to upper serial port of DG 250 at 19200 Baud Rate. Press E and then y to erase the flash and the load the new version using WINLOADS.

Note: There are two serial ports and a parallel printer port on the DG 250. The upper serial port is used for programming purpose and the lower serial port is used for Applications purposes e.g CTI applications application interfacing like Call Billing Software, AMS (ACD Management Software), Voice mail with outband integration.

Some distinguishing features of DG 250 Cpu are as follows:-

- a) The DG 250 CPU has no DSP card inbuilt like DG-7500 MCC so DG 250 CPU will require the resource cards like, Tone Card for various types of system tones, Music, single no. dtmf dialer & DTM card for increasing the dtmf dialers. VSN2 / VSN8 card for Voice Guidance.
- b) Existing SL Tone card will be used.
- c) The New Line card with version "ALC 1.04" will work (**old Line cards and all old version will not work**) with DG 250. If old lines cards are installed, they will be disabled within one minute and "Show Card" command will display as "ALC -B 00". Here B denotes as Bad Version.
- d) All other cards like Trunk cards, Combo cards, DLC cards will continue to work.
- e) As of now DG 250 CPU does not support any OEM peripheral cards like Line/Trunk etc.

- f) The DG 250 will support maximum 248 Ports (excluding tone card) means total 31 peripheral cards. But this value includes the no. of ports of the E1/PRI ports.
- g) There is a new E1/PRI baby card which is mounted as daughter board on DG 250 CPU. Main board has provision for two such baby cards. E1 or PRI (Maximum two) can be mounted in any combination i.e. both E1, both PRI or one E1 and one PRI.
- h) Existing DG 250 VSN cards (VSN2 or VSN8) can be installed with DG 250 CPU but 3-Party conference of VSN2 cannot be utilized.**
- i) Only 120 Ohm termination impedance is available with DG 250 CPU. 75 ohm termination is not available with DG 250 E1/PRI baby Card.
- j) E1 baby Card can feed or extract the clock also (refer DIP switch Settings of E1/PRI Baby Card). If baby card is configured as PRI, it can work only as PRIT. DG 250 PRI cannot be configured as PRIE. As PRI baby card cannot be configured as PRIE so it can not be installed with predictive dialer.
- k) If only one number E1/PRI card is supposed to be installed, it is recommended to install this card on the upper IO3 & IO6.
- l) With first E1/PRI card, last 4 slots (slot no. 28th/29th/30th & 31st) will have to be kept empty & if both the E1/PRI cards are installed, last 8 slots (i.e. Slot No. 24 to Slot No. 31) will have to be kept empty.
- m) If E1/PRI baby card is installed on IO3 & IO6, pin no. 2 & 3 of DG 250 CPU jumpers P5 & P6 should remain shorted for speech path.
- n) If E1/PRI baby card is installed on IO2 & IO5, pin no. 2 & 3 of DG 250 CPU jumpers P3 & P4 should remain shorted for speech path.
- o) Every E1/PRI card will occupies 4 slots. First port of the occupied first & third slots will be used for signaling & synchronization & rest ports of occupied slots, will be for voice.**
- p) DG 250 CPU supports voice mail integration with inband or outband signaling.**
- q) As of now, DG 250 CPU will not support CAP (PC based application).**
- r) Maximum 32 digital ports i.e. key phones / DSS can be installed with DG 250 CPU & the card having digital ports (like DLC / ATD), can be installed only in main rack.**

Tone Card

DG 250 CPU requires external Tone card to support them for system working. It generates its own +5 volts for its functionality from 28 volts DC that is available from the main PSU. The Tone card contains:

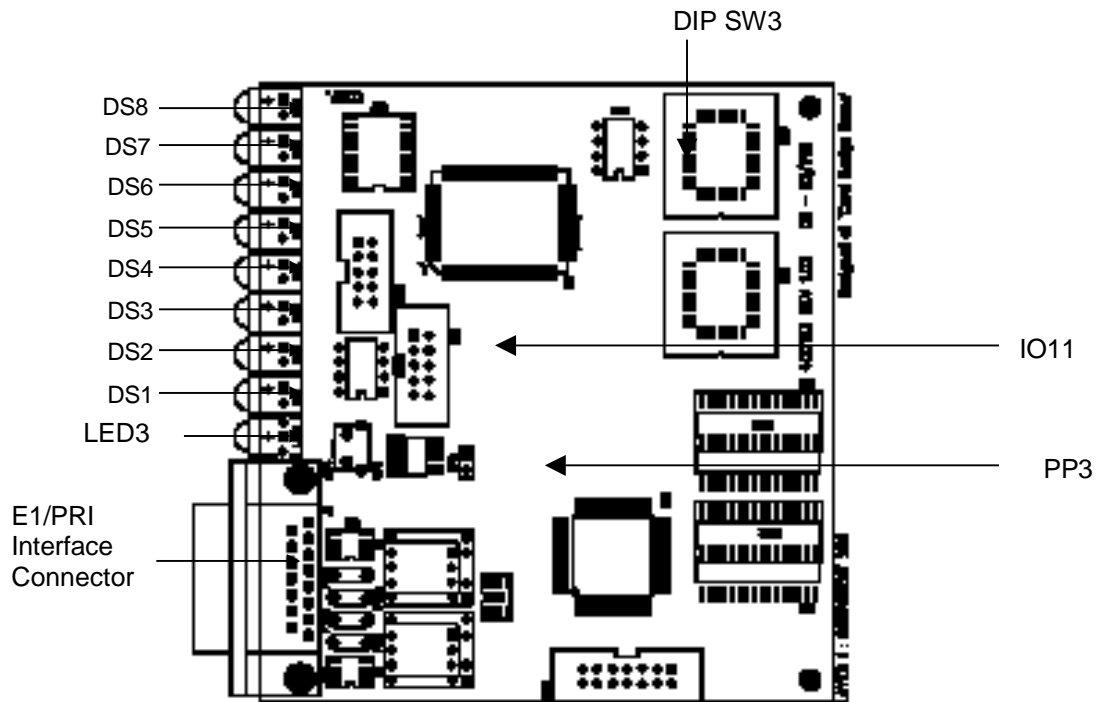
- a.) 3 Sensors
- b.) 1 Action ports
- c.) 1 Paging ports
- d.) External music port
- e.) Single DTMF dialer

Peripheral Cards

E1/PRI Baby Card

This is the E1/PRI baby card. This can be configured either as E1 or PRI. Hardware will remain same. Only the software will be changed for the desired configuration. Maximum 2 cards can be installed with DG 250 CPU. E1 supports decadic, dtmf & MFC signaling (requires MFC Card). This card can be installed in any of the peripheral slot. PRI will support both type of signaling i.e. overlap & enblock.

Schematic Diagram of E1/PRI baby Card



Description of Various Jumpers, Connectors of E1/PRI Baby Card

LED3	-	Card RUN LED
DS1	-	Maintenance Mode (MNT)
DS2	-	Network Layer (NET)
DS3	-	Link Access Procedure (LAP)
DS4	-	Alarm Indication Signal (AIS)
DS5	-	Slip
DS6	-	Remote Alarm Indication (RAI)
DS7	-	RED Alarm
DS8	-	Loss of Signal
SW3	-	DIP Switch for SW Loading
SW4	-	Reset Switch for E1/PRI Card
IO11	-	Serial Port Connector. BAUD Rate is 19200.
J2	-	E1/PRI Line Interface Connector
IO10 & IO12	-	Plug-In connector for CPU card
PP3	-	2-Pin jumper for 3.3 Vdc. Should remain shorted.

DIP Switch (SW3) Setting for E1

If the DG 250 baby card is configured for E1, DIP switch SW3 setting will be as follows:-

DIP SW3	ON	OFF
SW3-1	Stand By	Flash ROM SW Loading
SW3-2	Stand By	Flash ROM SW Loading
SW3-3	120 Ohm	Unused
SW3-4	Master	Slave

DIP Switch (SW3) Setting for PRI

If the DG 250 baby card is configured for PRI, DIP switch SW3 setting will be as follows:-

DIP SW3	ON	OFF
SW3-1	Stand By	Flash ROM SW Loading
SW3-2	Stand By	Flash ROM SW Loading
SW3-3	User Mode	Network Mode
SW3-4	Unused	Unused

E1/PRI Line Termination Connections

Transmit of DG 250 E1/PRI (Tx) - Pin No. 1 & 9 of J2
 Receive of DG 250 E1/PRI (Rx) - Pin no. 3 & 11 of J2

How to Upgrade the E1/PRI Baby Card Software

E1/PRI baby card software can be upgraded at site itself. One serial port module will be required for this (like DG 250). Serial port module cable will be connected to the IO11. The communication parameter of the serial port of the E1/PRI baby card are as follows –

Data transfer rate	19200 b/s
Parity	None
Data word length	8 bits
Stop bits	1 bit
Format	Asynchronous data, standard ASCII character set

For Uploading the E1 software Put the SW3-1 & SW3-2 in Off position and reset the E1 Card. It will prompt for Press E to erase flash. Erase the Flash and load the version using Copper Connections PC based applications like Winloads, Version Loader etc.

Digital Line Cards (DLC)

It is used to connect digital key phones and DSS instruments. Key phone & DSS are connected to separate ports of the DLC card but can be configured to operate as one operator console.

It does not occupy any fixed position in the system and can be put in any slot except the PSU, CPU and the Tone card slot. This card has its own Intel 89C51 micro controller, which minimizes the load on master CPU. The DLC are high-speed data transreceivers that provide 80 KBPS full duplex data communication over 26 AWG (American Wire Gauge-an unit of thickness of wire) or thicker twisted pair upto 1000 meters. The DLC utilizes a 256 kilo baud modified differential phase shift keying burst modulation technique for transmission to minimize cross talk in ping pong protocol and also to provide noise immunity to Data and Voice. It provides for full duplex synchronous 64 KBPS Voice/Data channel and two 8 KBPS signaling data channels over one 26 AWG wire pair, thus simultaneous power distribution and duplex data communication can be obtained using a single twisted pair wire.

Line Card (LCS)

It does not occupy any fixed position in the system and can be put in any slot except the PSU, CPU and the Tone card slot. This card has its own Intel 89C51 micro controller, which minimizes load on master CPU. It can connect a maximum of 8 analog instruments per card. It has unique power-down circuit, which means if the instrument is on hook, the circuit does not draw power. This is useful during power failure when the battery takes over, thereby increasing the duration of battery operations. It has AGC (Automatic Gain Control), which is useful during long distance calls, when the quality of voice goes down. The AGC increases or decreases the gain to maintain a standard voice level. It has an internal 4 wire design to avoid echo. LCS cards have feature of RF suppression & support loop resistance of 2400 ohms on 48volts line voltage. **LCS** is of two types:

LCS-II -: This card is used to provide the connectivity of analog extensions. It will extend DTMF CLI on analog extensions for internal & external calls (provided CLI is supported on trunk port). For CLI generation, system should be equipped either with DTD or DTM card. This card will provide the message wait lamp also on analog extensions

LCS-III -: This card will offer the facilities of LCS-2 & additionally line reversal extending on analog extension.

Note -: It is found that some CLI instruments are not supporting the CLI facility if the line voltage is 24 Volt. Hence care must be taken while installing the system.

Analog Trunk Card (TCS)

It does not occupy any fixed position in the system and can be put in any slot except the PSU, the CPU and the Tone card slot. This card has its own Intel 89C52 micro controller, which minimizes load on the master CPU. It can connect a maximum of 8 P & T lines per card. It has AGC (Automatic Gain Control), which is useful during long distance calls, when the quality of voice goes down. The AGC increases or decreases the gain to maintain a standard voice level.

Trunk ports will detect the reversal & DTMF CLI from the analog trunks. The feature `Call progress tone detector – CPTD also is the part of the TCS card. 16 Khz detection also is possible with Sparkle CPU.

ATD Card

This card is the combination card of DLC & TCS. Upper 4 ports are the digital ports & lower 4 ports are trunk ports. ATD card also senses the DTMF CLI, line reversal & CPTD. This card can be plugged-in in any of the slot except PSU, CPU & Tone.

DTD Card

This is the combination card of DLC / TCS & DTMF dialers. This card has 2 digital ports , 4 trunk ports & 2 DTMF dialers. DTMF dialer is used to provide the DTMF CLI on SLT. This card also has no fixed position.

VSN2 / VSN8 Card

It does not occupy any fixed position in the system and can be put in any slot except the PSU, CPU and Tone card slot. This card has its own Intel 89C52 micro controller, which minimizes load on the master CPU.

VSN2 card 2 voice guidance ports & VSN8 has 8 voice guidance ports.

There are 7 levels of DISA voice services offered wherein the system VSN picks up the call, greets the caller and guide him for the required usage. The levels are as under:

- Level 1 - Operator message (9 seconds)
- Level 2 - Night message after office hours (9 seconds)
- Level 3 - Successful storing of numeric message (5 seconds)
- Level 4 - Welcome message (9 seconds)
- Level 5 - Extension busy message (9 seconds)
- Level 6 - Invalid number dialed message (9 seconds)
- Level 7 - No answer from extension message (9 seconds)

Thus any of the above messages can be used during DISA.

TEC Card

This is a combination card of trunk & extension card. It has 2 CO ports & 6 analog extensions. This card also can be plugged in at any location.

TWT/BWT Card

This card is used to terminate the analog level DID trunk. This is the 8 port card. This card supports decadic & MFC signaling. If the signaling is in MFC, add-on MFC card also will be required.

E&M Card

This card is used to terminate the E&M trunks. This is the 8 port card. This card supports 2-wire & 4-wire interface. By default, it will provide 4-wire interface. However with some hardware changes in the card, it will support 2-wire interface also. It supports Type V E&M. The 2 wire and 4 wire configuration is decided by the jumper setting on the card. It supports decadic & dtmf signaling. This card can be installed in any of the peripheral slot.

DTM Card

This card is used to increase the dtmf dialers. Using this card, DG 250 CPU will have 8 DTMF dialers. This card can be installed in any of the peripheral slot.

Key phones

It has its own Intel 87C51 micro controller, which minimizes load on the master CPU and is powered by the DLC card.

DSS instrument

It has its own Intel 87C51 micro controller, which minimizes load on the master CPU and is powered by the DLC card. It generates its own 5 volts. It has a maximum of 120 keys, which are programmable and can assign a key for direct access of trunk line, extension line or global memory bank in any combination. It has to operate in conjunction with a digital phone. One DSS occupies one digital port.

How to Configure the System

It is important to configure the system correctly as certain features would require specialized CPU or operate with in conjunction with another hardware. To configure a system, one must find out the requirement of the following:

1. Number of operator key phones & DSS
2. Total Number of analog subscribers.
3. Total number is analog trunk lines.
4. Voice Guidance
5. CLI on SLT.

Initially it may be desirable to use our computer-associated software "Configurator" to configure a system for use of by a customer. It is sometimes critical as some features require use of additional cards.

Once the exact number of cards, required by the customer, are decided along with his future upgradation needs then the appropriate module must be decided on the following basis.

Module DG 2502000 Small - 40 Ports
Module DG 2502000 Medium - 72 Ports
Module DG 2502000 Large - 120 Ports

Now plug-in all the cards. In order to minimize the load on the CPU, one type of the cards (trunks or extensions) should be placed together. For example, all the digital line cards should be placed together. All the trunks should be placed together.

Once all the cards are plugged-in into the system, prepare the MDF. MDF cables are provided with the system that will be laid between DG 250 & the MDF.

MDF Cable Color Code

Port 1	Red Orange
Port 2	Red Blue
Port 3	Red Green
Port 4	White Brown
Port 5	White Grey
Port 6	White Orange
Port 7	White Blue
Port 8	White Green

Chapter 3

Programming Requirement

The software for the Program Interface is inbuilt in the DG 250 CPU. There is no need for installing any special software for this purpose. However for running the Program interface, a terminal software like TERM.EXE or XTALK.EXE or HYPER TERMINAL is required.

Depending on the configuration of the system, the default values of various parameters are loaded in the DG250. The default values for all the features are mentioned in the following sections. The default values have been fixed so that only a minimum amount of programming is required on site.

Depending on the site, the default database setting might require some programming. The programming parameters most often changed are given below:

- Trunks
- Extensions
- System
- Class of service
- DID groups
- DOD groups
- Network
- Numbering plan

Apart from the above parameters, certain fields that require field programming are: -

- ACD
- STD/ISD codes and rates
- Extension Names.
- Day/night Changeover timing
- KTS/DSS keys definition
- Card addition or deletion
- Restricted digit table
- Voice Messages (VSN Programming)
- Voice Mail Integration
- Gain Setting

Some short Cuts to use during the programming –

A logged-in user can be logged-out by pressing the **`Ctrl + P`**

If you want to see the level of the logged-in user, press **`Ctrl + G`**.

To enter the last command, press **`Ctrl + L`**.

To store a command, press **`Ctrl + S`**

To restore a stored command, press **`Ctrl + R`**

Software Description

The system programming will be done through terminal software. The Program Interface terminal device (PC) can be connected to the DG 250 System through the RS232 Port interface. The DG 250 CPU got RS232 ports (if applicable) i.e. IO7 & IO8.

The upper serial port i.e. IO7 is used for connecting the system to the data terminal for system programming & lower serial port i.e. IO8 is used to interface with CTI applications.

The serial asynchronous RS232 interface of some PCs can be equipped with a DB25 connector, while others are equipped with a DB9 connector. The following table gives the connections to be made for both these types of connectors with the RS232 port of DG 250 CPU.

DB9 connector		DB25 connector	
Data terminal	DG 250 CPU	Data terminal	DG 250 CPU
Pin no. 2	Pin no.3	Pin no. 2	Pin no. 2
Pin no. 3	Pin no.2	Pin no. 3	Pin no. 3
Pin no. 5	Pin no.5	Pin no. 7	Pin no. 5

The terminal communication parameters of the upper serial port i.e. IO7, are given below:

Data transfer rate	19200 b/s
Parity	None
Data word length	8 bits
Stop bits	1 bit
Format	Asynchronous data, standard ASCII character set

Before connecting the serial port of the computer to the RS232 port of DG 250 CPU, switch-off the system & then connect the cable. Run the terminal software in the Computer after setting the parameters as given above.

Note: Any Terminal software like **Term, Xtalk, Hyper Terminal** can be used for programming the DG 250 CPU.

The lower serial port is used for the call data / HMS Integration / Cap. The communication parameters of this serial port i.e IO8, are as follows-

Data transfer rate	9600 b/s
Parity	None
Data word length	8 bits
Stop bits	1 bit
Format	Asynchronous data, standard ASCII character set

The Programming and Processes of New DG 250 CPU are much similar to DG 250 MCC 1.06 (or later). All the features of DG 250 for which DG 250 has some special hardware, DG 250 CPU will not support.

Below mentioned are some of the software details for the DG 250 CPU -:

- a) This CPU supports single digit to eight digit numbering plan.
- b) There is no provision for the Solid State Disk.
- c) CPU will not have the SMS facility from ext to ext.
- d) Built in Remote maintenance (RMI) port will not be there.
- e) Line cards are not Du-Slic based, hence following features will not be available with DG 250 CPU.
 - 12/16Khz Generation on extensions.
 - FSK CLI Generation on extensions.
 - ITDF

DID

- f) **There will be no WI_FI DECT card, VOIP Card, ADSL card, SHDSL card, In-skin Voice Mail Card, Voice Prompt card for DG 250 "DG 250-256" system.**
- g) The VSN-2 or VSN-8 will be used for DISA, free flow voice message for ACD announcers. **VSN card does not support Mandatory announcers from starting.**
- h) **Q-Signaling will not be available.**
 - i) If the signaling on the E1 baby card is in MFC, add on MFC card will be required.
 - j) If the signaling on the E1 baby card is in DTMF, VSN2/VSN8 will be required for DTMF receiver & DTM may be required for DTMF dialers.

NOTE:- The DG 250-KTS are not capable to support Name Dialing (but name dialing through cli library is possible), DSS/DPM without consuming a DLC port, Fox Keys and CAP Software.

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Chapter 4

Programming Functions

The following table presents the programming functions that can be applied to the Program Interface. After logging in successfully, you can start to enter the required programs. For entering any program, the first word of the program must be any one of the following words.

<u>Function</u>	<u>Description</u>
Set	- Instructs the system to set a parameter
add	- Instructs the system to make an addition to the existing parameter
reset	- Resets a parameter already set in the system
delete	- Deletes a parameter from the database
show	- Displays any feature setting of the system
copy	- Copies a feature or parameter from one port to another port.
date	- Sets the date for the system
time	- Sets the time for the system.
help	- Displays the help menu
login	- Logs in to the programming mode.
logout	- Logs out of the programming mode.
snap	- To view the status of trunks & extensions.
repeat	- To configure a group of extensions or trunks.

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Chapter 5 Command Type

The next parameter after the Programming Function specifies the type of command, which you are going to enter. This parameter must be one of the following words.

- acd** - For setting ACD related features
- card** - For adding or deleting a card
- cdb** - To set the card database for E1/PRI baby Card
Login pass word = Cdebug
set cdb P pri L D
where, P = PRI card no. 0 for the 1st card, 1 for 2nd.
L = Location (0 to 55)
D = 0 to 255
In default, data in 5th location for the 1st PRI card values are:
P=0, L=5 & D=0
To see the data:
login as above
show cdb P pri
- code** - For filling the STD & ISD code table
- cos** - For defining the class of service
- cotm** - For setting the auto D/N change over timings for the system
- debug** - This command is used for debugging.
- didg** - This command is used to define the groups of incoming trunks.
- dodg** - This command is used to define the groups of outgoing trunks.
- ext** - For programming any extension parameter.
- flex** - For programming flexible numbering.
- gain** - To set the gain of the ports with respect to various types of trunks
- keys** - For setting the definition of the KTS, DSS & ABCD keys.
- name** - For entering the name of an extension.
- net** - For programming the network parameters.
- pswr** - For programming the passwords
- pnt** - For programming any TRUNK parameter
- port** - For programming any port in the system.
- rsrd** - For defining the dialout table.
- sys** - For programming any system parameter.
- timer** - To set the various timers.
- toll** - For programming the call charges.

Note that the Programming Function & Command type can be viewed by the command 'help'

Example

C:>help (Enter)

*COPPER CONNECTIONS DG 250 IVDG 250-I (Ver 1.01d8)
PROGRAMMING INTERFACE TERMINAL 22Nov, 01*

COMMAND FORMAT: (BASIC COMMAND) (COMMAND TYPE) (NUMBER) (FEATURE)

****** BASIC COMMAND*

<i>SET</i>	<i>ADD</i>	<i>RESET</i>	<i>DELETE</i>
<i>SHOW</i>	<i>COPY</i>	<i>DATE</i>	<i>HDD</i>
<i>HELP</i>	<i>LOGIN</i>	<i>LOGOUT</i>	<i>REPEAT</i>
<i>SNAP</i>	<i>TIME</i>		

***** COMMAND TYPE

ACD	-	SET/RESET ACD <acdno> <cmd> [par]
CARD	-	ADD/DELETE CARD <crd> [crd type]
CDB	-	SET CDB <dbno> <dbtp> <val>
CODE	-	SET/RESET CODE <stdcode> [entry]
COS	-	SET/RESET COS <COSno> <cmd>
COTM	-	SET COTM <day> <hh> <mm> <hh> <mm>
DEBUG	-	SET/RESET DEBUG <Up/Dn/St/Log/Msg> <crd>
DIDG	-	SET DIDG <grp> <cmd> [par]
DODG	-	SET DODG <grp> <cmd> [par]
EXT	-	SET/RESET EXT <extno> <cmd> [par]
FLEX	-	SET FLEX <oldno> <newno>
GAIN	-	SET GAIN <src> <dest> <gain>
KEYS	-	SET KEYS <DSS/KTS/DTMF> <GRP> <key> <par>
NAME	-	SET NAME <extno> <name>
NET	-	SET NET <cmd> <par>
PSWRD	-	SET PSWRD <level> <opass> <npass> <npass>
PNT	-	SET/RESET PNT <pntno> <cmd> [par]
PORT	-	SET PORT <portno> <chan> <flexnum> [dup]
RSRD	-	SET/RESET RSRD <label> <entry> <val>
SYS	-	SET/RESET SYS <cmd> [par]
TIMER	-	SET TIMER <TmrTp> <Val>
TOLL	-	SET TOLL <entry> <zone> <val>

Chapter 6

Date & Time Setting

To change the system date & time the commands are,

Date Setting

This command is used for setting the system date. The format of the command is,

date dd mm yy w

Where	dd	-	Date
	mm	-	Month,
	yy	-	Year
	w	-	Week day (0 for Sunday, 1 for Monday & so on).

Note : Date & time of the system can be set through key phone also

Command from Key Phone-:

Prog + PSW + + 61 DD MM YY W

Where	DD is new day of month 01 to 31.
	MM is new Month of year 01 to 12.
	YY is new Year for system 00 to 99.

W is new day of Week (0 for Sunday, 1 for Monday & so on)

Time Setting

This command is used for setting the system time. The format of the command is,

time hh mm ss

Where	hh	-	Hours
	mm	-	Minutes show sys
	ss	-	Seconds

Note that the time has to be entered in the 24 hours format.

Command from Key Phone-:

Prog + Psw ++ 43 HH MM SS

Where	HH is 00 - 23 as hours.
	MM is 00 - 59 as minutes.
	SS is 00 - 59 as seconds.

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Chapter 7

Numbering Plan

The numbering plan is used to determine the numbering scheme of the system. Dialing digits via the keypad of a telephone instrument or programmed buttons on the key phone, is the user's method of instructing the system to call another user or to access a trunk line or to activate any features.

The numbering plan defines the access codes of each of the physical ports in the system and also the access codes for various features.

The system has got a default numbering plan, which can be altered according to the requirement. In the default numbering plan, the extension numbers starts from 2000 onwards and the trunk numbers start from 7000 onwards depending on the location of the trunk card.

Extension / Trunk feature numbering can be set in any combination i.e. single to eight digit. By default numbering plan is defined in 4 digits. However it can be changed from single to eight digits. even '*' & '#' also can be used for the same.

The maximum length of the defined extension / trunk feature number will have to be defined. Note that this is mandatory. To define the same, command is,

set sys numlim <length>

If more than 4 digits numbering plan is used, 'numlim' also has to be defined as per the maximum length of the used numbering plan.

By default: Numlim is defined 4.

Note: The KTS will show only 4 digit number on its display whether the numbering plan is configured as 4 or 8 digit. But while dialing out it will show full no. and in case of incoming call it will show 5 digits maximum.

To have a view of the numbering plan, command is,

show flex <card no.>

Now system will show all the ports of the entered card & next 7 cards also.

A sample of the display of flexible numbering scheme is given below :

```
show flex 0
Numbering Plan FM 0 TO 64
C 00,P 00->2000 |C 00,P 01->2001 |C 00,P 02->2002 |C 00,P 03->2003 |
C 00,P 04->7000 |C 00,P 05->7001 |C 00,P 06->7002 |C 00,P 07->7003 |
C 04,P 00->2032 |C 04,P 01->2033 |C 04,P 02->2034 |C 04,P 03->2035 |
C 04,P 04->2036 |C 04,P 05->2037 |C 04,P 06->2038 |C 04,P 07->2039 |
```

Show Flex [Cardno/flist]

Some virtual slots & the ports of those slots are also assumed. These virtual slots & ports are used to define the system features.

Every virtual slot also having 8 ports. The list of the system features with the assigned virtual slot & port can be viewed by the command, **'show flex flist'**.

```
show flex flist
Numbering Plan Feature List
C 32, P 00-> Pstn Selct |
C 32, P 01-> Sel ACD#0 | C 32, P 02-> Sel ACD#1 | C 32, P 03-> Sel ACD#2 |
C 32, P 04-> Sel ACD#3 | C 32, P 05-> Sel ACD#4 | C 32, P 06-> Sel ACD#5 |
C 32, P 07-> Sel ACD#6 | C 33, P 00-> Sel ACD#7 | C 33, P 01-> Sel ACD#8 |
C 33, P 02-> OprAcnd 9th | C 33, P 03-> Network #0 | C 33, P 04-> Network #1 |
C 33, P 05-> Network #2 | C 33, P 06-> Network #3 | C 33, P 07-> Network #4 |
C 34, P 00-> Network #5 | C 34, P 01-> Network #6 | C 34, P 02-> Network #7 |
C 34, P 03-> Network #8 | C 34, P 04-> Network #9 | C 34, P 05-> Network#10 |
C 34, P 06-> Network#11 | C 34, P 07-> Network#12 | C 35, P 00-> Network#13 |
C 35, P 01-> Network#14 | C 35, P 02-> UnAssigned | C 35, P 03-> UnAssigned |
C 35, P 04-> BossGrp#0 | C 35, P 05-> BossGrp#1 | C 35, P 06-> BossGrp#2 |
C 35, P 07-> BossGrp#3 | C 36, P 00-> UnAssigned | C 36, P 01-> MeetMeCnf |
C 36, P 02-> Conf_3F | C 36, P 03-> Meet_Cnf | C 36, P 04-> Grp Paging|
C 36, P 05-> Dosa Cmd | C 36, P 06-> Auto Dial | C 36, P 07-> Park Call |
C 37, P 00-> Libs 1xx | C 37, P 01-> Libs 2xx | C 37, P 02-> Libs 3xx |
C 37, P 03-> Libs 4xx | C 37, P 04-> SubsCall | C 37, P 05-> Accs.Feat |
C 37, P 06-> UnAssigned | C 37, P 07-> UnAssigned | C 38, P 00-> Paging |
C 38, P 01-> FaultBook | C 38, P 02-> BG Music | C 38, P 03-> Conf 8Way |
C 38, P 04-> NightMode | C 38, P 05-> opr_logout | C 38, P 06-> Form Feed |
C 38, P 07-> Force Drop | C 39, P 00-> Follow Me | C 39, P 01-> anypark |
C 39, P 02-> Call Pick | C 39, P 03-> sup_proc | C 39, P 04-> Forw All |
C 39, P 05-> relays_on | C 39, P 06-> Name Dial | C 39, P 07-> cancel_at |
C 40, P 00-> pms_report | C 40, P 01-> firstpark | C 40, P 02-> Group Pick |
C 40, P 03-> RoomServ | C 40, P 04-> Set Alarm | C 40, P 05-> CallWtOn |
C 40, P 06-> CallWtOff | C 40, P 07-> Clr Forw | C 41, P 00-> A/c Code |
C 41, P 01-> VA/c Code | C 41, P 02-> A/c Libs | C 41, P 03-> Silent Mon |
C 41, P 04-> Change COS | C 41, P 05-> A/cPsw chang | C 41, P 06-> WalkCOS |
C 41, P 07-> Que Pick | C 42, P 00-> Att. Prog | C 42, P 01-> Messages |
C 42, P 02-> Spc Msgs | C 42, P 03-> DialMode | C 42, P 04-> PswChange |
C 42, P 05-> BossScrtry | C 42, P 06-> SelfRing | C 42, P 07-> ForwExtrn |
C 43, P 00-> Walk call | C 43, P 01-> MLampOn/Off | C 43, P 02-> UnAssigned |
C 43, P 03-> UnAssigned | C 43, P 04-> LastCaller | C 43, P 05-> Emg Serv |
C 43, P 06-> Announcer | C 43, P 07-> Retriv Msg | C 44, P 00-> Redial cmd |
C 44, P 01-> UnAssigned | C 44, P 02-> UnAssigned | C 44, P 03-> UnAssigned |
C 44, P 04-> UnAssigned | C 44, P 05-> UnAssigned | C 44, P 06-> UnAssigned |
C 44, P 07-> UnAssigned |
```

The defined codes of the above features can be viewed by the command **'show flex 32'** & **'show flex 40'**

```
show flex 32
Numbering Plan FM 256 TO 320
C 32,P 00->0 | C 32,P 01->890 | C 32,P 02->891 | C 32,P 03->892 |
C 32,P 04->893 | C 32,P 05->894 | C 32,P 06->895 | C 32,P 07->896 |
C 33,P 00->897 | C 33,P 01->898 | C 33,P 02->9 | C 33,P 03->60 |
C 33,P 04->61 | C 33,P 05->62 | C 33,P 06->63 | C 33,P 07->64 |
C 34,P 00->65 | C 34,P 01->66 | C 34,P 02->67 | C 34,P 03->68 |
C 34,P 04->69 | C 36,P 01->3941 | C 36,P 04->188 | C 36,P 05->4994 |
C 36,P 06->871 | C 36,P 07->872 | C 37,P 00->10 | C 37,P 01->11 |
C 37,P 02->12 | C 37,P 03->13 | C 37,P 04->181 | C 38,P 00->80 |
C 38,P 01->81 | C 38,P 02->82 | C 38,P 03->83 | C 38,P 04->84 |
C 38,P 05->85 | C 38,P 06->860 | C 38,P 07->861 | C 39,P 00->862 |
C 39,P 01->863 | C 39,P 02->864 | C 39,P 03->865 | C 39,P 04->866 |
C 39,P 05->867 | C 39,P 07->869 |
```

```
show flex 40
Numbering Plan FM 320 TO 384
```

C 40,P 00->873	C 40,P 01->870	C 40,P 02->88	C 40,P 03->874	
C 40,P 04->875	C 41,P 00->876	C 41,P 01->877	C 41,P 02->878	
C 41,P 03->879	C 41,P 04->899	C 41,P 05->199	C 41,P 07->182	
C 42,P 00->184	C 42,P 01->40	C 42,P 02->411	C 42,P 03->4224	
C 42,P 04->4223	C 42,P 05->4277	C 42,P 06->4261	C 42,P 07->4262	
C 43,P 01->183	C 43,P 06->198			

Note: All the above feature codes are defined as default.

How To Do The Flexible Numbering

The numbering plan of the system can be changed using the **FLEX** command. The command to change the flexible number of an extension or trunk or a feature code, is;

set flex <Existing Number > <New Flexible Number>

For example, to set the flexible number of extension 2000 as 3000, the command is,

set flex 2000 3000

For setting the flexible number of extension 2001 as 9, the command is,

set flex 2001 9

Similarly, to change the flexible number of a feature code, command will be;

set flex <Existing feature code> <new feature code>

or **set port <slot no.> <port no.> <new feature code>**

Similarly, extension, trunk, feature code flexible numbering also can be done through **PORT** command. The format for the command is,

set port <Card No.> <Port No.> <Flexible No.>

For example, in the default setting, the code for setting the self alarm, is 875. Now if it is required to change this code to 54, the command is,

Or **set port 50 1 54**
set flex 875 54

After this command, the code for setting the self alarm will be 54.

The various slot no. & the port numbers for the feature codes are given above.

Note : Already existing numbers can not be used.

To reset a port, the format of the command will be;

reset port <Card No.> <Port No.>

Card & port no. of any existed number can be viewed by the command,

`show flex num <flexible>.

To allot a flexible no. to any port from KTS:-

Prog + Password + 441 + CC + PP + Flex No. + Prog

Where CC stands for card no. and PP stands for Port No.

To reset any flexible no. allotted to any port from KTS:-

Prog + Password + 440 + CC + PP + Prog

Where CC stands for card no. and PP stands for Port No.

Flexible Numbering with “* / #”

Special digits i.e. `*` & `#` can also be used as the flexible numbers. To use these special numbers as flexible numbers, first enable the special numbering. For this, the command will be

`set sys splnum`

Means that any extension or trunk or feature code can be set as `*202` or `**22` or `###` or `0000`. Any combination can be used for flexible numbering. Same `flex` command will be used for the same.

Duplicate numbering

A port can have multiple access numbers. Means any feature or any extension can have duplicate number also. This will be done through the following command only.

set port <Slot> <Port> <duplicate number> dup

For example, if an extension is supposed to be called by 475 & 375 both & the original no. is `2016` than the command will be,

**set port <Slot> <Port> 475 dup
set port <Slot> <Port> 375 dup**

Now the extension 2016 can be called by 375 or 475 as well as 2016. It is applicable for feature code also.

All the existing duplicate numbers of the system, can be viewed by the following command,

`show flex X`

where `X` can be 49 to 109

Important : If a port is supposed to bring the default mode, the command for the same is,

set port <card no.> <port no.> default

Chapter 8

Operator Setting

Operator Hunt Group Setting

Note Hunt groups are the same as ACD Groups. ACD 9 is the operator ACD Group. Desired digital key phone should be the member of the operator ACD.

A digital key phone, which is supposed to be the main operator, should be the first member of the operator ACD. Moreover if auxiliary operators are also required then, define those key phones/ extensions in the operator ACD. Total 50 members can be defined in an ACD.

By default first digital port is defined as the first member of the ACD 9. If no digital port is present, first analog extension will be defined as the first member of ACD 9. Rest members of the Hgroup will be treated as the Auxiliary operators.

Member Setting In Operator Hunt Group

To define the members in the desired hunt / ACD group, command is,

set acd <acd no.> member <ext no.>

Define the type of landing of the calls in the operator hunt group. Determine whether the call should land on the first member of hunt group always or it should rotate for the next member of the Hgroup for next call. Two types of setting are there. One is Fixed & second is circular.

set acd <acd no.> circ
set acd <acd no.> fixed

If 'Fixed' type Hgroup is defined, every call will land on the first member & if it is busy than it will be diverted to the next member. With 'circ' type ACD, the first call will land on first member of ACD, the next call will land on the second member & so on.

Log-In / Log-Out Of The Hgroup Members,

If an AUX operator is not on his seat, he can logout his extension, so that no call will land on that extension in his absence till he gets his extension Logged-In again.

To login , extension user has to dial as follows,

- Lift the handset & hear the system dial tone.
- Dial 85 + followed by the login Id + 1

To logout, extension user has to dial as follows,

- Lift the handset & hear the system dial tone.
- Dial 85 + followed by the login Id + 0

Note: Any login id can be dialed. Login ID is useful only in case of AMS.

An DKT/SLT can be logged-out or logged-In through PI also through the command,

For Logging-out an extension **set ext <ext no.> logout**
 For Logging-In an extension **reset ext <ext no.> logout**

For trunk call landing on the operator key phone, trunk landing type should be `hunt landing' & hgroup should be `9'.

By default access code of the ACD9 is the 9. Any extension can call operator by dialing 9. Call landing on the Main operator / AUX OPERATOR will be randomly. There is no rule for any type of call i.e. internal call / trunk call / answer back call.

How To Set The Operator Key Phone To Pick Up The Desired Incoming Call

Answer Trunk (AT) / Answer Station (AS) / Answer Back (AB) / Answer VIP (AV) / Answer wait (AW) , hot keys also can be defined on the KTS.

On a call landing, operator will know the type of the call i.e. whether it is an internal call or trunk call or answer back call or a VIP internal call. Now if operator is logged-out, desired type of call can be picked up by pressing the corresponding key on DKT i.e. either AT/AB/AS/AV/AB. For this, first define the desired key on all the Key phones of operator hunt group. For this refer the section `Flexible Keys Setting of key phone & DPM' of the guide.

All the Key phones defined in the operator hunt group, should be logged out. Note that as all the members of the operator ACD are logged-out, on an incoming call landing , no operator will ring. Only the corresponding key will blink as per the type of call i.e. if it is an ordinary internal call, **AS** will blink, for trunk call, **AT** will blink, for ANSWER BACK call, **AB** will blink. If any VIP extension user is calling operator, **AV** key will blink.

Reminder Port Of The Operator Hunt Group

No audio indication will be there on DKT as above. However if audio indication is required, an extension can be defined as the reminder port of the operator hunt group. Reminder Port is the port that indicates that there is a call in the operator hunt group, to be attended. Operator has to pick that call by pressing the corresponding AS/AT/AB/AV key. If multiple calls are landing simultaneously, operator can pick-up any call as per his/her priority by pressing the corresponding key on KTS.

To define the reminder port, command is,

set ext <ext no.> rmdport

How To Define A Vip Extension

Note that VIP extension will be defined through the class of service of the extensions. In the respective COS of the VIP extensions, the command `VIP' should be enabled. To define the VIP extension, enable the VIP in the respective COS of the VIP extensions. Command for the same is,

set cos <cos no.> vip

Chapter 9

Extension Parameters

Features related to extensions can be changed using the “ext “ field. The various commands that can be used are listed below.

Command	Syntax	Description
active	set ext <extno> <cmd>	enable/disable ext
aforw	set ext <extno> <cmd> [extno]	call forwarding
alarm	set ext <extno> <cmd> 1/2 hh mm dd	reminder/wakeup alarm
amount	set ext <extno> <cmd> [amount]	add/del amount for budgeting
ansport	set ext <extno> <cmd>	test port for jn's
autodrp	set ext <extno> <cmd>	auto hang-up kts
autolft	set ext <extno> <cmd>	auto answer on kts
beep	set ext <extno> <cmd>	beep beep reminders
bforw	set ext <extno> <cmd> [extno]	call forward busy
boss	set ext <extno> <cmd> [extno]	boss-secretary pair
bmusic	set ext <extno> <cmd>	set background music on
budget	set ext <extno> <cmd>	budget calls
bufport	set ext <extno> <cmd>	buffer full lock port
cdisp	set ext <extno> <cmd>	display call cost on kts
checkin	set ext <extno> <cmd>	check-in room/service
clip	set ext <extno> <cmd>	phone with clip facility
cos	set ext <extno> <cmd> [cos] [cos]	pri/sec cos
csta	set ext <extno> <cmd>	csta info about dni/cli/ani
cwait	set ext <extno> <cmd>	call waiting enabled
deptt	set ext <extno> <cmd> <grp 0-9>	department code
dfamnt	set ext <extno> <dfamnt> <Amount>	Default Budgeting Amount
dforw	set ext <extno> <cmd> [extno]	call forward disa
disaon	set ext <extno> <cmd>	line can be accessed via disa/did
dhotln	set ext <extno> <cmd> <digits>	delayed hot line
dnd	set ext <extno> <cmd>	do not disturb
dosa	set ext <extno> <cmd>	dosa lock/unlock
dss	set ext <ext> <cmd> <ext> <dsstp 0-4>	KTS Port As DSS
easmdr	set ext <extno> <cmd>	erase asmdr details
elan	set ext <extno> <cmd>	elan phone
gate	set ext <extno> <cmd>	hot line to operator group
getcli	set ext <extno> <cmd>	get cli info for this line
hotline	set ext <extno> <cmd> <digits>	immediate hot line
incut	set ext <extno> <cmd>	drop incoming calls
keygrp	set ext <extno> <cmd> <grp 0-31>	key group
logout	set ext <extno> <cmd>	operator out of acd groups
mail	set ext <extno> <cmd> <mail> [par] [par]	internal mail service
mode	set ext <extno> <cmd> [mode] [mode]	day/night dialing mode
nforw	set ext <extno> <cmd> [extno]	call forward no-answer
npaid	set ext <extno> <cmd>	bill not paid message
oprkts	set ext <extno> <cmd>	set member of operator group
oprport	set ext <extno> <cmd>	set ss main operator
outcut	set ext <extno> <cmd>	drop outgoing calls
pcoln	set ext <extno> <cmd>	pco line for reversal
pickgrp	set ext <extno> <cmd> <grp 0-17>	jn pickup group
plock	set ext <extno> <cmd> <cos>	lock ext. cos

privacy	set ext <extno> <cmd>	activate call privacy
room	set ext <extno> <cmd>	define room/service phone
rngtm	set ext <extno> <cmd>	ring timeout to end
rsthkhz	set ext <extno> <cmd>	reset 16khz counter
rstpsw	set ext <extno> <cmd>	reset password of extno
sectrk	set ext <extno> <cmd>	2nd trunk access right
sendcli	set ext <extno> <cmd>	send cli info of this line
supdprt	set ext <extno> <cmd>	set DKT as day supervisor
supnprt	set ext <extno> <cmd>	set DKT as night supervisor
tgrp	set ext <extno> <cmd> <grp 0-17>	jn pickup group
trk2	set ext <extno> <cmd>	2nd trunk access right
ulst	set ext <extno> <cmd> <table no.>	use allowed/denied list
vmail	set ext <extno> <cmd>	set as voice mail port
warntn	set ext <extno> <cmd>	call duration warning
xfer_rt	set ext <extno> <cmd>	call xfer rights

Following is the details of all the extension related parameters. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or and **some commands through key telephone (KTS).**

The format for programming through the KTS is:-

PROG + PSW + 281 + 2 + Ext No. + Command ... + Prog

Where **PSW** is the system programming passord. By default it is 1234.

Note : Ext No. is the desired extension number & it should be in 8 digits. If extension number is defined less than 8 digits, '*' will be used as the filler. *For example, if a parameter is being set or reset for the ext. no. 2000, extension no. should be entered as ****2000.*

The various **Commands** are explained below:-

active

This command is used for disabling or enabling an extension. The format of the command is,

set / reset ext <extn. no.> active

Command from Key Phone:-

To enable the extension	281 + 2 + Ext No. + 11 + 1 + Prog
To disable the extension	281 + 2 + Ext No. + 11 + 0 + Prog

Default: All extensions are by default in the enable mode. A busy port cannot be disabled.

aforw (COS dependent)

This command is used for activating the call forward feature for an extension. On activating this feature, all calls of this extension will be forwarded to the desired extension. The format of this command is,

set / reset ext <extn. no.> aforw <forw. ext no.>

where **extn. no.** is the original extension number and **forw. extn. no.** is the extension number where the calls are to be forwarded.

e.g. the command for call forwarding all the calls of extension 2300 to extension 2200 is,

set ext 2300 aforw 2200

and the command for removing this feature from this extension is,

reset ext 2300 aforw 2200

Command from Keyphone-:

To activate the Call Forwarding All **281 + 2 + Ext No. + 70 + 1 + Dest. Ext No. + Prog**

To deactivate the Call Forwarding All **281 + 2 + Ext No. + 70 + 0 + Prog**

Default: By default call forwarding is not activated for all extensions.

alarm (COS dependent)

This command is used for setting up an alarm for an extension. Through PI, two alarms can be set for each extension. When the alarm matures, the extension will start ringing. On lifting the handset, music or voice message (if recorded), will be heard. If the alarm call is not answered within a predefined time, the alarm port, defined for the system, will get a ring. The general format for setting the alarm for an extension is,

set / reset ext <ext no.> alarm <n> <hh> <mm> <dd>

Where <n> is the alarm number and it can have values 1 and 2.

<hh> and <mm> represents the hour and the minutes respectively.

<dd> is the day of the alarm. Its value can be 01 to 31 for specific date and 33 for daily alarm. If the alarm is required for the same day, <dd> must be entered as 32.

For example to set an alarm at 10:00 for extension 2300 for the same day, the command is,

set ext 2300 alarm 1 10 00 32

Command from Keyphone-:

To activate the alarm on an ext **281 + 2 + Ext + 60 + X + AA + HH + MM + DD + prog**

Where X - 0 to deactivate the alarm & 1 For activate the alarm

AA - 01 for first alarm & 02 for second alarm

HH & MM - Hour & Minutes in 24 Hour format

DD - 01 to 31 for specific date. 32 for today only, 33 for daily.

Default : Alarm is not set for any extension.

amount

This command is used to set the amount for any budgeted extension. The command will be,

set ext <ext no.> amount <AMT>

Here `AMT' is the budgeted amount. If the budgeting is done on 16Khz pulse basis then `AMT' will be no. of pulses. It must be noted that budgeting also should be enabled for the extension along with the system budgeting.

Command from Keyphone-:

To set the budgeting amount **281 + 2 + Ext No. + 76 + 1 + AAAA + Prog**

Here AAAA is the budgeting amount.

To reset the budgeting amount **281 + 2 + Ext No. + 76 + 0 + Prog**

Default: No budgeting amount is defined.

ansport

This command is generally used for testing purpose of DID / E1 trunks. So this command is applicable only for DID / E1 lines. It is used for setting an answering port for the DID trunk lines. This answer port is a requirement of the department of the telecommunication (DOT) to land calls. This feature requires some hardware setting also. The format of the command is,

set / reset ext <extn. no.> ansport

For example to set extension 2300 as the answering port, the command is,

set ext 2300 ansport

Command from Keyphone-:

To set an ext as Answer Port **281 + 2 + Ext No. + 39 + 1 + Prog**

Default: No port is defined as Ansport.

autodrp

This command is applicable only for key phone extensions. It is used for enabling or disabling the auto drop feature on a key phone. On enabling this feature on a key phone, if any internal caller of the key phone disconnects the call, key phone will get released automatically. The format for this command is,

set / reset ext <extn. no.> autodrp

Command from Keyphone-:

To enable the Auto Drop on a KTS **281 + 2 + Ext No. + 33 + 1 + Prog**

To disable the Auto Drop on a KTS **281 + 2 + Ext No. + 33 + 0 + Prog**

Default: This feature is enabled for all key phones.

autolft

This command is applicable only for key phones. It is used for enabling or disabling the auto lift feature on a KTS. On enabling this feature for an extension, when an internal call lands on

the KTS, after 3 rings, KTS will automatically answer that call through its speakerphone. The format for this command is,

set / reset ext <extn. no.> autolft

Command from Keyphone-:

To enable the Auto Lift on a KTS **281 + 2 + Ext No. + 34 + 1 + Prog**
 To disable the Auto Lift on a KTS **281 + 2 + Ext No. + 34 + 0 + Prog**

Default: This feature is by default disabled for all KTS extensions.

beep

This command is used for enabling or disabling the beep tone, which is heard when a call is queued to an extension. The command for disabling this feature on extension 2300 is,

set ext 2300 beep

and the command for enabling the beep tone for this extension is,

reset ext 2300 beep

Command from Keyphone-:

To enable the beep on an ext **281 + 2 + Ext No. + 32 + 0 + Prog**
 To disable the beep on an ext **281 + 2 + Ext No. + 32 + 1 + Prog**

Default: Beep tone is disabled for all the extensions.

bforw (COS dependent)

This command is used for activating the call forward busy feature for an extension. On activating this feature for an extension, all calls for this extension will be forwarded to another extension, only if this extension is busy. The format for this command is,

set / reset ext <extn. no.> bforw <forw. extn. no.>

where **extn. no.** is the original extension number and **forw. extn. no.** is the extension number to which the calls are forwarded when the original extension is busy.

For exp, the command for activating the call forward busy of 2300 to ext 2200, will be -

set ext 2300 bforw 2200

and the command for removing this feature from this extension is,

reset ext 2300 bforw 2200

An extension user can activate or deactivate the 'Call forward busy' from his extension also.

Command from Keyphone-:

To activate the Call Forward Busy **281 + 2 + Ext No. + 71 + 1 + Dest. Ext No. + Prog**
 To deactivate the Call Forward Busy **281 + 2 + Ext No. + 71 + 0 + Prog**

Default: Call forward busy is not activated for any extensions.

bmusic (COS dependent)

This command is used for activating or deactivating the background music on any key phone. The format of this command is,

set / reset ext <extn. no.> bmusic

Command from Keyphone-:

To activate the Back ground Music on an ext **281 + 2 + Ext No. + 44 + 1 + Prog**
 To deactivate the Back ground Music on an ext **281 + 2 + Ext No. + 44 + 0 + Prog**

Default: Back ground music is deactivated for all extensions.

boss

This command is used for setting an extension as BOSS extension. For each BOSS extension, a secretary extension has to be defined. The secretary extension is also defined using this command. After defining a BOSS and a secretary extension, all the calls for the BOSS extension will automatically be diverted to the secretary extension. However, the secretary extension will be able to call the BOSS extension. The BOSS extension is also free to make any internal or external calls. The format of this command is,

set / reset ext <boss. extn. no.> boss <sec. extn. no.>

where **boss extn. no.** is the extension number which has to be defined as the boss and **sec. extn. no.** is the extension number which has to be defined as the secretary for the boss. For example, to set extension 2300 as the BOSS extension & extension 2400 as the secretary extension, the command is,

set ext 2300 boss 2400

Command from Keyphone-:

To define an ext as BOSS **281 + 2 + Ext No. + 74 + 1 + Secretary Ext + Prog**
 To reset an ext as BOSS **281 + 2 + Ext No. + 74 + 0 + Prog**

Default: No extension is set as BOSS.

Note: A BOSS can have only one secretary whereas a secretary can have multiple bosses. An extension user can activate or deactivate this feature from his extension also (refer user manual).

budget

This command is used for enabling or disabling the budgeting for an extension. On enabling this feature for an extension, the outgoing call facility will be allowed only for the budgeted amount. On expiry of the budgeted amount, the extension will be barred the outward dialing facility. The format of this command is,

set / reset ext <extn. no.> budget

For example, the command for enabling budgeting for extension 2300 is,

set ext 2300 budget

and the command for disabling the budgeting feature from this extension is,

reset ext 2300 budget

Note: In order to activate budgeting on any extension, system budgeting should be enabled. It must also be noted that budgeting is of two types i.e. amount-wise or 16Khz pulse-wise, therefore it has to be defined in the system. By default, amount based budgeting is defined. After enabling the budget for extension, first reset the advance of that ext.

Command from Keyphone-:

To set the budgeting on an ext	281 + 2 + Ext No. + 14 + 1 + Prog
To reset the budgeting from an ext	281 + 2 + Ext No. + 14 + 0 + Prog

Default: Budgeting is disabled for all extensions.

bufport

This command is very useful in GPAX mode. This command can be used to define an extension to be disabled for buffer full condition. When the buffer is getting full, buffer full port will be engaged automatically.

GPAX owner will come to know the state of the Buffer port by calling the Buffer full port through DID trunk. To set the buffer full port,

set ext <ext no.> bufport

Command from Keyphone-:

To set an ext as Buffer Full port	281 + 2 + Ext No. + 47 + 1 + Prog
To reset an ext as Buffer Full port	281 + 2 + Ext No. + 47 + 0 + Prog

Default: No extension is set as bufport.

cdisp

This command is applicable only for key phones. This command is used to enable or disable the display of the call charge on KTS.

To enable the display, command is,

set ext <ext no.> cdisp

To disable the display of AOC, command is,

reset ext <ext no.> cdisp

Command from Keyphone-:

To enable the AOC display on a KTS	281 + 2 + Ext No. + 36 + 1 + Prog
To disable the AOC display on a KTS	281 + 2 + Ext No. + 36 + 0 + Prog

Default: AOC is enabled on every key phone.

checkin

This command is used only in hotels where it is required to check in a guest into a room. On Checking in a room, the outward dialing facility will be enabled as per the defined dialing rights on the extension. The outward dialing facility is again disabled once the occupants of the room are checked out. The format of the command is,

set / reset ext <extn. no.> checkin

For example, the command to check in extension 2100 is,

set ext 2100 checkin

To chk-out an extension 2100, the command will be,

reset ext 2100 checkin

Command from Keyphone-:

To chk-out a room extension	281 + 2 + Ext No. + 42 + 0 + Prog
To chk-in a room extension	281 + 2 + Ext No. + 42 + 1 + Prog

Important: An extension can be checked-in or checked-out, only if that ext is defined room.

clip

This command is used to define an analog extension as an extension with CLIP facility. The format of the command is,

set ext <ext no.> clip

After enabling this command, DG 250 will generate the CLIP on the defined extension in DTMF format.

Command from Keyphone-:

To enable the CLI on an extension	281 + 2 + Ext No. + 12 + 1 + Prog
To disable the CLI on an extension	281 + 2 + Ext No. + 12 + 0 + Prog

Default: No analog extension is default with CLIP facility.

COS

This command is used for setting the class of service for an extension. All the enabled features of the defined COS, will be available on an extension while all the disabled features of that COS, will not be available on that extension. An extension has two COS. One is primary & second is secondary. The format of this command is,

set / reset ext <extn. no.> COS <pCOS> <sCOS>

Where pCOS is the primary class of service & sCOS is the secondary class of service. Extensions user can change their COS by dialing a code. To set the pCOS 4 & sCOS 0 for the extension number 2300, the command will be,

set ext 2300 COS 4 0

Command from Keyphone-:

To define the primary & secondary COS **281 + 2 + Ext No. + 631 + PP + SS + Prog**

Where PP is the primary COS & SS is the secondary COS.

Default: By Default all KTSs have pCOS 0 & sCOS 63 and all SLTs have pCOS 1 & sCOS 63 defined.

csta

CTI applications can be integrated with DG 250. CTI application may require the on line status of the various ports. DG 250 sends the ports information to the CTI application (on the lower serial port of CPU) if 'csta' is enabled for an extension. To enable the csta for an extension, command is,

set ext <ext no.> csta

Command from Keyphone-:

To enable the CSTA on an extension **281 + 2 + Ext No. + 26 + 1 + Prog**
To disable the CSTA on an extension **281 + 2 + Ext No. + 26 + 0 + Prog**

Default: CSTA is disabled for all the extensions.

cwait

This command is used to enable or disable the call waiting facility through DID trunks on any extension. The format of the command is,

set ext <ext no.> cwait

Command from Keyphone-:

To enable the call waiting on an extension **281 + 2 + Ext No. + 40 + 1 + Prog**
To disable the call waiting on an extension **281 + 2 + Ext No. + 40 + 0 + Prog**

Default: Call waiting is not enabled on any extension

Important: It must be noted that this facility cannot be availed by the DISA Supervisor / Alarm Port / Reception Port.

deptt

This command is used for allotting a department number for an extension. Total 15 departments can be created. The valid department numbers are from 00 to 15. Department setting is required for the following things –

- a) Call pick up within department.
- b) Department-wise paging on key phones.
- c) Department transfer through DISA.

To define an extension in a desired department, the format of the command is,

set / reset ext <extn. no.> deptt <dept. no.>

Where **dept no.** is the department number assigned for the extension. For example, to allot extension number 2300 to department 1, the command is,

set ext 2300 deptt 1

Command from Keyphone-:

To define the department of an extension **281 + 2 + Ext No. + 511 + DD + Prog**

Where GG is the department no. 00 to 15.

Default: All extensions are in department 0.

dfamnt

DG 250 can budget all the extensions at the start of every month for the fixed amount. At 00:00 of 1st of every month, the budgeting amount will be reset. The command `dfamnt` is used to define the default budgeting amount. The format of the command is,

set ext <ext no.> dfamnt <amount>

Once the budgeting amount of an extension, is expired, the dialing rights of that extension will be withdrawn. However the some more amount can be added for that extension through the system programming manually.

Command from Keyphone-:

To define the budgeting amount for an ext **281 + 2 + Ext No. + 841 + AAAAA + Prog**

Where AAAAA is the default budgeting amount 7 its value can be 00000 to 300000.

Default: No default budgeting amount is defined.

dforw

This command is used to forward the DISA calls of an extension to the predefined extension. However rest type of calls will not be forwarded. The format of the command is,

set ext <ext no.> dforw <destination ext no.>

To reset the DISA forwarding, command is,

reset ext <ext no.> dforw <destination ext no.>

Command from Keyphone-:

To activate the DISA Call Forwarding **281+2+ Ext No.+ 72 + 1+Dest. Ext No.+ Prog**
 To deactivate the DISA Call Forwarding **281 + 2 + Ext No. + 72 + 0 + Prog**

Default: Not enabled for any extension.

Note: Only DISA calls will be forwarded to another extension while rest type of the calls will land at the respective extensions.

disaon

This command is used to enable or disable an extension for accessing through level DID trunks. The format of the command is,

set / reset ext < ext no.> disaon

For example, to reset ext. 2100 for accessing through level DID trunks, the command is,

reset ext 2100 disaon

Command from Keyphone-:

To enable the DISA Access on an extension **281 + 2 + Ext No. + 41 + 1 + Prog**
 To disable the DISA Access on an extension **281 + 2 + Ext No. + 41 + 0 + Prog**

Default: All extensions can be accessed through DID trunks .

dhotln (COS dependent)

This command is used for defining a delayed hotline for an extension. The delayed hotline can be any extension, trunk line or an external number.

After defining the delayed hotline for an extension, on lifting the handset, the extension will get system dial tone for 3 seconds after which it will be connected to the defined hotline. The format of this command is,

set / reset ext <extn. no.> dhotln <digits>

Where *digits* are the hotline numbers. These numbers can be an extension number, a trunk access code or a trunk access code followed by an external number.

For example, to set a delayed hotline for ext 2100 with ext 2200, the command is,

set ext 2100 dhotIn 2200

Command from Keyphone-:

To activate the delayed hotline on ext **281 + 2 + Ext No. + 81 + 1 + Digits + Prog**
 To deactivate the delayed hotline on ext **281 + 2 + Ext No. + 81 + 0 + Prog**

Default: No delayed hotlines are set.

dnd (COS dependent)

This command is used for activating the do not disturb feature in an extension. On activating this feature, no extension can call this extension. However the extension is free to make any outgoing call. The format of this command is,

set / reset ext <extn. no.> dnd

Command from Keyphone-:

To enable the DND on an extension **281 + 2 + Ext No. + 30 + 1 + Prog**
 To disable the DND on an extension **281 + 2 + Ext No. + 30 + 0 + Prog**

Default: This feature is not activated for all extensions.

dosa

This command is used to enable the DOSA facility for any extension. DOSA can be availed only if the incoming call is through the CO trunks. The command to enable it is,

et ext <ext no.> dosa

Command from Keyphone-:

To enable the DOSA on an extension **281 + 2 + Ext No. + 28 + 1 + Prog**
 To disable the DOSA on an extension **281 + 2 + Ext No. + 28 + 0 + Prog**

Default : DOSA access code is `4994' & the password of the extension will be in 4 digits.

easmdr

This command is used for erasing the billing details of an extension. On using this command, only the particular extension's billing details will be erased. The format of this command is,

reset ext <extn. no.> easmdr

Command from Keyphone-:

To erase the AMDR of an ext **281 + 2 + Ext No. + 37 + 0 + Prog**

Note: Only already printed call data (through any printing command), will be deleted.

elan

This command is used to define an extension as ELAN phone. An extension will be defined as ELAN phone for activation the CIDCW (i.e. Caller ID call waiting). With this feature, that extension will be able to show the CLI of queued call also.

The format of the command is,

set ext <ext no.> elan

Command from Keyphone-:

To define an ext as élan phone	281 + 2 + Ext No. + 49 + 1 + Prog
To undefine an ext as élan phone	281 + 2 + Ext No. + 49 + 0 + Prog

Default: No extension is set as ELAN phone. CIDCW phones are Special phones, normal cli phone cant show CLI of waiting call.

gate

This command is used for setting or resetting an extension as a gate phone. When an extension is set as a gate phone, it will be set as a hotline to the operator. When this phone is lifted, it will automatically ring at the operator. It must be noted that when the operator is shifted, the hotline for the gate phone will get automatically shifted to the new operator. The format of the command is,

set / reset ext <extn. no.> gate

Command from Keyphone-:

To set an ext as gate phone	281 + 2 + Ext No. + 10 + 1 + Prog
To reset an ext as gate phone	281 + 2 + Ext No. + 10 + 0 + Prog

Default: No extension is set as a gate phone.

getcli

It is used for enabling or disabling a CLI request for the far end exchange to be sent by system for an extension when an incoming call comes for this particular extension through level DID trunk (only in MFC) . The format of the command is,

set / reset ext <extn. no.> getcli

For example, to enable the CLI request for extension 2100, the command is,

set ext 2100 getcli

Command from Keyphone-:

To enable the getcli on an extension	281 + 2 + Ext No. + 46 + 1 + Prog
To disable the getcli on an extension	281 + 2 + Ext No. + 46 + 0 + Prog

Default: CLI request is disabled for all extensions and in this case CLI will not be asked from DID- MFC.

hotline (COS dependent)

This command is used for defining an immediate hotline for an extension. The hotline can be an extension, a trunk line or any external number. After defining the hotline for an extension, on lifting the handset, the extension will be connected to the defined hotline. The format of this command is,

set / reset ext <extn. no.> hotline <digits>

Where *digits* are the hotline numbers. These numbers can be an extension number or a trunk access code or a trunk access code followed by an external number. For example, to set a hotline for extension 2100 with extension 2200, the command is,

set ext 2100 hotline 2200

Command from Keyphone-:

To activate the immediate hotline on ext	281 + 2 + Ext No. + 80 + 1 + Digits.... + Prog
To deactivate the immediate hotline on ext	281 + 2 + Ext No. + 80 + 0 + Prog

Default: No hotlines are set.

incut

This command is used for enabling or disabling the call cut feature of incoming calls for an extension. On enabling this feature for an extension, all incoming calls for this extension will get disconnected if the duration of the call exceeds the call cut time. The format of the command is,

set / reset ext <extn. no.> incut

For example, the command for setting this feature for extension 230 is,

set ext 2300 incut

and the command for removing this feature from this extension is,

reset ext 2300 incut

Command from Keyphone-:

To enable the incut on an extension	281 + 2 + Ext No. + 15 + 1 + Prog
To disable the incut on an extension	281 + 2 + Ext No. + 15 + 0 + Prog

Important: This feature depends on the trunk DID group also through which extension user is talking. The incoming calls of an extension will get disconnected only if 'incut' is enabled in the DID group of the trunk through which call is landing.

Default: This feature is disabled for all extensions

keyhk

This command is used to enable * to be dialed as * from the KTS. The command for the same is-:

Set ext <ext no.> keyhk

Command from Keyphone-:

To enable the * as * on KTS	281 + 2 + Ext No. + 27 + 1 + Prog
To disable the * as * on KTS	281 + 2 + Ext No. + 27 + 0 + Prog

keygrp

This command is used to define the key group of a key phone. The key group is used to configure the flexible keys of the key phone. To define the key groups, the command is,

set ext <ext no.> keygrp <keygrp>

Where <keygrp> is the key group. It can be 00 to 31.

Command from Keyphone-:

To set the desired key group for a KTS	281 + 2 + Ext No. + 541 + KK + Prog
--	--

Where KK is the key group no. It can be 00 to 31.

Default: First digital port pertains key group no. 1 & second digital port pertains key group 2 & so on.

logout

This command is used for logging out or logging in of an agent of an ACD group. The incoming calls lands on a agent of an ACD only if that agent is logged-in. The format of the command for logging out an agent from an ACD group is,

set ext <ext no.> logout

and the command for logging in an agent into an ACD group is,

reset ext <ext no.> logout

Command from Keyphone-:

To logout an extension	281 + 2 + Ext No. + 31 + 1 + Prog
To login an extension	281 + 2 + Ext No. + 31 + 0 + Prog

Default: On defining an ACD, all members of that ACD will be logged-out.

Important: If 'ACDSRV' is enabled, log-in & log-out can not be done through PI.

mail

DG 250 has got an inbuilt mini email system. There are six fixed messages, which can be activated for any extension. This command is used for activating any of these predefined six messages for any extension. On activating a message for an extension, any KTS extension calling this extension will get the corresponding message on its display. However, the

extension will continue to ring also. The messages and their corresponding codes are given below:

- 1 - Gone for Lunch**
- 2 - Back at HH:MM**
- 3 - Gone for day**
- 4 - Busy in meeting**
- 5 - Back on DD/MM**
- 6 - Call at EXT NO.**

The format of the command to activate or deactivate any of the above messages for an extension is,

set / reset ext <extn. no.> mail <message code> <parameter>

It must be noted that for the message code 2,5 & 6, additional parameters like hours, minutes, date, month and extension number i.e HH:MM, DD/MM, Extension number are required. But for rest of the messages, <parameter> are not required but it has to be defined for every message.

For example to activate the **Out for lunch** msg. for extension 2300, the command is,

set ext 2300 mail 1 1

and the command for erasing this message is,

reset ext 2300 mail 1 1

Command Key Phone-:

To enable mini email on an extension **281 + 2 + Ext No. + 61 + 1 + MM + PP + SS + Prog**

Where

Mail	Command for activation
Gone for Lunch	281 + 2 + Ext No. + 61 + 1 + 01 + Prog
Back at HH:MM	281 + 2 + Ext No. + 61 + 1 + 02 + PP + SS + Prog Where PP & SS are the Hour & Minutes
Gone for day	281 + 2 + Ext No. + 61 + 1 + 03 + Prog
Busy in meeting	281 + 2 + Ext No. + 61 + 1 + 04 + Prog
Back on DD/MM	281 + 2 + Ext No. + 61 + 1 + 05 + PP + SS + Prog Where PP & SS are the Date & the month
Call at Ext No.	281 + 2 + Ext No. + 61 + 1 + 06 + PP Prog Where PP is the valid extension number.

To disable the mini email on an extension **281 + 2 + Ext No. + 61 + 0 + Prog**

Default: No messages are preset.

mode

This command is used for setting the outward dialing rights to an extension. The valid dial mode and the corresponding commands are given below:

0	-	No outward dialing
1	-	Programmable
2	-	Programmable
3	-	Programmable
4	-	Programmable
5	-	Programmable
6	-	All on

Note that the dialout modes 1 to 5 are programmable. Various single or two digits can be defined through "rsrd" command. So as per the defined modes, dialing rights will be available on the desired modes. Further both the day mode and the night mode can be set using this command. Any combination of dialing rights can be set for an ext. The format of this command is,

set / reset ext <extn. no.> mode <day mode> <night mode>

For example for extension 2300, to set dialout mode 4 in day mode & no dialing in night mode, the command is,

Command from Keyphone-:

To define the dialing rights of an extension **281 + 2 + Ext No. + 62 + 1 + DD + NN + Prog**

Where DD - dialing rights during day time (00 to 55)
 NN - dialing rights during night time (00 to 55)

Default: All extensions are having dialout mode 3.

How to program the dialout mode

Before you program the dialout mode please keep in mind the following for the different dial out levels-

Total number of modes are 0 to 6. Mode 0 and 6 are fixed. Mode 0 is only for Extension to Extension and Mode 6 is for ALL ON & rest of the modes i.e. modes 1 to 5 are programmable. Note the following for setting the dialout modes.

- Any mode can have maximum 8 entries and these entries can be single or two digits.
- Digits, set in any mode cannot be dialed by the same mode & the lower mode. For example, whatever digits are set in mode 2 cannot be dialed by mode 1 & 2.
- Digits can be set as per requirement. Whatever restriction is required in any mode, can be set according to the requirement.
- Total numbers that can be dialed after picking up a trunk are now programmable. This will also be done mode wise. Every mode can have different setting for this.
- Collect call number that starts from "000", can be dialed through mode 5 only and collect call access enable / disable is also programmable.
- Using the same 'rsrd' table, national holidays, half day holiday & full day holiday also can be set.

DG 250 has a total of 8 number of National Holidays defined. By default, 26th Jan, 15th AUG & 2nd OCT are set as national holiday.

All the above setting will be done by the command `rsrd`. The command `rsrd` will also be used to set all the above-mentioned functionalities.

Refer the following table. This table will be known as `rsrd table`.

		0	1	2	3	4	5	6	7	8
0		dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	Half Day Full day
1	Mod 1	0. 1								Dial Lim
2	Mod 2									Dial Lim
3	Mod 3	0. 0								Dial Lim
4	Mod 4	0. 00								Dial Lim
5	Mod 5									Dial Lim `000`

Row 0 – Column 0 to 7, are for setting of the national holiday.

Row 0 – Column 8 is for setting of the Half day & full day setting.

Row 1 to 5 - Col 0 to 7, are for setting the first or first two digits in the dialout table.

Row 1 to 5 – Col 8, is for setting the dial limit in the desired dialout mode.

Row 5 – Column 8, will be used for `Collect Call enable/disable` also.

The format of the command `rsrd` is,

set rsrd <R> <C> <X> <Y>

Where R is the row Number & C is the column number.

For R = 0 & C = 0 to 7, `X` will be DD & `Y` will be MM. `DD` is the date & `MM` is the month of the desired National holiday.

For R = 0 & C = 8, `X` will be the half day & `Y` will be full day.

In this case, value of `X` & `Y` will be 0 to 7. `0` for Sunday & `1` for Monday & so on. The value of X & Y will be `8` for no Half-day & no Full day.

For R = 1 to 5, C = 0 to 7, value of `X` will be either single digit or two digit as per requirement. In this case, `Y` will not be used.

For R = 1 to 4 & C = 8, the value of X can be 00 to 99. This is the dial limit. Y will not be used.

For R = 5 & C = 8, the parameter `Y` is used for enable/disable the collect call access i.e. `000` dialing allowed or not. If `Y` is `1`, collect call will not be allowed & if Y is 0, collect call will be allowed.

Note that on holidays, call charges will be calculated as per the holiday rates.

Half-day timings will be set in the COST TABLE. ROW 1- COL 13 of the COST table will be the start time of the half-day & Row 1 – Col 14 will be the end time of the Half day.

Holiday rates should be enabled in the COST TABLE for Half & Full day calculation.

If full day rates are enabled then on national holidays also, DG 250 IVDG 250 will calculate the call charges as per the holiday rates round the clock.

By **default**, `rsrd` table is defined as it is shown in the table. 26th Jan / 15th Aug & 2nd Oct are set as National Holiday & Sunday is defined for halfday off.

nforw (COS dependent)

This command is used for activating the no answer call forward feature for an extension. On activating this feature, all calls for this extension will be forwarded to another extension, only if the dialed extension is not answering for a fixed amount of time. This feature can also be activated from the extension.

The format of the command for enabling and disabling this feature is,

set / reset ext <extn. no.> nforw

Note: *No answer forwarding can be forwarded to any ACD group also. This feature can be also used for Voice Mail integration. It can be done through Program Interface only while no reply forwarding on an extension can be set by extension user also. The command for the same is,*

set ext <ext no.> nforw <ACD access code>

Command from Keyphone-:

To activate the Call Forward No Reply	281 + 2 + Ext No. + 73 + 1 + Dest. Ext No. + Prog
To deactivate Call Forward No Reply	281 + 2 + Ext No. + 73 + 0 + Prog

Default: Call forward no answer is not activated for all extensions.

npaid

This command is used to activate the VSN message `*Your Bill is not paid*` on any extension. To activate the same, command is,

set ext <ext no.> npaid

Command from Keyphone-:

To activate the NPAID on an extension	281 + 2 + Ext No. + 48 + 1 + Prog
To deactivate the NPAID on an extension	281 + 2 + Ext No. + 48 + 0 + Prog

Default: By default this is not activated for any extension.

oprkts

All the unanswered trunk call of an extension will be diverted to the extension who transferred the call. But if it is required to divert such type of calls to the operator not to that extension who transferred, `oprkts` should be enabled for every extension. All the unanswered calls of those extensions for whom `oprkts` is enabled, will be diverted to the operator ACD. The format of the command is,

set ext <ext no.> oprkts

Command from Keyphone-:

To define an ext as OPRKTS	281 + 2 + Ext No. + 07 + 1 + Prog
To undefine an ext as OPRKTS	281 + 2 + Ext No. + 07 + 0 + Prog

Default: Disabled for all extensions.

oprport

This command is used to set any extension (only digital ext) as main operator. This main Operator KTS will get the fault booking messages. To set any extension as Operator KTS, the command will be,

set ext <ext no.> oprport

Command from Keyphone-:

To define an ext as OPRPORT	281 + 2 + Ext No. + 35 + 1 + Prog
To undefine an ext as OPRPORT	281 + 2 + Ext No. + 35 + 0 + Prog

Default: First digital port is set as main operator.

Note: In order to access this operator by 9 it has to be defined in ACD 9.

outcut

This command is used for enabling or disabling the call cut feature of outgoing calls for an extension. On enabling this feature for an extension, all outgoing calls for this extension will get disconnected if the duration of the call exceeds the call cut time. The format of the command is,

set / reset ext <extn. no.> outcut

For example, the command for setting this feature for extension 2300 is,

set ext 2300 outcut

and the command for removing this feature from this extension is,

reset ext 2300 outcut

Command from Keyphone-:

To enable the outcut on an extension	281 + 2 + Ext No. + 16 + 1 + Prog
To disable the outcut on an extension	281 + 2 + Ext No. + 16 + 0 + Prog

Default: This feature is disabled for all extensions.

Note: Time for call cut is set through the command "set sys cuttime <time>".

Important: This feature depends on the trunk DOD group also. The outgoing calls of an extension will get disconnected only if 'outcut' is enabled in the DOD group of the trunk through which extension user is talking.

pcoln

This command is used to define an extension as PCO extension with line reversal signalling while maturing of an internal or external call. The format of the command is,

set ext <ext no.> pcoln

Command from Keyphone-:

To define an ext as PCO Line	281 + 2 + Ext No. + 08 + 1 + Prog
To undefine an ext as PCO Line	281 + 2 + Ext No. + 08 + 0 + Prog

Default: No extension is defined as PCO line.

pickgrp / tgrp

This command is used for allocating a trunk pick up group for an extension. The valid pickup group numbers are from 0 to 17. An extension in a group can access only the trunk lines present in the same group. Group numbers 0 & 17 are significant. An extension of group 0 can access all the trunk groups. But an extension of group 17 cannot access any trunk group. The format of the command is,

set ext <extn. no.> pickgrp <grp. No.>

For example, the command for allocating access group 1 for extension 2300 is,

set ext 2300 pickgrp 1

Command from Keyphone-:

To define the pick up group of an extension	281 + 2 + Ext No. + 521 + GG + Prog
---	--

Where GG is the pickup group & its value can be 00 to 17

Default: All the extensions are in group 0.

plock

This command is used for locking or unlocking the outward dialing facility of an extension. But while opening the lock, the class of service of the extension must be equal to or less than the class of service set in system programming. The format of the command is,

set ext <extn. no.> plock <para>

For example, to lock the outward dialing facility of extension 2300, the command is,

set ext 2300 plock 0

and the command for opening the lock only for local dialing of this ext. is,

set ext 2300 plock 3

Note that the value of the <para> depends on the defined setting through `rsrd` command.

Command from Keyphone-:

To set the personal lock of an extension **281 + 2 + Ext No. + 531 + PP + Prog**

Where PP is the personal lock & its value can be 00 to 06

Default: No extension is locked.

privacy (COS dependent)

This command is used for activating the call privacy feature on an extension. However the extension using the call privacy feature must have the call privacy rights. This right can be given using the **privacy** command. On activating this feature, no extension can listen in on this extension. The format of the command is,

set / reset ext <extn. no.> privacy

For example to activate this feature on extension 2300, the command is,

set ext 2300 privacy

and for deactivating this feature for this extension, the command is,

reset ext 2300 privacy

Command from Keyphone-:

To set the privacy on an extension **281 + 2 + Ext No. + 29 + 1 + Prog**

To reset the privacy on an extension **281 + 2 + Ext No. + 29 + 0 + Prog**

Default: This feature is not activated for any extensions.

room

This command is used if the DG 250 IVDG 250 is being installed in a Hotel. It is used for defining an extension as a room extension or as a service extension. The format of the command is,

set / reset ext <extn. no.> room

For example, the command for setting extension 2300 as a room extension is,

set ext 2300 room

and the command for resetting the extension 2300 as a service extension is,

reset ext 2300 room

Command from Keyphone-:

To define an extension as room **281 + 2 + Ext No. + 20 + 1 + Prog**

To undefine an extension as room **281 + 2 + Ext No. + 20 + 0 + Prog**

Default: All extensions are service extensions.

rngtm

This command is used to enable the ringing time for an extension. After ringing for one minute the call would be dropped. This also controls the callback ring time of an extension. The command for the same is:-

set ext <extno> <cmd>

Command from Keyphone:-

To enable ringtime of any extension **281 + 2 + Ext No. + 20 + 1 + Prog**

rstkhz

If the metering on the analog trunks is on 16 KHz pulses basis, DG 250 will keep a counter for all extensions & trunk. This counter will show the total number of 16 kHz pulses that are detected through any trunk or extension. This command is used to reset the 16 KHz counter of any extension. The format of the command is,

set ext <ext no.> rstkhz

Command from Keyphone:-

To reset the 16 KHz counter of an extension **281 + 2 + Ext No. + 25 + 0 + Prog**

rstpsw

This command is used for resetting the password of an extension. The password will be set to 0777 on resetting the password. The extension user can then change the password from his extension. The format of the command is,

set ext <extn. no.> rstpsw

For example, the command for resetting the password for extension 2300 is,

set ext 2300 rstpsw

Command from Keyphone:-

To reset the personal password of an extension **281 + 2 + Ext No. + 19 + 1 + Prog**

Default: The password for all extensions is set as 0777.

sectrk / trk2

This command is used for enabling or disabling the second trunk access right for an extension. On enabling this feature, an extension will be able to pick up a second trunk while holding a trunk line. It must be noted that if a KTS user wants to have a 3 party conference involving two trunk lines, then the extension must be given the second trunk pickup rights. The format of the command is,

set / reset ext <extn. no.> sectrk

Command from Keyphone-:

To set the second trunk rights on an extension **281 + 2 + Ext No. + 22 + 1 + Prog**
 To reset the second trunk rights on an extension **281 + 2 + Ext No. + 22 + 0 + Prog**

Default: No extension has second trunk pick up rights.

sendcli

This command is applicable only for TWT / E1 lines with MFC facility. It is used for enabling or disabling the CLI information of an extension to be sent on DID/TWT/E1 trunks. On enabling this feature for an extension, any CLI request coming on the DID lines for this particular extension will result in the sending of the CLI information. The format of the command is,

set / reset ext <extn. no.> sendcli

Command from Keyphone-:

To set the `sendcli` for an extension **281 + 2 + Ext No. + 45 + 1 + Prog**
 To reset the `sendcli` for an extension **281 + 2 + Ext No. + 45 + 0 + Prog**

Default: This feature is disabled for all extensions.

supdprt

This command is used to define an extension as DISA ANSWER PORT in day mode. To define the same, command is,

set ext <ext no.> supdprt

An ACD can also be defined as DISA ANS PORT. Command for the same is,

drct sys 0 0 S 4 <X>

Where X = Card no. * 8 + port no.

Command from Keyphone-:

To set an ext as day supervisor **281 + 2 + Ext No. + 24 + 1 + Prog**

Default: First digital extension is defined as DISA ANS PORT in day mode.

supnprt

This command is used to define an extension as DISA ANSWER PORT in night mode. To define the same, command is,

set ext <ext no.> supnprt

An ACD also can be defined as DISA ANS PORT in night mode. Command for the same is,

drct sys 0 0 S 6 <X>

Where X = Card no. * 8 + port no.

Command from Keyphone-:

To set an ext as night supervisor **281 + 2 + Ext No. + 23 + 1 + Prog**

Default: First digital extension is defined as DISA ANS PORT in night mode.

Note: Night DISA answer port will work as the alarm port also.

trk2

This command is used to give second trunk access rights to any extension. The format for the same is -:

set ext <extno> <cmd>

Command Key Phone -:

To give any extension second trunk rights **281 + 2 + Ext No. + 22 + 1 + Prog**
 To remove any extension second trunk rights **281 + 2 + Ext No. + 22 + 0 + Prog**

ulst

DG 250 IVDG 250 has 4 allowed/denied tables. This allowed/denied table is used to restrict predefined telephone numbers. Maximum 24 entries can be made in one table.

The command `ulst` is used to define the table number for an extension. The format of the command is,

set ext <ext no.> ulst <table no.>

Where <table no.> can be 0 to 3.

Command from Keyphone-:

To define the allowed /denied table for an extension **281 + 2 + Ext No. + 58 + 1 + UU + Prog**

Where UU is the Allowed/Denied Table & its value can be 00 to 03.

vmail

This command is used to set an extension as voice mail extension. Extensions that are connected to the Voice Mail should be defined as VMAIL extension. Whatever calls are landing at vmail extensions, inband signalling will also be sent by the system to vmail extension to carryout desired voice mail operation. To set an extension as vmail extension, the format of the command is,

set ext <ext no.> vmail

For integrating a Voice Mail with outband signaling also, this command is mandatory.

Command from Keyphone-:

To set an ext as Vmail Extension	281 + 2 + Ext No. + 43 + 1 + Prog
To reset an ext as Vmail Extension	281 + 2 + Ext No. + 43 + 0 + Prog

Default: No extension is set as vmail extension.

warntn

This command is used for enabling or disabling the call duration warning tone feature for an extension. On enabling this feature for an extension, a warning tone will be heard if the duration of the call exceeds the call cut time. For example, the command for setting this feature for extension 2300 is,

set ext 2300 warntn

and the command for removing this feature from this extension is,

reset ext 2300 warntn

Command from Keyphone-:

To set the warning tone on an extension	281 + 2 + Ext No. + 17 + 1 + Prog
To reset the warning tone on an extension	281 + 2 + Ext No. + 17 + 0 + Prog

Default: This feature is disabled for all extensions

xfer_rt

This command is used for enabling or disabling the call transfer rights of the trunks for an extension. On disabling the call transfer rights for an extension, the extension will not be able to hold a trunk line, while this extension can put another extension on hold. To lock the trunk transfer of an extension, the format of the command is,

set ext <extn. no.> xfer_rt

To open the trunk transfer for an extension, the format of the command is,

reset ext <extn. no.> xfer_rt

Command from Keyphone-:

To lock transfer rights on an extension	281 + 2 + Ext No. + 21 + 1 + Prog
To unlock transfer rights on an extension	281 + 2 + Ext No. + 21 + 0 + Prog

Default: All extensions have call transfer rights.

Important: If an extension features are supposed to bring the default mode, the command for the same is,

set port <card no.> <port no.> default

All the defined properties of an extension can be viewed by the command

`show ext <ext no.>

show ext 2100

LINE 2100(ST:2100) CARD TYPE NONE SLOT 03 PORT 4 STATE - PWRON[ffff]

<i>DEPTT. 0</i>	<i>TRK GROUP 0</i>	<i>KEY GROUP 0</i>	<i>MODE Lev 3</i>	<i>COS Lev 3</i>
<i>DAY Lev 3</i>	<i>NIGHT Lev 3</i>	<i>LOGGED OUT</i>	<i>SERVICE</i>	<i>TRK_XFER Opnd</i>
<i>In Service</i>	<i>SEND CLI</i>	<i>DISA ACCESS</i>	<i>RINGR TIMEOUT</i>	<i>BEEPS ON</i>
<i>ACTIVE Yes</i>	<i>KHZCT 0- 0</i>			
<i>Class Of Service 1 63</i>				

Show Line <line_no> [COS/KEYS/ULST]

Chapter 10

Extension Name Setting

Each extension user of the system can have a name. This name will be displayed whenever this extension calls a key phone. The extension user's name can have maximum 14 characters. The command for setting the name is,

set name <ext no.> <name>

For example to set the name of extension 2000 as ABCD, the command is,

set name 2000 ABCD

The names of all the extension users can be viewed by the command `show name`

The name of a particular extension can also be viewed by the command,

show name ext number


Default: Original number of every extension is defined as its name.

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Chapter 11

Trunk Parameters

This field is used for changing features related to trunk lines. The various commands that can be used in this field are listed below. Each command is explained in detail.

Command	Syntax	Description
active	set pnt <pntno> <cmd>	enable/disable pnt
aclrf	set pnt <pntno> <cmd>	auto clear forward
agrp	set pnt <pntno> <cmd> <grp>	add/del trunk access group
busyout	set pnt <pntno> <cmd>	e1 busy out
clig	set pnt <pntno> <cmd> <grp>	CLI Route Group
cos	set pnt <pntno> <cmd> <cos> <cos>	pri/sec cos
dlmode	set pnt <pntno> <cmd> <0/1/2/3>	cept dialing mode
didg	set pnt <pntno> <cmd> <grp>	did service group
dodg	set pnt <pntno> <cmd> <grp>	dod route group
dtmf	set pnt <pntno> <cmd>	tone/pulse dialing
easmdr	set pnt <pntno> <cmd>	erase asmdr
enbblk	set pnt <pntno> <cmd>	Enblock dial on PRI
hgrp	set pnt <pntno> <cmd> <grp> <grp>	landing hunt group(0-9)
hotline	set pnt <pntno> <cmd>	point to point line
isdrdl	set pnt <pntno> <cmd>	isd in autodial
16khz	set pnt <pntno> <cmd>	16khz with polarity reversal
lclrdl	set pnt <pntno> <cmd>	local in autodial
 mfc	set pnt <pntno> <cmd> set pnt <pntno> <cmd> <mode> <mode>	mfc signaling () mode day night ringing(0-5)
private	set pnt <pntno> <cmd> [extno]	private line
rvrsal	set pnt <pntno> <cmd>	polarity reversal
rstkhz	set pnt <pntno> <cmd>	reset 16khz counter
sendcli	set pnt <pntno> <cmd>	send cli info on this e&m
silent	set pnt <pntno> <cmd>	silent dialing
stdrdl	set pnt <pntno> <cmd>	std in autodial

The commands related to the trunk features are explained below in alphabetical order. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or from key telephone (KTS).

With every parameter detail, both the procedures are defined means how to set / reset through terminal software or how to set / reset from KTS.

The format of the KTS command is

PROG + PSW + 281 + 3 + Trunk No. + Command ... + Prog

Where **PSW** is the system programming passord. By default it is 1234.

Trunk No. is the desired trunk number & it should be in 8 digits. If trunk number is defined less than 8 digits, '*' will be used as the filler. *For example, if a parameter is being set or reset for the trunk no. 7000, trunk no. should be entered as ****7000.*

& the various **Commands** are explained below.

active

This command is used for enabling or disabling a trunk line. On disabling a trunk line, no incoming or outgoing calls are possible on this trunk line. The format of the command is,

set / reset pnt <pnt no.> active

Command from Keyphone-:

To enable a trunk	281 + 3 + Trk No. + 11 + 1 + Prog
To disable a trunk	281 + 3 + Trk No. + 11 + 0 + Prog

Default: All trunk lines are active.

aclrf

It is used for enable auto clear forward for the corresponding TWT / E1 trunk line. The format of the command is,

set / reset pnt <trunk no.> aclrf

Command from Keyphone-:

To enable the Auto Clear Forward on a trunk	281 + 3 + Trk No. + 20 + 1 + Prog
To disable the Auto Clear Forward on a trunk	281 + 3 + Trk No. + 20 + 0 + Prog

Default: Enabled

agrp

This command is used for defining the trunks access group. The valid access group numbers are from 0 to 17. A trunk line can be in more than one access group. For removing a trunk line from any access group, first take the trunk line to group 17 and then allot this trunk line to a new group. Allotting a trunk line to group 17 will remove this trunk from all the other groups.

So, initially when the groups are allotted, first take all the trunk lines to group 17 and then start defining the various groups. The format of the command for allotting a trunk to an access group is,

set pnt <trunk no.> agrp <group no.>

Where agrp is the trunk access group & its value can be 00 to 17.
For example to allot trunk 7000 in the access group 1, the command is,

set pnt 7000 agrp 1

Command from Keyphone-:

To define the trunk access group for a trunk **281 + 3 + Trk No. + 541 + GG + Prog**

Where GG is the trunk access group & its value can be 00 to 17.

Default: All trunks lines are in access group 0.

busyout

This command is applicable only for the E1 and TWT card. It is used for temporarily blocking a trunk line connected to the E1 card or the TWT card. The format of the command is,

set / reset pnt <trunk no.> busyout

Command from Keyphone-:

To set the busyout for a trunk **281 + 3 + Trk No. + 21 + 1 + Prog**
To reset the busyout for a trunk **281 + 3 + Trk No. + 21 + 0 + Prog**

Default: No trunks are blocked.

cos

This command is used to set the class of service of trunks. The format of the command is,

set pnt <trunk no.> cos <pcos> <scos>

`pcos' is the primary class of service (Value 00 to 63) & **`scos'** is the secondary class of service (Value 00 to 63).

Command from Keyphone-:

To define the primary & secondary COS for a trunk

281 + 3 + Trk No. + 631 + PPPP + 0000 + SSSS + Prog

Where PPPP is the primary COS (Value 0000 to 0063) & SSSS is the secondary COS (Value 0000 to 0063).

Default: All trunks pcos is 2 & scos is 63.

dlmode

It is used for defining the mode of operation of the trunk lines. The format of the command is,

set pnt <trunk no.> dlmode <mode>

where <mode> can have the following values:

0	-	No Outgoing & Incoming
1	-	Only Incoming
2	-	Only Outgoing
3	-	Both outgoing and Incoming

Command from Keyphone-:

To set the dialmode of a trunk **281 + 3 + Trk No. + 541 + X + Prog**

Where X is the desired dial mode. The value of X can be as explained above.

Default: All trunk lines are in bothway mode.

didg

This command is used for allotting any trunk in a desired incoming group. All the parameters of this DID group will be applicable on all the trunks that are existing in that DID groups. For the details of the various parameters of The DID group, refer the commands of DID GROUP.

To define a trunk in a DID group, format of the command is,

set / reset pnt <trunk no.> didg <grp>

Where <grp> will be 0 to 9. DIDG 15 is the special DIDG.

For example to allocate trunk 7000 in DIDG 1, the command is,

set pnt 7000 didg 1

To remove a trunk from DIDG

set pnt <trunk no.> didg r

Command from Keyphone-:

To set the DID group of a trunk **281 + 3 + Trk No. + 521 + GGGG + Prog**

Where GGGG is the DID group no. & its value can be 0001 to 0015.

Default: All trunks are existing in DID group no. 15.

dodg

This command is used to define a group of those type of trunks which require the same parameters for outgoing. So all the trunk lines existing in a DODG will have the same parameters. Means no need to define the same parameters trunk-wise. Just define the

parameters in any DOD GROUP & set the desired trunks in that DOD GROUP. For the various parameters of DOD group, refer the commands of DOD GROUP.

To set the desired trunk in the desired DOD GROUP, the command is,

set pnt <pnt no.> dodg <grp>

Where <grp> can be 0 to 9. Note that DODG 0 is the Network route 0 & DODg 1 is the Network route 1 & so on.

DODG `0' will be accessed by `60'. DODG `1' will be accessed by `61' & so on. Note that DOD GROUP 15 is the special group. This is the PSTN DOD Group. All the trunks existing in DODG 15, will be selected by `0'.

To remove a trunk from any DODG **set pnt <pnt no.> dodg r**

Command from Keyphone-:

To set the DOD group of a trunk **281 + 3 + Trk No. + 531 + GGGG + Prog**

Where GGGG is the DOD group no. & its value can be 0001 to 0015.

Default: All trunks are existing in DOD group no. 15.

Note: When 2nd PRI card (Junction no 7038 to 7067) is used, following needs to be programmed:

repeat 30 30 set pnt 7038 dodg 0 (This defines 30 PRI lines of 2nd PRI card in Group 0. From Junction no 7038 onwards get programmed)
repeat 30 30 set pnt 7038 mode 3 3 (This defines the incoming ring of 2nd PRI card in hunting mode in Day/Night mode)
set flex 60 5 (In default the 0 group is accessed with 60 and that is changed to 5 if the user wants to access the lines of 2nd PRI with 5)
set dodg 0 offset 01 (This filters 1 digit from the out going CLI numbers of extension)

dtmf

This command is used for setting a trunk line for tone dialing or for pulse dialing. The command for setting a trunk line for tone dialing is,

set pnt <trunk no.> dtmf

and the command for setting a trunk line in the pulse mode is,

reset pnt <trunk no.> dtmf

Command from Keyphone-:

To set the dtmf dialing on a trunk **281 + 3 + Trk No. + 10 + 1 + Prog**

To set the decadic dialing on a trunk **281 + 3 + Trk No. + 10 + 0 + Prog**

Default: All trunk lines are set in pulse mode.

easmdr

This command is used for erasing the billing details of a particular trunk line. On using this command, only particular trunk's billing details will be erased. The format of this command is,

reset pnt <trunk no.> easmdr

Command from Keyphone-:

To erase the ASMDR of a trunk **281 + 3 + Trk No. + 37 + 0 + Prog**

Note: Only the calls, that are printed through ASMDR printing command, will be deleted.

enblk

This command is applicable only on PRI trunks. DG 250 can send the dialed no. in two different methods, one is `Enblock` & other is "Overlap". In enblock method, all the dialed no. will be sent in one shot but in Overlap method, the dialed no. will be sent one by one on PRI trunk. The enable enblock dialing on PRI the format of the command is,

set pnt <pnt no.> enblk

To revert back to overlap dialing the format of the command is:-

reset pnt <pnt no.> enblk

Command from Keyphone:-

To set the enblock signaling on a PRI trunk **281 + 3 + Trk No. + 39 + 1 + Prog**

To reset the enblock signaling on a PRI trunk **281 + 3 + Trk No. + 39 + 0 + Prog**

Default: DG 250 uses Overlap method. For enblock dialing first enblock table has to be defined by command set net enblk <len> <dialnum>.

hgroup

This command is used for setting the day and night ringing hunting groups of a trunk line. A trunk line can have different hunting group for day mode & for night mode. The valid hgroup numbers are from 0 to 9. The format of this command is,

set pnt <trunk no.> hgroup <day grp.> <night grp.>

For example, to set hgroup 1 as day hgroup & hgroup 2 as night hgroup for trunk 7000, the command is,

set pnt 7000 hgroup 1 2

Command from Keyphone:-

To set the hunt group for a trunk **281 + 3 + Trk No. + 621 + PPPP + 0000 + SSSS + Prog**

Where PPPP is the day hunt group & its value can be 00 to 09.
& SSSS is the night hunt group & its value can be 00 to 09.

Note: Hunt Group is same as the ACD group.

Important : This command is used to set the hgroup number only. To set the mode of landing for any hunt group, use the command "mode". After this hgroup also has to be set.

hotline

This command is used for setting a trunk line as hotline type. On defining a trunk line as hotline type, this line cannot be accessed by dialing 0. It can be selected only by dialing the its trunk access code. A hotline can be transferred without dialing any digits. The format of this command is,

set / reset pnt <trunk no.> hotline

Command from Keyphone-:

To set a trunk as hotline	281 + 3 + Trk No. + 16 + 1 + Prog
To reset a trunk as hotline	281 + 3 + Trk No. + 16 + 0 + Prog

Default: All trunk lines as normal lines.

isdrdl

This command is used for enabling or disabling auto redial of ISD numbers on a trunk line. On enabling this feature for trunk line, only ISD numbers will be attempted on this trunk line when the system does auto redial. The format of this command is,

set / reset pnt <trunk no.> isdrdl

Command from Keyphone-:

To set a trunk to use for ISD auto redialing	281 + 3 + Trk No. + 14 + 1 + Prog
To reset a trunk to use for ISD auto redialing	281 + 3 + Trk No. + 14 + 0 + Prog

Default: Auto redial of ISD numbers are enabled on all trunk lines.

16Khz

This command is used to set any trunk for 16Khz pulse basis metering. To set a trunk line for 16Khz metering, the command will be,

set pnt <trunk no.> 16khz

To set the trunk back to pulse basis,

reset pnt <trunk no.> 16Khz

Note : DG 250 can sense the reversal as well as 16khz (if trunk is having both signals). Both type of metering also can be set simultaneously. In such a case, metering will be started either receiving 16khz or reversal (whatever signal is received first). This is beneficial in case of low level of 16 khz signal.

Note: In this setting, call will be charged as per the 16khz tariff setting. If only reversal is received than no. of pulses will be 0 so call charges will be 0 for internal (system) calculation. While billing software can calculate on duration if pulses are `0`.

For this setting, set both the commands.	set pnt <trunk no.> reversal
	set pnt <trunk no.> 16khz

Command from Keyphone-:

To enable the 16Khz detection on a trunk	281 + 3 + Trk No. + 19 + 1 + Prog
To disable the 16Khz detection on a trunk	281 + 3 + Trk No. + 19 + 0 + Prog

lclrdl

This command is used for enabling or disabling auto redial of local numbers on a trunk line. On enabling this feature for trunk line, only local numbers will be attempted on this trunk line when the system does auto redial. The format of this command is,

set / reset pnt <trunk no.> lclrdl

Command from Keyphone-:

To set a trunk to use for local number auto redialing **281 + 3 + Trk No. + 12 + 1 + Prog**
 To reset a trunk to use for local number auto redialing **281 + 3 + Trk No. + 12 + 0 + Prog**

Default: Auto redial of local numbers are enabled on all trunk lines.

mfc

This command is applicable only for DID / TWT / E1 trunk lines. The register signalling in DID lines can be either decadic or MFC type. This command is used for defining the type of register signalling for a DID/TWT/E1 line. The format of this command is,

set / reset pnt <trunk no.> mfc

Command from Keyphone-:

To set the MFC signaling on a trunk **281+ 3 + Trk No. + 18 + 1 + Prog**
 To reset the MFC signaling on a trunk **281+ 3 + Trk No. + 18 + 0 + Prog**

Default: All DID lines as decadic type.

mode

This command is used for setting the day & night landing modes of trunk lines. The various types of landings and their equivalent codes are given below:

- 3 - Hunting group Landing**
- 4 - One termination ringing**
- 5 - DID landing for level DID trunks & DISA landing for CO trunks.**
- 6 - For DISA landing for level DID trunks**

Any combination of landing modes can be used. The landing modes must be defined both for the day mode and also for the night mode. The format of this command is,

set / reset pnt <trunk no.> mode <day mode> <night mode>

If the landing mode is set for one termination, the one termination extension for the trunk line must also be defined in this command.

For example, for setting trunk line 7000 as hunt group landing in the day mode & as one termination at extension 2001 in the night mode, the command is,

set pnt 7000 mode 3 4 2001

If the hunting group landing is set for any trunk, set the hunt group also through the command `hgroup`.

If level DID trunks are supposed to be answered by DISA port of VSN, landing mode of the level DID trunks should be `6`. But with this mode, level DID trunk should not carry any DNI.

Command from Keyphone-:

To set the incoming landing mode for a trunk

281 + 3 + Trk No. + 611 + PPPP + 0000 + SSSS + One Termination Ext + Prog

Where PPPP is the day landing mode & its value can be 0000 to 0006.
& SSSS is the night landing mode its value can be 0000 to 0006.

Default: All trunks lines are in hunt group 9 (operator group) landing mode.

private

This command is used for defining a trunk line as a private line for an extension. On defining a trunk line as a private line for an extension, all the incoming calls on that trunk line will directly land in the defined extension. However landing of this trunk can be changed as required. Also the trunk line will become a delayed hotline for this extension. The format of the command is,

set / reset pnt <trunk no.> private <extn. no.>

Note: none else can select any private trunk except the defined extension user.

Command from Keyphone-:

To set a trunk as a private line	281 + 3 + Trk No. + 56 + 1 + Ext No. + Prog
To reset a trunk as a private line	281 + 3 + Trk No. + 56 + 0 + Prog

Default : No trunk lines are set as private line.

rvrsal

This command is used for enabling or disabling line reversal metering on a trunk line. The format of this command is,

set / reset pnt <trunk no.> rvrsal

Command from Keyphone-:

To set the reversal detection on a trunk	281 + 3 + Trk No. + 15 + 1 + Prog
To reset the reversal detection on a trunk	281 + 3 + Trk No. + 15 + 0 + Prog

Default: All trunks lines are metered according to CPTD or time base.

rstkhz

If any trunk is metered on 16 KHz pulses basis, a counter for that trunk will also work. This counter will show the total number of 16 kHz pulses, detected on this trunk. This command is used to reset the 16 KHz counter of any trunk. The format of the command is,

set pnt <trunk no.> rstkhz

Command from Keyphone-:

To reset the 16 Khz counter of a trunk **281 + 3 + Trk No. + 25 + 0 + Prog**

sendcli

This command is used to enable for sending the cli on E&M trunk only. DTMF cli will be sent on E&M trunk. DTM card will be required to generate the CLI for sending the DTMF CLI on E&M trunks. The format of the command is,

set pnt <trunk no.> sendcli

Command from Keyphone-:

To enable the sendcli on a E&M trunk **281 + 3 + Trk No. + 45 + 1 + Prog**

To disable the sendcli on a E&M trunk **281 + 3 + Trk No. + 45 + 0 + Prog**

Default : Disabled for all E&M trunks.

silent

This command is used to set the silent dialing on trunk line. This command is applicable in GPAX environment where trunks are set in network route for 'store & forward' dialing. Note that for all the outgoing calls made through silent trunks, DTMF dialer of DG 250 will be used. To set the same, the command is,

set pnt <trunk no.> silent

Command from Keyphone-:

To enable the silent dialing on a trunk **281 + 3 + Trk No. + 23 + 1 + Prog**

To disable the silent dialing on a trunk **281 + 3 + Trk No. + 23 + 0 + Prog**

Default : No trunk is set for silent dialing.

stdrdl

This command is used for enabling or disabling auto redial of STD numbers on a trunk line. On enabling this feature for trunk line, only STD numbers will be attempted on this trunk line when the system does auto redial. The format of this command is,

set / reset pnt <trunk no.> stdrdl

This command is used for enabling or disabling auto redial of STD numbers on a trunk line. For Ex. the command for enabling auto redial of STD numbers on trunk 7000 is,

set pnt 7000 stdrdl

and the command for disabling auto redial of STD numbers on trunk 700 is,

reset pnt 7000 stdrdl

Command from Keyphone-:

To set a trunk for STD number auto redialing **281 + 3 + Trk No. + 13 + 1 + Prog**
 To reset a trunk for STD number auto redialing **281 + 3 + Trk No. + 13 + 0 + Prog**

Default: Auto redial of STD numbers are enabled on all trunk lines

All the properties of a trunk will be displayed by the command –

Show pnt <pnt no.>

```

show pnt 7000
PNT 7000 CARD TYPE NONE SLOT 07 PORT 0 STATE - PWRON[ffff]
FREE          LANDING DID    DAY DID      NIGHT DID    Hunt G D09 N09
DODGRP 15 T   DIDGRP 15      PULSE       LOCAL ADL    STD ADL
ISD ADL      METER STARTED  OUTCALL ALLOWD  INCALL ALLOWD  ACTIVE Yes
KHZCT  0- 0
Acc.Grp - 1 1 1 1 1 1 1 1 | 1 1 1 1 1 1 1 1
Class Of Service 2 63

show pnt <pntno> [COS/DIDG/DODG]
    
```

Important: If a trunk port is supposed to be brought in the default mode, then command for the same is,

set port <card no.> <port no.> default

Chapter 12

DID Groups Parameters

This field is used to set the various parameters for the incoming trunk calls. Whatever will be the setting of various parameters of any DID Group, that will be applicable for all those trunks those are existing in the same DID group. DG 250 IVDG 250 has total 16 DID groups from 0 to

15. Various parameters are as follows -

Command	Syntax	Description
anacli	set didg gg <cmd>	display cli info of analog trunks
answer	set didg gg <cmd>	force answer to acd always
catgory	set didg gg <cmd>	ask category on mfc
cli	set didg gg <cmd>	[# of digits] ask cli on mfc
cliptm	set didg gg <cmd> <secs>	incoming clip wait time
clirt	set didg gg <cmd>	cli based routing allowed
clrback	set didg gg <cmd>	send clear back on jn
default	set didg gg <cmd>	Restore Factory Setting
dltone	set didg gg <cmd>	feed dial tone on jn
didfilt	set didg gg <cmd> [filter]	set in coming filter
enxrt	set didg gg <cmd>	enable xchange routes
enplcc	set didg gg <cmd>	enable plcc routes
incut	set didg gg <cmd>	discon incoming calls
showdni	set didg gg <cmd>	show dni on kts
welcome	set didg gg <cmd> <msg>	welcome message for disa

The commands related to the DID groups are explained below in alphabetical order. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or from key telephone (KTS).

With every parameter detail, both the procedures are defined means how to set / reset through terminal software or how to set / reset from KTS.

The format of the KTS command is

PROG + PSW + 281 + 71 + DD + Commands.....+ Prog

Where **PSW** is the system programming password. By default it is 1234.

DD is the DID group number which is supposed to be defined. Its value should be in 2 digits i.e. 00 to 15.

& the various **Commands** are explained below.

anacli

This command is used to enable the CLI on analog trunk. The format of the command is,

set didg <gg> anacli

Command from Keyphone-:

To enable	281 + 71 + DD + 14 + 1 + Prog
To disable	281 + 71 + DD + 14 + 0 + Prog

Default : Analog CLI is disabled for all DID groups.

answer

This command is used to send the answer signal on a level DID trunk on entering a trunk in a ACD group. To enable the same, command is,

set didg <gg> answer

Command from Keyphone-:

To enable	281 + 71 + DD + 25 + 1 + Prog
To disable	281 + 71 + DD + 25 + 0 + Prog

Default: Disabled for all DID groups.

catgory

This command is applicable only for DID / TWT / E1 trunk lines with MFC signalling. It is used for enabling or disabling the request for category on the incoming DID lines. The command for enabling this feature is,

set didg <gg> catgory

and the command for disabling the category request is,

reset didg <gg> catgory

Command from Keyphone-:

To enable **281 + 71 + DD + 15 + 1 + Prog**
 To disable **281 + 71 + DD + 15 + 0 + Prog**

Default: Category request is disabled for all DID groups.

cli

This command is applicable only for DID / TWT / E1 trunks with MFC signalling. It is used for enabling or disabling the 'Calling line identification' i.e. CLIP request. If this feature is enabled, then the number of CLI digits expected must also be set. The range of CLI digits expected are from 3 to 13. The format for the command is,

set didg <gg> cli <no. of digits>

For Exp, to enable CLI request & to set the CLI digits expected as 7, the command is,

reset didg <gg> cli 7

Command from Keyphone-:

To enable **281 + 71 + DD + 46 + 1 + XX + Prog**
 Where XX is the no. of digits to request (03 to 15)
 To disable **281 + 71 + DD + 46 + 0 + Prog**

Default: CLI request is disabled for all DID groups.

cliptm

This command is used for set the time duration to accept the cli on analog trunks. This command is helpful, if the cli is coming between first two rings. If the cli on the analog trunk is before the first ring then no need to set the clip wait time.

The format of the command is, **set didg <gg> cliptm <time in sec>**

Where XXXX is the CLI Wait timer (00 to 09)

Command from Keyphone-:

To enable **281 + 71 + DD + 18 + 1 + XXXX + Prog**
 Where XXXX is the CLI Wait timer (0000 to 0009)

Default: Clip wait time is 1 second for every DID group.

clirt

DG 250 offers a very unique feature i.e. 'CLI based Call routing'. The command 'clirt' under the DID group is used to define whether the CLI based call routing is applicable on the trunks defined in a DID group or not. If 'clirt' is enabled for a DID group than only CLI based call routing will be applicable on the trunks of that DID group. To enable the command, syntax is,

set didg <gg> clirt

To disable the CLI based call routing in a DID group, command will be,

reset didg <gg> clirt

Command from Keyphone-:

To enable	281 + 71 + DD + 29 + 1 + Prog
To disable	281 + 71 + DD + 29 + 0 + Prog

Default: "clirt" is disabled in all 15 DID groups.

clrback

This command is applicable only for DID / E1 / TWT trunk lines. It is used for setting either immediate clear back or delayed clear back on the DID lines. If delayed clear back is set for the system, then the system will send a clear back signal after one minute. The command for setting 'immediate clear back' is,

set didg <gg> clrback

and the command for setting delayed clear back is,

reset didg <gg> clrback

Command from Keyphone-:

To enable	281 + 71 + DD + 11 + 1 + Prog
To disable	281 + 71 + DD + 11 + 0 + Prog

Default: Immediate clear back for all DID groups.

default

This command is used to set all the parameters of the defined DID group to the default value (factory setting). The format of the command is,

set didg <gg> default

Command from Keyphone-:

To enable	281 + 71 + DD + 40 + 1 + Prog
To disable	281 + 71 + DD + 40 + 0 + Prog

dltone

This command is applicable only for DID/BWT trunk lines. It is used for enabling or disabling the system dial tone on DID/BWT lines. The command for enabling dial tones on DID/BWT lines is,

set didg <gg> dltone

and the command for removing dial tone from the incoming DID lines is,

reset didg <gg> dltone

Command from Keyphone-:

To enable	281 + 71 + DD + 13 + 1 + Prog
To disable	281 + 71 + DD + 13 + 0 + Prog

Default: Disabled for all DID groups.

didfilt

This command is used to subtracting or adding any digits in the DNI (Dialed Number Information i.e., Telephone Number actually dialed by the calling party) number on PRI / DID / TWT / E1 trunks.

There are total 9 digits that can be configured.

In case of PRI lines, maximum 3 digits Extension numbers can be configured.

The first 5 or 6 digits are sent by the PRI service provider.

In case of TWT with MFC, all 9 digits are workable i.e. maximum 9 digit Extension number CLI can set.

The command is:

set didg <GG> didfilt XXXXXXXXX

Where, GG is the DOD group (It is 15 in default).

X can be D, R or P. Where, D= The digit not to be filtered.

R= Digit to be filtered/restricted.

P= Prefix digit to be added. It should be used on the starting X position. It can be 0 to 9.

Note: In case the numbering plan given by the service provider is of 2 digits and the PBX is also working in 2 digit Extension numbering then there is no need of using didfilt or clifilt commands. The same is true, if both are 3 digits or 4 digits.

: In default the programming is set **dodg <GG> didfilt DDDDDDDDD**

: If we mark any location as Prefix then DID CLI digit gets shifted to the right side.

For example, if extension number coming in DID is 2015 and we need to add 5 before 1 then command will be:

DD5DD

To restrict a digit at any location of the Extension number:

set didg <GG> didfilt RDD

or

set didg <GG> didfilt DRD

Example: The Pilot number given is 40625 and extension numbers used are of 2 digits from 10 to 80.

where as the service provider sends 3 digit numbering from 510 to 580 then programming will be:

set didg <GG> didfilt RDD

To add a prefix before the extension number CLI:

set didg <GG> didfilt PDD

Example: The Pilot number given is 40625 and extension numbers used are of 3 digits from 510 to 580.

where as the service provider sends 2 digit numbering from 10 to 80 then programming will be:

set didg <GG> didfilt 5DD

enxrt

`xrt' stands for exchange route. Exchange routes are used to configure one DG 250 as a transit exchange. If this parameter is enabled in a DID group than only exchange routes will be applicable on the trunks defined in that DID group. To enable the exchange route in a desired DID group, command is,

set didg <gg> enxrt

Command from Keyphone-:

To enable	281 + 71 + DD + 23 + 1 + Prog
To disable	281 + 71 + DD + 23 + 0 + Prog

Default: Disabled for all DID groups.

enplcc

This command is used to create the PLCC routes. Before creating the PLCC routes, PLCC routes must be enabled. To enable the PLCC routes for a DID group, command is,

set didg <gg> enplcc

Command from Keyphone-:

To enable	281 + 71 + DD + 26 + 1 + Prog
To disable	281 + 71 + DD + 26 + 0 + Prog

Default: Disabled for all DID groups.

Incut

This command is used to enable or disable the call disconnection on the trunks which are existing in the desired DID group. This command is linked with the incut command of the extensions. If `incut` is enabled for an extension, incoming calls of that extension (through those trunks that are defined in the desired DID grup), will get disconnected only if `incut` of the DID group is enabled.

To enable the incut of a DID group, command is,

set didg <didg no.> incut

Command from Keyphone-:

To enable	281 + 71 + DD + 28 + 1 + Prog
To disable	281 + 71 + DD + 28 + 0 + Prog

Default: Disabled for all DID groups.

showdni

This command is applicable only for DID trunk lines with MFC signalling. It is used for enabling or disabling the display of dialed number on the KTS. The command for enabling this feature is,

set didg <gg> showdni

and the command for disaling this feature is,

reset didg <gg> showdni

Command from Keyphone-:

To enable	281 + 71 + DD + 17 + 1 + Prog
To disable	281 + 71 + DD + 17 + 0 + Prog

Default : DNI is disabled.

welcome

DG 250 can have different welcome messages for different DID groups. Total 8 types of welcome messages can be recorded on the VSN ports. Message number for the same is 12 to 19. Setting & recording of all the welcome messages will be same as welcome message no. 06 is recorded. After setting & recording of the welcome message, define the welcome message that is supposed to be played while DISA.

To define the welcome message for a DIDG, command is,

set didg <GG> welcome <Msg No.>

Here Msg No. can be 12 to 19 only.

By default Welcome Message 06 is defined on DIDG 15.

To define the Welcome Msg 06 (if some other welcome is programmed),

reset didg GG welcome

Command from Keyphone-:

To enable **281 + 71 + DD + 19 + 1 + XXXX + Prog**

Where XXXX is the welcome message no. & its value can be (0012 to 0019)

All the parameters of the DID group can be viewed by the command –

show didg <didg no.>

```

show didg 15
DID Group 15 :
ASK CLI No      ANALOG CLI No    DIALTONE No      CLEAR IMDT Yes   ASKCATEGORY No
DISPLAY DNI No  ForceAnswer No  NIGHT VRR No     CLIP WAIT 01    WELCOME VSN 06
USE XCHRT No    Cut Calls No     USE PLCCRT No    USE CLI RT No
Did Filter - DDDDDDDDD.
[7000 - 15 ][7001 - 15 ][7002 - 15 ][7003 - 15 ][7004 - 15 ]
[7005 - 15 ][7006 - 15 ][7007 - 15 ][7008 - 15 ][7009 - 15 ]
[7010 - 15 ][7011 - 15 ][7012 - 15 ][7013 - 15 ][7014 - 15 ]
[7015 - 15 ][7016 - 15 ][7017 - 15 ][7018 - 15 ][7019 - 15 ]
[7020 - 15 ][7021 - 15 ][7022 - 15 ][7023 - 15 ]
    
```

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Chapter 13

DOD Groups Parameters

This field is used to set the various parameters for the outgoing trunks. Whatever will be the setting of various parameters of any DOD Group, that will be applicable for all those trunks those are existing in the same DOD group. Various parameters are as follows -

Command	Syntax	Description
clifilt	set dodg gg <cmd> [filter]	set cli out filter
default	set dodg gg <cmd>	restore factory setting
duprt	set dodg gg <cmd> <dodg>	duplicate dod group
nxtcard	set dodg gg <cmd>	pick pnt of next card
offset	set dodg gg <cmd> [digit]	dial digit offset
outcut	set dodg gg <cmd>	discon outging calls
outflt	set dodg gg <cmd>	use outgoing filters
rptall	set dodg gg <cmd>	repeat all digits for transit call
seltp	set dodg gg <cmd> <type>	trk selection type
sendcli	set dodg gg <cmd>	send cli on outgoing
setflt	set dodg gg <cmd> <dnum> <filt>	set outgoing filter
smrtsel	set dodg gg <cmd>	use smart pick of pnts (khz based)
szwait	set dodg gg <cmd> [digit]	seize wait
tlctrl	set dodg gg <cmd>	use digit toll control

The commands related to the DOD groups are explained below in alphabetical order. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or from key telephone (KTS).

With every parameter detail, both the procedures are defined means how to set / reset through terminal software or how to set / reset from KTS.

The format of the KTS command is

PROG + PSW + 281 + 72 + DD + Commands.....+ Prog

Where **PSW** is the system programming passord. By default it is 1234.

DD is the DOD group number which is supposed to be defined. Its value should be in 2 digits i.e. 00 to 15.

& the various **Commands** are explained below-:

clifilt

This command is used for generating CLI of extensions for dialed out calls from PRI/E1/TWT line of PBX.

There are total 9 digits that can be configured.

In case of PRI lines, maximum 3 digits Extension CLI can be sent. The first 5 or 6 digits are sent by the PRI service provider.

In case of TWT with MFC, all 9 digits are workable i.e. maximum 9 digit Extension number CLI can be sent.

The command is: **set dodg <gg> clifilt XXXXXXXXX**

Where, gg is the DOD group (It is 15 in default).

X can be D, R or P. Where, D= The digit not to be filtered.

R= Digit to be filtered/restricted.

P= Prefix digit to be added. It should be used on the starting X position. It can be 0 to 9.

In case CLI shown while dialing out is only the pilot number (say 40625500), do the following:

set dodg 15 clifilt 011406255DD

Note: In case the numbering plan given by the service provider is of 2 digits and the PBX is also working in 2 digit Extension numbering then there is no need of using didfilt or clifilt commands. The same is true, if both are 3 digits or 4 digits.

: In default the programming is set dodg <gg> clifilt DDDDDDDDD

: If we mark any location as Prefix then Extension CLI digit gets shifted to the right side.

For example, if extension number is 2015 and we need to add 5 before 1 then command will be: DD5DD

Example: The Pilot number given is 406255 and extension numbers used are of 3 digits from 510 to 580.

where as the service provider needs 2 digit numbering from 10 to 80 then programming will be:

set dodg <gg> clifilt RDD

To add a prefix before the extension number CLI:

set dodg <gg> clifilt PDD

Example: The Pilot number given is 40625 and extension numbers used are of 2 digits from 10 to 80.

where as the service provider needs 3 digit numbering from 510 to 580 then programming will be:

set dodg <gg> clifilt 5DD

: If Extension numbers are of 2 digits or 3 digits then internal CLI will give full number i.e., Pilot number+extension number. However, if incoming PRI calls are given only to Operator then 2 or 3 digit CLI can be given for internal calls as given below:

Define Operator (200) in a Hunt group by proram:

Set acd 9 member 200

Set acd 9 fixed

reset ext 200 logout

Set dodg 15 clifilt ODD if extensions are of 2 digits

Set dodg 15 clifilt DDD if extensions are of 3 digits

default

This command is used to set all the parameters of the defined DOD group to the default value (factory setting). The format of the command is,

set dodg <gg> default

Command from Keyphone-:

To enable **281 + 72 + DD + 40 + 1 + Prog**

To disable **281 + 72 + DD + 40 + 0 + Prog**

duprt

This command is used to set the duplicate routes. With the help of this command, on dialing the access code of a route, any other route can be selected.

set dodg <g> duprt <dodg>

For example, if route 1 is supposed to be selected on dialing the access code of the route 0, the command will be,

set dodg 0 duprt 1

After setting this command, route 0 will be selected on dialing the access code of route 0 or route 1.

Command from Keyphone-:

To enable **281 + 72 + DD + 531 + XXXX + Prog**

Where XXXX is the desired DOD group no. Its value can be 0000 to 0009.

Default : No duplicate route is set.

nxtcrd

If the trunks from the multiple E1/PRI cards are defined in a DOD group, this command is used to put the equal load on all the cards. On enabling this command, system will select the trunk from every card. The format of the command is,

set dodg <gg> nxtcrd

Command from Keyphone-:

To enable **281 + 72 + DD + 32 + 1 + Prog**

To disable **281 + 72 + DD + 32 + 0 + Prog**

Default: Disabled.

offset

This command is used to define the number of digits to be filtered for dialing out after seizing any DODG. To define the same, command will be,

set dodg <g> offset <digits>

Example, If after selecting DOD group 2, first two digits are not supposed to be dialed out, the command will be,

set dodg 2 offset 2

Command from Keyphone-:

To define the offset **281 + 72 + DD + 211 + XXXX + Prog**

Where XXXX is the no. of digits to offset, its value can be 0000 to 0009.

Default : 0

outcut

This command is used to enable or disable the call disconnection on the trunks which are existing in the desired DOD group. This command is linked with the `outcut` command of the extensions. If `outcut` is enabled for an extension, outgoing calls of that extension (through those trunks that are defined in the desired DOD group), will get disconnected only if `outcut` of the DOD group is enabled.

To enable the outcut of a DOD group, command is,

set dodg <dodg no.> outcut

Command from Keyphone-:

To enable	281 + 72 + DD + 28 + 1 + Prog
To disable	281 + 72 + DD + 28 + 0 + Prog

Default: Disabled for all DOD groups.

rptall

This command is used in case of transit exchange. If it is enabled, all the digits, received from the far end, will be retransmitted for transit. This command is used for transit exchange with E&M.

set dodg GG rptall

Command from Keyphone-:

To enable	281 + 72 + DD + 24 + 1 + Prog
To disable	281 + 72 + DD + 24 + 0 + Prog

seltp

This command is used to enable the random selection of the trunks defined in a DOD group. The random selection may be required to avoid the collusion.

set dodg <gg> seltp <type>

Where <Type> can be 0 to 4. The detail of <type> is as follows -

- 0 Circular forward
- 1 Circular backward
- 2 Fixed forward
- 3 Fixed reversed

For example, if single E1 / PRI Is installed, the description of various modes are as follows –

In **Circular Forward** mode, DG 250 will select second trunk for first call, third trunk for second call, fourth trunk for third call & so on.

In **Circular Backward** mode, DG 250 will select 30th trunk for first call, 29th trunk for second call, 28th trunk for third call & so on.

In **Fixed Forward** mode, DG 250 will try to select first trunk always & next trunk will be selected only if first trunk is busy.

In **Fixed Reversed** mode, DG 250 will try to select the trunks from the last. Means DG 250- will try to select 30th trunk always & second last trunk will be selected only if 30th trunk is busy.

Further, if multiple cards are installed, equal load can be put on every card. For that refer '**nextcrd**' command, defined in this section.

Command from Keyphone-:

To define the selection type **281 + 72 + DD + 30 + XX + Prog**

Where	XX -	10	For Circular forward
		11	For Circular backward
		12	Fixed forward
		13	Fixed reversed

sendcli

This command is applicable only for bothway trunk lines & E1 lines with MFC signalling. It is used for enabling or disabling the sending of caller line identification. The command for enabling this feature is,

set dodg <g> sendcli

and the command for disabling the sending of CLI is,

reset dodg <g> sendcli

Command from Keyphone-:

To enable	281 + 72 + DD + 45 + 1 + Prog
To disable	281 + 72 + DD + 45 + 0 + Prog

Default: CLI send is disabled.

smrtsel

This command is very useful for GPAX installation. As system has the 16KHZ counter for every trunk also (if trunk metering is 16khz basis). This command enables the system to pick up the trunk lines on the basis of the 16khz counter of every trunk.

On enabling this feature, system will fix up the priority for picking-up the trunks for outgoing call. The trunks, having the minimum value of its counter, will be picked up first. The trunk ,having maximum value of counter, will be picked up later. This feature will work only if the metering on outgoing trunks are on 16Khz basis.

To enable this feature, the command is,

set dodg <gg> smrtsel

Command from Keyphone-:

To enable	281 + 72 + DD + 31 + 1 + Prog
To disable	281 + 72 + DD + 31 + 0 + Prog

Default : Disabled

szwait

This command is used to define the number of digits to be dialed before seizing any DODG. To define the same, command is,

set dodg <g> szwait <digits>

For example, If DODG `1' is supposed to be selected after dialing at least 5 digits, the command will be,

set dodg 1 szwait 5

Command from Keyphone-:

To define the seize wait	281 + 72 + DD + 20 + 1 + XXXX + Prog
Where XXXX is the no. of digits for seize wait & its value can be 0000 to 0009.	

Default : szwait is 0

tlctrl

This command is used to allow any no. of digits through a desired DOD group. To define the same, command will be,

reset dodg <g> tlctrl

To disallow or limit the no. of digits dialed through dodg group the command to be given is -:

Set dodg <gg> tlctrl

Command from Keyphone-:

To enable	281 + 72 + DD + 22 + 1 + Prog
To disable	281 + 72 + DD + 22 + 0 + Prog

Default: Enabled.

All the parameters of a DOD group can be viewed by the command

`show dodg <dodg no.>'

show dodg 15

DOD Group 15(45#e2ef1) :

<i>SEND CLI No</i>	<i>Repeat All No</i>	<i>Seizure 00</i>	<i>Offset 00</i>	<i>Toll Cntrl Yes</i>
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Cut Calls No Diverted to 15

CliOut Filter - DDDDDDDDD.

<i>[7000 - 15]</i>	<i>[7001 - 15]</i>	<i>[7002 - 15]</i>	<i>[7003 - 15]</i>	<i>[7004 - 15]</i>
<i>[7005 - 15]</i>	<i>[7006 - 15]</i>	<i>[7007 - 15]</i>	<i>[7008 - 15]</i>	<i>[7009 - 15]</i>
<i>[7010 - 15]</i>	<i>[7011 - 15]</i>	<i>[7012 - 15]</i>	<i>[7013 - 15]</i>	<i>[7014 - 15]</i>
<i>[7015 - 15]</i>	<i>[7016 - 15]</i>	<i>[7017 - 15]</i>	<i>[7018 - 15]</i>	<i>[7019 - 15]</i>
<i>[7020 - 15]</i>	<i>[7021 - 15]</i>	<i>[7022 - 15]</i>	<i>[7023 - 15]</i>	

Chapter 14

Class of Service Parameters

The various features, which can be activated by each extension in the system, are dependent on the class of service of the extension. A maximum of 64 class of service can be defined for the system. For each class of service, the features, which are allowed, and those, which are not allowed, can be defined. Each extension can have two class of services named as primary class of service and secondary class of service. The extension user can switch between the two classes of services. The various features, which are included in the class of service and their significance, are given in alphabetical order.

Command	Syntax	Description
acdlk	set cos <cos no.> <cmd>	other acd group locked
acts	set cos <cosno> <cmd>	account access allowed
adial	set cos <cosno> <cmd>	auto dial allowed
aforw	set cos <cosno> <cmd>	call forwarding
alarm	set cos <cosno> <cmd>	reminder/wakeup alarm
att	set cos <cosno> <cmd>	attendant prog. allowed
bccos	set cos <cosno> <cmd>	bearer channel cos
bforw	set cos <cosno> <cmd>	call forward busy
blkcli	set cos <cosno> <cmd>	Block CLI for subscriber
bmusic	set cos <cosno> <cmd>	set back ground music on
callog	set cos <cosno> <cmd>	calls logging enabled
calld	set cos <cosno> <cmd>	extn. can be called
camp	set cos <cosno> <cmd>	can be called back
cback	set cos <cosno> <cmd>	call back allowed
conf3	set cos <cosno> <cmd>	three way conf allowed
confm	set cos <cosno> <cmd>	eight way conf allowed
conf3	set cos <cosno> <cmd>	three way conf w/ tone allowed
cosc	set cos <cosno> <cmd>	cos switch allowed
cpick	set cos <cosno> <cmd>	call pick up allowed
cug	set cos <cosno> <cmd>	Close User Group Allowed
dbarge	set cos <cosno> <cmd>	Listene-in within Deptt
default	set cos <cosno> <cmd>	Restore Factory Default
deflect	set cos <cosno> <cmd>	Call Deflect Allowed
deptt	set cos <cosno> <cmd>	deptt call for rooms
dhotln	set cos <cosno> <cmd>	delayed hot line
dnd	set cos <cosno> <cmd>	do not disturb
dndo	set cos <cosno> <cmd>	dnd override
dosa	set cos <cosno> <cmd>	dosa allowed
ecall	set cos <cosno> <cmd>	can call extn.
exec	set cos <cosno> <cmd>	executive previladges
follow	set cos <cosno> <cmd>	follow me with dnd
frcwq	set cos <cosno> <cmd>	Force into Wait Q
frwy	set cos <cosno> <cmd>	forward to Allowed
gpick	set cos <cosno> <cmd>	group pick up allowed
hotline	set cos <cosno> <cmd>	immiedate hot line
hpick	set cos <cosno> <cmd>	hunt group pick up allowed
kpick	set cos <cosno> <cmd>	hunt line pick up allowed
libs	set cos <cosno> <cmd>	access to libs allowed
listen	set cos <cosno> <cmd>	monitor rights
msgp	set cos <cosno> <cmd>	play vsn messages

msgs	set cos <cosno> <cmd>	leave message to others
musicwt	set cos <cosno> <cmd>	Call waiting on BG Music
net0	set cos <cosno> <cmd>	access to network0
net1	set cos <cosno> <cmd>	access to network1
net2	set cos <cosno> <cmd>	access to network2
net3	set cos <cosno> <cmd>	access to network3
net4	set cos <cosno> <cmd>	access to network4
net5	set cos <cosno> <cmd>	access to network5
net6	set cos <cosno> <cmd>	access to network6
net7	set cos <cosno> <cmd>	access to network7
net8	set cos <cosno> <cmd>	access to network8
net9	set cos <cosno> <cmd>	access to network9
net10	set cos <cosno> <cmd>	access to network10
net11	set cos <cosno> <cmd>	access to network11
net12	set cos <cosno> <cmd>	access to network12
net13	set cos <cosno> <cmd>	access to network13
net14	set cos <cosno> <cmd>	access to network14
nforw	set cos <cosno> <cmd>	call forward no-answer
oprkl	set cos <cosno> <cmd>	opr acd group locked
paging	set cos <cosno> <cmd>	paging rights
privacy	set cos <cosno> <cmd>	activate call privacy
pstn	set cos <cosno> <cmd>	pstn access
remote	set cos <cosno> <cmd>	remote lift allowed
room	set cos <cosno> <cmd>	room to room call
silent	set cos <cosno> <cmd>	silent monitor kts
tforw	set cos <cosno> <cmd>	timed call forwarding
tk_accs	set cos <cosno> <cmd>	trk access by trk allowed
tk_alld	set cos <cosno> <cmd>	dial out by trk
tk_xfer	set cos <cosno> <cmd>	trk to trk xfer allowed
tpick	set cos <cosno> <cmd>	trk pick by kts fn key
ulst	set cos <cosno> <cmd>	use allowed/denied list
vip	set cos <cosno> <cmd>	vip caller

The commands related to the class of service, are explained below in alphabetical order. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or from key telephone (KTS).

With every parameter detail, both the procedures are defined means how to set / reset through terminal software or how to set / reset from KTS.

The format of the KTS command is

PROG + PSW + 281 + 5 + COS + Commands.....+ Prog

Where **PSW** is the system programming passord. By default it is 1234.

COS is the class of service whose value will be 00 to 127.

& the various **Commands** are explained below.

acdlk

This command is used to allow or disallow the access of the various ACD except operator ACD 9. To allow or disallow, the command is,

set / reset cos <cos no.> acdlk

Command from Keyphone-:

To enable	281 + 5 + COS + 71 + 1 + Prog
To disable	281 + 5 + COS + 71 + 0 + Prog

acts

This command is used for defining whether outgoing calls using the virtual account codes are allowed for this class of service or not. The format of the command is,

set / reset cos <cos no.> acts

Where cos no. is the class of service which can have values from 0 to 63.

Command from Keyphone-:

To enable	281 + 5 + COS + 51 + 1 + Prog
To disable	281 + 5 + COS + 51 + 0 + Prog

adial

This command is used for allowing the auto redialing on trunks. Format of the command is,

set / reset cos <cos no.> adial

Command from Keyphone-:

To enable	281 + 5 + COS + 43 + 1 + Prog
To disable	281 + 5 + COS + 43 + 0 + Prog

aforw

This command is used for enabling or disabling the call forward (all type) feature for the defined class of service. The format of the command is,

set / reset cos <cos no.> aforw

Command from Keyphone-:

To enable	281 + 5 + COS + 14 + 1 + Prog
To disable	281 + 5 + COS + 14 + 0 + Prog

alarm

This command is used for enabling or disabling the alarm feature. The format of the command is,

set / reset cos <cos no.> alarm

Command from Keyphone-:

To enable	281 + 5 + COS + 17 + 1 + Prog
To disable	281 + 5 + COS + 17 + 0 + Prog

att

This command is used to enable or disable an extension user for doing the attendant programming. The format of the command is,

set / reset cos <cos no.> att

Command from Keyphone-:

To enable	281 + 5 + COS + 60 + 1 + Prog
To disable	281 + 5 + COS + 60 + 0 + Prog

bccos

This command is used for defining the bearer channel class of service. This command is applicable only for ISDN trunk line access. The system has 2 types of bearer channel class of service – voice and data. The command is,

set / reset cos <cos no.> bccos

Command from Keyphone-:

To enable	281 + 5 + COS + 45 + 1 + Prog
To disable	281 + 5 + COS + 45 + 0 + Prog

bforw

This command is used for enabling or disabling the feature “call forward busy”. The format of the command is,

set / reset cos <cos no.> bforw

Command from Keyphone-:

To enable	281 + 5 + COS + 15 + 1 + Prog
To disable	281 + 5 + COS + 15 + 0 + Prog

blkcli

This command is used to block the CLI of extensions only for internal calls. To enable/disable the same, command is,

set / reset cos <cos no.> blkcli

Command from Keyphone-:

To enable	281 + 5 + COS + 81 + 1 + Prog
To disable	281 + 5 + COS + 81 + 0 + Prog

bmusic

This command is used for enabling or disabling the background music feature. The format of the command is,

set / reset cos <cos no.> bmusic

Command from Keyphone-:

To enable	281 + 5 + COS + 21 + 1 + Prog
To disable	281 + 5 + COS + 21 + 0 + Prog

callog

This command is applicable only for trunks. This is used to enable or disable the SMDR recording of any trunk. This command is helpful if some trunks are used for interconnecting two exchanges. The format of this command is,

set/reset cos <cos no.> callog

Command from Keyphone-:

To enable	281 + 5 + COS + 62 + 1 + Prog
To disable	281 + 5 + COS + 62 + 0 + Prog

calld

The extension pertaining this feature, can be called by another extensions. To enable this feature, the format is,

set cos <cos no.> calld

Command from Keyphone-:

To enable	281 + 5 + COS + 64 + 1 + Prog
To disable	281 + 5 + COS + 64 + 0 + Prog

camp

This command is used for enabling or disabling call back feature. On disabling the camp feature, an extension having this class of service cannot be called back by any other extension. The format of the command is,

set / reset cos <cos no.> camp

Command from Keyphone-:

To enable	281 + 5 + COS + 37 + 1 + Prog
To disable	281 + 5 + COS + 37 + 0 + Prog

cback

This command is used for enabling or disabling call back feature. On disabling this feature, an extension, having this class of service, cannot call back any other extension. The format of the command is,

set / reset cos <cos no.> cback

Command from Keyphone-:

To enable	281 + 5 + COS + 36 + 1 + Prog
To disable	281 + 5 + COS + 36 + 0 + Prog

conf3

This command is used for allowing or disallowing three party conferences without tone. The format of the command is,

set / reset cos <cos no.> conf3

Command from Keyphone-:

To enable	281 + 5 + COS + 49 + 1 + Prog
To disable	281 + 5 + COS + 49 + 0 + Prog

confm

This command is used for allowing or disallowing multiple party conferencing. The format of the command is,

set / reset cos <cos no.> confm

Command from Keyphone-:

To enable	281 + 5 + COS + 50 + 1 + Prog
To disable	281 + 5 + COS + 50 + 0 + Prog

conf3

This command is used for allowing or disallowing three party conferencing with tone. The format of the command is,

set / reset cos <cos no.> conf3

Command from Keyphone-:

To enable	281 + 5 + COS + 59 + 1 + Prog
To disable	281 + 5 + COS + 59 + 0 + Prog

cosc

This command is used for allowing switching between the primary and secondary class of service. The format of the command is,

set / reset cos <cos no.> cosc

Command from Keyphone-:

To enable	281 + 5 + COS + 38 + 1 + Prog
To disable	281 + 5 + COS + 38 + 0 + Prog

cpick

This command is used for allowing or disallowing the call pickup feature. The format of the command is,

set / reset cos <cos no.> cpick

Command from Keyphone-:

To enable	281 + 5 + COS + 39 + 1 + Prog
To disable	281 + 5 + COS + 39 + 0 + Prog

cug

This command is used to allow or disallow an extension to make a CUG (Close User Group) call. To activate the same, command will be,

set / reset cos <cos no.> cug

Command from Keyphone-:

To enable	281 + 5 + COS + 73 + 1 + Prog
To disable	281 + 5 + COS + 73 + 0 + Prog

default

This command is used to set all the features of the defined class of services to the default value. The format of the command is,

set cos <cos no.> default

Command from Keyphone-:

To enable	281 + 5 + COS + 98 + 1 + Prog
To disable	281 + 5 + COS + 98 + 0 + Prog

deptt

This command is used for enabling or disabling deptt call. The format of the command is,

set / reset cos <cos no.> deptt

Command from Keyphone-:

To enable	281 + 5 + COS + 56 + 1 + Prog
To disable	281 + 5 + COS + 56 + 0 + Prog

dhotln

This command is used for allowing or disallowing the delayed hotline to be set by the extension user. The format of the command is,

set / reset cos <cos no.> dhotln

Command from Keyphone-:

To enable	281 + 5 + COS + 18 + 1 + Prog
To disable	281 + 5 + COS + 18 + 0 + Prog

dnd

This command is used for enabling or disabling the do not disturb feature. The format of the command is,

set / reset cos <cos no.> dnd

Command from Keyphone-:

To enable	281 + 5 + COS + 10 + 1 + Prog
To disable	281 + 5 + COS + 10 + 0 + Prog

dndo

This command is used for allowing or Disallowing the do not disturb override feature. On allowing this feature, an extension having this class of s3ervice can override an extension which is set in don not disturb. The format of the command is,

set / reset cos <cos no.> dndo

Command from Keyphone-:

To enable	281 + 5 + COS + 32 + 1 + Prog
To disable	281 + 5 + COS + 32 + 0 + Prog

dosa

This command is used to enable any extension for using the DOSA facility. To set the DOSA for any COS, the format of the command is,

set cos <cos no.> dosa

Command from Keyphone-:

To enable	281 + 5 + COS + 54 + 1 + Prog
To disable	281 + 5 + COS + 54 + 0 + Prog

ecall

This command is used to enable or disable an extension for extension to extension call. The format of this command is,

set cos <cos no.> ecall

Command from Keyphone-:

To enable	281 + 5 + COS + 63 + 1 + Prog
To disable	281 + 5 + COS + 63 + 0 + Prog

exec

It must be noted that COS 0 is the higher COS & COS 63 is the lower COS. COS 1 can not override the COS 0 while COS 1 can override the COS 2 & so on. So to override the COS 0 by COS 1, executive privilege right should be enabled in COS 1. The extensions having this right will be considered as executive subscribers. The format of the command is,

set / reset cos <cos no.> exec

Command from Keyphone-:

To enable	281 + 5 + COS + 51 + 1 + Prog
To disable	281 + 5 + COS + 51 + 0 + Prog

follow

This command is used for enabling or disabling the follow me feature. The format of the command is,

set / reset cos <cos no.> follow

Command from Keyphone-:

To enable	281 + 5 + COS + 34 + 1 + Prog
To disable	281 + 5 + COS + 34 + 0 + Prog

frcwq

This command is used to activate or deactivate the forced call waiting on an extension. On calling a busy extension, caller extension will get busy tone. Now caller can activate the forced call waiting. On activating the same, caller will get RBT & called extension will get beep for the queued internal call. To activate the same, command is,

set / reset cos <cos no.> frcwq

Command from Keyphone-:

To enable	281 + 5 + COS + 79 + 1 + Prog
To disable	281 + 5 + COS + 79 + 0 + Prog

frwy

An extension `A` can forward his calls to extension `B` only if `frwy` is enabled in the class of service of extension `B`. To activate the same, command is,

set / reset cos <cos no.> frwy

Command from Keyphone-:

To enable	281 + 5 + COS + 80 + 1 + Prog
To disable	281 + 5 + COS + 80 + 0 + Prog

gpick

This command is used for allowing or disallowing the group pickup feature. The format of the command is,

set / reset cos <cos no.> gpick

Command from Keyphone-:

To enable	281 + 5 + COS + 40 + 1 + Prog
To disable	281 + 5 + COS + 40 + 0 + Prog

hotline

This command is used for allowing or disallowing the hotline to be set by the extension user. The format of the command is,

set / reset cos <cos no.> hotline

Command from Keyphone-:

To enable	281 + 5 + COS + 19 + 1 + Prog
To disable	281 + 5 + COS + 19 + 0 + Prog

hpick

This command is used for enabling or disabling any extension to pick up the hunt group. The format of the command is,

set / reset cos <cos no.> hpick

Command from Keyphone-:

To enable	281 + 5 + COS + 58 + 1 + Prog
To disable	281 + 5 + COS + 58 + 0 + Prog

kpick

This command is used to enabling or disabling any extension for hunt line pick up by pressing the corresponding key on key phone. The format of the command is,

set / reset cos <cos no.> kpick

Command from Keyphone-:

To enable	281 + 5 + COS + 57 + 1 + Prog
To disable	281 + 5 + COS + 57 + 0 + Prog

libs

This command is used to enable any extension for using the memory bank. The format of this command is,

set / reset cos <cos no.> libs

Command from Keyphone-:

To enable	281 + 5 + COS + 42 + 1 + Prog
To disable	281 + 5 + COS + 42 + 0 + Prog

listen

This command is used for allowing or disallowing the listen in feature to be activated. The format of the command is,

set / reset cos <cos no.> listen

Command from Keyphone-:

To enable	281 + 5 + COS + 12 + 1 + Prog
To disable	281 + 5 + COS + 12 + 0 + Prog

msgp

This command is used for enabling or disabling any extension for playing the VSN message. The format of the command is,

set / reset cos <cos no.> msgp

Command from Keyphone-:

To enable	281 + 5 + COS + 61 + 1 + Prog
To disable	281 + 5 + COS + 61 + 0 + Prog

msgs

This command is used for allowing or disallowing the internal message leaving feature. On disallowing this feature, an extension having this class of service cannot leave internal message to any other extension in the system.

set / reset cos <cos no.> msgs

Command from Keyphone-:

To enable	281 + 5 + COS + 35 + 1 + Prog
To disable	281 + 5 + COS + 35 + 0 + Prog

musicwt

If an analog extension user is listening the back ground music on his phone & at the same time any internal caller dials his number, the internal caller will get RBT & the called extension who was listening back ground music, will also get ring back tone. Now he can terminate the back ground music & can attend the internal queued call. This feature will not work if any extension is transferring a trunk call to that extension who is listening the music. But for one termination or level DID call, this feature will work. To activate this feature in the cos, command is,

set cos <cos no.> musicwt

Command from Keyphone-:

To enable	281 + 5 + COS + 99 + 1 + Prog
To disable	281 + 5 + COS + 99 + 0 + Prog

net0

This command is used for allowing or disallowing access to network route 0. The format of the command is,

set / reset cos <cos no.> net0

Command from Keyphone-:

To enable	281 + 5 + COS + 22 + 1 + Prog
To disable	281 + 5 + COS + 22 + 0 + Prog

net1

This command is used for allowing or disallowing access to network route 1. The format of the command is,

set / reset cos <cos no.> net1

Command from Keyphone-:

To enable	281 + 5 + COS + 23 + 1 + Prog
To disable	281 + 5 + COS + 23 + 0 + Prog

net2

This command is used for allowing or disallowing access to network route 2. The format of the command is,

set / reset cos <cos no.> net2

Command from Keyphone-:

To enable	281 + 5 + COS + 24 + 1 + Prog
To disable	281 + 5 + COS + 24 + 0 + Prog

net3

This command is used for allowing or disallowing access to network route 3. The format of the command is,

set / reset cos <cos no.> net3

Command from Keyphone-:

To enable	281 + 5 + COS + 25 + 1 + Prog
To disable	281 + 5 + COS + 25 + 0 + Prog

net4

This command is used for allowing or disallowing access to network route 4. The format of the command is,

set / reset cos <cos no.> net4

Command from Keyphone-:

To enable	281 + 5 + COS + 26 + 1 + Prog
To disable	281 + 5 + COS + 26 + 0 + Prog

net5

This command is used for allowing or disallowing access to network route 5. The format of the command is,

set / reset cos <cos no.> net5

Command from Keyphone-:

To enable	281 + 5 + COS + 27 + 1 + Prog
To disable	281 + 5 + COS + 27 + 0 + Prog

net6

This command is used for allowing or disallowing access to network route 6. The format of the command is,

set / reset cos <cos no.> net6

Command from Keyphone-:

To enable	281 + 5 + COS + 28 + 1 + Prog
To disable	281 + 5 + COS + 28 + 0 + Prog

net7

This command is used for allowing or disallowing access to network route 7. The format of the command is,

set / reset cos <cos no.> net7

Command from Keyphone-:

To enable	281 + 5 + COS + 29 + 1 + Prog
To disable	281 + 5 + COS + 29 + 0 + Prog

net8

This command is used for allowing or disallowing access to network route 8. The format of the command is,

set / reset cos <cos no.> net8

Command from Keyphone-:

To enable	281 + 5 + COS + 30 + 1 + Prog
To disable	281 + 5 + COS + 30 + 0 + Prog

net9

This command is used for allowing or disallowing access to network route 9. The format of the command is,

set / reset cos <cos no.> net9

Command from Keyphone-:

To enable	281 + 5 + COS + 31 + 1 + Prog
To disable	281 + 5 + COS + 31 + 0 + Prog

net10

This command is used for allowing or disallowing access to network route 9. The format of the command is,

set / reset cos <cos no.> net10

Command from Keyphone-:

To enable	281 + 5 + COS + 74 + 1 + Prog
To disable	281 + 5 + COS + 74 + 0 + Prog

net11

This command is used for allowing or disallowing access to network route 9. The format of the command is,

set / reset cos <cos no.> net11

Command from Keyphone-:

To enable	281 + 5 + COS + 75 + 1 + Prog
To disable	281 + 5 + COS + 75 + 0 + Prog

net12

This command is used for allowing or disallowing access to network route 9. The format of the command is,

set / reset cos <cos no.> net12

Command from Keyphone-:

To enable	281 + 5 + COS + 76 + 1 + Prog
To disable	281 + 5 + COS + 76 + 0 + Prog

net13

This command is used for allowing or disallowing access to network route 9. The format of the command is,

set / reset cos <cos no.> net13

Command from Keyphone-:

To enable	281 + 5 + COS + 77 + 1 + Prog
To disable	281 + 5 + COS + 77 + 0 + Prog

net14

This command is used for allowing or disallowing access to network route 9. The format of the command is,

set / reset cos <cos no.> net14

Command from Keyphone-:

To enable	281 + 5 + COS + 78 + 1 + Prog
To disable	281 + 5 + COS + 78 + 0 + Prog

nforw

The command is used to enable / disable any extension for 'call forward no ans' feature. The format of the command is,

set / reset cos <cos no.> nforw

Command from Keyphone-:

To enable	281 + 5 + COS + 16 + 1 + Prog
To disable	281 + 5 + COS + 16 + 0 + Prog

oprk

This command is used to allow or disallow the access of the operator ACD. This command is applicable only for operator ACD. The format of the command is,

set cos <cos no.> oprk

Command from Keyphone-:

To enable	281 + 5 + COS + 70 + 1 + Prog
To disable	281 + 5 + COS + 70 + 0 + Prog

paging

The command is used to enable / disable any extension for paging. The format of the command is,

set / reset cos <cos no.> paging

Command from Keyphone-:

To enable	281 + 5 + COS + 11 + 1 + Prog
To disable	281 + 5 + COS + 11 + 0 + Prog

privacy

The command is used to enable / disable any extension for activating the privacy. The extensions having this facility, can activate the privacy. The format of the command is,

set / reset cos <cos no.> privacy

Command from Keyphone-:

To enable	281 + 5 + COS + 20 + 1 + Prog
To disable	281 + 5 + COS + 20 + 0 + Prog

pstn

This command is used to enable/disable any extension to select the trunk by dialing `0'. On disabling the same, extension can not access the trunk by dialing `0'. while that extension can access the trunk by dialing the trunk codes. The format of the command is,

set / reset cos <cos no.> pstn

Command from Keyphone-:

To enable	281 + 5 + COS + 44 + 1 + Prog
To disable	281 + 5 + COS + 44 + 0 + Prog

remote

The command is used to enable / disable any extension for activating any key phone remotely. The format of the command is,

set / reset cos <cos no.> remote

Command from Keyphone-:

To enable	281 + 5 + COS + 41 + 1 + Prog
To disable	281 + 5 + COS + 41 + 0 + Prog

room

This command is used to enable / disable an extension for room to room call. For barring the room to room call, enable the room command but within the same department, one room can call another room.

set cos <cos no.> room

Command from Keyphone-:

To enable	281 + 5 + COS + 55 + 1 + Prog
To disable	281 + 5 + COS + 55 + 0 + Prog

silent

The command is used to enable / disable any extension for silent motoring of any key phone. The format of the command is,

set / reset cos <cos no.> silent

Command from Keyphone-:

To enable	281 + 5 + COS + 13 + 1 + Prog
To disable	281 + 5 + COS + 13 + 0 + Prog

tk_accs

This command is used when the COPPER CONNECTIONS system is configured as a transit exchange. This command enables a trunk line to seize another trunk line, depending on the DNI received on this trunk. The format of this command is,

set / reset cos <cos no.> tk_accs

For example, to allow trunk 700 to seize any other trunk in the system, first decide the cos of the trunk 700 & then set the following command for the decided cos,

set cos <cos no.> tk_accs

Command from Keyphone-:

To enable	281 + 5 + COS + 47 + 1 + Prog
To disable	281 + 5 + COS + 47 + 0 + Prog

Default : No trunks are allowed to access any other trunk

tk_alld

This command is used when the COPPER CONNECTIONS system is configured as a transit exchange. It is used for allowing a trunk line to be seized by any other trunk line in the system. The format of this command is,

set / reset cos <cos no.> tk_alld

For example, to allow trunk 701 to be seized by any other trunk in the system, first decide the cos of the trunk 700 & then set the following command for the decided cos,

set cos <cos no.> tk_alld

Command from Keyphone-:

To enable	281 + 5 + COS + 48 + 1 + Prog
To disable	281 + 5 + COS + 48 + 0 + Prog

tk_xfer

The command is used to enable/disable any trunk port to be transferred to another trunk port. This command will be used for networking. The format of the command is,

set / reset cos <cos no.> tk_xfer

Command from Keyphone-:

To enable	281 + 5 + COS + 46 + 1 + Prog
To disable	281 + 5 + COS + 46 + 0 + Prog

tpick

Any KTS user pertaining to the COS in which tpick is enabled, can pick up the trunk call just by pressing the corresponding trunk key on the KTS.

To enable the tpick	set cos <cos no.> tpick
To disable the tpick	reset cos <cos no.> tpick

Command from Keyphone-:

To enable	281 + 5 + COS + 65 + 1 + Prog
To disable	281 + 5 + COS + 65 + 0 + Prog

ulst

This command is used to allow or disallow an extension to dial out as per the allowed/ denied list. The format of the command is,

set cos <cos no.> ulst

Command from Keyphone-:

To enable	281 + 5 + COS + 72 + 1 + Prog
To disable	281 + 5 + COS + 72 + 0 + Prog

vip

This command is used to define an extension as VIP. All the extensions pertaining this COS, will be considered as VIP extensions. To enable the VIP in a COS< command is,

set cos <cos no.> vip

Command from Keyphone-:

To enable **281 + 5 + COS + 67 + 1 + Prog**
 To disable **281 + 5 + COS + 67 + 0 + Prog**

All the properties of a class of service can be viewed by the command

`show cos <cos no.>

```
show cos 0
class of Service 0
ACCOUNT Yes      ACD Lock No     ALARMS Yes      ATT COS No      AUTO_DIAL No
BCCOS No         BG_MUSIC Yes    Block Cli No    CALL_BACK Yes   CALL_EXTN Yes
CALL_FALL Yes    CALL_FBUSY Yes  CALL_FNANS Yes  CALLED_BACK Yes CALLED_EXTN Yes
CALL LOG Yes     CONF_3WAY Yes   CONF_3TONE Yes  CONF_MWAY Yes   COS_CHNG Yes
Use CUG No       DepttCall Yes   DHOT_LINE Yes   DND No          DND_ORIDE No
DOSA Yes         EXE PRIVL No    FOLLOW ME Yes    Force WQ No     Frw to Me Yes
HOT_LINE Yes     HUNT PICK Yes   HUNT KEY Yes    LEAV_MSGS Yes   LIBS Yes
LISTEN IN No     MUSIC CWT No    Msg Play Yes    Network0 Yes    Network1 Yes
Network2 Yes     Network3 Yes    Network4 Yes    Network5 Yes    Network6 Yes
Network7 Yes     Network8 Yes    Network9 Yes    Network10 Yes   Network11 Yes
Network12 Yes    Network13 Yes   Network14 Yes   OPR Lock No     PAGING Yes
PICK_ANY Yes     PICK_GRP Yes    PPDCos No       PRIVACY Yes     PSTN SEL Yes
RemoteAct No     RoomCalls Yes   Silent MON Yes  TKT_K_ACCES No  TKT_K_ALWD No
TKTK_XFER Yes    TRK_KPICK No    USE_LIST No     VIP No
```

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Chapter 15

System Commands

This field is used for changing the system parameters. The various commands that can be used in this field are given below.

Command	syntax	description
acdsrv	set sys <cmd>	acd server connected
acts	set sys <cmd> <cod> <psw> <lev>	add an account code
act_sys	set sys <cmd>	system DT after account access
anagmsg	set sys <cmd>	Messages On Analog Phones
bossg	set sys <cmd> <bg> <memb>	boss group
budget	set sys <cmd>	budgeting start
budgetp	set sys <cmd>	budgeting on pulse based
buflim	set sys <cmd> <calls>	buffer full lock limit
ccmd	set sys <cmd> <dout_table>	dial out digit table(r-del)
cctrl	set sys <cmd>	enable caller discon control
clirt	set sys <cmd> <table> <dest> <cli>	cli route table
clirtm	set sys <cmd> <table> <hh> <mm> <hh> <mm>	Timer for clirt
clrlib	set sys <cmd>	clear all libs
coststr	set sys <cmd> <string>	costing lable string
cug	set sys <cmd> <cug> <dnum> <line>	CUG member
cuttime	set sys <cmd> <time>	call cut time
diallim	set sys <cmd>	dial limit for o/g trunks
dialspl	set sys <cmd>	allow *,# on og trunks
dcmd	set sys <cmd> <cmd_table>	direct digit table(r-del)
debug	set sys <cmd>	PBC/PMSG/IAU/SER/Err/Qsig/Clk
dptxfr	set sys <cmd>	single digit deptt. xfer
extsec	set sys <cmd> <sec>	add extra seconds for offset
extkhz	set sys <cmd> <count>	add extra 16khz pulse for offset
fault	set sys <cmd>	load fault status
feat	set sys <cmd> <feat>	set gps feat
flashtm	set sys <cmd> <time>	Flash Time & PCT Error
freelib	set sys <cmd> <libs>	mode free libs starts
glib	set sys <cmd> <libs> <par>	fill global libs
halrm	set sys <cmd> <s><h><m><dst>	Hourly Alarm
hostrdy	set sys <cmd>	host is always ready
ismdr	set sys <cmd>	report incoming calls
msgsg	set sys <cmd> <msg> <card> <port>	fill msg table
mtrtime	set sys <cmd> <time>	time for time base metering
nocptd	set sys <cmd>	Ignore CPTD for Metering
pmusic	set sys <cmd>	feed music to zone paging
nitcode	set sys <cmd> <code>	nite code
nitvrr	set sys <cmd>	night vrr announcement
numlim	set sys <cmd> <len>	numbering plan length
print	set sys <cmd>	printing & call control
prnport	set sys <cmd>	print on printer/terminal
ptab	set sys <cmd> <prn list>	smdr print list
rdlcnt	set sys <cmd> <cnt>	auto redial tries
rdldly	set sys <cmd> <cnt>	redial delay
rdltime	set sys <cmd> <time>	auto redial time
refresh	set sys <cmd>	refresh system card database

replay	set sys <cmd>	Relay On/Off
sharing	set sys <cmd>	share std/isd calls
smrtdrp	set sys <cmd>	enable smart drop of calls
smdre	set sys <cmd>	smdr ext to ext calls
splnum	set sys <cmd>	*,# allowed in numbering
stdlim	set sys <cmd> <sec>	set min.limit for std number
tbn	set sys <cmd> <time>	time for time base metering
tone	set sys <cmd> <tp> <prt>	rbt/eng/dial/hwl as vsn
trace	set sys <cmd>	mal. call trace
trkxfr	set sys <cmd>	jn to jn xfer
usedtm	set sys <cmd>	Use DTM Dialers
ulsta	set sys <cmd> <0-3> <num>	Add in allowed list
ulstd	set sys <cmd> <0-3> <num>	Add in denied list
vms	set sys <cmd> <vm> <string>	voice mail strings
wallbrd	set sys <cmd> <ser> <stat>	Wall Board Display
weekoff	set sys <cmd> <day>	weekly off
wtab	set sys <cmd> <dial> <cnt> 1	fill wait table
wt_tmr	set sys <cmd>	enable tmr watch
xfrlock	set sys <cmd>	call xfer locked

The commands related to the system features are explained below in alphabetical order. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or from key telephone (KTS).

With every parameter detail, both the procedures are defined means how to set / reset through terminal software or how to set / reset from KTS.

The format of the KTS command is

PROG + PSW + 281 + 1 + Command + Prog

Where **PSW** is the system programming passord. By default it is 1234.

& the various **Commands** are explained below.

acdsrv

If DG 250 IVDG 250 is integrated with an external application named AMS – ACD management Software, DG 250 IVDG 250 has to send the status of the various agents of the ACD group. DG 250- will send the desired information, if `acdsrv` is enabled. To enable the same, command is,

set sys <acdsrv>

Command from Keyphone-:

To enable	281 + 1 + 25 + 0001 + Prog
To disable	281 + 1 + 25 + 0000 + Prog

Default : ACD server is disabled

acts

This command is used for virtual telephony. This command is used for creating virtual extension numbers and also their password and dialout mode. A maximum of 1000 virtual accounts can be created for a system. The format of the command is,

set sys acts <a/c number> <pass code> <level>

The account number must be of 4 digits and the pass code must be of 4 digits. The virtual ext. no. are independent of the extension numbers in the system. *Defined account codes can be viewed by the command `show sys acts`*

Command from Keyphone-:

To enable	281 + 1 + 83 + 1 + AAAA + PPPP + L + Prog
-----------	--

Where	AAAA	-	4-digit account code.
	PPPP	-	4-digit password.
	L	-	Dialout level & its value can be 0 to 6.

To undefined any account code	281 + 1 + 83 + 0 + AAAA + Prog
-------------------------------	---------------------------------------

Default: No virtual extensions are defined in the system.

acts_sys

This command is used to provide the system dial tone in place of the trunk dial tone while accessing the DG 250 feature 'Virtual Telephony'. To enable the same, command will be,

set sys acts_sys

Command from Keyphone-:

To enable	281 + 1 + 29 + 0001 + Prog
To disable	281 + 1 + 29 + 0000 + Prog

Default: Disabled

Analogmsg

This command is used to enable/disable leaving of analog messages on analog extensions. The format of the command is-:

set sys analogmsg

Default: Disabled

Bossg

This command is used to set members of a bossgroup. To dial a bossgroup the dialing code for the respective bossgroup is to be dialed. The format of the command for defining any extension member of a boss group is-:

set sys bossg g x <ext>

where	g	stands for the bossgroup number (can be 0 to 3)
	x	x to be replaced by r if ring on bossg in needed and x to be replaced by n if only indication is required.
	<ext>	stands for the extension to be put in desired bossgroup.

budget

This command is used for enabling the amount based budgeting feature in the system. The command for enabling this feature in the system is,

set sys budget

Command from Keyphone-:

To enable	281 + 1 + 18 + 0001 + Prog
To disable	281 + 1 + 18 + 0000 + Prog

Default: Budgeting is disabled.

budgetp

This command is used to enable the 16 Khz pulse based budgeting. This type of budgeting will be on 16 KHz pulses based. The format of the command is,

set / reset sys budgetp

Command from Keyphone-:

To enable	281 + 1 + 27 + 0001 + Prog
To disable	281 + 1 + 27 + 0000 + Prog

buflim

This command is very useful for GPAX installation. On setting this command, system intimates to the GPAX operator that the call buffer of the system is about to full. This feature considers only those calls that are unacknowledged by the call billing software. In other words, the calls that are not dumped to the computer, will be considered by the system for buffer full condition.

System has 2 ways for intimating the GPAX operator.

- a) By changing the dialout mode of all subscribers.
- b) By disabling any extension.

For first case, system will lock the outward dialing of every extension. While any extension can open his dialing through dynamic lock. But after one call, again system will lock the outgoing.

In second case, system will disable a predefined port (see the command 'BUFPORT' for ext). System will provide the busy tone on calling bufport through DID trunks. Means GPAX owner can monitor the call buffer of the system from the remote location.

To set the buffer limit, the command is, **set sys buflim <XXXX>**

Where 'XXXX' are the no. of calls. The value of XXXX can be 1000 to 2000 for action on buffer full. If 'XXXX' is set 3000, buffer limit will be reset.

On downloading the calls through serial port (through call billing software) the moment, system has unacknowledged call 'XXXX-20', system will open the dialmode of all the subscribers or enable the BUFPORT.

For example, if BUFLIM is 1800 than on downloading the calls, as soon as the system has 1780 unacknowledged calls, system will come in ordinary mode.

Note : This feature does not consider the ASMDR for buffer full action.

Command from Keyphone-:

To enable	281 + 1 + 68 + XXXX + Prog
-----------	-----------------------------------

Where XXXX is the buffer full limit & its value will be 1000 to 4999.

Important : By default, system applies only first case. But if any extension is set as BUFPORT, system will not change the dialout mode. In such case, no subscriber will lose his dialing. Only that buffer full port will be disabled.

ccmd

This command is used to set the dial out digit table. The format of the command is,

set sys ccmd <dout table>

By default, the dial out digit table is as ,

0	-	All off
1	-	As per rsrd setting
2	-	As per rsrd setting
3	-	As per rsrd setting
4	-	As per rsrd setting
5	-	As per rsrd setting
6	-	All On

This table can be changed as per the requirement. For example if the following table is required.

6	-	All off
5	-	As per rsrd setting
4	-	As per rsrd setting
3	-	As per rsrd setting
2	-	As per rsrd setting
1	-	As per rsrd setting
0	-	All On

The command will be,

set sys ccmd 6543210

Default: 0123456

cctrl

This command is used while DG 250 is configured in CO-XCHANGE mode (For GPAX). In CO-Xchange mode, call disconnection control remains in caller side. To activate the same, the command will be,

set sys cctrl

To deactivate the same command will be:-

reset sys cctrl

Command from Keyphone:-

To enable	281 + 1 + 26 + 0001 + Prog
To disable	281 + 1 + 26 + 0000 + Prog

Default: disabled.

clirt

DG 250 has a very unique feature i.e. 'CLI based call routing'. This command 'clirt' is used to define the CLI along with the destination. To define the same, command is,

set sys clirt <table> <dest> <CLI header>

Where <table> is the table no., <dest> is the destination where call has to be routed., <CLI header> is the CLI which is supposed to be detected.

Maximum 25 tables can be created.

For example, for All north India call starting with 1xx-xxxx to land on extension 2100

set sys clirt 1 2100 1

Another example, for all calls starting with 79xxxx to land on ACD group1 (flex dial number 891)

set sys clirt 2 891 79

The defined CLI route tables can be viewed by the command '**show sys clirt**'.

```
show sys clirt
CLI Routing Table
 1. [--:-- - -:--] 2100 << 1
 2. [--:-- - -:--] 891 << 79
```

Default: No CLI table is defined.

Command from Keyphone-:

To enable **281 + 1 + 76 + 1 + TT + Destination No. + CLI + PROG**

Where TT - CLI Route Table No. (00 to 24)
Ext No. - Valid Ext No. in 8 digits (Use * as fillers before the ext no.)
CLI - detected CLI

To undefined any CLI route **281 + 1 + 76 + 0 + TT + PROG**

Important: CLI based call routing can be activated time based also (if required).

Note-: It must be noted that CLI based call routing will not work for R2MFC level DID trunks.

clirtm

This command is used to define the timings for the CLI based call routing. To define the same, command is,

set sys clirtm <table> <hh> <mm> <h'h'> <m'm'>

Where <table> is the CLI route table & <hh> <mm> is the starting time & <h'h'> <m'm'> is the ending time for the <table>. It must be noted that timings should be entered in 24 hours format.

For example, if the table no. 1 is supposed to work only during 8 AM to 5 PM & table no. 2 is supposed to work only during 10 AM to 8 PM, commands will be,

```
set sys clirtm 1 08 00 17 00
set sys clirtm 2 10 00 20 00
```

`show sys clirt' will be used to view the timings for the defined tables.

```
show sys clirt
CLI Routing Table
 1. [ 08 00 : 17 00 ] 2100 << 1
 2. [ 10 00 : 20 00 ] 891 << 79
```

Command from Keyphone-:

To define **281 + 1 + 77 + 1 + TT + HH + MM + hh + mm + PROG**

Where TT - CLI Route Table No. (00 to 24).
 HH & MM - Start Time in 24 hours format.
 Hh & mm - End Time in 24 hours format.

To delete any CLI route **281 + 1 + 77 + 0 + TT + PROG**

Default : No timings are defined.

clrlib

This command is used for clearing the global memory banks. The command for clearing the memory bank is,

```
set sys clrlib
```

Command from Keyphone-:

To enable **281 + 1 + 19 + 0001 + Prog**
 To disable **281 + 1 + 19 + 0000 + Prog**

coststr

This command is used to change the currency name. You can replace it by any 4 character. To change the currency name, the command is,

```
set sys coststr <XXXX>
```

Where XXXX is the new currency name.

Default: Currency name is Rs.

cug

This command is used to create the close user groups. A **Close User Group** is a group of extensions where all the members of that group can call other members of the same group just by dialing a predefined short number.

Maximum 10 close user groups can be created in DG 250 & one CUG can has maximum 50 members. To define the same, command is,

set sys cug <cug gg> <Dial Num> <Member>

Where <cug gg> is the close user group number. Its value can be 0 to 9.

<dia num> is the short number for the defined member.

<Member> is the extension number which is being defined in CUG.

For **example**, if a close user group 0 i.e. CUG-0 is supposed to be created in which extensions 2032 / 2033 / 2034 / 2035 should be the members of CUG-0 & the CUG number of 2032 should be 1, 2033 should be 3, 2034 should be 4 & 2035 should be 5. The commands will be –

```
set sys cug 0 1 2032
set sys cug 0 3 2033
set sys cug 0 4 2034
set sys cug 0 5 2035
```

Another close user i.e. CUG-1 should also be created. The members of CUG-1 should be 2036 / 2037 / 2038 / 2039. The CUG number of 2036 should 1, 2037 should be 3, 2038 should 4 & 2039 should be 5.

```
set sys cug 1 1 2036
set sys cug 1 2 2037
set sys cug 1 3 2038
set sys cug 1 4 2039
```

Now if member of CUG-0 dials 1, call will go to extension 2032, but if the members of CUG-1 dials 1, call will go to 2036.

The members of CUG-0 can call each other by dialing the complete number of the extension. Means extension 2036 can call extension 2032 by dialing 2032.

Defined CUG can be viewed by the command `show sys cug`.

```
show sys cug
Close User Group 0
ID  Member
34  2035
35  2000
```

Command from Keyphone-:

To create a CUG - **281 + 1 + 92 + 1 + GGGG + DDDD + Ext No. + Prog**

- Where GGGG - CUG group No. Its value can be 0000 to 0009.
- DDDD - Dial Num & its value can be 1 to 9999.
- Ext No. - Desired extension no. (Use * as filler if ext is less than 8 digits)

To remove a member from CUG group - **281 + 1 + 92 + 0 + GGGG + DDDD + Prog**

cuttime

This command defines the call cut time. This time will be applicable for call duration warning tone & also for call cut feature. If the call cut feature is activated for an extension, all outgoing or incoming trunk calls for this extension will get disconnected after the call duration exceeds the set call cut time. The valid times are from 60 seconds to 900 seconds.

The format for the command is,

set sys cut time <time in sec.>

For example, the command for setting the call cut time as 3 minutes is,

set sys cut time 180

Command from Keyphone-:

To define the cut time - **281 + 1 + 52 + XXXX + Prog**

Here XXXX is the cut time & its value can be 0060 to 0900.

Default: 3 minutes

diallim

This command is used to set the dtmf dialing limit on analog trunks. The format of this command is,

set sys diallim

Command from Keyphone-:

To enable **281 + 1 + 35 + 0001 + Prog**

To disable **281 + 1 + 35 + 0000 + Prog**

Default: Enabled.

dialspl

Sometimes '*' & '#' also are required to dial on trunk for IVR accessing . This command is used to enable the '*' & '#' dialing from key phone on trunk. This command is not for any specific key phone. This command is applicable for all the key phones.

set sys dialspl

Command from Keyphone-:

To enable **281 + 1 + 22 + 0001 + Prog**

To disable **281 + 1 + 22 + 0000 + Prog**

Default : Disabled.

dcmd

This command is used to set the features codes like listen in, call back. The format of the command is,

set sys dcmd <cmd table>

Default setting of various digits will be used for following features –

0	-	reserved
1	-	For Call Waiting
2	-	For Call Waiting
3	-	Forced call waiting
4	-	2.5 party conference
5	-	Serial Call
6	-	listen-in
7	-	reserved
8	-	auto call back
9	-	Barge-In

Default : The direct command table is 0123456789.

debug

This command is used to activate the debug of various cards.

set debug all <card no.>

To stop the debug press “ctrl v”.

dptxfr

This command is used for enabling the department transfer with the DISA. A maximum of 10 departments can be defined in the system. On enabling the department transfer, the external caller can reach any department by dialing the single digit department number. The command for enabling this feature is,

set sys dptxfr

and the command for disabling this feature is,

reset sys dptxfr

Command from Keyphone-:

To enable	281 + 1 + 14 + 0001 + Prog
To disable	281 + 1 + 14 + 0000 + Prog

Default: Department transfer mode is disabled.

extsec

This command is used to add any number of seconds to the outgoing call duration. Minimum 1 & maximum 9 seconds can be added. The command is,

set ext extsec <sec>

Command from Keyphone-:

To add the extra seconds in every call **281 + 1 + 66 + XXXX + Prog**

Where XXXX is the no. of sec. to add in every call duration. Its value can be 0001 to 0007

extkhz

This command is used to add any number of 16 Khz pulses to STD & ISD calls. The format of the command will be,

set ext extsec <pulses>

Command from Keyphone-:

To add the extra pulse in outstation call **281 + 1 + 65 + XXXX + Prog**

Where XXXX is the no. of pulse to add in every long distance call. Its value can be 0001 to 0005.

Note : This command is applicable only for STD/ISD calls.

fault

This command is used to load the fault status of the various ports on the serial port. The format of the command is,

set sys fault

feat

This command is used to disable/ enable a lot of features. The details of the various features are given under the chapter '**Feat Commands**'. The format for the command is -:

Set sys feat <value>

Where <value> represents the feature value to be enabled and is explained in chapter Feat Commands.

flashtm

This command is used to set the flash time of the system. The format of the command is-:

set sys flashtm <time><%tolerance>

where time is in ms.

For example if you want to set the flash time 700ms and tolerance 4% then the command to be given would be set sys flashtm 74

Default-: flashtime is 600 ms and tolerance is 5%.

freelib

This command is used to set the mode free bank. The DG 250 has a memory bank of 400. Further, any number of banks can be set as mode free. Mode free bank can be accessed by those extensions also those have no dial out facility. The format of the command is,

set sys freelib <lib>

For example, if the memory banks 300 onwards are required as mode free, command will be,

set sys freelib 300

memory bank no. & its value can be 1000 to 1399.

Command from Keyphone-:

To define **281 + 1 + 72 + XXXX + Prog**

Where XXXX is the memory bank no. & its value can be 1000 to 1399.

glib

This command is used to fill the global banks. System has a memory bank of 400 memory. The format of the command is,

set sys glib <lib> <para>

For example, if external tele number 011-6923412 is required to be filled on memory bank no. 250, the command will be,

set sys glib 250 00116923412

Note that the first `0' of the para is to select the trunk. If external number is required to be dialed on any particular trunk than `0' can be replaced with trunk access code. For example, the same tele no. is required to be dialed on trunk 7007, the command will be,

set sys glib 250 7007116923412

halm

This command is used to set check alarms on any extension. We are able to accommodate only 20 such Hourly alarms. Every alarm has four stages

- a) Not Armed
- b) First - System is yet to Ring the ALARM

- c) Ring - System had sent the Ring, It (extension) may be ringing currently (If Alarm Time and Current time are same) or it has gone unanswered.
- d) OK - System had sent the ring and is answered by destination party

Programming for the same is -:

set sys halrm <1 to 20> <HH> <MM> <ext no.>

The current state of any Halrm can be seen by giving the command-:

Show sys halarm

hostrdy

This command specifies whether a handshaking signal is required or not from the computer for sending call details through the second RS232 port on the MCC card. On setting this command, the system will not wait for the acknowledgement of the call from the computer. The command for enabling this feature is,

set sys hostrdy

Command from Keyphone-:

To enable	281 + 1 + 17 + 0001 + Prog
To disable	281 + 1 + 17 + 0000 + Prog

Default: Handshaking is enabled

ismdr

This feature is used to enable the system to record the incoming calls also. If CLI also is detected through that trunk, that also will be shown in the incoming SMDR. To enable the same, the command is,

set sys ismdr

Important : DG 250 has got an incoming call buffer of approx 2100 calls. As soon as any incoming call is terminated by any subscriber, an incoming call string will be saved in incoming call buffer. Incoming calls can be downloaded through the lower serial port of the DG 250 CPU.

Further, as an incoming calls can be transferred to more than one subscriber so this call will be logged into the call terminator's account only. No call charges will be there for incoming call string.

Command from Keyphone-:

To enable	281 + 1 + 30 + 0001 + Prog
To disable	281 + 1 + 30 + 0000 + Prog

Default: Incoming SMDR is disabled.

msgs

This command is used to define the various VSN messages on VSN ports. The format of the command is,

set sys msgs <msg> <VSN card> <port>

Command from Keyphone-:

To define the messages **281 + 1 + 84 + 1 + MMMM + CCCC + PP + Prog**

Where	MMMM	-	Message No.
	CCCC	-	VSN Card No. (in 4-digits)
	PP	-	Port No. on VSN card

To undefine the messages **1 + 84 + 1 + MMMM + CCCC + PP + Prog**

Note : For details, refer the detailed description on VSN.

Mtrtime/tbm

This command defines the metering time for outgoing trunk calls on analog trunks. This time will be applicable for time based metering of trunk calls on analog trunks. The valid metering time are from 10 seconds to 90 sec. For example, to set the metering time as 30 seconds, the command is,

set sys mtrtime 30
or
set sys tbm 30

Command from Keyphone-:

To define the metering time **281 + 1 + 53 + XXXX + Prog**

Where XXXX is the metering time & its value can be 0010 to 0090.

Default: 20 seconds

nitcode

This command is used for setting the night code for the system. The night code is of 2 digits. The system can be changed from day mode to night mode & vice versa, using this code. For example, to set the night code of the system as 88, the command is,

set sys nitcode 88

Command from Keyphone-:

To define the nite code **281 + 1 + 58 + XXXX + Prog**

Where XXX is the Nite Code & its value can be 0001 to 0099

Default: The system night code is 99.

nitvrr

This command is used for enabling the night message while DISA accessing during the night hours. On enabling the night VRR, in the night mode, the DG 250 will play the night VRR message & drop the incoming Trunk line after playing the message. The command for enabling this feature is,

set sys nitvrr

and the command for disabling this feature is,

reset sys nitvrr

Command from Keyphone-:

To enable	281 + 1 + 12 + 0001 + Prog
To disable	281 + 1 + 12 + 0000 + Prog

Default: Night VRR is disabled.

numlim

The maximum length of the defined extension / trunk/ feature number will have to be defined. Note this is mandatory. To define the same, command is,

set sys numlim <length>

Length of the numbering plan can be 2 to 8.

Command from Keyphone-:

To define the length of the numbering plan **281 + 1 + 63 + XXXX + Prog**

Where XXXX is the length of the numbering plan. Its value can be 0002 to 0008.

Default: Length of the numbering plan is 4.

nocptd

This command is used to ignore the CPTD for metering. The format for the command is-:

Set sys nocptd

Default: CPTD is used.

pmusic

This command is used to feed music on paging zones. The format for the command is-:

Set sys pmusic

Default: pmusic is not set

print

This command is used to take the ASMDR printout on the printer port. The format of the command is,

set sys print <X>

- Where X - 0 Stop printing.
 - 1 Print from buffer, clearing buffer, and continue printing On-line. In case of printer error, calls will not be lost. They will remain in the buffer until printing is resumed.
 - 2 Clear buffer without printing.
 - 9 Print from buffer without clearing buffer and continue printing on-line while storing calls in buffer

Command from Keyphone-:

To enable **281 + 1 + 61 + XXXX + Prog**

Where the details of XXX will be as shown above but note that the value of XXXX must be entered in 4 digits.

prnport

This command is used for diverting data of the printer port to the serial port. After defining this command, whatever content is supposed to be printed on the printer, that will be diverted to the upper serial port of the DG 250 MCC. & that data can be viewed by any terminal software like, TERM.EXE / XTALK.EXE / HYPERTERMINAL.EXE

The command for diverting the printer port to the upper serial port,

set sys prnport

The command for diverting back the parallel port content to the parallel port from serial port.

reset sys prnport

Outgoing call details can be taken through the printer port.

Command from Keyphone-:

To enable **281 + 1 + 20 + 0001 + Prog**
 To disable **281 + 1 + 20 + 0000 + Prog**

ptab

Call string for printer & serial port is programmable. Any field of the call string can be changed or Disabled. The command for the same is,

set sys ptab 012345678

- Where 0 for trunk for EXT
 1 for Call Terminator Extension
 2 Call Start Time

- 3 Call duration
- 4 16 khz pulses
- 5 Call date
- 6 Dialed tele no.
- 7 for account code or call originator
- 8 for call charges

By **default**, print format - 0 1 2 3 4 5 6 7 8

SR. TRUNK EXT TIME DURA UNIT DATE DIAL NUMBER ACTS CHARGES
 Whatever setting is done for print format, it will be set for printer & serial port both. Different string for serial & printer port can not be set. The field `serial no.` is only for printer port. On serial port, call charges will not be dumped.

Setting of the print format can be viewed by `show sys msgs`

Example, if following string is supposed to be dumped on the serial port,

EXT TRUNK TIME DURA UNIT DATE DIAL NUMBER CHARGES

The command will be, **set sys ptab 10234568**

Command from Keyphone-:

To define the call string **281 + 1 + 87 + <0123456789> + Prog**

The details of <0123456789> is explained above in the same command.

rdlcnt

This command is used to set the number of trials for auto redialing. The format of the command is,

set sys rdlcnt <No. of trials>

Command from Keyphone-:

To define the auto redial count **281 + 1 + 57 + XXXX + Prog**

Where XXX is the auto redial counts & its value can be 0001 to 0008.

Default : 5

rdldly

This command sets the time delay for start of dialing on a trunk line, after picking it up. This command will be useful in places where there is a delayed dial tone on the Trunk lines. The valid delay times are from 1 second to 9 seconds. For example to set the delay time as 1 second, the command is,

set sys rdldly 1

Command from Keyphone-:

To define the auto redial delay **281 + 1 + + XXXX + Prog**

Where XXX is the auto redial counts & its value can be 0001 to 0008.

Default: 1 second

rdltime

This command is used to set the time interval between two successive trial of auto redialing. The format of the command is,

set sys rdltime <Seconds>

Command from Keyphone-:

To define the auto redial delay **281 + 1 + 56 + XXXX + Prog**

Where XXX is the auto redial delay & its value can be 0010 to 0080.

sharing

This command is used for enabling or Disabling the STD / ISD call sharing feature. Call sharing is applicable only for outgoing STD & ISD calls. The command for enabling this feature is,

set sys sharing

and the command for disabling this feature is,

reset sys sharing

Command from Keyphone-:

To enable **281 + 1 + 13 + 0001 + Prog**

To disable **281 + 1 + 13 + 0000 + Prog**

Default: Call Sharing is disabled.

smrtdrp

This command is used to enable the smartdrop on the analog trunks. On enabling this feature, whenever system detects the engage tone on any analog trunk while incoming or outgoing, after justifying that engage tone, trunk line will be released by the DG 250. This command is useful for GPAX. The format of the command is,

set sys smrtdrp

Command from Keyphone-:

To enable **281 + 1 + 34 + 0001 + Prog**

To disable **281 + 1 + 34 + 0000 + Prog**

smdre

This command is used to enable the internal billing for GPAX. Note that for enabling the internal billing, call transfer should be locked. To enable the internal billing, command is,

set sys smdre

Command from Keyphone-:

To enable	281 + 1 + 39 + 0001 + Prog
To disable	281 + 1 + 39 + 0000 + Prog

Default: Disabled

Important: Internal billing can be enabled only if call transfer is blocked.

splnum

This command is used to enable the '*' & '#' key of all SLTs & KTS. Once this command is enabled, redialing feature from SLT, will not work. The format of the command is,

set sys splnum

Command from Keyphone-:

To enable	281 + 1 + 28 + 0001 + Prog
To disable	281 + 1 + 28 + 0000 + Prog

Default: Disabled

stdlim

This command is used to set the minimum digits of the STD/ISD numbers to be stored. If this limit is set '6', only those STD/ISD numbers will be stored in the memory whose dialed digits are at least 6. The format of the command is,

set sys stdlim <no. of digits>

Command from Keyphone-:

To define the STD Min limit	281 + 1 + 62 + XXXX + Prog
-----------------------------	-----------------------------------

Where XXX is the STD min limit & its value can be 0010 to 0010.

tone

This command is used to set the free flowing messages. Every free flowing message has its fixed tone type. The format of the command is,

set sys tone <tone type> <VSN Slot > <port>

For the detail of this command, refer the **VSN** part of this manual.

trace

This command is used for enabling the malicious call tracing feature. On enabling this feature, the strings of extension to extension & extension to trunk calls, will be sent to the lower serial port of the MCC. Any front end application on computer, can accodate these strings.

The command for enabling this feature is,

set sys trace

and the command for disabling this feature is,

reset sys trace

Command from Keyphone-:

To enable	281 + 1 + 16 + 0001 + Prog
To disable	281 + 1 + 16 + 0000 + Prog

Default: Call tracing is disabled

trkxfr

This command is used to transfer a trunk line to another trunk line. The format of this command is,

set sys trkxfr

Command from Keyphone-:

To enable	281 + 1 + 38 + 0001 + Prog
To disable	281 + 1 + 38 + 0000 + Prog

Default: Trunk to trunk transfer is disabled.

Also do the following programming to make this feature work:

```

set ext <extension number which has to do transferring> trk2
set cos 0 tk_alld
set cos 0 tk_xfer
set cos 0 att
set sys trkxfr
reset sys feat_34

```

Operating procedure: Pick the incoming Junction line – press trfr key – dial 0 – dial the desired telephone number – press trfr key

ulsta & ulstd

This command is used to create the allowed / denied tables. Allowed / denied tables are used to bar some telephone numbers to be dialed out. Note the following for creating the allowed/denied tables-

- a) Total 4 tables can be created.
- b) There are two parts of every table. One is 'Allowed' & another is 'Denied'.
- c) Maximum 24 entries can be made in every table i.e. 24 entries for Allowed & 24 entries for Denied.
- d) Maximum digits of an entry can be of 12 digits. e) Any of the table can be defined for an extension.
- f) When a telephone number is dialed, system check that telephone number with the defined table. For example, if in table 0, a telephone number 98922611 is defined in denied part & telephone number 9892261101 is defined in allowed part of table 0 than

extension user pertaining to table 0, will not be able to make the calls to the telephone

numbers starting from 98922611 except 9892261101. Means all the telephone numbers defined in the allowed part will be the exceptions.

Denied	Allowed
98922611	9892261101
9520	95205444307

Table-0

Denied	Allowed

Table-1

Denied	Allowed

Table-2

Denied	Allowed

Table-3

To create the allowed part of a tables, command is,

set sys ulsta <table no.> <tele no.>

Where <table no.> will be 0 to 3 & <tele no.> can have max 12 digits.

To define the denied part of a table, command is,

set sys ulstd <table no.> <tele no.>

To delete all the entries of a table, command is,

set sys ulsta 555 <table no.>

Command from Keyphone-:

For ULSTA

To define a number in ULSTA table **281 + 1 + 90 + 1 + TTT + Digits + Prog**

Where TTT ULSTA table no & its value can be 000 to 003.
 Digits Max 6 desied digits in the extered ULSTA table.

To undefine a number in ULSTA table **281 + 1 + 90 + 0 + TTT + Digits + Prog**

For ULSTD

To define a number in ULSTD table **281 + 1 + 91 + 1 + TTT + Digits + Prog**

Where TTT ULSTD table no & its value can be 000 to 003.
 Digits Max 6 desied digits in the extered ULSTD table.

To undefine a number in ULSTD table **281 + 1 + 90 + 0 + TTT + Digits + Prog**

vms

This command is used to define the various inband Voice Mail strings. To define the same command is,

set sys vms <X> <Y>

Where `X`	-	1	For Direct Internal Call `DIC`
	-	2	For Direct External Call `DEC`
	-	3	For Diverted internal on no reply `DVIR`
	-	4	For Diverted internal on busy `DVIB`
	-	5	For End of call `EOC`

& `Y` is the string notification followed by extension notification & string termination.

Extension notification is `%s` & String Termination is `#`. **Note that `s` is in lower case only.** For example, if DIC string is required as `6666` followed by extension no. & #, this will be set by the following command,

set sys vms 1 6666%s#

In this example, String notification is `6666` in 4 digit.
Extension notification is `%s` i.e. 2 character.
Termination is `#` i.e. single character.

Note that for the setting of the various strings, the maximum length of the `Y` can be 7. Means string notification can be in 4 digit maximum. For good result, define the string notification either in single digit or in 2 digit.

Defined VMAIL strings can be viewed by the command **`show sys device`**.

```
show sys device
Device List :
USER   : 032 - 096
JUNCTION : 096 - 120
DSP    : 006 - 028
VSN    : 028 - 032
RECP 2032 Day S'visor 2032 Night S'visor 2032 Alarm Fail 2032
VMS Strings:[ DIC. 11%s#[[ DEC. 22#[[DV/N. 33%s#[[DVBS. 44%s#[[ EOC. 554#[[ x1.
[[ x2. [[ x3. [[ x4. [[ x5. ]
Clock State: FRUN
show sys Fault/acts/device/libs/msgs/wtab/ulsta,d
```

weekoff

This command is used for defining the weekly off day. On the weekly Off day, the system remains in the night mode for the whole day. The week days are numbered from 0, corresponding to Sunday to 6, corresponding to Saturday.

For example to set Friday as the weekly Off day, the command is,

set sys weekoff 5

If there is no need to set any weekly off day, the command is,

set sys weekoff 7

Command from Keyphone-:

To enable **281 + 1 + 51 + XXXX + Prog**

Where XXX is the week day. 0000 for Sunday, 0001 for Monday & so on... & 0007 will be for undefined the weekly holiday.

Default: Sunday is the weekly Off day for the system

wtab

This feature will be used in GPAX installation. With GPAX installation, for dialing on dtmf trunk, system dtmf dialer is used. When a telephone no. is dialed by any subscriber, that tele no. is kept in system memory by the system & than system dials through its dtmf dialer. In this case, there is a silence between subscriber finishes the dialing & system completes the dialing.

This command provides the waiting tone during this silence. For this a table called `wtab` can be defined.

Waiting Tone Table

1	2	3	4	5	6	7	8	9	a	b	c	
1	20	20	20	20	20	20	20	20	20	20	20	20
2	20	20	20	20	20	20	20	20	20	20	20	20
3	20	20	20	20	20	20	20	20	20	20	20	20
4	20	20	20	20	20	20	20	20	20	20	20	20
5	20	20	20	20	20	20	20	20	20	20	20	20
6	20	20	20	20	20	20	20	20	20	20	20	20
7	20	20	20	20	20	20	20	20	20	20	20	20
8	20	20	20	20	20	20	20	20	20	20	20	20
9	20	20	20	20	20	20	20	20	20	20	20	20
a	20	20	20	20	20	20	20	20	20	20	20	20
b	20	20	20	20	20	20	20	20	20	20	20	20
c	20	20	20	20	20	20	20	20	20	20	20	20

This is the matrix type table. In this table, first digit of first column shows the first digit dialed by subscriber & first digit of first row shows the second digit dialed by the subscriber. `a` stands for `0` , `b` stands for `*` & `c` stands for `#`.

To set this table, the command is,

set sys wtab <FS> <XX> 1

Where `F` is the first digit & `S` is the second digit.

`XX` is the no. of digits, after that system will provide waiting tone.

For example, if system is supposed to provide the waiting tone after 5 digit dialing of the tele no. started from `10` , the command will be,

set sys wtab 10 5 1

Another example, For example, if system is supposed to provide the waiting tone after 12 digit dialing of the tele no. started from `09` , the command will be,

set sys wtab 09 12 1

After setting both the commands, waiting table can be viewed through the command `show sys wtab`.

Waiting Tone Table

	1	2	3	4	5	6	7	8	9	a	b	c
1	20	20	20	20	20	20	20	20	20	5	20	20
2	20	20	20	20	20	20	20	20	20	20	20	20
3	20	20	20	20	20	20	20	20	20	20	20	20
4	20	20	20	20	20	20	20	20	20	20	20	20
5	20	20	20	20	20	20	20	20	20	20	20	20
6	20	20	20	20	20	20	20	20	20	20	20	20
7	20	20	20	20	20	20	20	20	20	20	20	20
8	20	20	20	20	20	20	20	20	20	20	20	20
9	20	20	20	20	20	20	20	20	20	20	20	20
a	20	20	20	20	20	20	20	20	12	20	20	20
b	20	20	20	20	20	20	20	20	20	20	20	20
c	20	20	20	20	20	20	20	20	20	20	20	20

Same can be set as per the DOT numbering plan.

Command from Keyphone-:

To define the WTAB table **281 + 1 + 86 + 1 + DDDD + LLLL+ Prog**

Default : Every entry is set for 20.

xfrlock

This command is used to lock the transfer feature of the system. On enabling this command, no extension can transfer any internal call as well as external call. The format of the command is,

set sys xfrlock

Command from Keyphone-:

To enable **281 + 1 + 37 + 0001 + Prog**

To disable **281 + 1 + 37 + 0000 + Prog**

Default : xfrlock is disabled.

All the system parameters can be viewed by the command `show sys`.

```
show sys
System status :
Time 0:00:80 Date 01-01-00 SUN
c/o Manual Mode Day BUDGTING No HMSLINK UP No WEEKLY off SUN
SYS_Acnt No METER TIME 20 DIAL DELAY 2 ADL TIME 30 ADL TRIES 5
CUT TIME 300 NITE CODE 99 FREE LIBS 200 Callon PiTerm Use DialLimit
PRI CLOCK Dial After Revs Name W/ Busy Dot In Charges Cost String Rs.
ADD SECS 1 ADD 16KHZ 0 STD MINLIM 8 NPL Length 4 Ring Offer 0
OG-HEAD 8 TAIL 3(P 8) GCAP 0(U 0) PbCnt 0 PrnH 32
IN-HEAD 0 TAIL 0 GCAP 0
```



```

ALL print No Loc 8 Tmr 132 Type 0 dbg 0hBuf Locked No LockLimit 13104
DCMD Table 1(1) 2(2) 5(5) 6(6) 7(7) 8(8)
CCMD Table 0(0) 1(1) 2(2) 3(3) 4(4) 5(5) 6(6) 7(7) 8(8) 9(9)
show sys Fault/acts/device/libs/msgs/wtab/ulsta,d
Soft RESET count 43703
    
```

Some of the system parameters will be displayed by the command **show sys device**.

```

show sys device
Device List :

USER      : 032 – 192
JUNCTION  :                224 – 512
DSP       : 006 – 028
VSN       : 028 – 032
RECP 2032 Day S'visor 2032      Night S'visor 2032      Alarm Fail 2032
VMS Strings:[ DIC. 11%#][ DEC. 22#[DV/N. 33%#][DVBS. 44%#][ EOC. 554#[ x1. ][ x2. ][
x3. ][ x4. ][ x5. ]
Clock State: FRUN
show sys Fault/acts/device/libs/msgs/wtab/ulsta,d
    
```

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Chapter 16

Feat Commands

Apart from the system commands, there are some more commands to activate or deactivate the system features. The commands are as follows -

Command	Syntax	Description
1	set sys feat <cmd>	cfb in mfc
2	set sys feat <cmd>	last callunit
3	set sys feat <cmd>	nocfb to vmail
4	set sys feat <cmd>	cli of held pnt
5	set sys feat <cmd>	pri clock
6	set sys feat <cmd>	mini_hms on
7	set sys feat <cmd>	serial vmail
8	set sys feat <cmd>	record after revs
9	set sys feat <cmd>	dial by name
10	set sys feat <cmd>	mfca3b6
11	set sys feat <cmd>	name w/ busy
12	set sys feat <cmd>	not used
13	set sys feat <cmd>	not used
14	set sys feat <cmd>	not used
15	set sys feat <cmd>	not used
16	set sys feat <cmd>	not used
17	set sys feat <cmd>	dot in charges
18	set sys feat <cmd>	tk_hw fault chk
19	set sys feat <cmd>	tk_cli bfr xfr
20	set sys feat <cmd>	chk amslink
21	set sys feat <cmd>	* foroperatorattn (<i>not implemented</i>)
22	set sys feat <cmd>	listen 2 & half
23	set sys feat <cmd>	called name
24	set sys feat <cmd>	no meter on ring
25	set sys feat <cmd>	Retain ISDN O/G
26	set sys feat <cmd>	show states
27	set sys feat <cmd>	idle name
28	set sys feat <cmd>	route trk2
29	set sys feat <cmd>	no dnd @chkout
30	set sys feat <cmd>	indicate cfall
31	set sys feat <cmd>	DTMF DID
32	set sys feat <cmd>	zero cli
33	set sys feat <cmd>	rbt on voip
34	set sys feat <cmd>	check cheat
35	set sys feat <cmd>	remote 2nd half
36	set sys feat <cmd>	mfc no alert
37	set sys feat <cmd>	Drop TK_2_TK
38	set sys feat <cmd>	MFC_CLI by A5
39	set sys feat <cmd>	Hold No trunk
40	set sys feat <cmd>	RBT for ISDN
41	set sys feat <cmd>	Agent OGLock
42	set sys feat <cmd>	xPRIE Answr
43	set sys feat <cmd>	xx xxx
44	set sys feat <cmd>	xx xxx
45	set sys feat <cmd>	xx xxx

All the feature commands are explained below in alphabetical order. Every command can be set or reset through terminal software (i.e. XTALK / TERM.EXE / HYPER TERMINAL) or from key telephone (KTS).

With every parameter detail, both the procedures are defined means how to set / reset through terminal software or how to set / reset from KTS.

The format of the KTS command is **PROG + PSW + 281 + 1 + 70 + command + prog**

Call Forward busy for E1-MFC

If the feature `Call forward busy' is supposed to be activated while there is an incoming call through E1-MFC, following command is mandatory –

set sys feat 1

Command from Key Phone;

To enable **1 + 70 + 1 + 001 + Prog**
 To disable **1 + 70 + 0 + 001 + Prog**

Default: Disabled

Last Call Unit

This command is usefull in case of GPAX environment. As DG 250 keeps a counter of 16 Khz for every extension. If a subscriber is using CLI phone, he can check his 16 Khz counter by dialing a predefined code. However DG 250 can provide only the no. of 16Khz pulses, detected during the last call made by the that subscriber.

This command is used to define whether DG 250 should provide the 16Khz pulses, detected during the current month or only the pulses, detected during the last call. If this command is activated, DG 250 will provide the last call counter. To activate the same, command is,

set sys feat 2

Command from Key Phone;

To enable **1 + 70 + 1 + 002 + Prog**
 To disable **1 + 70 + 0 + 002 + Prog**

Default: Disabled.

No Call Forward Busy to Voice Mail

This command is used to activate or deactivate whether the internal calls also should be forwarded to external voice mail ports, In case of called extension is busy. If this command is enabled, only trunks calls will be forwarded to voice mail ports, if called extension is busy. No internal call will be forwarded to voice mail ports.

To enable the same, command is,

Set sys feat 3

To disable the same, command is,

reset sys feat 3

Command from Key Phone;

To enable **1 + 70 + 1 + 003 + Prog**
 To disable **1 + 70 + 0 + 003 + Prog**

Default: Disabled.

CLI of held trunks extending on SLT

While transferring a trunk call to an analog extension, first DG 250 extends the caller extension's CLI & then if unscreened transfer is made, trunk CLI will be extended. However DG 250 can extend the trunk CLI first. To enable the same, command is –

set sys feat 4

Command from Key Phone;

To enable **1 + 70 + 1 + 004 + Prog**
 To disable **1 + 70 + 0 + 004 + Prog**

Default: Disabled.

Note: This command is applicable only for analog extensions.

Setting of Critical Clock

DG 250 has two sync slots. One is primary sync slot i.e. slot no. 6 & secondary sync slot i.e. slot no. 1. First DG 250 will extract the clock from primary sync slot & if it is not there then DG 250 will search for the secondary slot for the clock. After extracting the clock, DG 250 will be tuned on the extracted clock.

If system is tuned as per the primary clock & by chance primary clock gets absent, DG 250 will be tuned as per the secondary clock automatically (if secondary clock is present). If secondary clock is absent, DG 250 will be tuned on its own clock.

If primary clock is restored, DG 250 can be retuned automatically as per the primary clock, if primary clock is defined as 'Critical Clock'. If primary clock is not defined as critical clock, DG 250 will keep on continue to work as per the current clock until DG 250 is restarted. It must be noted that only primary clock can be defined as critical clock. To define the primary clock as the 'critical clock', command is,

set sys feat 5

Command from Key Phone;

To enable **1 + 70 + 1 + 005 + Prog**
 To disable **1 + 70 + 0 + 005 + Prog**

Default: Primary clock is defined as the critical clock.

Mini HMS Integration

Copper Connections provides one windows based external application named `Mini HMS'. This application is used to avail the hotel features like Check-In, Check-Out, Room Alarm, etc. This application requires PC which will be connected to the DG 250 through serial port. Once a room is checked-out through Mini HMS, check-out printout can be taken through the printer port of the DG 250 (if printer is connected). To take the check-out printout, following command is mandatory.

set sys feat 6

This command enables only the check-out printout on the printer port of the DG 250. If this command is disabled, the application Mini HMS will not cause the check-out printout through DG 250 parallel port. However room will be checked-out. This application downloads all the call details also from the DG 250 call buffer & all those calls can be saved in a predefined file. The call details, downloaded by the Mini HMS, will not carry the call charges.

Command from Key Phone;

To enable **1 + 70 + 1 + 006 + Prog**
 To disable **1 + 70 + 0 + 006 + Prog**

Default: Disabled

Serial Voice Mail Integration

DG 250 IVDG 250 can be integrated with external voice mail system with outband signaling. In such a case, DG 250 will send the desired information to the voice mail system through lower serial port of the DG 250. The desired information will be sent only if, following command is enabled.

set sys feat 7

Command from Key Phone;

To enable **1 + 70 + 1 + 007 + Prog**
 To disable **1 + 70 + 0 + 007 + Prog**

Default: Disabled.

Record the dialed digits for SMDR after detecting the reversal

This command is applicable for dialing on trunks from the key phone after detecting the answer signal on the trunks. For this purpose, following command should be enabled.

set sys feat 8

Command from Key Phone;

To enable **1 + 70 + 1 + 008 + Prog**
To disable **1 + 70 + 0 + 008 + Prog**

Default: Enabled.

Dial by name

DG 250 IVDG 250 has one CLI library. This CLI library is used to display the name in place of the detected CLI on the trunks. Same CLI library can be used to make the outgoing calls. To make the call using the CLI library, following command should be enabled.

set sys feat 9

Command from Key Phone;

To enable **1 + 70 + 1 + 009 + Prog**
To disable **1 + 70 + 0 + 009 + Prog**

Default: Disabled

mfcA3B6

This command is applicable only for incoming calls coming through level DID trunks (only E1 & BWT / DID). While accepting an incoming call, DG 250 sends 'B6' signal (this is the MFC tone) as per Indian R2 non-modified MFC. However as per CCITT also, DG 250 can send 'A3B6' signal. To activate the A3B6, command is,

set sys feat 10

Command from Key Phone;

To enable **1 + 70 + 1 + 010 + Prog**
To disable **1 + 70 + 0 + 010 + Prog**

Default : DG 250 sends only B6 signal.

Name with Busy

While calling a busy extension number from key phone, key phone will show the called extension no. & the extension no. who is busy with the called extension. If this command is enabled, key phone will show the name also of the second party. To enable the same, command is,

set sys feat 11

Command from Key Phone;

To enable **1 + 70 + 1 + 011 + Prog**
To disable **1 + 70 + 0 + 011 + Prog**

Default: Enabled

Dot in call charges

This command is used to put a dot in the call charges. If this command is enabled, dot will be removed from the call charges. To enable the same, command is-

set sys feat 17

Command from Key Phone;

To enable **1 + 70 + 1 + 017 + Prog**
To disable **1 + 70 + 0 + 017 + Prog**

Default: Disabled.

Trunk Hardware Fault Check

DG 250 keeps on continue the checking of its PRI / E1 / DTF trunk port. If DG 250 does not detect the dial tone on DTF trunk ports or 'idle' state on E1/PRI, DG 250 can lock-out those trunks automatically. This command is used to enable or disable the auto lock-out. If this command is enabled than only DG 250 will lock-out those trunks. To enable the same, command is,

set sys feat 18

Command from Key Phone;

To enable **1 + 70 + 1 + 018 + Prog**
To disable **1 + 70 + 0 + 018 + Prog**

Default: Disabled.

Trunk CLI transfer on key phone while transferring a call

This command is applicable only for key phones. While transferring a trunk call to a key phone, first DG 250 extends the caller extension's CLI & than if unscreened transfer is made, trunk CLI will be extended. However DG 250 can extend the trunk CLI first. To enable the same, command is –

set sys feat 19

Command from Key Phone;

To enable **1 + 70 + 1 + 019 + Prog**
To disable **1 + 70 + 0 + 019 + Prog**

Default: Disabled.

Check AMS Link

As DG 250 can be installed in call center environment. An external PC based application named 'AMS – ACD Management Software', can be installed to monitor the agents activities. If this command is enabled, DG 250 checks the handshaking between DG 250 & AMS after a fixed interval of time. If handshaking is not found, DG 250 will log-out all the agents. To enable the same, command is,

set sys feat 20

Command from Key Phone;

To enable **1 + 70 + 1 + 020 + Prog**
To disable **1 + 70 + 0 + 020 + Prog**

Default : Disabled.

Called name

If this command is enabled, on calling a busy extension from the key phone, key phone display will show the name of the called extension (in place of extension no.) To enable the same, command is,

set sys feat 23

Command from Key Phone;

To enable **1 + 70 + 1 + 023 + Prog**
To disable **1 + 70 + 0 + 023 + Prog**

Default: Disabled.

No meter on ring

This command is usefull in case of GPAX environment. As DG 250 keeps a counter of 16 Khz for every extension. If a subscriber is using CLI phone, he can check his 16Khz counter (either of current month counter or last call counter, which is defined) by dialing a predefined code. However DG 250 can restrict the same. To enable the same, command is,

set sys feat 24

Command from Key Phone;

To enable **1 + 70 + 1 + 024 + Prog**
To disable **1 + 70 + 0 + 024 + Prog**

Default: Disabled.

Retain ISDN Outgoing

While making the outgoing call through ISDN trunks, when network side sends the call completion result in the form of voice message like 'Called party busy', or 'Not available' or 'Called Cell pone is switched-off', DG 250 can keep selecting the trunk till the voice message is over. However DG 250 will drop the trunk & provide the busy tone to the internal caller. If this command is enabled, DG 250 will retain the trunk. To enable the same, command is

set sys feat 25

Command from Key Phone;

To enable **1 + 70 + 1 + 025 + Prog**
To disable **1 + 70 + 0 + 025 + Prog**

Show states

If this command is enabled, on calling a busy extension, key phone will show the state of the extension. Means it will show various states whether extension is in talk state, off-hook, read, ring. It will help to know the exact state of the extensions. To enable the same, command is,

set sys feat 26

If this command is disabled, whenever an extension is off-hook & any key phone calls him, it will show `busy`.

Command from Key Phone;

To enable **1 + 70 + 1 + 026 + Prog**
To disable **1 + 70 + 0 + 026 + Prog**

Default: disabled.

Idle name

This command is used to show the extension name on the key phone display. On enabling this command, whatever name is set for various key phones, that will be displayed on corresponding key phones. To enable the same, command is,

set sys feat 27

Command from Key Phone;

To enable **1 + 70 + 1 + 027 + Prog**
To disable **1 + 70 + 0 + 027 + Prog**

Default: Disabled.

Route trk2

An extension user can talk on two trunks (one will be on hold) only if he has the second trunk pick up rights. Second trunk pick-up rights are applicable only for the PSTN access. This command is used to enable the second trunk pick-up rights on the network access also. To enable the same, command is,

set sys feat 28

Command from Key Phone;

To enable **1 + 70 + 1 + 028 + Prog**
To disable **1 + 70 + 0 + 028 + Prog**

Default: Second trunk pick-up rights are applicable only for PSTN access.

No dnd on check-out

This command is useful for hotel environment. If a room is checked-out, that can be set in DND mode automatically to avoid the misuse of the room extension. To enable the same, command is,

set sys feat 29

Command from Key Phone;

To enable	1 + 70 + 1 + 029 + Prog
To disable	1 + 70 + 0 + 029 + Prog

Default: Enabled.

Indicate call forward call

This command is used to enable the intimation on the extensions if extension has enabled call forwarding or DND. If this command is enabled, after activating the call forwarding or DND on an extension, the dial tone of that extension will be replaced with waiting tone, which will be an intimation to that extension. To enable the same, command is,

set sys feat 30

Command from Key Phone;

To enable	1 + 70 + 1 + 030 + Prog
To disable	1 + 70 + 0 + 030 + Prog

Default: Disabled.

DTMF DID

This command is used to utilize the DTMF receivers of VSN card in case of E-1 trunks in DTMF

To enable the same, command is,

set sys feat 31

Default: disabled.

Zero cli

This command is used to bar the CLI information of the call originator while making outgoing calls through PRI / E1 / TWT (R2). If this command is enabled, DG 250 will send the CLI '000000' on the PRI or E1/TWT-R2 for the extension whose 'sendcli' is disabled. However proper CLI will be sent for that extension whose 'sendcli' is enabled. To enable the same, command is,

set sys feat 32

Command from Key Phone;

To enable **1 + 70 + 1 + 032 + Prog**
 To disable **1 + 70 + 0 + 032 + Prog**

Default: Disabled.

Rbt on VOIP

While making the VOIP call, remote will send the ring back tone. But sometimes remote end does not generate the ring back tone. In such a case, DG-7500 can generate its own ring back tone. To enable the same, command is,

set sys feat 33

Command from Key Phone;

To enable **1 + 70 + 1 + 033 + Prog**
 To disable **1 + 70 + 0 + 033 + Prog**

Note : To be implemented

The activation or deactivation of the feat commands can be viewed in the system parameters which can be viewed by the command **'show sys'**. Following parameter will be there in system features while viewing 'show sys'

Feat Command	Parameter how it will be displayed
Feat 1	CFB In MFC
Feat 2	LAST CALLUNIT
Feat 3	NoCFB To VMAIL
Feat 4	CLI Of Held Pnt
Feat 5	PRI CLOCK
Feat 6	MINI_HMS ON
Feat 7	Serial Vmail
Feat 8	Log After Revs
Feat 9	Dial By Name
Feat 10	MFC A3B6
Feat 11	Name W/ Busy
Feat 13	not used
Feat 14	not used
Feat 15	not used
Feat 16	not used
Feat 17	Dot In Charges
Feat 18	TK_Hw Fault Chk
Feat 19	TK_CLI Bfr Xfr
Feat 20	Chk AMSLink 23
Feat 21	* For OPR ATTN
Feat 22	Listen 2nhalf
Feat 23	Called Name
Feat 24	No Meter On Ring
Feat 25	RetainISDN O/g
Feat 26	Show States
Feat 27	IDLE Name
Feat 28	Route Trk2
Feat 29	No DND @Chkout
Feat 30	Indicate CfAll
Feat 31	DTMF DID
Feat 32	Zero Cli
Feat 33	RBT on VOIP

Feat 34	Check cheat
Feat 35	Remote 2 & half
Feat 36	mfc no alert
Feat 37	Drop TK_2_TK
Feat 38	MFC_CLI by A5
Feat 39	Hold No trunk
Feat 40	RBT for ISDN
Feat 41	Agent OGLock
Feat 42	xPRIE Answr

Chapter 17

Network Commands

These features will be used for networking between two exchanges or gpax modes.

Command	Syntax	Description
ENBBLK	set net <cmd> <len> <dialnum>	Enblock Dial List
LCR	set net <cmd>	enable low cost route
PLCCRT	set net <cmd> <rt> <dnum>	plcc route
ROUTEA	set net <cmd> <rt> <dnum>	alternate route
RTALT	set net <cmd> <rt> <dnum>	alternate route
XRT	set net <cmd> <route> <dialcode>	xchange routes

The details of various commands of networking is as follows:

enblk

If enblock dialing is used on PRI trunks, DG 250 will pick up the PRI trunk only after dialing the predefined number of desired external number. To define the same, command is,

```
set net enblk <len> <dialnum>
```

Where <len> is the total number of digits of the defined number & <dia num> is the initial numbers of the desired external numbers.

For example, if the external number `001123456789012` is supposed to be dialed out through PRI trunk using enblock dialing, DG 250 should select the trunk after dialing the 15th digit as this external number has 15 digits. So the command will be,

```
set net enblk 15 0011
```

Another example, if the external number `023478923456789012` is supposed to be dialed out through PRI trunk using enblock dialing, DG 250 should select the trunk after dialing the 18th digit as this external number has 18 digits. So the command will be,

```
set net enblk 18 0234
```

Deifned numbering plan for enblock dialing can be viewed by the command `**show net enblk**`

Default: No setting is defined.

lcr & rtalt / routea

In the present scenario of communication, any DG 250 owner can have special trunks (i.e. least cost route) for any specific STD direction. Means anyone can have special trunks for specific direction.

For example, if DG 250 user has special trunk route for BBY than our DG 250 IVDG 250 is so intelligent that on dialing the BBY STD code, DG 250 IVDG 250 will pickup the least cost route only. If all the least cost trunks are busy than DG 250 IVDG 250 will route the call through ordinary trunks.

To avail the same, first enable the LCR `

```
set net lcr
```

Now set the least cost trunks in any DODG. This DODG will be called `Least cost route`

Now set this DODG as `least cost route` for any specific STD code,

```
set net rtalt <DODG> <STD Code>
```

If this least cost route is supposed to be selected for BBY than command will be,

```
set net rtalt <DODG> 022
```

In case of GPAX, this command will be used for 'extension to extension call' also on dialing the complete tele number (i.e. including route id). The command for the same will be,

set net rtalt I <Route ID>

Note: DG 250 IVDG 250 can have maximum 10 least cost routes including internal route.

Default: lcr is disabled.

xrt & enxrt

This is used for networking between two-three DG 250 IVDG 250 that are interconnected through either TWT or E1.

Note that it is applicable only for MFC signalling.

If the following ROUTE Ids i.e. AXXX & BXXX & CXXX are coming through DID-MFC trunks while all the DID-MFC trunks are terminated to only one DG 250 IVDG 250 (say DG 250- 1). DG 250-1 will work as TAX. Means on incoming through any DID-MFC, DG 250- 1 will decide the route (i.e. this call is for DG 2502 or DG 2503). Note that

For this, first enable the XRT in the desired DID group, **set didg <didg no.> enxrt**

Define the networking trunks in any BRT.

Now set the xchange for routing, **set net xrt <ddog> <D>**

Where D is the DNI digits & D can be either first digit or first two digits of DNI. If D is set only first digit of DNI, it also will be sent to another exchange & if first two digits of DNI are set, first digit will not be sent to another exchange.

If 'ROUTE' is defined 'I', that DNI will be processed for the same DG 250.

For example, Let's assume that the digits 2XXX / 3XXX / 4XXX are coming on DID-MFC. Now it is supposed that 3XXX has to be diverted to DG 250-2 & 4XXX has to be diverted to DG 250-3 & numbers 2XXX are supposed to be processed for DG 250-1 itself. Suppose, DG 250-1 is networked with DG 250-2 through Route 1. DG 250-1 is networked with DG 250-3 through Route 2.

The command will be,

```

set net enxrt
& set net xrt 1 3
& set net xrt 2 4
& set net xrt I 2

```

After this, all the numbers starting from 3 & 4 will be diverted to the networked DG 250 & the numbers 2XXX will be processed for DG 250-1 itself.

Another example, DG 250-1 is networked with DG 250-2 through route-1.

If 20XX, 21XX, 34XX & 35XX are the DNIs through DID-MFC. Now DNI 20XX & 34XX are supposed to divert to networked exchange (DG 250-2) & 21XX & 35XX are supposed to be processed for same DG 250-1.

The commands will be, **set net enxrt**


```

set net xrt 1 20
set net xrt 1 34
set net xrt 1 21
set net xrt 1 35
    
```

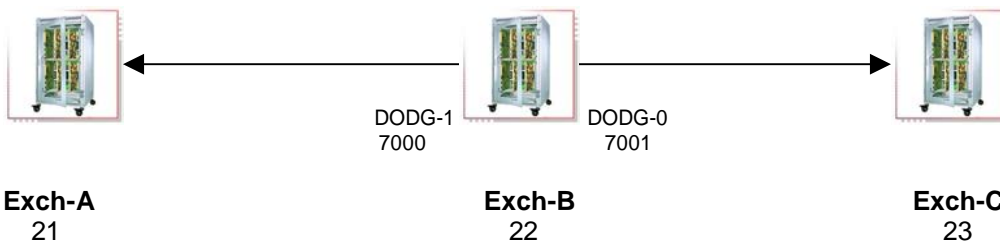
In this case, as 'D' is in two digits, so DG 250-1 will not send first digit of DNI to DG 2502.

As 21XX & 35XX are supposed to be processed for DG 250-1 itself so last three digits of 21XX & 35XX will be processed by DG 250-1.

This activity will take place before adding any infilter (If any infilter is set for DG 250-1)

plccrt

This command is used to define the PLCC routes. Let us take one example. It is assumed that the exchange code of Exch-A is 21, exchange code of Exch-B is 22 & exchange code of Exch-C is 23. Now incoming calls will come to Exch-B only & incoming calls will carry the exchange code followed by the DNI. Exchange B has to take the decision whether the call is for himself or it has to be routed to Exch-A or Exch-C depending on the exchange code received.



Let us assume that 22 is the exchange code of DG 250-B which is interconnected with Exch A & Exch C

Let us assume that pnt 7000 of Exch B is between Exch A & Exch B & pnt 7001 of Exch B is between Exch B & Exch C.

At Exch B, enable the PLCC routes first in the desired DID trunk group,

```

set didg <gg> enplcc
    
```

Now create the PLCC routes –

```

set net plccrt i 22
set net plccrt 1 21
set net plccrt 0 23
    
```

Now put these trunks in the DOD group

```

set pnt 700 dodg 1
set pnt 701 dodg 0
    
```

'rptall' command is mandatory for PLCC routes & 'offset' for the dodg should be 0.

All the network setting will be displayed by the command

'show net'.

```

show net
Network Plan :
    
```

TK_2 TK No	CALL XFER Yes	SMDR Stn. No	TMR Watch Yes
Xchange Routes :			

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Chapter 20

ACD Commands

DG 250 can be configured to work in a call center environment. The system can have 10 ACD groups. Each group can have a maximum of 128 agents. The ACD group number 9 is called as operator ACD. Each ACD group can be accessed by its individual codes. The agents in an ACD group can login and logout at any time.

Copper Connections DG 250 offers 3 types of Automatic Call Distribution (ACD) – fixed, circular, statistical. In the fixed type of ACD, the incoming call always lands at the first ACD agent. If the first ACD agent is busy, then only the call lands at the next agent. In the circular type of ACD, the first incoming call lands at the first ACD agent, the second call lands at the second ACD agent & so on. In the statistical ACD, there will be an ACD manager which monitors the status of all the ACD agents & transfers the incoming call to the agent which is free for a longer time. A maximum of 10 ACD groups are possible. Each ACD group can have a maximum of 128 agents.

The following are the commands which are related to ACD.

Command	Syntax	Description
anounc2	set acd <acdno> <cmd> <port>	announcer#2
anounc3	set acd <acdno> <cmd> <port>	announcer#3
befmdt	set acd <acdno> <cmd> <src>	Before Mandatory Announcer
befsrc	set acd <acdno> <cmd> <src>	Before Msg for wait calls
circ	set acd <acdno> <cmd>	circular mode
default	set acd <acdno> <cmd>	Restore Factory Setting
dlytmr	set acd <acdno> <cmd> <secs>	delay time
fixed	set acd <acdno> <cmd>	fixed hunting mode
getcli	set acd <acdno> <cmd>	get cli for this acd
inlim	set acd <acdno> <cmd> <limit>	mfc did limit
loadid	set acd <acdno> <cmd>	load id in stat mode
logout	set acd <acdno> <cmd>	logout agent at no-ans
mandta	set acd <andno> <cmd> <vsno>	mandatory announcer
member	set acd <acdno> <cmd> <extno>	add/del a member
nexttmr	set acd <acdno> <cmd>	To next member at no-ans
nextmem	set acd <acdno> <cmd> <secs>	time to next member
overflow	set acd <acdno> <cmd> <port>	overflow destination
ovftmr	set acd <acdno> <cmd> <secs>	time to overflow
rmdport	set acd <acdno> <cmd> <dktno>	reminder port
qsize	set acd <acdno> <cmd> <par>	set max. q wait size
source	set acd <acdno> <cmd>	music/rbt to wait calls
stat	set acd <acdno> <cmd>	statistical mode
wraptmr	set acd <acdno> <cmd> <secs>	wrap up time

The details of various commands of ACD are as follows-

Access of the ACD groups

To Access an ACD group 0 to 8:

- Lift the handset & hear system dial tone.
- Dial 89X, where X can have values 0 to 8 corresponding to ACD group 0 to 8

To Access Operator ACD group:

- Lift the handset & hear system dial tone.
- Lift hand set.
- Dial 9.

How To Define Agents In An ACD Group

With DG 250, a maximum of 10 ACD groups can be created. Each ACD group can have a maximum of 50 agents. First, agents should be defined in an ACD group. To define a member in a ACD, command is,

set acd <acd no.> member <ext no.>

Using the same command, maximum 50 agents can be defined in an ACD group.

getcli

If call originator exchange can send the CLI, DG 250 can send the request for the same (applicable for MFC trunks). This CLI can be shown on the agents phone. CLI will be detected only if the parameter 'getcli' is enabled for an ACD. To enable the same, command is,

set acd <acd no.> getcli

Default: Disabled for all ACD groups.

dlytmr

This command is used to define a timer for entering the calls in the ACD. If delay timer is defined 5 seconds, once the call has landed, it will wait for 5 seconds outside the ACD & after 5 seconds only, call will enter in that ACD.

To define the delay timer, command is,

set acd <acd no.> dlytmr <X>

Where X will be 1 to 4. X=0 or 5 to 60 will disable the delay timer feature.

Default: Disabled for all ACD groups.

How to define the type of landing in a ACD

Now define the landing pattern of an ACD call. COPPER CONNECTIONS DG 250 IVDG 250 offers 3 types of Automatic Call Distribution (ACD) – fixed, circular, statistical.

In the **fixed** type of ACD, the incoming call always lands at the first ACD agent. If the first ACD agent is busy, then the call lands at the next agent.

In the **circular** type of ACD, the first incoming call lands at the first ACD agent, the second call lands at the second ACD agent & so on.

In the **statistical** type of ACD, there will be an ACD manager which monitors the status of all the ACD agents & transfer the incoming call to an agent which is free for a longer duration. So that equal load will be put on every agent. As of now DG 250 does not support Statistical landing.

To define the fixed type landing, command is – **set acd <acd no.> fixed**

To define the circular type landing, command is, **set acd <acd no.> circ**

To define the statistical type landing, command is, **set acd <acd no.> stat**

By **default**, circular landing is defined. Statistical to be implemented.

Mandatory Announcer

If it is required to play a greeting message to every ACD call before coming to an agent, a mandatory announcer can be defined. Mandatory announcer will be played for every ACD call.

Mandatory announcer will be recorded on the VSN ports. It is a free flowing message. As it is a free flowing message so a call entering in an ACD, can have the mandatory message from middle also. However it is programmable to activate that every call should get the mandatory message only from beginning (refer next parameter).

To record the mandatory announcer, first define the msg no. & port no. of the VSN port.

set sys msgs XX <Card No.> <Port No.>

To record the MANDTA (Mandatory Announcer) on 4th port of the 4th card, command will be,

set sys msgs 21 4 4

Now record the MANDATORY ANNOUNCER MSG with the help of the KTS.

As this is a free flowing message, after recording , a soft reset to the VSN is a must.

Now define the MANDATORY PORT for desired ACD group.

set acd <acd no.> mandta <XYZ>

The value of the XYZ will be = (Message Card No. * 8 + Message port No.)

For example, if VSN8 card no 2 is used for VSN port & 7th port of VSN8 is used, the value of XYZ will be, = (2*8+7) means 23.

Now after this, every ACD call will hear a greeting message and then the call will be diverted to an agent.

Default: No mandatory announcer is defined.

Before Mandatory - befmdt

As explained in the above parameter, mandatory announcer can be provided to every call from the beginning also. So when a call enters in the ACD, that call has to wait till the mandatory announcer restarts from beginning. During that waiting time, DG 250 can provide ring back tone or music to the queued call.

The command '**befmdt**' is used to define what should DG 250 provide to the queued call before the mandatory announcer. To define the same, command is,

set acd <acd no.> befmdt <SRC>

The value of the SRC will be = (Message Card No. * 8 + Message port No.)

Qsize

QSIZE is the number of calls those can remain in queue when all the agents of an ACD are busy. Maximum qsize can be 200 ie when all agents are busy, a maximum of 200 calls can be in queue.

To define the QSIZE, command is,

set acd <acd no> qsize <No. of calls>

Default: Qsize for all ACD groups is 10.

Queued Message - Source

This command is used to define the message or predefined source for the call which comes in queue to the ACD group after listening the mandatory announcer. DG 250 IVDG 250 can play the following to a queued call –

- a) Ring Back Tone
- b) Waiting Tone
- c) Reorder tone
- d) HOLD ON MUSIC
- e) Any prerecorded Msg.

To define the Waiting tone for the queued calls, command is

set acd <acd no.> source 4

To define the Hold On music for the queued calls, command is

set acd <acd no.> source 28

To define the RBT for the queued calls, command is,

set acd <acd no.> source 1

To define the predefined message for the queued calls, command is,

set acd <acd no.> source <src>

The value of the <src> will be = (Message Card No. * 8 + Message port No.)

Queued message also will be recorded on the Voice messages ports which are with DSP card. It is a free flowing message. As it is a free flowing message so a call, entering in the ACD queue, can have the queued message from middle also. However it is programmable to activate that every call should get the queued message only from beginning.

Before Source - befsrc

As explained in the above parameter, queued message can be provided to every call from the beginning. So when a call enters in the queue for listening the queued message, that call has to wait till the queued message restarts from beginning. During that waiting time, DG 250 can provide ring back tone or music to the queued call.

The command **`befsrc`** is used to define what should DG 250 provide to the queued call before the queued message. To define the same, command is,

set acd <acd no.> befsrc <SRC>

The value of the SRC will be = (Message Card No. * 8 + Message port No.)

For example, if RBT is supposed to be provided, SRC will be $0*32+1=1$

For music, SRC will be $0*32+28=28$.

First In First Out – FIFO

As soon as an agent becomes free, DG 250 will provide any of the queued call. There are two ways to provide the queued calls to the agents. One is **`First In First Out – FIFO`** & another is **`random`**. To provide the calls in ACD on FIFO basis, command is

set acd <acd no.> fifo

To provide the calls in random order, command will be,

reset acd <acd no.> fifo

Default: FIFO.

Next Member & Next Timer

If a call is not responded by an agent, the call can be diverted to the next agent after a predefined time. Predefined time will be defined through the command NEXTTMR & whether the call should go to next agent or not, will be defined by the command 'NEXTMEM'.

To enable / disable the 'Next member', command will be,

set acd <acd no.> nextmem

& the command to define the next member timer, command is,

set acd <acd no.> nexttmr <seconds>

Default: 'Next Member' is enabled & Next timer for all ACD groups is 60 seconds.

logout

If a call is not responded by an agent, DG 250 can make that agent logged-out. After that DG 250 will not offer any ACD call to that particular agent. To enable / disable the same, command is,

set acd <acd no.> logout

Default: Disabled for all ACD groups.

Reminder Port

An extension can be defined as an reminder port of an ACD group. If all the agents of an ACD are busy & a call comes in queue to that ACD, reminder port will start ringing, This will be a audio intimation for the supervisor . To define the RMD PORT, command is,

set acd <acd no.> rmdport <ext no.>

wrap Time

After completion of a call, an agent can be allowed to have some time either to relax or to do complete work or entries related to the last call. This relax time is known as 'Wrap time'. To define the wrap time, command is,

set acd <acd no.> wraptmr <seconds>

Overflow Destination & Overflow Timer

The queued calls can be diverted to another ACD group after predefined time. This time is known as overflow time.

set acd <acd no.> ovftmr <No. of seconds>

& to define the overflow destination, command is,

set acd <acd no.> overflow <ACD access code or Ext No.>

How to log-in / logout from extension

In a call center, call center manager has to allot a unique ID to every agent. Whenever that agent is sitting on a seat, he/she has to login through his extension. An ACD call lands on an agent's phone only if the agent has logged-In. DG 250 will not offer any call to the logged-out agents.

For Logging-in in the multiple ACD groups

- %o Lift the handset & hear system dial tone.
- %o Dial 85 own login id followed by 1

For Logging-in in the desired ACD group

- %o Lift the handset & hear system dial tone.
- %o Dial 85 own login id followed by 2 & then desired ACD access code.

For Logout

- %o Lift the handset & hear system dial tone.
- %o Dial 85 own login id followed by 0
- %o You will be loggedout from all ACD groups.

Log-In & Logout can be done through PI also. To logout an agent, command is,

set ext <ext no.> logout

To log-in an agent, command is,

reset ext <ext no.> logout

Note the following for logging-in & logging-out -

- a) If `acdsrv` is enabled, log-in & log-out can not be done from PI.
- b) If an agent has logged-in with his log-in id, another agent can not use the same id.

AMS – Automatic Call Distribution Management Software

A computer application named AMS – ACD Management System, also can be installed to supervise the agents activity. Note that AMS will perform only two major functions i.e. –

- a) Monitoring of a ACD group
- b) Various Historical Reports.

Following will be the arrangement for a ideal call center.

A computer which is connected to the DG 250 through the serial port, will be considered as the ACD SERVER. All the nodes will be on the local network. DG 250 IVDG 250 will send the desired information to the ACD SERVER. The ACD SERVER will reside with the supervisor.

Note that AMS will not present pop-ups on agents nodes with the information related to the received call. AMS will only provide data for monitoring & reports of agent activities.

However DG 250 can generate a message to the supervisor's node. That message will carry the destination extension with the required CLIP. A customer application can detect this message for pop-up the agents node.

DG 250 IVDG 250 will generate the message only for those extensions for which CSTA

(Computer Supported Telephony Application) is enabled in the system programming. To enable the same, command is –

set ext <ext no> csta

(For details about AMS –refer AMS Manual)

All the parameters of an ACD will be shown by the command **show acd <acd no.>**

```
show acd 0
ACD Group 0[890] Type CIRC Load Ids No FRW->10
Head 0 Wait#0 QSIZE 10 QMsg Ring Tone
MAND_AN#-1 AN#2 -1 AN#3 -1 OF 890 INL255 Tkl0
Before QMsg None MAND_AN#None
AS# 0 AT# 0 AB# 0 AV# 0
Timer : Wrap 2 OvF 60 Delay 60 Next Mem 60
Drop No-Ans
```

```
Member 0: 2128 IN Id=0000 C=0
```

Chapter 21

CLI Library

CLI Library for incoming

When an incoming trunk call is processed by the system, the system stores the received CLI in a buffer. If this CLI matches with an entry in the CLI NAME library then system will also keep a pointer to this library. Here the user must note that system is searching for Full received CLI, it does not start search with every digit of received CLI. Hence system will not look for partial matching of CLI digits. The Complete received CLI digits must match with the Caller ID stored in the CLI NAME library.

The DG 250 IVDG 250 can receive CLI on analog Trunks (with SET DIDG <DIDG> ANACLI enabled) or ISDN Trunks or incoming MFC call (with SET DIDG <DIDG> CLI <number of CLI digits>). The CLI to NAME conversion is done only when all the CLI digits are received.

This Name will be displayed on KTS and no programming is required for this.

The DG 250 IVDG 250 now offers users to fill and store up to 200 such numbers with names. The Caller's ID will be used as a reference number and will be unique within system. Usually a user can have multiple phone numbers but it's very rare that a phone number has two names.

The length of caller ID and Caller's name can be up to 16 characters long. If user tries to fill more than 16 characters then extra character will be stripped off.

To create the CLI Library, command is,

```
set name clinm <caller ID> <caller name>
```

This command will set name for a caller ID. This Caller ID and name will be added in CLI LIBRARY list. The system will search for a free library in the list and store this pair. If the Caller ID already exists then system will over write on the existing entry.

For Example: If a tele number 9810625615 of Sharad, is supposed to be stored in CLI Library, the command will be,

```
set name clinm 9810625615 Sharad
```

To erase an entry from CLI library, command is,

```
reset name clinm <caller id>
```

This command will erase an exiting library entry for caller ID. The Name and ID both will be removed from the system library list. If ID does not exist then system will show an error.

To delete all entries from the CLI library, the command is,

```
set name clinm default
```

This command will erase entire CLI NAME library list for all caller ID. The Name and ID everything will be removed from the system library list.

View of the CLI library

Created CLI library can be viewed by the command,

show name clinm <start number>

This command can be used to view currently configured name libraries. The system will show only 40 libraries at a time. If the user does not define the START NUMBER then system will assume it, as zero and it will show first 40 libraries.

Example:

```
~SHOW NAME CLINM
Cli, Names List 0-40
0. 9810625615 -Sharad | 1. 116817415 -Creative |
```

If call is offered to an analog extension and FSK NAME (SET EXT <extension> FSK 2) is enabled for this extension then the caller's Name as well as caller's CLI both will be displayed. This display is subject to a limit and Total Number display character can be up to maximum 20 only (CLI digits caller's name).

If FSK NAME is not enabled and only CLI (DTMF or FSK) is enabled then Name will not be displayed on Extension.

CLI library for outgoing

These CLI NAME libraries can be used to dial the number outward. The process of dialing outward is very much similar to Global or personnel Libraries. There is an access code to use these libraries.

To make an outgoing call through CLI library,

- %o Lift the handset & hear system dial tone.
- %o Dial the code for the CLI library dialing followed by the 3-digit location number of the stored CLI.

Note that location number can be viewed by the command `show sys clinm`

Example:

```
~SHOW NAME CLINM
Cli, Names List 0-40
0. 9810625615 -Sharad | 1. 116817415 -Raman |
```

In this example, location for Sharad is 000 & location for Raman is 001

The access code for dialing through CLI library, can be created by the command,

set port 39 06 <NAME Dial Code>

If the subscriber is a KTS user then the name stored in the library will also be displayed.

Note: The Redial will not work after CLI NAME library dial.

Chapter 22

Flexible keys setting of key phone & DSS

Key Phone Keys Setting

The keys for KTS / DPM are defined according to the key group of the digital extensions. The format for this command is,

```
set keys KTS/DPM <keygrp> <KKK> <FFFF>
```

For the programming of KTS keys, first define the key group of the KTS. To define the key group, command is,

```
set ext <ext no.> keygrp <XX>
```

The value of `XX` can be 0 to 31. By default, all Key phones are in key group `0`.

Now define the keys with the following command,

```
set keys kts <keygrp> <KKK> <FFFF>
```

Where <keygrp> is the key group no. in which that kts is defined.

Where KKK is the key number (starting from 000)

FFFF can be extension/trunk number or memory bank number. For filing a memory bank number, the value of FFFF must be Bxxx where xxx is the bank number.

`FFFF` may be `ASXX`, `ABXX`, `ATXX`, `AVXX`, `AWXX`, , `K000`, `K001`, `K002`, `K003`, `K004`.

Where `AS` is for Answer Station for a desired ACD.

 `AB` is for Answer back for a desired ACD.

 `AT` is for Answer trunk for a desired ACD.

 `AV` is for VIP Priority for a desired ACD.

 `AW` is for Answer wait for a desired ACD.

 `K000` is for Trunk Return key

 `K001` is for Conference key

 `K002` is for Emergency cum Group Paging key.

 `K003` is for MSG key

 `K005` is for headset operation.

 `K006` is for show the saved CLI.

 & `XX` is the HGRP No. The value of XX will be 00 to 09.

Note that AS/AT/AB/AW/AV are case sensitive. It is in upper case only.

Keys setting of a KTS, can be viewed by the command,

```
`show keys kts <keygrp>
```

```
show keys kts 0
[ 1 7000][ 2 7001][ 3 7002][ 4 7003][ 5 7004][ 6 7005][ 7 7006][ 8 7007]
[ 9 7008][ 10 7009][ 11 7010][ 12 7011][ 13 7012][ 14 7013][ 15 7014][ 16 7015]
[ 17 7016][ 18 7017][ 19 7018][ 20 7019][ 21 7020][ 22 7021][ 23 7022][ 24 7023]
```

Spl Keys
0-RetBack 1-Conf 2-Emg/Page 3-Msg 4-Phold 5-Hdset 6-CLIsav

Special Keys Setting on key phone

Some more special keys can also be defined on the key phone, like -

- a) TRK RETURN Key
- b) CONFERENCE Key
- c) Emergency Call / Paging
- d) Msg Key
- e) Headset operation key
- f) CLI saving

To define the these KTS, the value of FFF must be as follows -

TRK RETURN Key	K000
CONFERENCE Key	K001
Emergency Call / Paging	K002
Msg Key	K003
Headset Key	K005
CLI Save key	K006

Note: For the function of the various keys, refer OPERATOR FUNCTION.

DSS Keys Setting

For DSS keys setting, first define the DPM no. for a KTS through the command `device`.

set ext <ext no.> device 0/1/2

Where <ext no.> is the KTS Ext no. & 0 for 1st DPM, 1 for 2nd DPM, 2 for 3rd DPM.

Now define the DPM keys as per requirement. As on now, every DPM will have maximum 40 keys. Key numbers of first DPM will be 0 to 40, of second DPM will be 41 to 80 & of third DPM, key numbers will be 81 to 120. To set the keys of DPM, command is,

set keys DPM <keygrp> <key no.> <FFFF>

Where <keygrp> is the key group of the KTS extension to which the desired DPM is attached. It is possible to define a key for only displaying the status of an extension/trunk. The command for this is,

set keys DPM type no. KKK FFFF disp

On giving this command, the key will only display the status of the defined extension or trunk line. This defined extension or trunk cannot be dialed by pressing this DPM key.

Keys setting of a DPM, can be viewed by the command, **`show keys kts <keygrp>`**.

show keys dpm 0

DPM 0

```
[ 1 -- ][ 2 -- ][ 3 -- ][ 4 -- ][ 5 -- ][ 6 -- ][ 7 -- ][ 8 -- ]
[ 9 -- ][ 10 -- ][ 11 -- ][ 12 -- ][ 13 -- ][ 14 -- ][ 15 -- ][ 16 -- ]
[ 17 -- ][ 18 -- ][ 19 -- ][ 20 -- ][ 21 -- ][ 22 -- ][ 23 -- ][ 24 -- ]
[ 25 -- ][ 26 -- ][ 27 -- ][ 28 -- ][ 29 -- ][ 30 -- ][ 31 -- ][ 32 -- ]
[ 33 -- ][ 34 -- ][ 35 -- ][ 36 -- ][ 37 -- ][ 38 -- ][ 39 -- ][ 40 -- ]
```

DPM 1

```
[ 41 -- ][ 42 -- ][ 43 -- ][ 44 -- ][ 45 -- ][ 46 -- ][ 47 -- ][ 48 -- ]
[ 49 -- ][ 50 -- ][ 51 -- ][ 52 -- ][ 53 -- ][ 54 -- ][ 55 -- ][ 56 -- ]
[ 57 -- ][ 58 -- ][ 59 -- ][ 60 -- ][ 61 -- ][ 62 -- ][ 63 -- ][ 64 -- ]
[ 65 -- ][ 66 -- ][ 67 -- ][ 68 -- ][ 69 -- ][ 70 -- ][ 71 -- ][ 72 -- ]
[ 73 -- ][ 74 -- ][ 75 -- ][ 76 -- ][ 77 -- ][ 78 -- ][ 79 -- ][ 80 -- ]
```

DPM 2

```
[ 81 -- ][ 82 -- ][ 83 -- ][ 84 -- ][ 85 -- ][ 86 -- ][ 87 -- ][ 88 -- ]
[ 89 -- ][ 90 -- ][ 91 -- ][ 92 -- ][ 93 -- ][ 94 -- ][ 95 -- ][ 96 -- ]
[ 97 -- ][ 98 -- ][ 99 -- ][ 100 -- ][ 101 -- ][ 102 -- ][ 103 -- ][ 104 -- ]
[ 105 -- ][ 106 -- ][ 107 -- ][ 108 -- ][ 109 -- ][ 110 -- ][ 111 -- ][ 112 -- ]
[ 113 -- ][ 114 -- ][ 115 -- ][ 116 -- ][ 117 -- ][ 118 -- ][ 119 -- ][ 120 -- ]
```

Spl Keys

0-RetBack 1-Conf 2-Emg/Page 3-Msg 4-Phold 5-Hdset

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Chapter 23

Authorisation Password

For configuration of the system, system administrator has to logged-in for the system programming. The **DG 250** has three levels of passwords for logging-into the system programming. The levels are as defined below-

- a) User level
- b) Master level
- c) Supervisor level

User level is the lowest level. In the user level, it is only possible to view the various system parameters. It is not possible to enter any programs in this level.

The programs can be entered only in the second level, which is called as the **master level**. Master level is above user level.

The third level is the **supervisor level**. This level is above user & master level. The master level and the supervisor level are similar in all respects except the date & time of the system can be changed only by the supervisor.

All the three levels have different login passwords. These passwords can be set by the following commands:

```
set pswrd <level> <old password> <new password> <new password>
```

Where the parameter **<level>** for user will be ``user'`, for master will be ``master'` & for supervisor will be ``super'`.

Note that lowest level can not change the password of the upper level. While upper level can change the password of the lower level. A level can change its own password.

When the login is in a lower level, it is possible to go to a higher level only after logging out of the current level. If no command is entered since last 4 minutes, programming terminal will be logged out automatically.

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Chapter 24

Addition & deletion of the cards

Adding a card

Any new card can be added to the system, without changing any DIP switch settings of the MCC card. The command for adding any new card is,

add card <slot no.> <card type>

The slot numbers start from 01 onwards (corresponding to the first slot). The valid names of card types are given below:

Line Card	-	ALC
Digital Line Card	-	DLC
Analog Trunk Card	-	ATC
ATD Card	-	ATD
DTD Card	-	DTD
VSN Card	-	VSN
Both Way trunk Card	-	BWT
E&M Card	-	ENM

For example, to add a new FLC in the second slot, the command will be,

add card 01 ALC

It must be noted that after adding a card, its ports also have to be set through the command

set port <slot no.> <port no.> <flexible>

Deleting a card

An existing card in the system can be removed by the following command

delete card <slot> <card name>

All the cards, which are present in the system, can be viewed by the following command,

show card

Card List

Slot. Card Stat | Slot. Card Stat | Slot. Card Stat | Slot. Card Stat

**** Shelf 0 ****

0 ATD P-00	1 ALC P-00	2 NONE -	3 NONE -
4 NONE -	5 NONE -	6 NONE -	7 NONE -
8 TONE P	9 NONE -	10 NONE -	11 NONE -
12 NONE -	13 NONE -	14 NONE -	15 NONE -

**** Shelf 1 ****

16 NONE -	17 NONE -	18 NONE -	19 NONE -
20 NONE -	21 NONE -	22 NONE -	23 NONE -
24 NONE -	25 NONE -	26 NONE -	27 NONE -
28 NONE -	29 NONE -	30 NONE -	31 NONE -

Chapter 25

Changeover Timings Setting

DG 250 has two different modes i.e. day mode & night mode. Certain settings can be defined to work in the different manner in day mode & in another manner night mode.

Only day timings has to be defined & rest of the time out of 24 hours, will be treaded as night timings.

To set the day timings, the format of the command is,

set cotm <week day> <HH> <MM> <hh> <mm>

Where <week day>	-	Week day i.e. 0 for Sunday, 1 for Monday & so on.
HH	-	day start time hours (in 24 hours format)
MM	-	day start time minutes
hh	-	day end time hours (in 24 hours format)
mm	-	day end time minutes

For example, if the day time for Monday is required from 8 AM to 8 PM, the command will be,

set cotm 1 08 00 20 00

After defining the above command, on Monday, from 00:00 of night upto 8 Am, system will work in night mode. At 8 AM system will come in day mode & will remain in day mode upto 8 PM. Again at 8 PM, system will come back to night mode. After 23:59 of the Monday, timings of Tuesday will be applicable.

Defined D/N changeover timings can be viewed by the command “**show cotm**”

```
show cotm
COTIME for SUN -> 09:00 to 18:00
COTIME for MON -> 09:00 to 18:00
COTIME for TUES -> 09:00 to 18:00
COTIME for WED -> 09:00 to 18:00
COTIME for THURS -> 09:00 to 18:00
COTIME for FRI -> 09:00 to 18:00
COTIME for SAT -> 09:00 to 18:00
```

Default: Day hours are 9:00 AM to 6:00 PM.

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Chapter 26 Holidays Setting

The department of the telecommunication charges as per different tariffs on public holidays. To make the DG 250 compatible with the department of telecommunication for the call charges, these holiday setting are required.

With the DG 250 desired holidays can be defined. Apart from full day setting, half day setting also can be defined.

Holidays, full day off, half day off will be defined through the rsrd table. Note that rsrd table is used to program the dialout table (refer SLT Features – Dial out rights of a SLT).

Only the row no. 0 of the RSRD table is used to program the desired National Holidays / Half day off / Full day off.

Maximum 8 days in a year, can be defined as National Holidays & only a single day of a week can be defined as Full day off & single day can be defined as half day off also.

Following is the rsrd table –

		0	1	2	3	4	5	6	7	8		
0		dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	dd mm	Half Day	Full day
1	Mod 1	0. 1									Dial Lim	
2	Mod 2										Dial Lim	
3	Mod 3	0. 0									Dial Lim	
4	Mod 4	0. 00									Dial Lim	
5	Mod 5										Dial Lim	`000'

To define the same, command is –

set rsrd <R> <C> <X> <Y>

Where R is the row Number & C is the column number.

The value of R will be 0.

For R = 0 & C = 0 to 7 , `X` will be DD & `Y` will be MM. `DD` is the date & `MM` is the month of the desired National holiday.

For R = 0 & C = 8, `X` will be the half day & `Y` will be full day. In this case, value of `X` & `Y` will be 0 to 7. `0` for Sunday & `1` for Monday & so on. The value of X & Y will be `8` for no Half day & no Full day.

By default all Sundays & 26th Jan / 15th Aug & 2nd Oct are defined as National Holidays.

No half day is defined by default.

Setting of weekoff

To define the weekoff day, command is,

set sys weekoff <day of the week>

Where <day of the week> will be 0 for Sunday, 1 for Monday & so on.

Important: The above setting is only to define the holidays. The call charges on the holidays will be defined through the COST TABLE.

Chapter 27

Cost Table & Code Table

The STD / ISD code table must be filled for calculating the charges of the STD & ISD calls made by any extension. The implementation is done in the form of two tables namely COST TABLE & CODE TABLE. The COST TABLE is used for defining the pulse rate for each time zone, the charges for one unit & the service charge for one call. The CODE TABLE is used for entering the various STD / ISD codes and their corresponding entry in the COST TABLE for calculating the charges.

Cost Table

The cost table is in the form of a matrix of 25 rows and 17 columns. In this, the first row is significant in the sense that it contains the various time zones. In the default setting, the following are the time zones

Zone 1	-	00:00	to	06:00
Zone 2	-	06:00	to	07:00
Zone 3	-	07:00	to	08:00
Zone 4	-	08:00	to	11:00
Zone 5	-	11:00	to	18:00
Zone 6	-	18:00	to	19:00
Zone 7	-	19:00	to	20:30
Zone 8	-	20:30	to	22:00
Zone 9	-	22:00	to	23:00
Zone 10	-	23:00	to	24:00

There are no separate zones for STD & ISD. All the zones are combined together. The number of zones are more keeping in view the various time zones for charge calculation in the case of STD & ISD Calls. However, these zones are programmable and they can be altered according to the customer requirement. The entries for the various zones are to be made in the first row. The first column of the first row is for zone 1 and the default entry is 06:00, which is the end time for the first zone. Similarly, the entries in the other zones are also entered. There is also provision for two more zones, which can be utilised wherever required. In the default condition, these 2 zones are not utilised and the entries in these columns are 24:00.

The 13th and the 14th column of row 1 are used for entering the start time & end time for holiday rate calculation (Applicable only if Holiday rates are enabled). The default Holiday rate start time is 08:00 and the Holiday rate end time is 19:00. The 15th & 16th & 17th column in the first row is not used and the default entries in these column are 0.

The second row is used for entering the default cost table for local calls. As explained earlier, the columns 1 to 10 contain the various time zones. Now starting from the second row and upto the 25th row, the entries in the columns 1 to 10 must contain the pulse rate for the corresponding time zone. In the case of local calls, there are no Concessional rates. Hence in the second row, all the entries from column 1 to column 10 will be 1800, which corresponds to 180 seconds (i.e.) 3 minutes.

If it is required to change the pulse rate of a local call as 5 minutes then the entries in columns 1 to 10 of second row must be 3000.

If zone 11 & 12 are not used, then there is no need to enter any value in these columns. The default entries in these columns are 1800.

The 13th column of row 2 is used for enabling or disabling holiday rates. A 1 in this column enables holiday rates for local calls & a 0 disables holiday rates. The default entry in this column is 0 (i.e.) holiday rate is disabled for local calls

The 14th column is used for entering the pulse rate for holiday. The def. entry is 1800.

The 15th column is used for entering the charge of one unit. The default entry is 200 corresponding to Rs. 2 for one unit of local call.

The 16th column is used for entering the service charge for one local call. Default entry is 0.

The 17th column is used for entering the call charge per 16 Khz pulse. Default entry is 200.

The third row is used for entering the default cost table for STD calls. As explained earlier, the columns 1 to 10 contain the various time zones. The entries made in these columns must correspond to the pulse rate in the corresponding time zone. The default entries are as given below:

1 st column of 3 rd row	-	80 (corresponding to 8 sec)
2 nd column of 3 rd row	-	70 (corresponding to 7 sec)
3 rd column of 3 rd row	-	50 (corresponding to 5 sec)
4 th column of 3 rd row	-	25 (corresponding to 2.5sec)
5 th column of 3 rd row	-	25 (corresponding to 2.5sec)
6 th column of 3 rd row	-	25 (corresponding to 2.5sec)
7 th column of 3 rd row	-	50 (corresponding to 5 sec)
8 th column of 3 rd row	-	50 (corresponding to 5 sec)
9 th column of 3 rd row	-	70 (corresponding to 7 sec)
10 th column of 3 rd row	-	80 (corresponding to 8 sec)

For example if it is required to have a pulse rate of 2.5 secs. from 06:00 hrs to 23:00 hrs and 5 secs. From 23:00 hrs to 06:00 hrs, the entries in the third row must be 50 for 1st column, 25 for columns 2 to 9 and 50 for column 10.

Please note that these pulse rates will be used only for those STD codes, which are not able to mCOICh any entries in the STD / ISD CODE TABLE.

If zone 11 & 12 are not used, then there is no need to enter any value in these columns. The default entries in these columns are 25.

The 13th column of row 3 is used for enabling or disabling holiday rates for STD calls. A 1 in this column enables holiday rates for STD calls & a 0 disables holiday rates. The default entry in this column is 0 (i.e) holiday rate is disabled for STD calls

The 14th column is used for entering the pulse rate for holiday. The default entry is 50 corresponding to 5 secs..

The 15th column is used for entering the charge of one unit. The default entry is 126 corresponding to Rs. 1.26 for one unit of STD call.

The 16th column is used for entering the service charge for one STD call. Default entry is 0.

The 17th column is used for entering the call charge per 16 Khz pulse. Default entry is 126.

The fourth row is used for entering the default cost table for ISD calls. As explained earlier, the columns 1 to 10 contain the various time zones. The entries made in these columns must correspond to the pulse rate in the corresponding time zone.

The default entries are as given below:

1 st column of 4 th row	-	14 (corr. to 1.4 secs.)
2 nd column of 4 th row	-	14 (corr. to 1.4 secs.)
3 rd column of 4 th row	-	14 (corr. to 1.4 secs.)
4 th column of 4 th row	-	12 (corr. to 1.2 secs.)
5 th column of 4 th row	-	12 (corr. to 1.2 secs.)
6 th column of 4 th row	-	12 (corr. to 1.2 secs.)
7 th column of 4 th row	-	14 (corr. to 1.4 secs.)
8 th column of 4 th row	-	14 (corr. to 1.4 secs.)
9 th column of 4 th row	-	14 (corr. to 1.4 secs.)
10 th column of 4 th row	-	14 (corr. to 1.4 secs.)

For example, if it is required to have a pulse rate of 1 sec. from 06:00 hrs to 23:00 hrs and 2 secs. From 23:00 hrs to 06:00 hrs, the entries in the fourth row must be 20 for 1st column, 10 for columns 2 to 9 and 20 for column 10.

Please note that these pulse rates will be used only for those ISD codes, which are not able to mCOICh any entries in the STD / ISD CODE TABLE.

If zone 11 & 12 are not used, then there is no need to enter any value in these columns. The default entries in these columns are 12.

The 13th column of row 4 is used for enabling or disabling holiday rates for ISD calls. A 1 in this column enables holiday rates for ISD calls & a 0 disables holiday rates. The default entry in this column is 0 (i.e) holiday rate is disabled for ISD calls

The 14th column is used for entering the pulse rate for holiday. The default entry is 12 corresponding to 1.2 secs..

The 15th column is used for entering the charge of one unit. The default entry is 126 corresponding to Rs. 1.26 for one unit of ISD call.

The 16th column is used for entering the service charge for one ISD call. Default entry is 0. The

17th column is used for entering the call charge per 16 Khz pulseThe default entry is 126.

The fifth row is used for entering the default cost table for cellular calls. As explained earlier, the columns 1 to 10 contain the various time zones. In the case of Cellular calls, there is no concessional rates. Hence in the fifth row, all the entries from column 1 to column 10 will be 1800, which corresponds to 180 seconds (i.e) 3 minutes.

If it is required to change the pulse rate of a cellular call as 5 minutes then the entries in columns 1 to 10 of fifth row must be 3000.

If zone 11 & 12 are not used, then there is no need to enter any value in these columns. The default entries in these columns are 1800.

The 13th column of row 5 is used for enabling or disabling holiday rates. A 1 in this column enables holiday rates for cellular calls & a 0 disables holiday rates.

The default entry in this column is 0 (i.e) holiday rate is disabled for cellular calls

The 14th column is used for entering the pulse rate for holiday. The default entry is 1800.

The 15th column is used for entering the charge of one unit. The default entry is 200 corresponding to Rs. 2 for one unit of cellular call. For example if it is required to charge Rs. 5 for one unit of cellular call, the entry in this column must be 500.

The 16th column is used for entering the service charge for one cellular call. The default entry is 0.

The 17th column is used for entering the call charge per 16 KHz pulse. The default entry is 200. Till now we have seen the default rate table. These tables will be used only if there is no mCOICH found in the CODE TABLE. Starting from row 6 and upto row 25, there are general purpose rate tables. The default entries made in these rows are given in the attached sheet. The default entries are made keeping in view the various new STD & ISD rates currently implemented by DOT. So in most of the cases, it may not be required to alter the rate table.

In the default entries, rows 6 to 9 contain the various ISD pulse rate; rows 10 to 13 contain the various STD pulse rate; rows 14 & 15 contain the inter dialing rates.

Any entry in the COST TABLE can be altered including the various time zones. There is no fixed criteria as full rate, half rate, one third rate etc. You can enter any pulse rate in any column. As explained above, you are actually entering the duration of one unit in each time zone. System will not check for the validity of the pulse rate entered by you in any column.

The cost table is given below. The format of the command for altering the values in the cost table is ,

set toll <rr> <cc> <value>

where rr is the row number and it can have values from 00 to 24; cc is the column number and it can have values from 00 to 14. For example to change the value of first row first column to 630, the command is,

set toll 00 00 0630

Default: The default values of the cost table are as shown in the figure.

This table is used for entering the various STD / ISD codes. It is also possible to enter local numbers in the cost table. This will be used for implementing the different charges for Inter dialing numbers.

For each code entered in the CODE TABLE, the row number of the COST TABLE must be entered for calculating the charges.

For example if it is required to have the charge calculations corresponding to row 10 for STD code 011, the entry in the CODE TABLE must be 10 for the code 01100.

Similarly, the entries must be made in the code table for each code. If no mCOICHes are found in the CODE TABLE for any code, then the default entries in the rows 2 to 5 in the COST TABLE will be used.

Note: While entering the codes in the CODE TABLE, it is not possible to enter the values 02 to 05 for any code as these entries are reserved for default charge calculation.

Local numbers can also be entered in the CODE TABLE. A maximum of 7 digits can be entered for any local number entry in the CODE TABLE. For example, 9180, 9181, 9182 etc. As explained in the case of STD & ISD codes, here also the entry for each local number must be a corresponding row number of the COST TABLE.

The maximum number of codes that can be entered in the CODE TABLE is 100.

The format of the command for entering the various codes in the code table is,

set code <code> <row no.>

For example to enter the code 011 with the charge calculation as per the entries made in row 10, the command is,

set code 0110000 10

and for entering 009 with the charge calculation as per the entries made in row 9, the command is,

set code 0090000 09

In the system default settings, no codes are entered in the table. All the entries made in the code table can be viewed by giving the command,

show code

This command will show all the std / isd codes which are entered in the table in the following format:

STD CODE: ROW NUMBER:

It is possible to alter any entries made in the code table by simply overwriting the code with the new row number. For example, to view the pulse rate of the STD code 011, enter

show code 01100

The display will show the present row number of the STD code 011. Now if it is require to change the charge calculation as per row number 12, the command is,

set code 01100 11

All the entries made in the STD / ISD code table can be erased using the command,

delete code

This command clears the code table and fresh entries can be made.

Deleting the code table will not affect the other system parameters.

row no:	column no:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	ZONE	600	700	800	1100	1800	1900	2030	2200	2300	2400	2400	2400	800	1900	0	0	206	
2	LOCAL	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	0	1800	200	0	200
3	STD	80	70	50	25	25	25	50	70	70	80	25	25	0	50	126	0	126	
4	ISD	14	14	14	12	12	12	14	14	14	14	12	12	0	14	126	0	126	
5	CELL	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	0	1800	200	0	200	
6	ISD1	30	30	30	25	25	25	30	30	30	30	25	25	0	30	126	0	126	
7	ISD2	18	18	18	15	15	15	18	18	18	18	15	15	0	18	126	0	126	
8	ISD3	14	12	12	12	14	12	12	12	12	12	12	12	0	14	126	0	126	
9	ISD4	18	18	18	18	15	15	15	15	18	18	15	15	0	18	126	0	126	
10	STD1	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
11	STD2	120	100	70	35	35	35	70	100	100	120	35	35	1	70	126	0	126	
12	STD3	160	140	100	50	50	50	100	140	140	160	50	50	1	100	126	0	126	
13	STD4	480	360	280	140	140	140	280	360	360	480	140	140	1	280	126	0	126	
14	G1	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1	1800	126	0	126	
15	G2	900	900	900	900	900	900	900	900	900	900	900	900	1	900	126	0	126	
16	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
17	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
18	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
19	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
20	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
21	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
22	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
23	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
24	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	
25	BLANK	80	70	50	25	25	25	50	70	70	80	25	25	1	50	126	0	126	

Cost Table

Chapter 28

Voice Guidance

For Voice guidance in DG 250 VSN card is mandatory. VSN card is available in two types i.e VSN2 and VSN8. VSN2 card is of 2 ports and VSN8 card is 8 Port card.

Note the following for recording the messages –

- a) Messages are of two types. One is DISA messages (fixed messages) & another is free flowing messages.
- b) Every free flowing message will occupy one complete port.
- c) Each DISA message will occupy a partial section of a VSN port. This partial section of the VSN port will be known as the `part' of the VSN port.
- d) Engineer has to decide the no. of ports to be used as per the traffic of the incoming calls.

DISA Messages

DISA messages are fixed type. The port of the VSN for various messages will be decided by the engineer, as per the incoming trunk traffic. Every DISA message is having a fixed message no. This message no. will be used to set the port of the VSN & recording of that message.

- a) All the DISA messages have the fixed message no. as shown below.
- b) Each message is approx. of 8 seconds duration.

On any VSN port, one type of message can be recorded only once. Means on one VSN port, only one welcome message can be recorded. If more welcome messages are reqd., any other unused VSN ports can be used. So first decide the total no. of various messages.

When the message is being recorded, it will be stored in all the selected ports simultaneously.

DISA messages	Message No.
`Welcome Message'	06 / 12 to 19
`Busy Message'	07
`Invalid No. Dialed Msg'	08
`No response Msg'	09
`Operator transfer Msg'	03
`Night Message'	04
`Numeric message is stored msg'	05
`Wake up Alarm Msg'	01
`Msg Opr. i.e. guest intimation message'	02

DG 250 can have multiple welcome messages for the incoming calls. Total 9 types of welcome messages can be recorded. It must be noted that DG 250 can play the different welcome message only. Rest of the DISA messages will be same.

For DISA message recording, first decide the no. of messages of DISA messages as per the incoming traffic.

Now set the VSN port of the DISA messages. Note that the part of the port will be decided by the system itself.

The syntax of the command for the same is,

```
`set sys msgs <msgs no.> <VSN slot No.> <port no.>'
```

For example if VSN card is in 3rd slot then commands for activating 0th port would be:-

```
set sys msgs 6 3 0
set sys msgs 7 3 0
set sys msgs 8 3 0
set sys msgs 9 3 0
set sys msgs 3 3 0
set sys msgs 4 3 0
set sys msgs 5 3 0
```

These commands will set all the above messages on 0th port of the VSN card. Parts of the ports will be decided by the system itself.

You can view the port/part allotment thru the command **`show sys msgs'**

System is so intelligent that various messages will be played only whenever these are required.

After this setting, record the messages from the KTS.

Note : The message recording is possible after defining of the various messages on various VSN ports only. The recording will be done from a key phone by entering the Programming mode. The command for recording the message is:

PROG + P/W + 11 + Msg No.

For example to record the welcome message, the command is

PROG + P/W + 11 + 06

Every DISA message is of 10 seconds. Recorded messages can be heard for testing purpose whether the message is recorded properly or not. By default, the command for the same is **`40 + Msg No.'** This command can be directly given from a key phone without entering the Programming mode.

Further As the DISA messages are recorded on various parts of various ports so to make sure that the messages are recorded on all the desired parts of the ports, you can hear any specific part/port.

Multiple Welcome message

First record the various welcome messages on the various VSN ports as explained above. Now define the welcome message number in the DIDG of the desired trunk. To define the same, command is,

```
set didg GG welcome <Msg No.>
```

To hear any specific part of any port, the default code for the same is, ***`411 + Vsn slot no. + Port No. + Part No.'*** (No need to enter the system Programming mode)

Important : Without allotment of the ports, DISA messages can not recorded.

Free Flowing Messages

A free flowing message is that message that will be played continuously. A free flowing message will occupy one complete port.

Every free flowing message has a `tone type' & `Msg No.' `Tone type' is fixed for every free flowing message while `Msg No.' is not fixed like DISA messages. For free flowing messages, engineer has to decide the `Msg No.' & it can be any number between 21 and 39.

Free flowing messages are as follows–

All the following tones can be replaced by the voice messages, like –

Message	Tone type	Message No.
System dial tone	d	Engineer definable (21 to 39)
RBT	r	Engineer definable (21 to 39)
Confirmation tone	c	Engineer definable (21 to 39)
Waiting tone	w	Engineer definable (21 to 39)
B_Music	m	Engineer definable (21 to 39)

It is also possible to record some customized messages given below. The conditions under which these messages will be played are explained below:–

Message	Tone type	Message No.
`This facility is not.....',	a	Engr Definable (21 to 39)
`All lines of this route are busy',	o	Engr Definable (21 to 39)
`Your bill is not paid'	i	Engr Definable (21 to 39)
`ACD announcer msg'	-	Engr Definable (21 to 39)

Note: The ACD announcer has no `tone type'. The explanation of ACD announcer message is given in the end of this document.

The significance of the special messages are given below:

This facility is not available – This message will be played when a subscriber is trying to dial an outgoing number, which is above his class of service.

All lines in this route are busy – This message will be played when all outgoing trunks are busy.

ACD Announcer – This message will be played if someone is trying to access ACD group & all the agent of the ACD group are busy.

Your bill is not paid – This message has to be activated by the attendant for any specific extension. This message can also be activated thru Computer Program Interface. Commands are given below:

From Attendant Extension:

- Att code + 22 + ext No. - Msg disabled.
- Att code + 23 + ext No. - Msg enabled w/o affecting incoming & outgoing.
- Att code + 24 + ext No. - Msg enabled with outgoing closed.
- Att code + 25 + ext No. - Msg enabled with incoming & outgoing closed.

Att code + 26 + ext No. - Msg enabled with incoming & outgoing & internal closed.
Note: The default Att code is 184. The Attendant extension has to be defined using the COS command in PI. Activating this message will not disable the outgoing/ incoming facility of an extension.

From Programming Interface: **set ext <ext. no.> npaid**

How to define the ports for free flowing messages for recording

For free flowing messages, first set the port no. of the VSN port of DSP card.

set sys tone <tone type> <VSN slot> <port no.>

Now set the message no. for that free flowing message, that will be required during recording. The message number has to be decided by the Engineer (any number from 21 to 39)

set sys msgs <msg no.> <VSN slot no.> <port no.>

Now you record the message from the operator key phone,

PROG + P/W + 11 + Msg No.

You can also play the recorded message. By default the code for hearing the message is `40 + Msg No.'

***Example: How to set the message free flowing messages,
 `Bill Not Paid
 `This facility is not available on your phone'
 `All the lines of this route are busy'***

First let us decide the `Msg No.' for those messages –

	Tone type	Msg No.
Bill not paid	i	21
This Facility.....	a	22
All the lines of.....	o	23

Let's assume that we are using the 0th port of VSN card in slot no. 4th, the command for setting the ports for the various messages are:

**set sys tone i 4 0
 set sys tone a 4 1
 set sys tone o 4 2**

The command for allotting the message number for the various ports are:

**set sys msgs 21 4 0
 set sys msgs 22 4 1
 set sys msgs 23 4 2**

Now record the message from KTS,

Prog + P/W + 11 + Msg no. (What you have set)

The commands to be given from the KTS for recording the above messages are,

Prog + P/W + 11 + 21	For `Bill not paid`
Prog + P/W + 11 + 22	For `This facility.....`
Prog + P/W + 11 + 23	For `All lines of this route.....`

Important : Without allotment of the ports, no messages can be recorded.

How to record the VSN from SLT

VSN messages can be recorded through KTS. But if it is supposed to be recorded with the help of SLT, follow the steps –

- a) Suppose there are two analog extensions Ext A & Ext B.
- b) Find out the original number of these extensions. Suppose the original extension number of ext A is A is 2032 & Ext B is 2033.
- c) Make a call from ext 2032 to Ext 2033.
- d) Give a command - **set sys msgs <Msg No.> <VSN Card> <Port No.>**
- e) If you want to record the VSN msg on 0th port of the VSN card (i.e. 4th card), the command will be,

set sys msgs 21 4 0

- f) Set the command - **drct cnct A <VSN port No.>**

Where A is the last three digits of ext 2032. & VSN port No. should be 0 (Because you are recording on 0th port of VSN). After this command, voice link between Ext 2032 & Ext 2033 will be broken & Ext 2032 will be connected to the defined VSN port.

- g) Give the stop command - **drct msg 0 2 59 29**
- h) Give start recording command - **drct msg 0 5 58 <VSN port no.> 0 0 X**

Where X will be 2 for 29th port of DSP / X will be 3 for 30th port of DSP / X will be 4 for 31st port of DSP.

- i) Now record the VSN message from Ext 2032.
- j) After a recording seconds, give a `stop` command as explained in point no. (g).
- k) Now desired VSN port is recorded.

Now use `tone` command as per your requirement - **set sys tone.....**

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Chapter 29

External Voice Mail Integration

Voice Mail can be integrated with DG 250 IVDG 250 with the inband signaling as well as outband signaling also.

Voice Mail Integration with Inband Signaling

DG 250 IVDG 250 will generate the inband signaling (dtmf signalling) while the call is being diverted to voice mail extensions only. For this the extensions that are connected to VMAIL ports, have to be defined as **VOICE MAIL EXTENSION**. To define the voice mail extension,

```
`set ext <ext no.> vmail
```

DG 250 IVDG 250 will generate the Following voice mail strings –

- Direct Internal Call (DIC)
- Direct External Call (DEC)
- Diverted Internal/External Call On No Reply (DVIR)
- Diverted Internal/External Call On Busy (DVIB)
- End Of Call (EOC)

`#' is the string termination.

DIC will be generated by the DG 250 IVDG 250 on calling VMAIL extensions by another extensions. An extension user will call VMAIL extension either for accessing his mailbox or to change his extension's greeting. **By def. DIC string is "11 Ext No. #"**.

DEC will be generated by the DG 250 while an incoming trunk call is required to be attended by the voice mail for WELCOME GREETING of the organization. **DEC** string will instruct voice mail to play the WELCOM GREETING. **By default, DEC string is "22#"**.

DVIR will be generated by DG 250 while an internal or external call is forwarded to the VMAIL ports from any unanswered extension. Note that `system feature `Call forward no reply' should be activated on every extension. **DVIR** string will instruct VOICE-MAIL to open the mail box of forwarding extension to store the voice message from caller. **By default DVIR string is "33 EXT #"**.

DVIB will be generated by DG 250 while an incoming or outgoing call is forwarded to VMAIL extensions from a busy extension (Note that busy extension had set the feature `Call Forward Busy to VMAIL Ext'). By default, **DVIB string is `44 EXT #"**.

EOC will be generated by DG 250 IVDG 250 while DG 250 IVDG 250 is releasing the VMAIL port.

By default EOC string is "554#"

All the above strings are programmable. To change the various strings, command is,

```
set sys vms <X> <Y>
```

Where	`X'	-	1	For Direct Internal Call `DIC'
			2	For Direct External Call `DEC'
			3	For Diverted internal on no reply `DVIR'

- 4 For Diverted internal on busy `DVIB`
- 5 For End of call `EOC`

& `Y` is the string notification followed by extension notification & string termination.

Extension notification is `%s` & String Termination is `#`. **Note that `s` is in lower case only.** For example, if DIC string is required as `6666` followed by extension no. & `#`, this will be set by the following command,

set sys vms 1 6666%s#

In this example, String notification is `6666` in 4 digit.
 Extension notification is `%s` i.e. 2 character.
 Termination is `#` i.e. single character.

Note that for the setting of the various strings, the maximum length of the `Y` can be 7. Means string notification can be in 4 digit maximum. For good result, define the string notification in single digit.

Defined VMAIL strings can be viewed by the command `**show sys device`.**

```
show sys device
Device List :

USER      : 032 - 222
JUNCTION  : 128 - 158
DSP       : 006 - 028
VSN       : 028 - 032
RECP 2032 Day S'visor 2032 Night S'visor 2032 Alarm Fail 2032
VMS Strings:[ DIC. 11%s#[[ DEC. 22#[[DV/N. 33%s#[[DVBS. 44%s#[[ EOC. 554#[[ x1.
][ x2. ][ x3. ][ x4. ][ x5. ]
Clock State: NPRI
show sys Fault/acts/device/libs/msgs/wtab/ulsta,d
```

Message Light ON/OFF

If a voice message is stored for an extension in his mailbox, VMAIL has to send the MESSAGE LIGHT ON string to the DG 250 IVDG 250 through VMAIL ports. For this VMAIL has to send the following strings.

Message Light ON - 183 EXT 1

When the voice message is deleted by that extension user after hearing the stored voice message, VMAIL has to send the string for turn off the MSG LIGHT.

Message Light OFF - 183 EXT 0

The message light on/off code, can be changed either by the flex command or by the port command.

i.e. **set flex 183 <Flex>** or **set port 72 3 <Flex>**

Important: It is recommended not to activate the Call Forward busy feature on extensions. Because if Call forward busy is activated, all the internal calls also will go to VMAIL ports immediately on calling any busy extension.

So to avoid this case, VMAIL should work in semi-supervisory mode means supervisory mode only for busy case. Means if VMAIL finds an extension busy for an external call, VMAIL should not transfer this call blindly. VMAIL should play the busy message itself.

Keeping the VMAIL integration in mind, we have modified one of system feature also i.e. 'Call forward no reply' can be forwarded to ACD also. Note that Call forward no reply can be set through only PI.

Voice Mail Integration with Outband Signaling

DG 250 IVDG 250 can be integrated with Voice mail with outband signaling. For outband signaling, DG 250 will send the desired input to the voice mail application through the lower serial port of the Main Controller Card (MCC).

DG 250 will send the desired input to the voice mail application only if 'serial voice mail' is enabled with the DG 250. To enable the serial voice mail, command is –

set sys feat 7

Now enable the ACD sever also. Command is,

set sys acdsrv

Enable CSTA for all extensions. To enable the same, command is,

set ext <ext no.> csta

Now whenenr a call is going to Voice Mail extension, DG 250 will send the following information to the voice mail application through the serial port –

- Direct Internal Call (DIC)
- Direct External Call (DEC)
- Diverted Internal/External Call On No Reply (DVIR)
- Diverted Internal/External Call On Busy (DVIB)
- End Of Call (EOC)

To get the details of outband strings, refer '**DG 250 CTI Manual**'.

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Chapter 31

How to Download the Calls from System Buffer

How to download the call details from the DG 250 call buffer

As explained earlier, DG 250 saves the outgoing call details in system buffer also. The call details can be downloaded from the DG 250 call buffer using the utility GCAP152.EXE.

This is the DOS based utility so to use the same, come to the DOS prompt & type following for getting the help menu.

C:\GCAP202 -?

```
Usage : GCAP Ver 2.02 – June 09,2004
-A auto Quit On (Default : Off)
-B Baud Rate 9600/4800 (Default : 9600)
-C RTS/CTS On (Default : Off)
-D Debug On (Default : Off)
-H <len> Secure Download (Default : no)
-I Received Data file (Default: None)
-L Incoming Calls File (Default: inc.log)
-M Mal. Trace File (Default: mtrace.log)
-N Add Number <loc> <string> (Default: No)
-O Transmit Data File (Default: None)
-P Port 1/2 (No Default)
-S System 2000/240/DG 250 (Default: 2000)
-T Show Trunk Status(Default: Off)
-W <Loc> Trunk Location in call (Default:1)
-Z `C' packet ack <For SBDG 250 only default : No)
e.g : Gcap2k -a -d -b 9600 -p 1 -h 54
```

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There are various parameters to define with the GCAP for downloading the call details from the call buffer. The description of various parameter are as explained –

- A - This parameter is used for auto termination of the GCAP after downloading the call details from the call buffer.
- B - This parameter is used to define the BAUD rate of the communication with DG 250- . As this utility works on the lower serial port of the DG 250 MCC so it should be 9600. By default it is 9600.
- C - This parameter is used to enable the RTS & CTS. By default it is disabled.
- D - This parameter is used to shown the various packets on the computer screen while GCAP is downloading the calls from call buffer.
- H - This parameter is used for secure downloading. The length of the call string has to be defined with this parameter. If GCAP does not find the call string as per the defined length, GCAP sends the request again to download that call again.
- I - This parameter is used to define the file name in which all the downloaded calls are supposed to save. This is the text file & it can be opened through any editor. If this parameter is not defined, GCAP will create date-wise file whose extension will be

- DET. The date will be taken from the call data. By default, GCAP download the calls in DET file.
- L - This parameter is defined if incoming SMDR is enabled. Desired file name will be defined with this parameter to store the incoming call data. If this parameter is not defined & incoming SMDR is enabled through system programming, GCAP will create a file by its own named INC.LOG & all the incoming call data will be stored in this file. This is the text file & can be opened through any editor.
 - M - This parameter is defined if Malicious Call Trace is enabled. Desired file name will be defined with this parameter to store the malicious calls. If this parameter is not defined & malicious call trace is enabled through system programming, GCAP will create a file by its own named MTRACE.LOG & all the malicious calls will be stored in this file. This is the text file & can be opened through any editor.
 - O - If any text commands are supposed to send to DG 250, those text commands should be written in a text file & that text file will be defined with the parameter `O`. The moment GCAP is executed, GCAP will send all the text commands to the lower serial port of the MCC. Generally this parameter is used to integrate the DG 250- with Hotel Management Software.
 - P - This parameter is used to define the used serial port of the computer.
 - S - As the utility GCAP can be used with DG 2502000 also so this parameter is used to define whether the GCAP is used with DG 2502000 or it is being used with DG 250. By default DG 2502000 is defined.
 - T - This parameter is used to show the trunk ports status. All the used trunk ports will be shown on the computer screen with the latest Date & Time when that trunk port was used. The status of the trunk ports will be updated after every one minute.
 - Z - To send the In Call Ack.

Any of the optional parameter can be ignored.

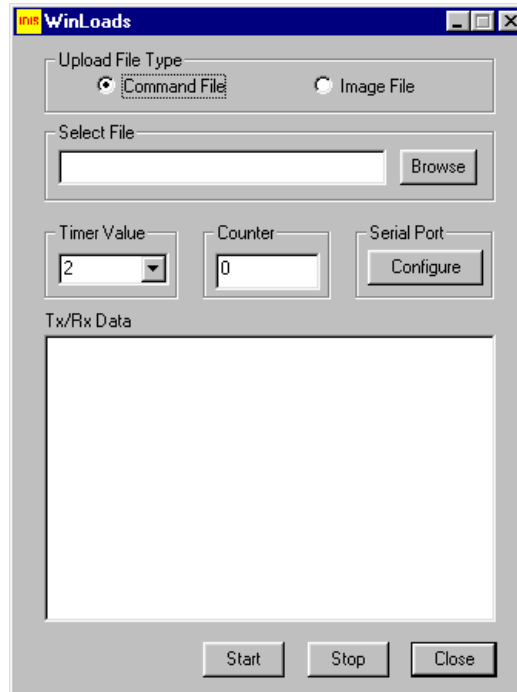
For example, if the data has to be downloaded from the call buffer, syntax of the GCAP will be,

```
C:\GCAP152 -A -B 9600 -D -L Incoming -M mal -P 1 -S DG 250 -T
```

- a) Now all the calls will be downloaded.
- b) Uploading & downloading packets will be shown on the computer screen.
- c) Incoming calls will be saved in a text file named `incoming`.
- d) Malicious calls will be saved in a text file named `mal`.
- e) Outgoing calls will be stored in the date-wise DET file.
- f) The used serial port of the computer is COM1.
- g) Trunk status also will be displayed on the computer.

FLASH ROM loading through Winloads

Install the 'Winloads' on your PC. Make an ICON on your desktop. Click on WINLOADS. Following window will be appeared.



To load the flash rom, follow the steps –

- a) Select '**Image File**'.
- b) Select the flash rom software file by browsing.
- c) Select the serial port of the PC, Baud rate, Data Bit, Parity & Stop Bit by clicking on '**Configure**'. Baud Rate should be 19200, data bit should be 8, parity should be none & stop bit should be 1.
- d) Click on '**Start**'. Flash loading will be started.
- e) While loading this software, put the dip switch 1 & 2 in ON position back. Software loading will take several minutes.
- f) Once it is completed, confirmation window will be appeared on the PC.
- g) Close the application.

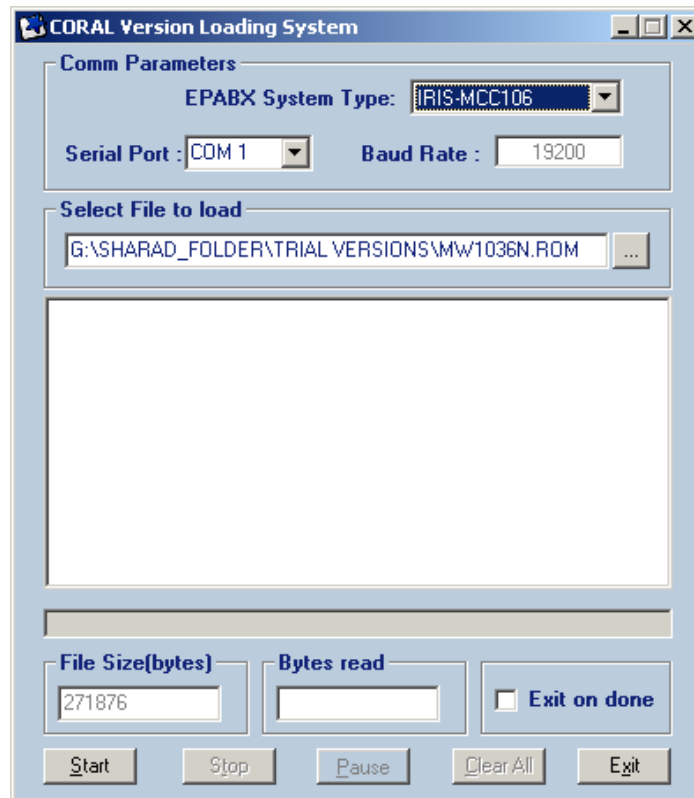
FLASH Software loading through Another WIN Based Utility '**Version Loader**'

'**Version Loader**' is the another utility which can be used to load the flash software of various cards. With the utility '**Version Loader**' there is no need to erase the existing flash first using

hyperterminal. Version loader itself erase the existing flash software & then starts loading the new software.

'Copper Connections Loading System' is the installer file to install the 'Version Loader'. Just click on the

'Copper Connections Loading System' to install the same. After installing, version loader will be add in your program group. Click on 'Version Loader' to run the application. Following is the mail window of version loader.



To load the new flash software, follow the steps –

- a) Define the serial port & the baud rate. Define the type of the PBX or the card in which flash software is supposed to be loaded.
- b) Select the new flash software file.
- c) Put the DIP switch or the jumer in erase position.
- d) Click on Start.
- e) Version loader will prompt you to press the reset switch of the card in which software is being loaded.
- f) Press the reset switch of the card.
- g) Version loader will erase the existing software & after erasing the existing software, ner software will be loaded.
- h) After loading, put the DIP switch or jumper of the card, in standby position.

Note: The kernel of the card might needs to be changed for loading the software through version loader.

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Chapter 33

Gain Setting

With DG 250 IVDG 250, different gain setting for extensions or trunks, can be done with respect to various types of trunks. Note that for any particular extension, only one gain can be set. Different gains that can be set e.g. FLC to ATC / FLC to DCC / FLC to Digital trunk / FLC to TWT / ATC to TWT . Furthermore, the same gain setting will be effected for the same type of trunks or extensions.

Gain table can be viewed by the command , **show gain**'

show gain

Gain Table:

LIN	xxx	BWT	xxx	ATC	xxx	DID	DGT	DLC	DSP							
6	3	3	3	0	0	0	3	3	0	0	0	0	0	0	0	0
3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	3	3	2	2	2	2	0	0	0	0	0	0	0	0	0
9	6	3	0	6	6	6	6	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	0	15	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0
6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	6	3	3	6	6	6	6	3	3	0	0	0	0	0	0	0

This is matrix type table. In the above table, In this table, rows & column are started from 0 . Note the following for the above table -

- `LIN' stands for FLC.
- `XXX' does has no mean.
- `BWT' stands for both way trunks.
- `ATC' stands for analog trunks.
- `DID' is for level DID.
- `DGT' is for digital trunks i.e. E1.
- `DLC' for digital line card.
- `DSP' is for Digital signal processor.

To increase or decrease the gain/attenuation , command is,

set gain <R.> <C> <X>

Note that this command will set the gain/attenuation for the transmit side. To set the gain/attenuation for the receive side, command will be,

set gain <C> <R> <X>

Where `R' is the row no.
`C' is the column no.

`X' is the gain value.

Note that the value of X can be 0 to 15. Where 0 to 12 is the attenuation. `0' means no gain / no loss. 1 to 12 is the -1 to -12 gain. & the value 13/14/15 is the gain. Means 13 is the +2 db, 14 is the +3 db & 15 is the +5 db.

To set the gain for analog extension to extension, the value of R & C will be 0 (refer table)

set gain 0 0 5

As the value of R & C are same , so this command will affect transmit side as well as receive side.

To set the gain for analog extension to ATC, command will be,

For transmit side **set gain 0 4 <X>**
For receive side **set gain 4 0 <X>**

To set the gain between analog extension to DID, command will be,

For transmit side **set gain 0 6 <X>**
For receive side **set gain 6 0 <X>**

To set the gain between Key phones to DID, command will be,

For transmit side **set gain 8 6 <X>**
for receive side **set gain 6 8 <X>**

Chapter 34

Snap Commands

With the help of SNAP commands, you can view certain setting of the ports of the system. Following are the commands for snapping.

Command	Syntax	Description
off	- snap <cmd>	close snap
forw	- snap <cmd>	forward ports
state	- snap <cmd> <state>	state status
revs	- snap <cmd>	reversal rcvd
tmode	- snap <cmd>	trunk in/og/free
mode	- snap <cmd>	landing modes
hunt	- snap <cmd>	landing hunts
dgrp	- snap <cmd> <grp>	did groups
adl	- snap <cmd>	autodial
line	- snap <cmd>	lines
dodg	- snap <cmd> <grp>	outgoing route
didg	- snap <cmd> <grp>	incoming group
khz	- snap <cmd>	16khz units
dept	- snap <cmd> <dept>	deptt
card	- snap <cmd> <crd><st>	ports on card

The details of various snap commands are as follows-

off

As a snap command traces all the ports for the defined function, it can take some time to display the result. `OFF` command is used to terminate the snap shot (if required). To terminate the snap shot, command will be,

snap off 0

forw

This command is used for viewing the forwarded ports of the system. The command for the same is,

snap forw 0

For example, if extension 2065 is forwarded for its all calls to extension no. 2066 & extension 2067 is forwarded to extension 2068 for busy case, result of the command `snap forw 0` will be,

```

snap forw 0
Snap Shot
~
[2065 AFRW 2066 ]
[2067 BFRW 2068 ]
    
```

state

This command is used to have a view of all the free or busy ports. For viewing free ports, command will be,

snap state 0

```

snap state 0
snap Shot
~[C 0,P28- IDLE][C 0,P29- IDLE][C 0,P30- IDLE][C 0,P31- IDLE
][ 2064- IDLE][ 2065- IDLE][ 2066- IDLE][ 2067- IDLE
][ 2068- IDLE][ 2069- IDLE][ 2070- IDLE][ 2071- IDLE
][ 2072- IDLE][ 2073- IDLE][ 2074- IDLE][ 2075- IDLE
][ 2076- IDLE][ 2077- IDLE][ 2078- IDLE][ 2079- IDLE
][ 2080- IDLE][ 2081- IDLE][ 2082- IDLE][ 2083- IDLE
][ 2084- IDLE][ 2085- IDLE][ 2086- IDLE][ 2087- IDLE
][ 2088- IDLE][ 2089- IDLE][ 2090- IDLE][ 2091- IDLE
][ 2092- IDLE][ 2093- IDLE][ 2094- IDLE][ 2095- IDLE
    
```

For viewing all the busy ports, command will be,

snap state 1

```

snap state 1
Snap Shot
~[C 0,P00- DEAD_LN][C 0,P01- DEAD_LN][C 0,P02- DEAD_LN][C 0,P03- DEAD_LN
][C 0,P04- DEAD_LN][C 0,P05- DEAD_LN][C 0,P06- DEAD_LN][C 0,P07- DEAD_LN
][C 0,P08- DEAD_LN][C 0,P09- DEAD_LN][C 0,P10- DEAD_LN][C 0,P11- DEAD_LN
][C 0,P12- DEAD_LN][C 0,P13- DEAD_LN][C 0,P14- DEAD_LN][C 0,P15- DEAD_LN
][C 0,P16- DEAD_LN][C 0,P17- DEAD_LN][C 0,P18- DEAD_LN][C 0,P19- DEAD_LN
    
```

```
][C 0,P20- DEAD_LN][C 0,P21- DEAD_LN][C 0,P22- DEAD_LN][C 0,P23- DEAD_LN
][C 0,P24- DEAD_LN][C 0,P25- DEAD_LN][C 0,P26- DEAD_LN][C 0,P27- DEAD_LN
revs
```

This command is used to have a view of the trunks those are defined for reversal sensing on incoming. While viewing, if any trunk is busy with an incoming call & reversal is received on that trunk, that will also be displayed . The command for the same is,

snap revs 0

```
snap revs 0
Snap Shot
][7000 -REVS ][7001 -REVS ][7002 -REVS ][7003 -REVS
][7004 -REVS ][7005 -REVS ][7006 -REVS ][7007 -REVS
][7008 -REVS ][7009 -REVS ][7010 -REVS ][7011 -REVS
][7012 - ][7013 - ][7014 - ][7015 -
][7016 - ][7017 - ][7018 - ][7019 -
][7020 - ][7021 - ][7022 - ][7023 -]
Snap Done
```

tmode

This command is used for viewing the trunk’s current dial mode ie whether the trunk line is busy with an outgoing or an incoming call. Simultaneously, this command will show the defined signaling of the trunks. The command for the same is,

snap tmode 0

```
snap tmode 0
Snap Shot
~][7000 - 00 DTMF][7001 - 00 DTMF][7002 - 00 DTMF][7003 - 00 DTMF
][7004 - 00 DTMF][7005 - 00 DTMF][7006 - 00 DTMF][7007 - 00 DTMF
][7008 - 00 DTMF][7009 - 00 DTMF][7010 - 00 DTMF][7011 - 00 DTMF
][7012 - 00 DTMF][7013 - 00 DTMF][7014 - 00 DTMF][7015 - 00 DTMF
][7016 - 00 DTMF][7017 - 00 DTMF][7018 - 00 DTMF][7019 - 00 DTMF
][7020 - 00 DTMF][7021 - 00 DTMF][7022 - 00 DTMF][7023 - 00 DTMF
```

mode

This command is used for viewing the day & night mode of the extensions & trunk ports. For extension `mode` determines the dialing rights on the extension & for trunk, `mode` determines the incoming landing type. The format of the command is,

snap mode <X>

Where X will be 0 to 5.

For example, for X = 0, all the extensions having no external rights, will be shown. Note that X=0 / 1 / 2 are not applicable for trunks.

For example, if the command `snap mode 3` is given, all the extensions having local rights & all the trunks defined in hunt landing, will be shown.

```
snap mode 3
Snap Shot
~][2066 -MD03 N03][2067 -MD03 N03][2068 -MD03 N03][2069 -MD03 N03
][2070 -MD03 N03][2071 -MD03 N03][2072 -MD03 N03][2073 -MD03 N03
```

```

]]2074 -MD03 N03]]2075 -MD03 N03]]2076 -MD03 N03]]2077 -MD03 N03
]]2078 -MD03 N03]]2079 -MD03 N03]]2080 -MD03 N03]]2081 -MD03 N03
]]2082 -MD03 N03]]2083 -MD03 N03]]2084 -MD03 N03]]2085 -MD03 N03
]]2086 -MD03 N03]]2087 -MD03 N03]]2088 -MD03 N03]]2089 -MD03 N03
]]2090 -MD03 N03]]2091 -MD03 N03]]2092 -MD03 N03]]2093 -MD03 N03
]]2094 -MD03 N03]]2095 -MD03 N03]]7001 -MD03 N03]]7002 -MD03 N03
]]7003 -MD03 N03]]7004 -MD03 N03]]7005 -MD03 N03]]7006 -MD03 N03
]]7007 -MD03 N03]]7008 -MD03 N03]]7009 -MD03 N03]]7010 -MD03 N03
]]7011 -MD03 N03]]7012 -MD03 N03]]7013 -MD03 N03]]7014 -MD03 N03
]]7015 -MD03 N03]]7016 -MD03 N03]]7017 -MD03 N03]]7018 -MD03 N03
]]7019 -MD03 N03]]7020 -MD03 N03]]7021 -MD03 N03]]7022 -MD03 N03
]]7023 -MD03 N0

```

hunt

This command is used to view the day & night hunt landing groups of the trunks. The command format is,

sanp hunt 0

```

snap hunt 0
Snap Shot
~[7000 -HD03 N04]]7001 -HD09 N09]]7002 -HD09 N09]]7003 -HD09 N09
]]7004 -HD09 N09]]7005 -HD09 N09]]7006 -HD09 N09]]7007 -HD09 N09
]]7008 -HD09 N09]]7009 -HD09 N09]]7010 -HD09 N09]]7011 -HD09 N09
]]7012 -HD09 N09]]7013 -HD09 N09]]7014 -HD09 N09]]7015 -HD09 N09
Snap Done

```

dgrp

This command is used for viewing the DID group & the trunk access group of the trunks. The format of the command is,

snap dgrp 0

```

snap dgrp 0
Snap Shot
~[7000 - 10 0201]]7001 - 15 FFFF]]7002 - 15 FFFF]]7003 - 15 FFFF
]]7004 - 15 FFFF]]7005 - 15 FFFF]]7006 - 15 FFFF]]7007 - 15 FFFF
]]7008 - 15 FFFF]]7009 - 15 FFFF]]7010 - 15 FFFF]]7011 - 15 FFFF
]]7012 - 15 FFFF]]7013 - 15 FFFF]]7014 - 15 FFFF]]7015 - 15 FFFF
]]7016 - 15 FFFF]]7017 - 15 FFFF]]7018 - 15 FFFF]]7019 - 15 FFFF
]]7020 - 15 FFFF]]7021 - 15 FFFF]]7022 - 15 FFFF]]7023 - 15 FFFF
Snap Done

```

Corresponding to the trunk no., DID group is displayed & then the trunk access group is displayed. Note that trunk access group will be shown in HEX. That can be converted in binary form to get the exact group.

line

This command is used to have a view of various features on all extensions. Following are the features that will be displayed for its availability or non-availability,

Day/ Night dialing rights
Department

CLIP Phone
 FSK CLI
 Day & Night COS
 SENDCLI
 DISA ON or OFF
 DND
 Call Forwarding
 Call Waiting
 Bill Not Paid

The format of the command is, **snap line 0**

~snap line 0

Snap Shot

~

```
2064 -M04,05,D 0,NCLP,F0,COS 0 0,SENDCLI,CALLWT, NOTPAID,
2065 -M00,00,D 3,NCLP,F0,COS 1 63,SENDCLI,INALLD, FORW,
2066 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD, DND
2067 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD, FORW,
2068 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2069 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2070 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2071 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2072 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2073 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2074 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2075 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2076 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2077 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2078 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2079 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2080 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2081 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2082 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2083 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2084 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2085 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2086 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2087 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2088 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2089 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2090 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2091 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2092 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2093 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
2094 -M03,03,D 0,NCLP,F0,COS 1 63,SENDCLI,INALLD,
Snap Done
```

dodg

This command is used for viewing the trunks existing in a defined DOD group. The format of the command is,

snap dodg <X>

Where X can be 0 to 15. For example, for viewing all the trunks , existing in DODG 15, the command will be,

snap dodg 15

```

snap dodg 15
Snap Shot
~[7001 - 15 ][7002 - 15 ][7003 - 15 ][7004 - 15 ][7005 - 15
][7006 - 15 ][7007 - 15 ][7008 - 15 ][7009 - 15 ][7010 - 15
][7011 - 15 ][7012 - 15 ][7013 - 15 ][7014 - 15 ][7015 - 15
][7016 - 15 ][7017 - 15 ][7018 - 15 ][7019 - 15 ][7020 - 15
][7021 - 15 ][7022 - 15 ][7023 - 15 ]
Snap Done
didg

```

This command is used for viewing the trunks existing in a defined DID group. The format of the command is,

snap didg <X>

Where X can be 0 to 15. For example, for viewing all the trunks , existing in DIDG 15, the command will be,

snap didg 15

```

snap didg 15
Snap Shot
~[7001 - 15 ][7002 - 15 ][7003 - 15 ][7004 - 15 ][7005 - 15
][7006 - 15 ][7007 - 15 ][7008 - 15 ][7009 - 15 ][7010 - 15
][7011 - 15 ][7012 - 15 ][7013 - 15 ][7014 - 15 ][7015 - 15
][7016 - 15 ][7017 - 15 ][7018 - 15 ][7019 - 15 ][7020 - 15
][7021 - 15 ][7022 - 15 ][7023 - 15 ]

```

khz

This command is used for viewing the no. of 16 khz pulses detected by all the extensions & the trunks during the current month & last month. The format of the command is,

snap khz 0

```

snap khz 0
Snap Shot
[2064 - 0 - 0][2065 - 0 - 0][2066 - 0 - 0][2067 - 0 - 0][2068 - 0 - 0]
[2069 - 0 - 0][2070 - 0 - 0][2071 - 0 - 0][2072 - 0 - 0][2073 - 0 - 0]
[2074 - 0 - 0][2075 - 0 - 0][2076 - 0 - 0][2077 - 0 - 0][2078 - 0 - 0]
[2079 - 0 - 0][2080 - 0 - 0][2081 - 0 - 0][2082 - 0 - 0][2083 - 0 - 0]
[2084 - 0 - 0][2085 - 0 - 0][2086 - 0 - 0][2087 - 0 - 0][2088 - 0 - 0]
[2089 - 0 - 0][2090 - 0 - 0][2091 - 0 - 0][2092 - 0 - 0][2093 - 0 - 0]
[2094 - 0 - 0][2095 - 0 - 0][7000 - 0 - 0][7001 - 0 - 0][7002 - 0 - 0]
[7003 - 0 - 0][7004 - 0 - 0][7005 - 0 - 0][7006 - 0 - 0][7007 - 0 - 0]
[7008 - 0 - 0][7009 - 0 - 0][7010 - 0 - 0][7011 - 0 - 0][7012 - 0 - 0]
[7013 - 0 - 0][7014 - 0 - 0][7015 - 0 - 0][7016 - 0 - 0][7017 - 0 - 0]
[7018 - 0 - 0][7019 - 0 - 0][7020 - 0 - 0][7021 - 0 - 0][7022 - 0 - 0]
[7023 - 0 - 0]
Snap Done

```

dept

This command is used for viewing the department of the extensions. The format of the command is,

snap dept 0**card**

This command is used for viewing the state of all the ports of a particular card. The format of the command is,

snap card <card no.> <state>

Where <card no.> is the slot no. of a card & <state> will be `0' for free ports & `1' for busy ports.

For example, if all the free ports of a card no. 2 are supposed to have a look, command will be,

snap card 2 0

snap card 2 0

Snap Shot

```

~[ 2064-  IDLE][ 2065-  IDLE][ 2066-  IDLE][ 2067-  IDLE
][ 2068-  IDLE][ 2069-  IDLE][ 2070-  IDLE][ 2071-  IDLE
][ 2072-  IDLE][ 2073-  IDLE][ 2074-  IDLE][ 2075-  IDLE
][ 2076-  IDLE][ 2077-  IDLE][ 2078-  IDLE][ 2079-  IDLE
][ 2080-  IDLE][ 2081-  IDLE][ 2082-  IDLE][ 2083-  IDLE
][ 2084-  IDLE][ 2085-  IDLE][ 2086-  IDLE][ 2087-  IDLE
][ 2088-  IDLE][ 2089-  IDLE][ 2090-  IDLE][ 2091-  IDLE
][ 2092-  IDLE][ 2093-  IDLE][ 2094-  IDLE][ 2095-  IDLE

```

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Chapter 36

Bulk Programming

It is possible to repeat a command for n number of times. The repeat command is used for this purpose. The format of the repeat command is,

```
repeat rcnt para1 para2 para3 command
```

where rcnt is the number of times the command has to be repeated, para1,2,3 are the parameters in the command which has to be incremented for each step & command is the required command which is to be repeated.

It must be noted that the number of the parameters i.e. para1 , para2, para3 depends on the command used.

For example , if the trunks 700 to 700 are supposed to be set in dtmf, the command will be,

```
repeat 8 3 set pnt 7000 dtmf
```

Here, rcnt is 8 because, the command will have to be rotated for 8 times. Only one parameter i.e. para1 will be required because only the trunk number is supposed to be incremented. Here the value of para1 is 3 because trunk code comes in the third location in the desired command.

Another example, if it is required to change the flexible number of extension 2000 to 2007 as 4000 to 4007, the command will be,

```
repeat 8 3 4 set flex 2000 4000
```

In this command, rcnt is 8. para1 is 3, para2 is 4 because for every loop, third & fourth parameter of the command `set flex 2000 4000' have to be incremented.

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Chapter 37

System Programming from key phone

Apart from the programming, which is done through the Program Interface, some programming is also possible through the Operator KTS.

The programming can be done after entering the system programming mode, which can be entered by pressing the **PROG** key followed by the password. After entering each program, system will give confirmation tone and the display will show **PASS** if the program is entered properly otherwise **ERROR** will be displayed. For proceeding with the programming, press **HOLD** key and then enter the next program. The programs, which can be entered through the Operator KTS, are explained below:

Printing Commands

The CPU processes the outgoing/incoming calls made, computes the data and delivers the computed results to the Printer/Buffer manager, which stores this data into the buffer. The Printer/Buffer manager prints the calls as per the commands as follows.

- 120** - Stop printing.
- 121** - Print from buffer, clearing buffer, and continue printing On-line. In case of printer error, calls will not be lost. They will remain in the buffer until printing is resumed.
- 122** - Clear buffer without printing.
- 129** - Print from buffer without clearing buffer and continue Printing on-line while storing calls in buffer

Default : 120.

Host Computer Interface

The second serial port of the system can be used for interfacing with a computer. The various command for sending data through the second serial port is given below:

- 126** - Start sending on CSI.
- 127** - Stop sending on CSI.
- 128** - Re-start sending on CSI. i.e. send all calls again.

Day / Night Mode Changing

System mode can be changed from day to night or vice-versa. The command is,

- 181** - For Day Mode
- 180** - For Night Mode

ASMDR Printing

This command will selectively print calls extension-wise or trunk-wise. This command will print only those calls available in the buffer. Printing using this command will not erase calls from the buffer.

The command is,

22 LN - Print ASMDR without clearing buffer.

Where LN can be trunk number or an extension number

LN - 2000, 2001... etc. corresponding to extension numbers.
LN - 700, 701,... for TRK 1, TRK 2,etc.

Erasing of ASMDR of Specific Ext

This command is used to erase the ASMDR of any extension. This command erases the call details of the last ASMDR of the extension, which was printed. The command is-

29 LN

Where LN - 2000 ,2001,..... or trunk number

Note: Pls. note this command erases only that calls of the extension which were printed during last ASMDR printing of that extension. If ASMDR of the extension is not printed then this command will not erase the calls of that extension.

Reset Extension Password

This command is used when an extension user forgets his password. This command will set extension password to default setting which is 0777. The command is,

38 EX - Password for Extension Ex will reset to 0777.

Where Ex = 2000, 2001,....etc.

Default: For all extension as 0777.

Class of service changeover

Day & night class of service of any extension can be changed via this command. The command for the same,

40 + EX / TRK + PP SS

Where PP is the primary COS & SS is the secondary class of service. The value of PP & SS can be 00 to 63.

Outward Dialing Rights For Extension

This command will set the Day and the Night outward dialing modes of extensions. The outward dialing mode for extensions will change as per this command at the defined Day/Night change over timings. The command is,

42 Ex D N

Where Ex - 2000, 2001...etc; D is the outward dialing right for the day mode and N is the outward dialing right for the night mode. D & N can have the following values:

- 0 - Only extension to extension calls.
- 1 - As per defined thru system programming.
- 2 - As per defined thru system programming.
- 3 - As per defined thru system programming.
- 4 - As per defined thru system programming.
- 5 - As per defined thru system programming.
- 6 - Local / STD/ ISD with collect call also.

Default: All extensions have only local call rights.

Incoming Trunk Line Landing

The incoming calls through each P&T/Trunk line can be defined to land wherever required in any combination as follows, for both the Day and the Night mode. The command is,

42 Trk D N

where Trunk numbers are from 700 onwards; D is the landing type in day mode & N is the landing type in night mode. D and N can have the following values-

- 3 - For Hunt Group Landing.
- 4 - For One Termination of P&T line.
- 5 - DISA with VRR welcome message.
- 6 - DISA landing for level DID trunk (Not for TWT/E1-R2 / PRI)

Hunt Group landing: Incoming P&T line lands at the hunt group as set.

One Termination: Incoming P&T call rings only at one defined extension.

Note that through KTS, extension for one termination cannot be set.

DISA (Requires a Voice Msg Card): In this mode, the incoming call is directly attended to by the system, where the caller is greeted by a VRR message. He is then directed to reach any extension by dialing the internal number in tone mode if Decadic DISA card is not installed.

Default: Incoming calls through all trunk lines land at the hunt group 9.

Trunk Landing At Day/ Night Mode

This command is used to define that which hunt group of extensions will ring in day / night mode. The command is,

44 Trk. D N

Where the trunk numbers are from 700 onwards; D is the hunt group for the day mode & N is the ringing service group for the night mode. D & N can have values 0 to 9. The extensions, which are present in the hunt groups, can be defined only by the Program Interface.

Set System Time

This command is used for setting the system time. The command is,

43 HH MM SS

Where HH is 00 - 23 as hours.
MM is 00 - 59 as minutes.
SS is 00 - 59 as seconds.

Set System Date

This command is used for setting the system date. The command is,

61 DD MM YY W

Where DD is new day of month 01 to 31.
MM is new Month of year 01 to 12.
YY is new Year for system 00 to 99.

W is new day of Week (0 for Sunday, 1 for Monday & so on)

Call Budgeting Amount

Every extension can be allocated a budgeted amount where the extension user can only make calls up to the amount fixed. Once the budgeted amount is availed by the extension user, the extension automatically loses the outward dialing facility. In case the budget amount has to be increased, again this can be done with the same command by adding the additional amount. The command for adding a budget amount for an extension is,

65 + EX + X + MMMM

Where, EX is the extension number and MMMM is the amount budgeted for the extension EX, or the additional amount to be fed in.

Where X - `0' for disabling the budgeting.
`1' for enabling the budgeting & for setting the amt/pulse.
`2' for adding the amount/pulse.

Note: This command is affected only if the budgeting is enabled.

Change System Password

The system password can be re-programmed to prohibit unauthorized access to supervisory mode. The command for changing the system password is,

81 NNNN NNNN

Where NNNN is the new password, entered twice.

Please note that once password is forgotten there is no way to retrieve it or change it. The password can be set back to its default setting only by disconnecting the power supply to the RAM chip of the system.

Fill Library Numbers

This command is used for filling the library numbers. Any combination of numbers can be stored in the library like an extension number or a trunk access code or an external number or a feature activation code. The command for filling the library numbers is,

93 Lib No. <trunk No.> <required nos.> HOLD

The library numbers are from 010 to 399. After entering the required numbers, press the HOLD key.

Attendant Programming

Attendant rights basically means to authorize any extension user, which may be digital or analog, to able to control certain features of the system from his instrument itself.

Enable/ disable incoming & outgoing on trunks.

Step	Action	What happens
1.	Dial ATT Code (184) + 1 + X + Trunk No.	Confirmation tone
2.	Press the RLS key.	

Where X - 0 For no outgoing & no incoming.
 - 1 For only incoming.
 - 2 Only outgoing.
 - 3 For both incoming & outgoing.

Checking of the 16 KHz counter of any extension/trunk for current month

Step	Action	What happens
1.	Dial ATT Code (184) + 20 + Ext no. / Trk No.	Confirmation tone
2.	Press the RLS key.	Line gets released

Checking of the 16 KHz counter of any extension/trunk for previous month

Step	Action	What happens
1.	Dial ATT Code (184) + 21 + Ext / Trk No..	Confirmation tone
2.	Press the RLS key.	Line gets released

Call Forwarding of an ACD to another ACD

Step	Action	What happens
1.	Dial 184 + 32 + 0 + X + Y	Call of ACD X will be forwarded to ACD Y.

Cancellation of call forwarding of an ACD:

Step	Action	What happens
1.	Dial 184 + 32 + 0 + X + 0	Call forwarding of ACD X will be concealed.

Enable or disable the VSN message 'Bill not paid' on any specific extension

Step	Action	What happens
1.	Dial 184 + 22 + Ext No.	Message will be disabled.
2.	Dial 184 + 23 + Ext No.	Message enabled without affecting incoming / outgoing.
3.	Dial 184 + 24 + Ext No.	Message enabled with outgoing closed.
4.	Dial 184 + 25 + Ext No.	Message enabled with incoming & outgoing closed.
5.	Dial 184 + 26 + Ext No.	Message enabled with blocking of incoming / outgoing / internal.
6.	Press the RLS key.	Line gets released

Current mode (Day / Night) view on Key phone

Step	Action	You get
1.	Dial 184 + 31 + 0 + 000	Current system mode on the key phone will be displayed.

2.	Dial 184 + 31 + 000	You will get whether the changeover of mode was done manually or automatically.
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Chapter 38

Remote Programming

Remote programming can be done through either an external software PCANYWHERE or through a modem.

Remote programming through PCANYWHERE

It can be done through external modem along with a computer having three serial ports with a special software `PCANYWHERE`. Customer should have `Internet` connection also. Modem is required for INTERNET connection.

After connecting to the internet, at customer site, pcan anywhere has to be run in host mode & at remote location, Pcan anywhere should work in remote mode.

Out of three serial ports, one will be used for modem. Second for interconnecting DG 250 IVDG 250 through upper serial port of DG 250 & third for mouse (mouse port can be PS/2 type).

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Chapter 39

System Programming View Commands

All the parameters of the system can be viewed on the Program Interface terminal. The **show** or **display** command is used for viewing the system parameters. The various display commands are listed below:

- show acd <acd no.>** - displays the acd settings for the acd no. entered
- show acd** - displays the acd settings for all the acd no.
- show card** - displays a list of cards, which are present in the system. If a card is not present in a slot, it will be displayed as **A**. If a card has been registered by the system and it is removed while it is running, it will be displayed as **X**, otherwise **P** will be displayed. This command will display the status of all the slots in the system.
- show card S E** - Where S is the starting card number & E is the ending card number. This command will show the software version of every card, the type of 4 blocks of the card, the database pertained by the card.
- show code** - displays the STD or ISD code table.
- show code <xxxxx>** - displays the current entry in the code table for the code xxxxx.
- show cos <cos. no.>** - displays the current settings for the entered COS number.
- show cotm** - displays the system D/N change over timings.
- show cotm <w_day>** - displays the system D/N change over timings for the entered week day.
- show rsrd** - displays the dialout digit table.
- show ext <ext. number>** - displays the status and feature settings of the extension number entered.
- show ext ext no. cos** - displays the cos facility of the entered ext no.
- show flex <slot no.>** - displays the flexible number of the defined slot no. & the next slot.
- show flex 51** - displays the duplicate number table
- show flex flist** - displays the ports for each feature code in the system.
- show keys dtmf <keygrp>** - displays the key settings of 4X4 SLTs in the dept. no. entered
- show keys KTS <keygrp>** - displays the key settings of KTS telephones in the dept. no. entered

- show keys DPM <type no.>** - For the key settings of DPM for the type entered
- show name** - displays the names of all the extensions
- show name extn. No.** - displays the name of a particular extension in the system.
- show sys** - display all the system parameters. It will show the various timing settings of the system, the features which are enabled or disabled in the system, the current date & time of the system, the night code etc.
- show sys acts** - displays the virtual account codes of the system
- show sys device** - displays a list of various devices in the system and their port numbers
- show sys fault** - displays the fault report of the system
- show sys libs** - displays the library numbers
- show net** - displays the various network parameters which are set in the system
- show trk trunknumber** - displays the status and feature settings of the trunk number entered.
- show trk trunk no. cos** - displays the cos facility of the entered trunk no.
- show toll <row no.>** - displays the current setting in the cost table for the row no. entered.
- show dodg <dod grp>** - displays the parameters of outward dialing group
- show didg <did grp>** - displays the parameters of incoming dialing group
- show sys clirt** - displays the list of the CLI which are defined for CLI based routing. Also displays the timings for CLI based routing
- show net enblk** - displays the defined numbering plan for enblock signaling on PRI.
- show timer** - displays the various system timers
- show cdb <X> <Y>** - displays the card database. Where X is the database number & Y is the type of the card.
- show sys msgs** - displays the voice messages setting

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Chapter 40

Abbreviations Used

Following are the abbreviations that are used in this guide.

AOC	-	Advice of call charges.
AMT	-	Budgeting Amount
ACD	-	Automatic Call Distribution
BWT	-	Both Way Trunk (TWT)
BRI	-	ISDN – Basic Rate Interface
COS	-	Class of Service
CLI	-	Caller Line Identification
CLIP	-	Caller Line Identification Presentation
CSTA	-	Computer Supported Telephony Application
CTI	-	Computer Telephony Integration
CO	-	Central Office
CUG	-	Close User Group
DKT	-	Digital Key Telephone
DTMF	-	Dual Tone Multiple Frequency
DISA	-	Direct Inward Station Access
DID	-	Direct Inward Dialing
DOSA	-	Direct Outward Station Access
DNI	-	Dialed Number Information
DOT	-	Department of Telecommunication
DSP	-	Digital Signal Processing
DPM/DSS	-	Direct Station Selector
Extn	-	Extension
EPABX	-	Electronic Private Automatic Branch Exchange
E1	-	It's a digital trunk known as CEPT also.
FSK	-	Frequency Shift Keying
FLC	-	Feature Line Card
FTC	-	Feature Trunk Card
GPAX	-	It is a private exchange
KTS	-	Key Telephone
MFC	-	Multiple Frequency Compelled
MCC	-	Main Controller Card
PRI	-	ISDN Primary rate Interface
PI	-	Programming Interface Terminal
PC	-	Personal Computer
PCO	-	Public Telephone Booth
RBT	-	Ring Back Tone
SLT	-	Single Line Telephone
SSD	-	Solid State Disk
SMS	-	Short Messaging Services
TWT	-	Two Way Trunk (BWT)
VSN	-	Voice for subscribers & network