SEND CLI NUMBER

DESCRIPTION:

Allows a ten digit number to be entered and associated with a station or trunk number on a per PRI basis. When this station makes an outgoing call on this PRI, the ten digit number entered will be the Calling Party Number sent on this outgoing PRI call. There are 4 tables in the system.

PROGRAM KEYS

UP & DOWN	Used to scroll through options/move cursor left or right
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1:

[230] CLI PER STN

1.	Press TRANSFER 321. Display shows.	[<u>2</u> 01] 1:	CLI	PER	STN

- Dial extension (e.g., 230)
 OR
 Press UP or DOWN to select extension and press
 RIGHT soft key to move the cursor.
- Dial table number 1 ~ 4.
 OR
 Press UP or DOWN to select table number and press RIGHT soft key to move the cursor.
- 4. Enter the Calling Party Number.[230] CLI PER STN2:3055922900
- Repeat Step 3 & 4 to enter other tables and Calling Party Numbers OR Repeat Steps 2, 3, & 4 to enter other station and Calling Party Numbers.

 Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: NO PRI SPAN OR STATION NUMBERS ENTERED

RELATED ITEMS: MMC 430 PRI CONTROL

MMC: 714 DID NUMBER AND NAME TRANSLATION

DESCRIPTION:

Assigns an incoming DID call to a specific ring plan destination. It also provides a call waiting option, if needed, so that a second incoming DID call can be received. The table is also used to define which MOH source a caller to that DID number will hear when placed on hold. An 11 character name can be added to the number. There are a maximum of 999 entries. If there is no matching number on DID service the call is routed to the operator group for that ring plan.

Definitions of option are as follows:

- 1. DGT: Digits to be received from CO. Up to 16 digits may be entered.
- 2. MOH SOURCE: Allows the technician to select what the calling party will hear in regards to that DID/DNIS number if the call is placed on hold. There are a total of 6 possible music selections (see below).

With the embedded voicemail, you may also select a voicemail recording as a music source. The recording must already been defined in MMC 748 and will show up here as the SVM port associated with the recording.

OPTIONS

- **2.1 NONE:** No Music on Hold. Follows the setting in MMC 408 for the trunk the call comes in on.
- **2.2 TONE:** A repeated tone is played to the outside party.
- **2.3 INTERNAL CHIME:** This is entered as the directory number of the music source on the MCP (3761).
- **2.4 EXTERNAL DEVICE:** Music Source or Digital announcer. This is entered as the directory number of an external music source.
- 2.5 VOICE MAIL SOUND FILE: If the OfficeServ 7100 system has an embedded voicemail, up to 100 custom recorded sound files from the embedded voicemail can be used for MOH sources. Select the voicemail port assigned in MMC 748. If you select this option be advised that each VMMOH source requires a dedicated voicemail port/channel.

3. PRI = DID priority option. There are 9 priority levels: priority 1 is the highest and priority 9 is the lowest.

When calls arrives into a station group and group members are all busy the call is queued. The system will assign a priority to the DID number so that calls from a high priority DID number will be placed at the front of the group queue.

4. 1: XXX, 2: XXX, 3: XXX, 4: XXX, 5: XXX, 6:XXX = ring plan and destination during each ring plan. The destination can be a station, station group, trunk or trunk group. If trunk or trunk group is selected the trunks must be programmed as E&M trunks to allow the received digits to be re-sent on the facility(s). This is referred to as DID Repeat digits over tie line.

NOTE: An entry of the character "B" means to repeat the received digits.

- 5. CW: Call waiting Yes/No . Allow a second DID call to be received
- 6. MC: This is the maximum number of simultaneous calls to this DID the system will allow. If more call attempts are made the system will return a busy signal to the caller.
- **7.** DC: The number of digits to delete. This is useful with Tandem switching, mixed numbering plans and DID Repeat digits over tie line. Maximum number of digits that can be deleted is 16.
- 8. NAME: Input up to 11 characters to identify call.

Names are written using the keypad. Each press of a key selects a character. Pressing the dial pad key moves the cursor to the next position. For example, if the directory name is "SAM SMITH," press "7" three times to get the letter "S." Press "2" once to get "A." Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key changes the letter from upper case to lower case.

NOTE: When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right.

- **9.** TONE: Ring tone options for a specific DID number (No. $1 \sim 8$).
- **10.** CAD: Ring cadence options for a specific DID number at SLT's (No. $1 \sim 5$).

COUNT	1	2	3	4	5
DIAL 0	<	>)	0
DIAL 1	space	?	,	!	1
DIAL 2	A	В	С	@	2
DIAL 3	D	E	F	#	3
DIAL 4	G	Н		\$	4
DIAL 5	J	K	L	%	5
DIAL 6	М	Ν	0	^	6
DIAL 7	Р	Q	R	S	7
DIAL 8	Т	U	V	*	8
DIAL 9	W	Х	Y	Z	9
DIAL \star	:	=	[]	*

• iDCS, DS and ITP KEYSETS

- 1. When the character you want appears on the same dial pad key as the previous character, press UP to move the cursor one space to the right.
- 2. Other symbols are available for DIAL #.

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1.	Press TRANSFER 714. Display shows.	DID DIGIT DGT:	(<u>0</u> 01)
2.	Enter valid index number, e.g. 005, via dial keypad	DID DIGIT DGT:	(<u>0</u> 05)
	OR		
	Press UP or DOWN key to make selection.		
	Press RIGHT soft key to move cursor.		
3.	Enter digits to be translated (e.g. 5065)	DID DIGIT	(005)
	via dial keypad and press RIGHT	DGT: <u>5</u> 065	
	soft key to move cursor.		

TECH	INICAL MANUAL	PART 2 APRIL 2007
	MMC: 714	
4.	Enter the MOH source for this entry. OR Press UP or DOWN key to select option.	DID DIGIT (005) MOH SOURCE:F-TRK
5.	Enter station or group number for each Ring Plan destination via dial keypad (e.g. 530) OR	DID DIGIT (005) 1: <u>5</u> 30 2:
	Press UP or DOWN key to make selection. Press RIGHT soft key to advance to next Ring Plan. Press RIGHT soft key to ENTER and move cursor.	
6.	Press UP or DOWN key to make selection or select via dial pad 1 for YES, 0 for NO.	DID DIGIT (005) CW: <u>N</u> O DELETE:0
	Press RIGHT soft key to advance to the next step.	
7.	Enter the number of digits to be deleted and press RIGHT soft key to return to step 1, OR Press TRANSFER to store and exit	DID DIGIT (005) CW:YES DELETE: <u>0</u>
	Press SPEAKER to store and advance to next MMC.	

PROGRAMMING

DEFAULT DATA: NO ENTRIES

OfficeServ 7100

RELATED ITEMS: TRUNK PROGRAMMING

MMC: 724 DIAL NUMBERING PLAN

DESCRIPTION:

This MMC allows the technician to change directory numbers for stations, trunks, station groups, trunk groups and feature access codes. The system can be preprogrammed with a default three or four digit numbering for station, station groups and trunk numbers depending on the position of the DIP switches on the MCP card. Default numbering plan is <u>only</u> assigned once the system is powered up for the first time OR once the system memory has been manually cleared. There is an error message provided to prevent the accidental duplication of a directory number or feature access code.

DIAI	L OPTION	DESCRIPTION
00	STN NUM PLAN	This is where station directory numbers are changed or assigned
01	TRK NUM PLAN	This is where trunk directory numbers are changed or assigned
03	MISC NUM PLAN	This is where directory numbers for relays, MOH ports, and the Internal Modem are changed or assigned
04	STNG NUMBER PLAN	This is where station group numbers are changed or assigned
05	TRKG NUMBER PLAN	This is where trunk group numbers are changed or assigned
06	FEAT NUMBER PLAN	This is where feature access codes are changed or assigned. Dialing codes are entered via the dial pad key by pressing the dial pad number, the required steps to select this feature. For example, for OHVA, the number 6 would be pressed three times. NOTE: Please remember that this program is system-wide.
07	SO-STN NUM PLAN	NOT USED IN USA.
09	NTWK LCR NUMPLAN	This is where additional LCR access codes are entered in the case where two or more systems are networked together.
10	VIRT EXT NUMPLAN*	This is where virtual station directory numbers are changed or assigned.

11	MGI NUM PLAN	This is where the MGI port directory numbers are changed or assigned.
12	ITP NUM PLAN*	This is where IP-based station directory numbers are changed or assigned
13	WLAN NUM PLAN	This is where wireless handsets directory numbers are assigned or changed.
14	SPNET NUM PLAN*	This is where Samsung proprietary switch-to-switch enhanced IP networking port directory numbers are changed or assigned
15	H323T NUMPLAN*	This is where VOIP H.323 trunk port directory numbers are changed or assigned
17	SIP-T NUM PLAN*	This is where VOIP SIP trunk port directory numbers are changed or assigned
18	IP-UMS NUM PLAN	This is where IP UMS directory numbers are changed or assigned (FOR FUTURE USE)
19	SIP-S NUM PLAN	This is where SIP-based station directory numbers are changed or assigned

IMPORTANT:

The num plans that are marked with "" are affected by the virtual cabinet configurations in MMX 857. See MMC 857 for details.

COUNT→	1	2	3
DIAL 2	ABAND	BARGE	CAMP
DIAL 3	DGPALM	E-LCR1	FAUTO
DIAL 4	GPPK	HDSET	IG
DIAL 5	LCR	LCR	LCR
DIAL 6	MMPA	NEW	OHVA
DIAL 7	PAGE	PAGE	RB
DIAL 8	TCLIP	UA	VMADM
DIAL 9	WAKEUP	WAKEUP	WAKEUP

FEATURE NUMBERING DIAL KEY PAD

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1.	Press TRANSFER 724. Display shows.	STN NUM PLAN :C1 S2-P01:201 \rightarrow
2.	Press UP or DOWN key to make selection	FEAT NUMBER PLAN
	and press RIGHT soft key to advance cursor.	ABAND : 64 \rightarrow
3.	Press UP or DOWN key to make selection	FEAT NUMBER PLAN
	OR	ABAND : 64 \rightarrow
	Dial letters of feature name (e.g., 71).	_
4.	Then press RIGHT soft key to advance	FEAT NUMBER PLAN
	cursor.	PAGE : NONE \rightarrow
	Enter desired directory number digits	FEAT NUMBER PLAN
	(e.g., 55) via the dial keypad.	PAGE : NONE \rightarrow 55_
5.	Press LEFT soft key to enter change and	FEAT NUMBER PLAN
	continue to make changes.	<u>PAGE</u> : NONE \rightarrow 55
	-	
6	Press TRANSEER to store and evit	

 Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: SEE BELOW

STN NUM PLAN:	201 ~ 2xx OR 2001 ~ 2xxx	
TRK NUM PLAN:	701 ~ 7xx OR 7001 ~ 7xxx	
STNG NUMBER PLAN:	500 ~ 5xx OR 5000 ~ 5xxx	
TRKG NUMBER PLAN:	9, 800 ~ 8xx	
MISC NUMB PLAN:		
MISC NUM PLAN:		Purpose
	MISC01: 371	BGM/MOH
	MISC02: 361	External Page

	MISC	:03: 362	Relay Type 1:
	MISC	04.262	
	IVII5C	,04: 303	Common Boll/Loud Boll
	MISC	05. 3000	Internal Modem
		61	
	ABAND	NONE	
		17	
		NONE	
		57	
		*	
	BARGE	NONE	
	BILL	NONE (NOT USED) IN USA)
	BLOCK	NONE	
	BOSS	NONE	
	CAMP	45	
	CANMG	42	
	СВК	44	
	CHIN	NONE (NOT USED) IN USA)
	CHOUT*	NONE (NOT USED) IN USA)
	CHOICE	NONE	
	CONF	46	
	CONP	NONE	
	CR	NONE	
	CREDIT	NONE (NOT USED) IN USA)
	DGPALM	NONE	
	DIR	NONE	
	DIRPK	65	
	DISALM	58	
	DIVERT	NONE	
	DLOCK	13	
	DND	40	
	DND0	NONE	
	E-LCR1	NONE	
	E-LCR2	NONE	
	E-LCR3	NONE	
	E-LCR4	NONE	
	FAUTO	14	
	FLASH	49	
	FWD	60	
	GRPK	66	
	HDSET	NONE	
		12	
	HOLD		
	HUIEL		J IN USA)
		53	
		NONE	
		NONE	
		NUNE	
1		1 19	

	LOG	NONE
	MMPA	56
	MMPG	54
	MSG	43
	MYGRPK	NONE
	NEW	18
	NOCLIP	NONE
	NPAGE	NONE
	OHVA	NONE
	OPER	0
	PAGE	55
	PAGPK	10
	PARK	NONE
	PMSG	48
	PTHR	NONE
	RB	NONE
	REJECT	NONE
	RP	NONE
	RSV	NONE
	RTO	NONE
	SETMG	41
	SIP CW	77
	SLOCAT	NONE
	SLTALM	NONE
	SLTMMC	15
	SNR	17
	SPEED	16
	S RELOC	NONE [NOT USED IN USA]
	STATE	NONE
	TCLIP	NONE
	UA	67
	VMADM	NONE
	VMAME	NONE
	VMMEMO	#
	VMMSG	NONE
	WAKEUP	NONE
	WCOS	59
NTWK LCR NUM PLAN:	NONE	
VIRT EXT NUM PLAN:	3501~3522 & 34	101~3440
MGI NUM PLAN:	3801~	
ITP NUM PLAN:	3201 ~	
WLAN NUM PLAN:	3301 ~	
SPNET NUM PLAN:	8301 ~	
H323 TRK NUM PLAN:	8401 ~	
SIP TRK NUM PLAN:	8501 ~	
IP UMS NUM PLAN:	8665 ~	
SIP STN DIAL NO:	3301~	

MMC: 832 VoIP OUTBOUND DIGITS

DESCRIPTION:

This MMC is only used for Gateway to Gateway IP Trunking applications. This MMC provides the means to set the MGI internal numbering plan for digit dialing and conversion when using IP trunking application.

- ACCESS DGT: This is the access code that is used once the MGI is accessed; this directs a call based on the routing tables used. An access code table then references an access code and correlates an IP address to the access code for routing. A maximum of 8 digits are available with 63 access code entries (00~62).
- **DGT LENGTH:** This field requests the number of digits that are expected to be received to make up the whole access code.
- **DEL.LENGTH:** This is the number of digits to delete after receiving the access code.

NOTE: If no digits are deleted the access code will be sent as part of the call to the destination to continue routing at the far end destination.

- **INSERT DGT:** This is the digit(s) to insert for routing at the destination. This can be used when different numbering plans exist or if a dial 9 access is needed to be inserted in the dialed digits.
- IP TABLE 1: This is the first table referenced for routing the access code to an IP address The system has 63 IP tables (00~62) with 16 entries (00~15) in each table.
- IP START: This entry indicates where in a table to start looking for an IP code to associate with the access code. This can be used to manage where to start looking for an IP address in high traffic MGI applications. Example: If IP address routing to the desired destination is known to be in the last 7 entries of a table the IP START location would be 8. IP address searching would start at entry 8.
- **SERVER USE:** This parameter determines whether a H.323 Gatekeeper (MMC836) will be utilized to establish this connection (0:no, 1:yes).

PROGRAM KEYS

Used to scroll through options
Used to enter selections
Move cursor left and right
Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 832. Display shows the first access code entry	[<u>0</u> :00] 0	ACCESS DGT
	number and access code.		
2.	Press UP or DOWN key to select an entry OR	[<u>0</u> :00] 0	ACCESS DGT
	Press RIGHT soft key to move cursor		
3.	Press RIGHT soft key to move cursor. Press UP or DOWN key to select an option	[<u>0</u> :00] 1	ACCESS DGT
	OR Press RIGHT soft key to move cursor	[0.00]	ACCESS DOT
	Tress fild ff solt key to move cursor.	<u>1</u>	
3.	Using the keypad input an access code that will reference an IP address table.	[<u>0</u> :00] 8 <u>0</u>	ACCESS DGT
Л	Press RIGHT soft key to enter data and move	[0:00]	DGT LENGTH
ч.	cursor.	80	201 22:01:
	Press UP or DOWN key to select an option entry.		
5.	Press RIGHT soft key to move cursor. Using	[<u>0</u> :00]	DGT LENGTH
	the keypad enter the number of digits in the	2	
	data and move cursor.		
6.	Press UP or DOWN key to select an entry	[<u>0</u> :00]	<u>D</u> EL. LENGTH
	Press RIGHT soft key to move cursor.	1	
7.	Using the keypad enter the number of digits of the access code to delete.	[<u>0</u> :00] <u>2</u>	DEL. LENGTH
	Press RIGHT soft key to enter data and to move cursor.		
8.	Press UP or DOWN key to select an option.	[<u>0</u> :00]	INSERT DGT
	Press RIGHT soft key to move cursor.		

- 9. Using the keypad enter the digits to insert. Press RIGHT soft key to enter data and move cursor.
- 10. Press UP or DOWN key to make selection. Press RIGHT soft key to move cursor.
- 11. Using the keypad enter two digit IP table to translate dialed numbers to IP address.
- Press RIGHT soft key to move cursor. Using the keypad enter two digit IP translation start location to search for an IP address OR

	[<u>0</u> :00] 00	ĪÞ	TABLE	1
D	[<u>0</u> :00] 0 <u>1</u>	IP	TABLE	1
ig art	[<u>0</u> :00]	IP	START	

9

[0:00] INSERT DGT

 Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: ACCESS DGT: 00~09 (digits 0~9) ,10~62 NONE DGT LENGTH: 1 (digits 0~9), 10~62 NONE DEL.LENGTH: 0 INSERT DGT: NONE IP TABLE 1: 00 IP START: NONE GK USE: NO

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

MGI DSP OPTION

DESCRIPTION:

This MMC provides various MGI DSP options. These settings will apply to the 8 MGI channels on board plus any MGI-16 installed in the system.

- AUDIO CODEC: Selects which audio codec compression will be used and transmission interval time of VoIP packets generated from MGI card. Selections: G729A (8K), G.729 (8K), G.711 (64K), G.723.1 (5.3K~6.4K). Does not apply to ITP to ITP communications. Use settings in MMC 840/MMC 841 for ITP to ITP communications.
- ECHO CANCEL: Enables or disables echo cancellation (0: disable, 1: enable). This function removes echo that is generated by voice reflection and packet delay.
- **SILENCE SUP:** This parameter determines whether silence suppression is used (0: disable, 1: enable). This prevents transmission during the silence period of a call, and conserves bandwidth when enabled.
- **IN FILTER:** This option select input filtering of the DSP (0: disable, 1: enable). This should always be set as ENABLE.
- **OUT FILTER:** This option select output filtering of the DSP (0: disable, 1: enable). This should always be set as ENABLE.
- **INPUT GAIN:** PCM input gain value of DSP. The range is -31dB~31dB (0~63). This sets the quality of PCM voice from the VoIP DSP to the site.
- VOICE VOL: This value selects the voice volume. The range is -31dB~31dB (0~63).
- JITTER OPT: This is a scale value that introduces a intentional buffer (delay) of the transmission of VoIP packets generated by the MGI card. This value determines whether the focus is on packet loss or packet delay. The range is 00~12.
- **MIN JITTER:** Decides the minimum time to consider delay for jitter adjustment. The range is 010~300ms.
- **MAX JITTER:** Decides the maximum time to consider delay for jitter adjustment. The range is 010-300ms.

- **FAX ECM:** This option enables or disables fax error-correction made (0: disable, 1: enable).
- MAX FAX CNT: This is maximum number of channels that can be *simultaneously utilized* for Fax-over-IP. The range is 00~08. Each MGI-16 can handle 2 simultaneously.
- **DTMF TYPE:** There are two types of DTMF transmission: INBAND, which is industry standard (H.245) type DTMF transport, and OUTBAND which is a Samsung proprietary method.
- TOS/DIFFSERV: An eight-bit binary value that will be utilized by external routers, switches, etc (*that optionally support TOS-bit/DiffServ prioritization*) – to identify the transport-priority value of data packets generated by the MGI card. This value can be left at default value (0000000) if your network infrastructure does not support this method of bandwidth management.
- **FAX RETRY:** The number of attempts to resend a failed fax transmission.
- **RTP CHECK TIME:** Interval between RTCP packets sent from MGI cards.
- USE T.38 711: Implements the T.38 fax over IP protocol when using G.711 codec.
- **802.1q:** Enables/disables VLAN tagging on the MGI resources.
- **802.1 PRIORITY:** Assigns a priority to the VLAN tag.
- 802.1 Q VLAN: Assigns a VLAN ID to the MGI.



Note: Does not apply to ITP to ITP calls (where both ITP's are in same public zone, or both in same private zone). For ITP to ITP calls, use settings in MMC 840/MMC 841.

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next \ensuremath{MMC}

ACTION

DISPLAY

1.	Press TRANSFER 835. Display shows the first option. Press UP or DOWN key to select MGI3 or MGI2	AUDIO CODEC G.729A
2.	OR Press RIGHT soft key to move cursor. Press UP or DOWN key to select an parameter.	AUDIO CODEC G.729A
3.	Press RIGHT soft key to enter data and move cursor.	AUDIO CODEC G.729A
4.	Press UP or DOWN key to select an option OR Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.	MGI3:AUDIO CODEC <u>G</u> .729
EFA	ULT DATA: AUDIO CODEC: G.729A	

D ECHO CANCEL: ENABLE SILENCE SUP: ENABLE **IN FILTER: ENABLE OUT FILTER: ENABLE INPUT GAIN: 31** VOICE VOL: 31 **JITTER OPT: 04** MIN JITTER: 030ms MAX JITTER: 150ms(MGI3) FAX ECM: ENABLE MAX FAX CNT: 02 DTMF TYPE: OUTBAND(MGI3) **TOS DATA: 00000** FAX RETRY: 0 **RTP CHECK TIME: 5 seconds** USE T38711: ENABLE

802.1 VLAN: 0000 802.1 PRIOR: 0 802.1Q: DISABLE EC GAIN: 32 NLP: 0 EC TAIL LEN: 064MS JIT PERIOD: 01 JIT DEL TM: 250

RELATED ITEMS: MMC 615: MGI GROUP

MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

SIP OPTIONS

DESCRIPTION:

This MMC permits the adjustments of optional Session Initiation Protocol (SIP) trunking parameters. The MGI supports SIP and H.323 on a per call-per-port basis. The settings are systemwide.

NOTE: When changing any IP address/value, listed below, three digits must be input for each (octet) field. Example 192.168.1.10 input must be: 192 168 001 010

SIP Stack Configuration

- **RE-TRANS T1:** The initial re-transmission time if no answer based on the RFC2543 specification. Default 500 ms.
- **RE-TRANS T2:** The maximum re-transmission time if no answer based on the RFC2543 specification. Default 4000 ms.
- RE-TRANS T4: The time the User Agent Server waits after receiving the ACK message. Based on the RFC2543 specification. Default 5000ms. The range is 0~9900.
- **GENERAL RING:** The server shall re-transmit the response during this amount of time until the requested re-transmission is received. For example, the wait time after sending 200 OK for INFO. The range is 0~99900.
- INVITE RING: After the client sends ACK for the INVITE Final Response, the client cannot confirm if the server received the ACK message. The client waits for this amount of time after sending ACK for the Final Response. The range is 0~99900.
- **PROVISIONAL:** After receiving the Provision Response, the User Agent shall wait for this amount of time until Timeout ends. The range is 0~999900.
- **INV NO RESP:** Before sending Cancel for the Invite Request, the User Agent shall wait for this amount of time. The range is 0~99900.
- **GEN NO RESP:** Before sending Cancel for General Request, the User Agent shall wait for this amount of time. The range is 0~99900.

• **REQ RETRY:** After sending General Request, the User Agent shall wait for the Final Response for this amount of time. The range is 0~99900.

EXT: SIP Extension Configuration

- **IP-UMS PORT:** UDP Socket port number for IP-UMS.
- **EXPIRE TIME:** Expiration time period for SIP stations registration. When OfficeServ gives a valid response for SIP stations REGISTER request, OfficeServ informs the SIP station that the registration will be valid for the time period specified in this field. Unit is a second.
- **SIGNAL PORT:** UDP Socket port number which is open for SIP station.

TRK: SIP Trunk Configuration

- **iBG EXPIRE:**Expiration time period for Ubigate's registration. Ubigate acts as a SIP station.
- INCOM MODE: This option selects how incoming calls are routed: FOLLOW DID TRANS (MMC 714), FOLLOW TRUNK RING (MMC 406), FOLLOW INCOM DGT (MMC 406)
- **DEFAULT ISP:** For future use. If OfficeServ can interoperate with multiple ITSPs at the same time, this field used to select the default one.

ISP1-4: SIP Carrier Options

- **SIP Server:** This option enables or disables the SIP profile.
- **SVC AVAIL:** This field indicates the status of the SIP trunking service availability.
- **REGIST ADDR:** SIP registrar address. Provided by the ITSP (Internet Telephony Service Provider).
- **REGIST PORT:** SIP registrar server port to use.
- **OUT PROXY:** The outbound proxy server address provided by the ITSP.
- **ALTER PROXY:** The alternate outbound proxy server address.
- **PROXY PORT:** The outbound proxy server port.

- **PROXY NAME:** The proxy domain name.
- ***DNS SERVER1:** The address of the main domain name server.
- ***DNS SERVER2:** The address of the secondary domain name server.

*7200 does not have these fields.

- **USER NAME:** User name for the SIP account provided by the ITSP.
- **AUTH USER:** Authentication user name for the SIP account. Provided by the ITSP.
- **AUTH PSWD:** Authentication password for the SIP account. Provided by the ITSP.
- **REG PER USR:** If this option is enabled, each station will use a separate login account, which is specified in MMC 839, for the ITSP. If this option is enabled, there must be user name and password data in the MMC 839.
- SESSION TMR: Session timer is to check the aliveness of current SIP session between two SIP User Agents by sending the session timer signal periodically. Either UPDATE or RE-INVITE message can be used for session timer signal.
- SESSION EXP: The time interval for session timer signals expiration.
- **TRK REG EXP:** The time interval for OfficeServ registration request. The final expiration time period is determined by Expires value specified in the response message sent by the ITSP.
- ALIVE NOTI: This option is the check the aliveness of the ITSP. If this field is set to OPTIONS, the SIP OPTION messages will be sent periodically based on the time value in NOTIFY TIME.
- **NOTIFY TIME:** The time interval for sending the SIP OPTIONS message.
- **EXCLUSIVE:** When set to YES, all incoming SIP messages from unidentified sources will be rejected. Only SIP messages from the designated outbound proxy server will be accepted.
- **IMS OPTION:** When this option is enabled, the SIP message format will be changed to interact with the IMS switch.

- **ASSERTED ID:** If the ITSP requires use of the P-Asserted-ID field, OfficeServ can be set according to the ITSPs requirement.
 - **PRIMARY:** P-Asserted-ID contains primary number and FROM header contains secondary number.
 - **ALTERNATE:** P-Asserted-ID header contains secondary number and FROM header contains primary number.
- **PRIVACY:** When this option is enabled, the caller line ID will not be sent.
- **SIP PEERING:** This option allows the SIP to be used as the networking protocol among different PBX.
- **CLIP TABLE:** This option select which of the four CLIP tables to use in the MMC 321 (SEND CLI NUMBER).
- **SS TYPE:** This option sets the type of SIP service for supplementary service.
 - **Centrix:** Use REFER method.
 - **PBX MNGD:** Use RE-INVITE method.
 - **Samsung:** Use proprietary method.
- **302 RESP:** When this option is enabled, OfficeServ will respond to the "302" SIP message. This is used for call forwarding feature on ITSP.
- **USER TABLE:** This option selects the USER TABLE number for use in the MMC 839.
- **DEST TYPE:** Specified which value to be referenced to determine the destination DID number.
- **CODEC NEGO:** This option enables or disables auto CODEC negotiation for SIP trunking.
- HOLD RE-INV: When enabled, OfficeServ will send INVITE message to the ITSP when HOLD key is pressed.
- SIP CARRIER: SIP carrier (ITSP) name

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

1. F C	Press TRANSFER 837. Display shows the first available option. Press	<u>S</u> IP : RE-TRANS T1 05
	volume UP or DOWN key to select the option or press RIGHT soft key to move cursor and select the option.	
2.	Press volume UP or DOWN key to select an option OR press RIGHT soft key to move	TRK : iBG EXPIRE 0010
	cursor and press volume UP or DOWN key to select an option.	
3.	Press volume UP or DOWN key to select an option OR press RIGHT soft key to move	EXT : <u>I</u> P-UMS PORT 05070
	cursor and press volume UP or DOWN key to select an option.	
4.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	<u>I</u> SP1 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP2 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP3 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP4 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	

- Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.
- GATEWAY CALL ID: 1234 DEFAULT DATA: CALLER ID TYPE: ANI **DEFAULT DIL NO.: 5000** UDP PORT: TRUNK: 05060 UDP PORT: IP UMS: 05070 **RE-TRANS.T1 TIME: 500ms** RE-TRANS.T2 TIME: 4000ms RE-TRANS.T4 TIME: 5000ms **GENERAL RING TM: 5000ms INVITE LING TIME: 5000ms PROVISIONAL TIME: 180000ms** INV.NO RESP TIME: 5000ms GEN.NO RESP TIME: 5000ms **REQ.RETRY TIME: 5000ms** SIP SERVER ENBLE: DISABLE **REGISTRAR PORT: 5060** OUTBOUND PROXY PORT: 5060 SIGNAL PORT: 10000 SEND CLIP TABLE: 1 **INCOMING MODE: FOLLOW DID TRANS**

RELATED ITEMS: MMC 405: CO LINE NO. MMC 615: MGI GROUP MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

SIP USER

DESCRIPTION:

This MMC is used for SIP Trunking applications where the SIP source requires registration on a "per-user" basis. This means that each station on the OfficeServ 7100 system that accesses SIP trunks (inbound or outbond calls) will require an unique user ID and password.

NOTE: In order to use this MMC, you must set "GW SERVICE"=ENABLE in MMC 837.

If your SIP server does <u>not</u> authenticate on a per-user basis, then this MMC is <u>not</u> required.

Up to 100 (01 \sim 100) registrations can be entered.

- 1. Move cursor (using right soft key) to the registration number and use the volume up and down button to scroll through up to 100 users.
- Press the right soft key to move the cursor to the "usernum" field and use volume up/down buttons to toggle between "usernum" and "password". Enter the "usernum" (usually DID assigned to the station) and the corresponding password for each registration.

SYSTEM IP OPTION

DESCRIPTION:

This MMC provides various proprietary Samsung VoIP/IP integration options. The options set in this MMC are system-wide.

No	Option	Description	Default
0	PHONE VERSION	 Sets running IP-based phone and new phone software version with the system. For example if version is 2.05 enter 0205. The version must match the version of software loaded in TFTP server. 0 LARGE DGP: Large LCD phone 1 LARGE ITP: Large LCD IP-based phone 2 2LINE ITP2: line LCD IP-based phone 3 WIPM APPL: Wireless IP-based mobile phone software. 4 SOFT PC 5 SOFT PDA 6 WIPM BOOT: Wireless IP-based mobile phone boot program. 7 SOFT MENU: Soft menu version 	0000
1	PHONE TFTP IP	Sets phone software upgrade TFTP server IP address.	0.0.0.0
2	ITP REGISTRATION	 Defines the method that IP-based phones use to register themselves with the system. 0 TYPE: Defines the method that IP-based phones use to registration themselves with the system. a) SYS PSWD: System will authenticate the IP-based phones with the value contained within parameter ITP REGISTRATION: PSWD within this same MMC. b) PHONE PSWD: System will authenticate the IP-based phones according to entries made in MMC 840. c) DISABLE: System will not authenticate III 	- SYS PSWD
		 PSWD: This is a system-wide password value used for registration of IP phones. 	'1234'
3	EASYSET OPTION	Sets EasySet link via LAN option with the system.	-
		0 PSWD: This is a system-wide password value used for authentication of EasySet server.	'1234'
		1 ALIVE TIME: This is a EasySet link via LAN alive check timer.	0 SEC

No	Option	Description	Default
4	CTI LINK OPTION	TI LINK OPTION Sets CTI link via LAN option with the system.	
		0 SMDR REPORT: Sets YES or NO for SMDR data to CTI link via LAN.	NO
		1 UCD REPORT: Sets YES or NO for UCD data to CTI link via LAN.	NO
		2 ALIVE TIME: This is a CTI link via LAN alive check timer. If this sets 0, the system will not check link alive.	300 SEC
5	ITP DSP PARA	Sets IP phone DSP parameters of system-wide.	-
		 M-FRAME: This value determines the transmission interval time of VoIP packets generated by the IP phone. This data is effective only when DOWN = SYS DATA in this MMC. The range is 10~40 ms. Applies only to ITP to ITP calls (when both ITPs are in same zone). 	10 ms
		 JITTER: Decides the minimum time to consider delay for jitter adjustment. This data is effective only when DOWN = SYS DATA in this MMC. The range is 10~90 ms. Applies only to ITP to ITP calls (when both ITPs are in same zone). 	20 ms
		2 TOS: An eight-bit binary value that will be utilized by external routers, switches, etc(that optionally support TOS- bit prioritization)-to identify the transport-priority value of data packets generated by the IP phone. This value can be left at default value(00000) if your network infrastructure does not support this method of bandwidth management. This data is effective only when DOWN = SYS DATA in this MMC. Applies only to ITP to ITP calls (when both ITPs are in same zone).	all bits 0
		3 CONTROL; 1 SYS BASE 2 ITP BASE	SYS BASE
		4 CODEC 1 MGI FIRST 2 ITP FIRST	MGI FIRST
		 3 DOWN: Determines data uses system-wide data or each phone data for IP-based phone DSP control. a) SYS DATA: System-wide data will be used.(MMC 841 data) b) PHONE DATA: Each phone data will be used.(MMC 840 data) 	SYS DATA

No	Option	Description	Default
6	ITP TX GAIN/HSET	Sets IP-based phone Handset TX gain value of each level.	-
7	ITP RX GAIN/HSET	Sets IP-based phone Handset RX gain value of each level.	-
8	ITP TX GAIN/MIC	Sets IP-based phone MIC gain value of each level.	-
9	ITP RX GAIN/SPKR	Sets IP-based phone SPKR gain value of each level.	-
10	ITP VERS UPGRADE	Sets IP-based phone software upgrade option with the system. Used for automatic software upgrades.	-
	("PHONE TFTP IP" and "PHONE VERSION" must be set).	 0 TYPE: Sets IP-based phone software upgrade type a) MMC COMMAND: IP-based phone software upgraded manually in MMC 840. b) PHONE CON: IP-based phone software upgraded automatically at phone connection. c) AUTO TIME: IP-based phone software upgraded automatically at set time. 	MMC COMMAND
		1 START TIME: IP-based phone software automatic upgrade start time.	0000. (Disable)
		2 INTERVAL: IP-based phone software automatic upgrade interval time.	10 seconds.
11	MGI ALIVE PERIOD	Time interval between heart beat check between MGI and MCP.	-
12	LICENSE KEY	Soft phone and SIP Stack license key	NONE
13	LICENSE STATUS	SOFTP ALLOW	0
		SOFTP USED	0
		SOFTP CONN	0
		NEWS ALLOW (not supported in US)	NONE
		NSIP-S MAX	0
		NSIP-S USED	0
		NSIP-S CONN	0
		SSIP-S MAX	0
		SSIP-S USED	0
		SSIP-S CONN	0
		SIP STACK	0
		H.3223 STACK	0

No	Option	Description	Default
	DATA CARD IPC	YES (NOT USED IN US)	YES
	ITP RING VOLUME	LEVEL 1-8	1
14	SIP STACK ALLOW	MAX COUNT	0
		SOFTP USED	0
15	ITP MAX LIMIT	SOFTP ALLOW	0
		SOFTP USED	0
16	WIP DSP PARA	M-FRAME:	40 MSEC
		ECHOCNCL:	ENABLE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 841. Display shows the first available option.	ITP RESIGTRATION ENABLE /ITP PSWD
2.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.	ITP REGIST PSWD 4321

- 3. Press UP or DOWN key to select an option and press RIGHT soft key to enter data and move cursor to the Step 1 position.
- 4. Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.

Press UP or DOWN key to select an option and press RIGHT soft key to store entry and move cursor

5. Press TRANSFER to store and exit OR

Press SPEAKER to store and advance to next MMC.

ITP REGIST PSWD 8228

ITP REGIST PSWD 8228

EASYSET PASSWORD

DEFAULT DATA: SEE DESCRIPTIONS

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS

SIP STATION INFO

DESCRIPTION:

This MMC provides various proprietary Samsung SIP integration options of non-Samsung SIP terminals. The options set in this MMC are system-wide.

No	Option	Description	Default
0	[3301] REGISTERED	To indiicte if the SIP phone is registered to server or not (read	NO
		only).	
		Options: NO OR YES	
1	[3301] IP ADDRESS	Sets SIP phone IP address (read only).	0.0.0.0
2	[3301] USER ID	Enter User ID or SIP station number for registering to the SIP	3301
		server.	
3	[3301] PASSWORD	Enter the password for registering to the SIP server.	0000
4	[3301] TONE SRV	An option to provide the service tone from the SIP server or	USE SYS TEM
		the SIP phone.	TONE
		Options: USE SYSTEM TONE OR USE PHONE TONE	
5	[3301] CALL WAIT	To provide to disable call waiting tone for second call to SIP	DISABLE
		phone.	
		Options: DISABLE OR ENABLE	
6	[3301] PHONE TYPE	To display the type of SIP phone registered (read only)	DISCONNECT
		Options: DISCONNECTED OR CONNECTED	

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

 Press TRANSFER 842. Display shows the first available option.
 Press UP or DOWN key to select an station OR press RIGHT soft key to move cursor.
 Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.
 Series UP or DOWN key to select an option OR press RIGHT soft key to move cursor.

- 4. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 5. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 6. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 7. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- Press UP or DOWN key to select an option and press RIGHT soft key to enter data and move cursor to the Step 1 position. OR
- Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: SEE DESCRIPTIONS

RELATED ITEMS: MMC 724: NUMBER PLAN MMC 841: SYS IP OPTN MMC 857: VIRTUAL CABINET

[3302]<u>U</u>SER ID 3302

[3302]<u>P</u>ASSWORD 0000

[3302]<u>T</u>ONE SRV USE SYSTEM TONE

[3302]<u>C</u>ALL WAIT DISABLE

[3302]<u>PHONE</u> TYPE DISCONNECT

VIRTUAL CABINETS

DESCRIPTION:

Any device or resource on the OS7100 that does not have a physical port connection will now be found in the Virtual Cabinet Items found in the virtual cabinets are logical devices such as virtual extensions, logical resources such as VoIP trunks and SPnet trunks, or logical connections that connect to IP phones.

- Cabinets 2 thru 5 are "Virtual Cabinets"
- Each Virtual Cabinet has 3 slots with 8 logical ports per slot. The slots are numbered 1~ 3.

Use this MMC to modify and configure Virtual cabinets.

<u>MMC 857 configuration directly affects the appearance in the numbering plan</u> (MMC 724) for these devices.

The virtual assignments with the default settings highlighted are shown below:

Virtual Cab	Slot 1	Slot 2	Slot 3
	BRI STN	SPNET TRK	SPNET TRK
	GCONF STN	SIP TRK	SIP TRK
5	SPNET TRK	H323 TRK	H323 TRK
	SIP TRK		
	H323 TRK		
	WLAN ITP	BRI STN (not in US)	BRI STN
л	WIRED ITP	GCONF STN	GCONF STN
4	SIP STN	SPNET TRK	SPNET TRK
	SPNET TRK		
	WIRED ITP	WIRED ITP	WIRED ITP
2	WLAN	WLAN	VLAN
3	SIP STN SIP STN	SIP STN	SIP STN
		SPNET TRK	SPNET TRK
Э	SLT	SLT	SLT
2	DGP	DGP	DGP

VIRTUAL ASSIGNMENT TYPES:

SLT: Virtual extension (Single Line Telephone) DGP: Virtual extension (Digital Telephone) WIRED ITP: ITP Phone extensions WLAN ITP: Wireless handset extensions GCONF STN: Group Conference resource SPNET TRK: SPNet IP trunk for system networking SIP-T TRK: SIP IP Trunk numbers H323: H.323 IP trunk numbers BRI STN: Basic Rate Interface Stations (NOT USED IN USA) SIP STN: SIP IP Stations

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

SLT

1. Press TRANSFER 857. Display shows. C<u>2</u>-S1:SLT SLT

C2-S01:SLT

 Enter number 2-5 for cabinet number And enter 1-3 for slot number. OR Press volume button to scroll

3. Press volume button to scroll card type and

- Select card type by pressing RIGHT soft key.
- Press TRANSFER button to save and exit OR Press SPEAKER button to advance to the next MMC.

DEFAULT DATA: NONE

RELATED ITEMS: MMC 724 NUMBER PLAN MMC 822 VIRTUAL EXTENSION TYPE

C<u>4</u>-S1:SLT DGP

SEND CLI NUMBER

DESCRIPTION:

Allows a ten digit number to be entered and associated with a station or trunk number on a per PRI basis. When this station makes an outgoing call on this PRI, the ten digit number entered will be the Calling Party Number sent on this outgoing PRI call. There are 4 tables in the system.

PROGRAM KEYS

Used to scroll through options/move cursor left or right
Used to enter selections
Move cursor left and right
Used to store data and advance to next MMC
Used to clear previous entry

ACTION

DISPLAY

1:

[230] CLI PER STN

1.	Press TRANSFER 321. Display shows.	[<u>2</u> 01] 1:	CLI	PER	STN

- Dial extension (e.g., 230)
 OR
 Press UP or DOWN to select extension and press
 RIGHT soft key to move the cursor.
- Dial table number 1 ~ 4.
 OR
 Press UP or DOWN to select table number and press RIGHT soft key to move the cursor.
- 4. Enter the Calling Party Number.[230] CLI PER STN2:3055922900
- Repeat Step 3 & 4 to enter other tables and Calling Party Numbers OR Repeat Steps 2, 3, & 4 to enter other station and Calling Party Numbers.

 Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: NO PRI SPAN OR STATION NUMBERS ENTERED

RELATED ITEMS: MMC 430 PRI CONTROL
MMC: 714 DID NUMBER AND NAME TRANSLATION

DESCRIPTION:

Assigns an incoming DID call to a specific ring plan destination. It also provides a call waiting option, if needed, so that a second incoming DID call can be received. The table is also used to define which MOH source a caller to that DID number will hear when placed on hold. An 11 character name can be added to the number. There are a maximum of 999 entries. If there is no matching number on DID service the call is routed to the operator group for that ring plan.

Definitions of option are as follows:

- 1. DGT: Digits to be received from CO. Up to 16 digits may be entered.
- 2. MOH SOURCE: Allows the technician to select what the calling party will hear in regards to that DID/DNIS number if the call is placed on hold. There are a total of 6 possible music selections (see below).

If you have a SVM Voice Mail System installed you may also select a SVM recording as a music source. The recording must already been defined in MMC 748 and will show up here as the SVM port associated with the recording.

OPTIONS

- **2.1 NONE:** No Music on Hold. Follows the setting in MMC 408 for the trunk the call comes in on.
- **2.2 TONE:** A repeated tone is played to the outside party.
- **2.3 INTERNAL CHIME:** This is entered as the directory number of the music source on the MCP (3761).
- **2.4 EXTERNAL DEVICE:** Music Source or Digital announcer. This is entered as the directory number of an external music source.
- 2.5 VOICE MAIL SOUND FILE: If the OfficeServ 7200 system has an optional SVM card installed, up to 100 custom recorded sound files from the Voice Mail card can be used for MOH sources. Select the SVM port assigned in MMC 748. For information on creating the sound files see SVM System Administrator Manual-Recording greeting by number. If you select this option be advised that each VMMOH source requires a dedicated SVM port/channel.

3. PRI = DID priority option. There are 9 priority levels: priority 1 is the highest and priority 9 is the lowest.

When calls arrives into a station group and group members are all busy the call is queued. The system will assign a priority to the DID number so that calls from a high priority DID number will be placed at the front of the group queue.

4. 1: XXX, 2: XXX, 3: XXX, 4: XXX, 5: XXX, 6:XXX = ring plan and destination during each ring plan. The destination can be a station, station group, trunk or trunk group. If trunk or trunk group is selected the trunks must be programmed as E&M trunks to allow the received digits to be re-sent on the facility(s). This is referred to as DID Repeat digits over tie line.

NOTE: An entry of the character "B" means to repeat the received digits.

- 5. CW: Call waiting Yes/No . Allow a second DID call to be received
- 6. MC: This is the maximum number of simultaneous calls to this DID the system will allow. If more call attempts are made the system will return a busy signal to the caller.
- **7.** DC: The number of digits to delete. This is useful with Tandem switching, mixed numbering plans and DID Repeat digits over tie line. Maximum number of digits that can be deleted is 16.
- 8. NAME: Input up to 11 characters to identify call.

Names are written using the keypad. Each press of a key selects a character. Pressing the dial pad key moves the cursor to the next position. For example, if the directory name is "SAM SMITH," press "7" three times to get the letter "S." Press "2" once to get "A." Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key changes the letter from upper case to lower case.

NOTE: When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right.

- **9.** TONE: Ring tone options for a specific DID number (No. $1 \sim 8$).
- **10.** CAD: Ring cadence options for a specific DID number at SLT's (No. $1 \sim 5$).

DCS KEYSETS

COUNT	1	2	3	4	5
DIAL 0	Q	Z)	0
DIAL 1	space	?	,		1
DIAL 2	А	В	С	@	2
DIAL 3	D	E	F	#	3
DIAL 4	G	Н		\$	4
DIAL 5	J	K	L	%	5
DIAL 6	М	Ν	0	<	6
DIAL 7	Р	R	S	&	7
DIAL 8	Т	U	V	*	8
DIAL 9	W	Х	Y	(9
DIAL *	:	=	[]	*

The # key can be used for the following special characters: #, space, &, !, :, ?, ., %, \$, -, <, >, /, =, [,], @, ^, (,), _, +, {, }, |, ;, \, " and \sim .

• iDCS, DS and ITP KEYSETS

COUNT	1	2	3	4	5
DIAL 0	<	>)	0
DIAL 1	space	?	,	!	1
DIAL 2	A	В	С	@	2
DIAL 3	D	Е	F	#	3
DIAL 4	G	Н	I	\$	4
DIAL 5	J	K	L	%	5
DIAL 6	М	Ν	0	^	6
DIAL 7	Р	Q	R	S	7
DIAL 8	Т	U	V	*	8
DIAL 9	W	Х	Y	Z	9
DIAL \star		Π	[]	*

- 1. When the character you want appears on the same dial pad key as the previous character, press UP to move the cursor one space to the right.
- 2. Other symbols are available for DIAL #.

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1.	Press TRANSFER 714. Display shows.	DID DIGIT DGT:	(<u>0</u> 01)
2.	Enter valid index number, e.g. 005, via dial keypad	DID DIGIT DGT:	(<u>0</u> 05)
	OR		
	Press UP or DOWN key to make selection.		
	Press RIGHT soft key to move cursor.		
3.	Enter digits to be translated (e.g. 5065)	DID DIGIT	(005)
	via dial keypad and press RIGHT	DGT: <u>5</u> 065	
	soft key to move cursor.		

4. Enter the MOH source for this entry. OR
DID DIGIT (005)
MOH SOURCE:F-TRK

Press UP or DOWN key to select option. Press RIGHT soft key to return to step 3 above.

5. Enter station or group number for each Ring Plan destination via dial keypad (e.g. 530) OR

Press UP or DOWN key to make selection. Press RIGHT soft key to advance to next Ring Plan. Press RIGHT soft key to ENTER and move cursor.

6. Press UP or DOWN key to make selection or select via dial pad 1 for YES, 0 for NO.

DID	DIGI	C	(005)
CW:1	10	DE	LETE:0

(005)

2:

Press RIGHT soft key to advance to the next step.

7. Enter the number of digits to be deleted and press RIGHT soft key to return to step 1, OR

Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next

MMC.

DEFAULT DATA: NO ENTRIES

RELATED ITEMS: TRUNK PROGRAMMING

DID DIGIT (005) CW:YES DELETE:0

MMC: 724 DIAL NUMBERING PLAN

DESCRIPTION:

This MMC allows the technician to change directory numbers for stations, trunks, station groups, trunk groups and feature access codes. The system can be preprogrammed with a default three or four digit numbering for station, station groups and trunk numbers depending on the position of the DIP switches on the MCP card. Default numbering plan is <u>only</u> assigned once the system is powered up for the first time OR once the system memory has been manually cleared. There is an error message provided to prevent the accidental duplication of a directory number or feature access code.

DIAI	L OPTION	DESCRIPTION
00	STN NUM PLAN	This is where station directory numbers are changed or assigned
01	TRK NUM PLAN	This is where trunk directory numbers are changed or assigned
03	MISC NUM PLAN	This is where directory numbers for relays, MOH ports, and the Internal Modem are changed or assigned
04	STNG NUMBER PLAN	This is where station group numbers are changed or assigned
05	TRKG NUMBER PLAN	This is where trunk group numbers are changed or assigned
06	FEAT NUMBER PLAN	This is where feature access codes are changed or assigned. Dialing codes are entered via the dial pad key by pressing the dial pad number, the required steps to select this feature. For example, for OHVA, the number 6 would be pressed three times. NOTE: Please remember that this program is system-wide.
07	SO-STN NUM PLAN	NOT USED IN USA.
09	NTWK LCR NUMPLAN	This is where additional LCR access codes are entered in the case where two or more systems are networked together.
10	VIRT EXT NUMPLAN*	This is where virtual station directory numbers are changed or assigned.

11	MGI NUM PLAN	This is where the MGI port directory numbers are changed or assigned.	
12	ITP NUM PLAN*	This is where IP-based station directory numbers are changed or assigned	
13	WLAN NUM PLAN	This is where wireless handsets directory numbers are assigned or changed.	
14	SPNET NUM PLAN*	This is where Samsung proprietary switch-to-switch enhanced IP networking port directory numbers are changed or assigned	
15	H323T NUMPLAN*	This is where VOIP H.323 trunk port directory numbers are changed or assigned	
17	SIP-T NUM PLAN*	This is where VOIP SIP trunk port directory numbers are changed or assigned	
18	IP-UMS NUM PLAN	This is where IP UMS directory numbers are changed or assigned (FOR FUTURE USE)	
19	SIP-S NUM PLAN	This is where SIP-based station directory numbers are changed or assigned	

IMPORTANT:

The num plans that are marked with "" are affected by the virtual cabinet configurations in MMX 857. See MMC 857 for details.

÷			
COUNT→	1	2	3
DIAL 2	ABAND	BARGE	CAMP
DIAL 3	DGPALM	E-LCR1	FAUTO
DIAL 4	GPPK	HDSET	IG
DIAL 5	LCR	LCR	LCR
DIAL 6	MMPA	NEW	OHVA
DIAL 7	PAGE	PAGE	RB
DIAL 8	TCLIP	UA	VMADM
DIAL 9	WAKEUP	WAKEUP	WAKEUP

FEATURE NUMBERING DIAL KEY PAD

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1.	Press TRANSFER 724. Display shows.	STN NUM PLAN :C1 S2-P01:201 \rightarrow
2.	Press UP or DOWN key to make selection	FEAT NUMBER PLAN
	and press RIGHT soft key to advance cursor.	ABAND : 64 \rightarrow
3.	Press UP or DOWN key to make selection	FEAT NUMBER PLAN
	OR	ABAND : 64 \rightarrow
	Dial letters of feature name (e.g., 71).	_
4.	Then press RIGHT soft key to advance	FEAT NUMBER PLAN
	cursor.	PAGE : NONE \rightarrow
	Enter desired directory number digits	FEAT NUMBER PLAN
	(e.g., 55) via the dial keypad.	PAGE : NONE \rightarrow 55_
5.	Press LEFT soft key to enter change and	FEAT NUMBER PLAN
	continue to make changes.	<u>PAGE</u> : NONE \rightarrow 55
	-	
6	Press TRANSEER to store and evit	

 Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: SEE BELOW

STN NUM PLAN:	201 ~ 2xx OR 2001 ~ 2xxx			
TRK NUM PLAN:	701 ~ 7xx OR 7001 ~ 7xxx			
STNG NUMBER PLAN:	500 ~ 5xx OR 5000 ~ 5xxx			
TRKG NUMBER PLAN:	9, 800 ~ 8xx			
MISC NUMB PLAN:				
MISC NUM PLAN:		Purpose		
	MISC01: 371	BGM/MOH		
	MISC02: 361	External Page		

	MISC03: 362		Relay Type 1:
			Common Bell/Loud Bell
	MISC04: 363		Relay Type 2:
			Common Bell/Loud Bell
	MISCO	05: 3999	Internal Modem
FEAT NUMBER PLAN:	ABAND	64	
	ABW	NONE	
	ACCT	47	
	ALLCLR	NONE	
	ALMCLR	57	
	AUTH	*	
	BARGE	NONE	
	BILL	NONE (NOT USED) IN USA)
	BLOCK	NONE	
	BOSS	NONE	
	CAMP	45	
	CANMG	42	
	СВК	44	
	CHIN	NONE (NOT USED	IN USA)
	CHOUT*	NONE (NOT USED	IN USA)
	CHOICE	NONE	
	CONF	46	
	CONP	NONE	
	CR	NONE	
	CREDIT	NONE (NOT USED	IN USA)
	DGPALM	NONE	
	DIR	NONE	
	DIRPK	65	
	DISALM	58	
	DIVERT	NONE	
	DLOCK	13	
	DND	40	
	DND0	NONE	
	E-LCR1	NONE	
	E-LCR2	NONE	
	E-LCR3	NONE	
	E-LCR4	NONE	
	FAUTO	14	
	FLASH	49	
	FWD	60	
	GRPK	66	
	HDSET	NONE	
	HLDPK	12	
	HOLD	11	
	HOTEL	NONE (NOT USED	IN USA)
	IG	53	
	INFDSP	NONE	
	LCR	NONE	
	LISTN	NONE	
	LNR	19	

	LOG	NONE
	MMPA	56
	MMPG	54
	MSG	43
	MYGRPK	NONE
	NEW	18
	NOCLIP	NONE
	NPAGE	NONE
	OHVA	NONE
	OPER	0
	PAGE	55
	PAGPK	10
	PARK	NONE
	PMSG	48
	PTHR	NONE
	RB	NONE
	REJECT	NONE
	RP	NONE
	RSV	NONE
	RTO	NONE
	SETMG	41
	SIP CW	77
	SLOCAT	NONE
	SLTALM	NONE
	SLTMMC	15
	SNR	17
	SPEED	16
	S RELOC	NONE [NOT USED IN USA]
	STATE	NONE
	TCLIP	NONE
	UA	67
	VMADM	NONE
	VMAME	NONE
	VMMEMO	#
	VMMSG	NONE
	WAKEUP	NONE
	WCOS	59
NTWK LCR NUM PLAN:	NONE	
VIRT EXT NUM PLAN:	3501~3522 & 34	01~3440
MGI NUM PLAN:	3801~	
ITP NUM PLAN:	3201 ~	
WLAN NUM PLAN:	3301 ~	
SPNET NUM PLAN:	8301 ~	
H323 TRK NUM PLAN:	8401 ~	
SIP TRK NUM PLAN:	8501 ~	
IP UMS NUM PLAN:	8665 ~	
SIP STN DIAL NO:	3301~	

MMC: 832 VoIP OUTBOUND DIGITS

DESCRIPTION:

This MMC provides the means to set the MGI internal numbering plan for digit dialing and conversion when using IP trunking application.

- ACCESS DGT: This is the access code that is used once the MGI is accessed; this directs a call based on the routing tables used. An access code table then references an access code and correlates an IP address to the access code for routing. A maximum of 8 digits are available with 63 access code entries (00~62).
- **DGT LENGTH:** This field requests the number of digits that are expected to be received to make up the whole access code.
- **DEL.LENGTH:** This is the number of digits to delete after receiving the access code.

NOTE: If no digits are deleted the access code will be sent as part of the call to the destination to continue routing at the far end destination.

- **INSERT DGT:** This is the digit(s) to insert for routing at the destination. This can be used when different numbering plans exist or if a dial 9 access is needed to be inserted in the dialed digits.
- IP TABLE 1: This is the first table referenced for routing the access code to an IP address The system has 63 IP tables (00~62) with 16 entries (00~15) in each table.
- **IP START:** This entry indicates where in a table to start looking for an IP code to associate with the access code. This can be used to manage where to start looking for an IP address in high traffic MGI applications. Example: If IP address routing to the desired destination is known to be in the last 7 entries of a table the IP START location would be 8. IP address searching would start at entry 8.
- **GK USE:** This parameter determines whether a H.323 Gatekeeper (MMC836) will be utilized to establish this connection (0:no, 1:yes).

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next \ensuremath{MMC}

ACTION

DISPLAY

1.	Press TRANSFER 832. Display shows the first access code entry	[<u>0</u> :00] 0	ACCESS DGT
	number and access code.		
2.	Press UP or DOWN key to select an entry OR	[<u>0</u> :00] 0	ACCESS DGT
	Press RIGHT soft key to move cursor		
3.	Press RIGHT soft key to move cursor. Press UP or DOWN key to select an option	[<u>0</u> :00] 1	ACCESS DGT
	OR Press RIGHT soft key to move cursor.	[<u>0</u> :00] <u>1</u>	ACCESS DGT
3.	Using the keypad input an access code that will reference an IP address table.	[<u>0</u> :00] 8 <u>0</u>	ACCESS DGT
4.	Press RIGHT soft key to enter data and move cursor.	[<u>0</u> :00] 80	DGT LENGTH
	Press UP or DOWN key to select an option entry.		
5.	Press RIGHT soft key to move cursor. Using the keypad enter the number of digits in the	[<u>0</u> :00] <u>2</u>	DGT LENGTH
	access code. Press RIGHT soft key to enter data and move cursor.		
6.	Press UP or DOWN key to select an entry Press RIGHT soft key to move cursor.	[<u>0</u> :00] 1	DEL. LENGTH
7.	Using the keypad enter the number of digits	[<u>0</u> :00]	DEL. LENGTH
	of the access code to delete. Press RIGHT soft key to enter data and to	2	
	move cursor.		
8.	Press UP or DOWN key to select an option. Press RIGHT soft key to move cursor.	[<u>0</u> :00]	INSERT DGT

- 9. Using the keypad enter the digits to insert. Press RIGHT soft key to enter data and move cursor.
- 10. Press UP or DOWN key to make selection. Press RIGHT soft key to move cursor.
- 11. Using the keypad enter two digit IP table to translate dialed numbers to IP address.
- Press RIGHT soft key to move cursor. Using the keypad enter two digit IP translation start location to search for an IP address OR
- on. $\begin{bmatrix} 0:00 \end{bmatrix} \stackrel{\text{IP}}{=} \text{TABLE 1}$ e to $\begin{bmatrix} 0:00 \end{bmatrix} \stackrel{\text{IP}}{=} \text{TABLE 1}$ sing $\begin{bmatrix} 0:00 \end{bmatrix} \stackrel{\text{IP}}{=} \text{TABLE 1}$ start $0 \stackrel{\text{O}}{=}$

9

[0:00] INSERT DGT

 Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: ACCESS DGT: 00~09 (digits 0~9) ,10~62 NONE DGT LENGTH: 1 (digits 0~9), 10~62 NONE DEL.LENGTH: 0 INSERT DGT: NONE IP TABLE 1: 00 IP START: NONE GK USE: NO

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

MGI DSP OPTION

DESCRIPTION:

NOTE: You must first select "MGI" or "MGI-16" based on the type of MGI cards you have installed. All settings under the MGI menu affect any installed MGI card. All settings under the MGI-16 menu affect any MGI installed in the system.

This MMC provides various MGI DSP options.

- AUDIO CODEC: Selects which audio codec compression will be used and transmission interval time of VoIP packets generated from MGI card. Selections
 MGI: G729A (8K), G.729 (8K), G.711 (64K), G.723.1 (5.3K~6.4K). Does not apply to ITP to ITP communications. Use settings in MMC 840/MMC 841 for ITP to ITP communications.
- ECHO CANCEL: Enables or disables echo cancellation (0: disable, 1: enable). This function removes echo that is generated by voice reflection and packet delay.
- **SILENCE SUP:** This parameter determines whether silence suppression is used (0: disable, 1: enable). This prevents transmission during the silence period of a call, and conserves bandwidth when enabled.
- **IN FILTER:** This option select input filtering of the DSP (0: disable, 1: enable). This should always be set as ENABLE.
- **OUT FILTER:** This option select output filtering of the DSP (0: disable, 1: enable). This should always be set as ENABLE.
- **INPUT GAIN:** PCM input gain value of DSP. The range is -31dB~31dB (0~63). This sets the quality of PCM voice from the VoIP DSP to the site.
- VOICE VOL: This value selects the voice volume. The range is -31dB~31dB (0~63).
- JITTER OPT: This is a scale value that introduces a intentional buffer (delay) of the transmission of VoIP packets generated by the MGI card. This value determines whether the focus is on packet loss or packet delay. The range is 00~12.
- **MIN JITTER:** Decides the minimum time to consider delay for jitter adjustment. The range is 010~300ms.

- MAX JITTER: Decides the maximum time to consider delay for jitter adjustment. The range is 010-300ms.
- FAX ECM: This option selects retry of Fax-over-IP, in the case that errors are detected (0: disable, 1: enable).
- MAX FAX CNT: This is maximum number of channels that can be simultaneously utilized for Fax-over-IP. The range is 00~16.
- **DTMF TYPE:** There are two types of DTMF transmission: INBAND, which is industry standard (H.245) type DTMF transport, and OUTBAND which is a Samsung proprietary method.
- **TOS/DIFFSERV FIELD:** An eight-bit binary value that will be utilized by external routers, switches, etc (that optionally support TOS-bit prioritization) - to identify the transport-priority value of data packets generated by the MGI card. This value can be left at default value (0000000) if your network infrastructure does not support this method of bandwidth management.
- FAX RETRY: The number of attempts to resend a failed fax transmission.
- RTP CHECK TIME: Interval between RTCP packets sent from MGI cards.

Note: Does not apply to ITP to ITP calls (where both ITP's are in same public zone, or both in same private zone). For ITP to ITP calls, use settings in MMC 840/MMC 841.

PROGRAM KEYS

cursor.

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

AUDIO CODEC 1. Press TRANSFER 835. G.729A Display shows the first option. Press UP or DOWN key to select MGI or MGI-16 OR 2. Press RIGHT soft key to move cursor. Press AUDIO CODEC G.729A UP or DOWN key to select an parameter. 3. Press RIGHT soft key to enter data and move AUDIO CODEC G.729A

MMC.

OR

MMC: 835

4. Press UP or DOWN key to select an option OR Press TRANSFER to store and exit

Press SPEAKER to store and advance to next

MGI-16:AUDIO CODEC G.729

DEFAULT DATA: AUDIO CODEC: G.729A ECHO CANCEL: ENABLE SILENCE SUP: ENABLE IN FILTER: ENABLE OUT FILTER: ENABLE INPUT GAIN: 31 VOICE VOL: 31 JITTER OPT: 04 MIN JITTER: 030ms MAX JITTER: 150ms(MGI3) FAX ECM: ENABLE MAX FAX CNT: 02 DTMF TYPE: OUTBAND(MGI3)

TOS DATA: 00000 FAX RETRY: 0 RTP CHECK TIME: 5 seconds

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

SIP OPTIONS

DESCRIPTION:

This MMC permits the adjustments of optional Session Initiation Protocol (SIP) trunking parameters. The MGI supports SIP and H.323 on a per call-per-port basis. The settings are systemwide.

NOTE: When changing any IP address/value, listed below, three digits must be input for each (octet) field. Example 192.168.1.10 input must be: 192 168 001 010

SIP Stack Configuration

- **RE-TRANS T1:** The initial re-transmission time if no answer based on the RFC2543 specification. Default 500 ms.
- **RE-TRANS T2:** The maximum re-transmission time if no answer based on the RFC2543 specification. Default 4000 ms.
- RE-TRANS T4: The time the User Agent Server waits after receiving the ACK message. Based on the RFC2543 specification. Default 5000ms. The range is 0~9900.
- **GENERAL RING:** The server shall re-transmit the response during this amount of time until the requested re-transmission is received. For example, the wait time after sending 200 OK for INFO. The range is 0~99900.
- INVITE RING: After the client sends ACK for the INVITE Final Response, the client cannot confirm if the server received the ACK message. The client waits for this amount of time after sending ACK for the Final Response. The range is 0~99900.
- **PROVISIONAL:** After receiving the Provision Response, the User Agent shall wait for this amount of time until Timeout ends. The range is 0~999900.
- **INV NO RESP:** Before sending Cancel for the Invite Request, the User Agent shall wait for this amount of time. The range is 0~99900.
- **GEN NO RESP:** Before sending Cancel for General Request, the User Agent shall wait for this amount of time. The range is 0~99900.

• **REQ RETRY:** After sending General Request, the User Agent shall wait for the Final Response for this amount of time. The range is 0~99900.

EXT: SIP Extension Configuration

- **IP-UMS PORT:** UDP Socket port number for IP-UMS.
- **EXPIRE TIME:** Expiration time period for SIP stations registration. When OfficeServ gives a valid response for SIP stations REGISTER request, OfficeServ informs the SIP station that the registration will be valid for the time period specified in this field. Unit is a second.
- **SIGNAL PORT:** UDP Socket port number which is open for SIP station.

TRK: SIP Trunk Configuration

- **iBG EXPIRE:**Expiration time period for Ubigate's registration. Ubigate acts as a SIP station.
- INCOM MODE: This option selects how incoming calls are routed: FOLLOW DID TRANS (MMC 714), FOLLOW TRUNK RING (MMC 406), FOLLOW INCOM DGT (MMC 406)
- **DEFAULT ISP:** For future use. If OfficeServ can interoperate with multiple ITSPs at the same time, this field used to select the default one.

ISP1-4: SIP Carrier Options

- **SIP Server:** This option enables or disables the SIP profile.
- **SVC AVAIL:** This field indicates the status of the SIP trunking service availability.
- **REGIST ADDR:** SIP registrar address. Provided by the ITSP (Internet Telephony Service Provider).
- **REGIST PORT:** SIP registrar server port to use.
- **OUT PROXY:** The outbound proxy server address provided by the ITSP.
- **ALTER PROXY:** The alternate outbound proxy server address.
- **PROXY PORT:** The outbound proxy server port.

- **PROXY NAME:** The proxy domain name.
- ***DNS SERVER1:** The address of the main domain name server.
- ***DNS SERVER2:** The address of the secondary domain name server.

*7200 does not have these fields.

- **USER NAME:** User name for the SIP account provided by the ITSP.
- **AUTH USER:** Authentication user name for the SIP account. Provided by the ITSP.
- **AUTH PSWD:** Authentication password for the SIP account. Provided by the ITSP.
- **REG PER USR:** If this option is enabled, each station will use a separate login account, which is specified in MMC 839, for the ITSP. If this option is enabled, there must be user name and password data in the MMC 839.
- SESSION TMR: Session timer is to check the aliveness of current SIP session between two SIP User Agents by sending the session timer signal periodically. Either UPDATE or RE-INVITE message can be used for session timer signal.
- SESSION EXP: The time interval for session timer signals expiration.
- **TRK REG EXP:** The time interval for OfficeServ registration request. The final expiration time period is determined by Expires value specified in the response message sent by the ITSP.
- ALIVE NOTI: This option is the check the aliveness of the ITSP. If this field is set to OPTIONS, the SIP OPTION messages will be sent periodically based on the time value in NOTIFY TIME.
- **NOTIFY TIME:** The time interval for sending the SIP OPTIONS message.
- **EXCLUSIVE:** When set to YES, all incoming SIP messages from unidentified sources will be rejected. Only SIP messages from the designated outbound proxy server will be accepted.
- **IMS OPTION:** When this option is enabled, the SIP message format will be changed to interact with the IMS switch.

- **ASSERTED ID:** If the ITSP requires use of the P-Asserted-ID field, OfficeServ can be set according to the ITSPs requirement.
 - **PRIMARY:** P-Asserted-ID contains primary number and FROM header contains secondary number.
 - **ALTERNATE:** P-Asserted-ID header contains secondary number and FROM header contains primary number.
- **PRIVACY:** When this option is enabled, the caller line ID will not be sent.
- **SIP PEERING:** This option allows the SIP to be used as the networking protocol among different PBX.
- **CLIP TABLE:** This option select which of the four CLIP tables to use in the MMC 321 (SEND CLI NUMBER).
- **SS TYPE:** This option sets the type of SIP service for supplementary service.
 - **Centrix:** Use REFER method.
 - **PBX MNGD:** Use RE-INVITE method.
 - **Samsung:** Use proprietary method.
- **302 RESP:** When this option is enabled, OfficeServ will respond to the "302" SIP message. This is used for call forwarding feature on ITSP.
- **USER TABLE:** This option selects the USER TABLE number for use in the MMC 839.
- **DEST TYPE:** Specified which value to be referenced to determine the destination DID number.
- **CODEC NEGO:** This option enables or disables auto CODEC negotiation for SIP trunking.
- HOLD RE-INV: When enabled, OfficeServ will send INVITE message to the ITSP when HOLD key is pressed.
- SIP CARRIER: SIP carrier (ITSP) name

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 837. Display shows the first available option. Press	<u>S</u> IP : RE-TRANS T1 05
	volume UP or DOWN key to select the option or press RIGHT soft key to move cursor and select the option.	
2.	Press volume UP or DOWN key to select an option OR press RIGHT soft key to move	TRK : iBG EXPIRE 0010
	cursor and press volume UP or DOWN key to select an option.	
3.	Press volume UP or DOWN key to select an option OR press RIGHT soft key to move	EXT : <u>I</u> P-UMS PORT 05070
	cursor and press volume UP or DOWN key to select an option.	
4.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	<u>I</u> SP1 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP2 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP3 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP4 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	

- Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.
- GATEWAY CALL ID: 1234 DEFAULT DATA: CALLER ID TYPE: ANI **DEFAULT DIL NO.: 5000** UDP PORT:TRUNK: 05060 UDP PORT: IP UMS: 05070 **RE-TRANS.T1 TIME: 500ms** RE-TRANS.T2 TIME: 4000ms RE-TRANS.T4 TIME: 5000ms **GENERAL RING TM: 5000ms INVITE LING TIME: 5000ms PROVISIONAL TIME: 180000ms** INV.NO RESP TIME: 5000ms GEN.NO RESP TIME: 5000ms **REQ.RETRY TIME: 5000ms** SIP SERVER ENBLE: DISABLE **REGISTRAR PORT: 5060** OUTBOUND PROXY PORT: 5060 SIGNAL PORT: 10000 SEND CLIP TABLE: 1 **INCOMING MODE: FOLLOW DID TRANS**

RELATED ITEMS: MMC 405: CO LINE NO. MMC 615: MGI GROUP MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

SIP USER

DESCRIPTION:

This MMC is used for SIP Trunking applications where the SIP source requires registration on a "per-user" basis. This means that each station on the OfficeServ 7100 system that accesses SIP trunks (inbound or outbond calls) will require an unique user ID and password.

NOTE: In order to use this MMC, you must set "GW SERVICE"=ENABLE in MMC 837.

If your SIP server does <u>not</u> authenticate on a per-user basis, then this MMC is <u>not</u> required.

Up to 100 (01 \sim 100) registrations can be entered.

- 1. Move cursor (using right soft key) to the registration number and use the volume up and down button to scroll through up to 100 users.
- Press the right soft key to move the cursor to the "usernum" field and use volume up/down buttons to toggle between "usernum" and "password". Enter the "usernum" (usually DID assigned to the station) and the corresponding password for each registration.

SYSTEM IP OPTION

DESCRIPTION:

This MMC provides various proprietary Samsung VoIP/IP integration options. The options set in this MMC are system-wide.

No	Option	Description	Default
0	PHONE VERSION	 Sets running IP-based phone and new phone software version with the system. For example if version is 2.05 enter 0205. The version must match the version of software loaded in TFTP server. 0 LARGE DGP: Large LCD phone 1 LARGE ITP: Large LCD IP-based phone 2 2LINE ITP2: line LCD IP-based phone 3 WIPM APPL: Wireless IP-based mobile phone software. 4 SOFT PC 5 SOFT PDA 6 WIPM BOOT: Wireless IP-based mobile phone boot program. 7 SOFT MENU: Soft menu version 	0000
1	PHONE TFTP IP	Sets phone software upgrade TFTP server IP address.	0.0.0.0
2	ITP REGISTRATION	Defines the method that IP-based phones use to register themselves with the system.	-
		 0 TYPE: Defines the method that IP-based phones use to registration themselves with the system. a) SYS PSWD: System will authenticate the IP-based phones with the value contained within parameter ITP REGISTRATION: PSWD within this same MMC. b) PHONE PSWD: System will authenticate the IP-based phones according to entries made in MMC 840. c) DISABLE: System will not authenticate IP-based phones at all. 	SYS PSWD
		 PSWD: This is a system-wide password value used for registration of IP phones. 	'1234'
3	EASYSET OPTION	Sets EasySet link via LAN option with the system.	-
		0 PSWD: This is a system-wide password value used for authentication of EasySet server.	'1234'
		1 ALIVE TIME: This is a EasySet link via LAN alive check timer.	0 SEC

No	Option	Description	Default
4	CTI LINK OPTION	Sets CTI link via LAN option with the system.	-
		0 SMDR REPORT: Sets YES or NO for SMDR data to CTI link via LAN.	NO
		1 UCD REPORT: Sets YES or NO for UCD data to CTI link via LAN.	NO
		2 ALIVE TIME: This is a CTI link via LAN alive check timer. If this sets 0, the system will not check link alive.	300 SEC
5	ITP DSP PARA	Sets IP phone DSP parameters of system-wide.	-
		 M-FRAME: This value determines the transmission interval time of VoIP packets generated by the IP phone. This data is effective only when DOWN = SYS DATA in this MMC. The range is 10~40 ms. Applies only to ITP to ITP calls (when both ITPs are in same zone). 	10 ms
		 JITTER: Decides the minimum time to consider delay for jitter adjustment. This data is effective only when DOWN = SYS DATA in this MMC. The range is 10~90 ms. Applies only to ITP to ITP calls (when both ITPs are in same zone). 	20 ms
		2 TOS: An eight-bit binary value that will be utilized by external routers, switches, etc(that optionally support TOS- bit prioritization)-to identify the transport-priority value of data packets generated by the IP phone. This value can be left at default value(00000) if your network infrastructure does not support this method of bandwidth management. This data is effective only when DOWN = SYS DATA in this MMC. Applies only to ITP to ITP calls (when both ITPs are in same zone).	all bits 0
		3 CONTROL; 1 SYS BASE 2 ITP BASE	SYS BASE
		4 CODEC 1 MGI FIRST 2 ITP FIRST	MGI FIRST
		 3 DOWN: Determines data uses system-wide data or each phone data for IP-based phone DSP control. a) SYS DATA: System-wide data will be used.(MMC 841 data) b) PHONE DATA: Each phone data will be used.(MMC 840 data) 	SYS DATA

No	Option	Description	Default
6	ITP TX GAIN/HSET	Sets IP-based phone Handset TX gain value of each level.	-
7	ITP RX GAIN/HSET	Sets IP-based phone Handset RX gain value of each level.	-
8	ITP TX GAIN/MIC	Sets IP-based phone MIC gain value of each level.	-
9	ITP RX GAIN/SPKR	Sets IP-based phone SPKR gain value of each level.	-
10	ITP VERS UPGRADE	Sets IP-based phone software upgrade option with the system. Used for automatic software upgrades.	-
	("PHONE TFTP IP" and "PHONE VERSION" must be set).	 0 TYPE: Sets IP-based phone software upgrade type a) MMC COMMAND: IP-based phone software upgraded manually in MMC 840. b) PHONE CON: IP-based phone software upgraded automatically at phone connection. c) AUTO TIME: IP-based phone software upgraded automatically at set time. 	MMC COMMAND
		1 START TIME: IP-based phone software automatic upgrade start time.	0000. (Disable)
		2 INTERVAL: IP-based phone software automatic upgrade interval time.	10 seconds.
11	MGI ALIVE PERIOD	Time interval between heart beat check between MGI and MCP.	-
12	LICENSE KEY	Soft phone and SIP Stack license key	NONE
13	LICENSE STATUS	SOFTP ALLOW	0
		SOFTP USED	0
		SOFTP CONN	0
		NEWS ALLOW (not supported in US)	NONE
		NSIP-S MAX	0
		NSIP-S USED	0
		NSIP-S CONN	0
		SSIP-S MAX	0
		SSIP-S USED	0
		SSIP-S CONN	0
		SIP STACK	0
		H.3223 STACK	0

No	Option	Description	Default
	DATA CARD IPC	YES (NOT USED IN US)	YES
	ITP RING VOLUME	LEVEL 1-8	1
14	SIP STACK ALLOW	MAX COUNT	0
		SOFTP USED	0
15	ITP MAX LIMIT	SOFTP ALLOW	0
		SOFTP USED	0
16	WIP DSP PARA	M-FRAME:	40 MSEC
		ECHOCNCL:	ENABLE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 841. Display shows the first available option.	<u>ITP RESIGTRATION</u> ENABLE /ITP PSWD
2.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.	ITP REGIST PSWD 4321

- 3. Press UP or DOWN key to select an option and press RIGHT soft key to enter data and move cursor to the Step 1 position.
- Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.

Press UP or DOWN key to select an option and press RIGHT soft key to store entry and move cursor

5. Press TRANSFER to store and exit OR

Press SPEAKER to store and advance to next MMC.

ITP REGIST PSWD 8228

ITP REGIST PSWD 8228

EASYSET PASSWORD

DEFAULT DATA: SEE DESCRIPTIONS

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS

SIP STATION INFO

DESCRIPTION:

This MMC provides various proprietary Samsung SIP integration options of non-Samsung SIP terminals. The options set in this MMC are system-wide.

No	Option	Description	Default	
0	[3301] REGISTERED	To indiicte if the SIP phone is registered to server or not (read	NO	
		only).		
		Options: NO OR YES		
1	[3301] IP ADDRESS	Sets SIP phone IP address (read only).	0.0.0.0	
2	[3301] USER ID	Enter User ID or SIP station number for registering to the SIP	3301	
		server.		
3	[3301] PASSWORD	Enter the password for registering to the SIP server.	0000	
4	[3301] TONE SRV	An option to provide the service tone from the SIP server or	USE SYS TEM	
		the SIP phone.	TONE	
		Options: USE SYSTEM TONE OR USE PHONE TONE		
5	[3301] CALL WAIT	To provide to disable call waiting tone for second call to SIP	DISABLE	
		phone.		
		Options: DISABLE OR ENABLE		
6	[3301] PHONE TYPE	To display the type of SIP phone registered (read only)	DISCONNECT	
		Options: DISCONNECTED OR CONNECTED		

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

 Press TRANSFER 842. Display shows the first available option.
 Press UP or DOWN key to select an station OR press RIGHT soft key to move cursor.
 Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.
 Select an option OR press RIGHT soft key to move cursor.

- 4. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 5. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 6. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 7. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- Press UP or DOWN key to select an option and press RIGHT soft key to enter data and move cursor to the Step 1 position. OR
- Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: SEE DESCRIPTIONS

RELATED ITEMS: MMC 724: NUMBER PLAN MMC 841: SYS IP OPTN MMC 857: VIRTUAL CABINET

[3302]<u>U</u>SER ID 3302

[3302]<u>P</u>ASSWORD 0000

[3302]<u>T</u>ONE SRV USE SYSTEM TONE

[3302]<u>C</u>ALL WAIT DISABLE

[3302]<u>PHONE</u> TYPE DISCONNECT

VIRTUAL CABINETS

DESCRIPTION:

Any device or resource on the OS7200 that does not have a physical port connection will now be found in the Virtual Cabinet Items found in the virtual cabinets are logical devices such as virtual extensions, logical resources such as VoIP trunks and SPnet trunks, or logical connections that connect to IP phones.

- Cabinets 3 thru 6 are "Virtual Cabinets"
- Each Virtual Cabinet has 6 slots with 8 logical ports per slot. The slots are numbered 1~ 6.

Use this MMC to modify and configure Virtual cabinets.

<u>MMC 857 configuration directly affects the appearance in the numbering plan</u> (MMC 724) for these devices.

The virtual assignments with the default settings highlighted are shown below:

Vitual Cabinet	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	
	* V-SLT	* V-SLT	V-SLT	V-SLT	V-SLT	V-SLT	
	V-DGP	V-DGP	* V-DGP	* V-DGP	V-DGP	V-DGP	
3			WIRED-ITP	WIRED-ITP	WIRED- * ITP	WIRED- * ITP	
	V-SLT	V-SLT	WIRED- * ITP	WIRED- * ITP	WIRED- * ITP	WIRED- * ITP	
	V-DGP	V-DGP					
4	WIRED-	WIRED-					
	* ITP	* ITP					
	WIRED-ITP	WIRED-ITP	WIRED-ITP	WIRED-ITP	WIRED-ITP	SO-STN	
	* WLAN-ITP	* WLAN-ITP	* WLAN-ITP	* WLAN-ITP	BRI-STN	* G-CONF	
5	SIP-STN	SIP-STN	SIP-STN	SIP-STN	* G-CONF	SPNet-TRK	
	IP-UMS/ACD	IP-UMS/ACD	IP-UMS/ACD	IP-UMS/ACD	SPNet-TRK	BRI-STN	
	BRI-STN	BRI-STN	* SPNet-	* SPNet-	SPNet-TRK	SPNet-TRK	
			TRK	TRK			
6	* G-CONF	* G-CONF	SIP-TRK	SIP-TRK	* SIP-TRK	SIP-TRK	
J J	SPNet-TRK	SPNet-TRK			H323-TRK	* H323-TRK	

- * This character specifies the default setting for the Virtual Cabinets
- BRI-STN is not supported in the United States or Canada.

VIRTUAL ASSIGNMENT TYPES:

SLT: Virtual extension (Single Line Telephone) DGP: Virtual extension (Digital Telephone) WIRED ITP: ITP Phone extensions WIFI ITP: Wireless handset extensions GCONF STN: Group Conference resource SPNET TRK: SPNet IP trunk for system networking SIP-T TRK: SIP IP Trunk numbers H323: H.323 IP trunk numbers BRI STN: Basic Rate Interface Stations (NOT USED IN USA) SIP STN: SIP IP Stations

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

- Press TRANSFER 857. Display shows.
 Enter number 3-6 for cabinet number And enter 1-6 for slot number. OR Press volume button to scroll
 Press volume button to scroll card type and
 C3-S1:SLT SLT
- 3. Press volume button to scroll card type and Select card type by pressing RIGHT soft key.
- Press TRANSFER button to save and exit OR Press SPEAKER button to advance to the next MMC.

DEFAULT DATA: NONE

C<u>4</u>-S1:SLT DGP

RELATED ITEMS: MMC 724 NUMBER PLAN MMC 822 VIRTUAL EXTENSION TYPE

SEND CLI NUMBER

DESCRIPTION:

Allows a ten digit number to be entered and associated with a station or trunk number on a per PRI basis. When this station makes an outgoing call on this PRI, the ten digit number entered will be the Calling Party Number sent on this outgoing PRI call. There are 4 tables in the system.

PROGRAM KEYS

Used to scroll through options/move cursor left or right
Used to enter selections
Move cursor left and right
Used to store data and advance to next MMC
Used to clear previous entry

ACTION

DISPLAY

<u>1</u>:

[230] CLI PER STN

1.	Press TRANSFER 321. Display shows.		CLI	PER	STN

- Dial extension (e.g., 230)
 OR
 Press UP or DOWN to select extension and press
 RIGHT soft key to move the cursor.
- Dial table number 1 ~ 4.
 OR
 Press UP or DOWN to select table number and press RIGHT soft key to move the cursor.
- 4. Enter the Calling Party Number.[230] CLI PER STN2:3055922900
- Repeat Step 3 & 4 to enter other tables and Calling Party Numbers OR Repeat Steps 2, 3, & 4 to enter other station and Calling Party Numbers.

 Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: NO PRI SPAN OR STATION NUMBERS ENTERED

RELATED ITEMS: MMC 430 PRI CONTROL

MMC: 714 DID NUMBER AND NAME TRANSLATION

DESCRIPTION:

Assigns an incoming DID call to a specific ring plan destination. It also provides a call waiting option, if needed, so that a second incoming DID call can be received. The table is also used to define which MOH source a caller to that DID number will hear when placed on hold. An 11 character name can be added to the number. There are a maximum of 999 entries. If there is no matching number on DID service the call is routed to the operator group for that ring plan.

Definitions of option are as follows:

- 1. DGT: Digits to be received from CO. Up to 16 digits may be entered.
- 2. MOH SOURCE: Allows the technician to select what the calling party will hear in regards to that DID/DNIS number if the call is placed on hold. There are a total of 6 possible music selections (see below).

If you have a SVM Voice Mail System installed you may also select a SVM recording as a music source. The recording must already been defined in MMC 748 and will show up here as the SVM port associated with the recording.

OPTIONS

- **2.1 NONE:** No Music on Hold. Follows the setting in MMC 408 for the trunk the call comes in on.
- **2.2 TONE:** A repeated tone is played to the outside party.
- **2.3 INTERNAL CHIME:** This is entered as the directory number of the music source on the MCP (3761).
- **2.4 EXTERNAL DEVICE:** Music Source or Digital announcer. This is entered as the directory number of an external music source.
- 2.5 VOICE MAIL SOUND FILE: If the OfficeServ 7400 system has an optional SVM card installed, up to 100 custom recorded sound files from the Voice Mail card can be used for MOH sources. Select the SVM port assigned in MMC 748. For information on creating the sound files see SVM System Administrator Manual-Recording greeting by number. If you select this option be advised that each VMMOH source requires a dedicated SVM port/channel.
3. PRI = DID priority option. There are 9 priority levels: priority 1 is the highest and priority 9 is the lowest.

When calls arrives into a station group and group members are all busy the call is queued. The system will assign a priority to the DID number so that calls from a high priority DID number will be placed at the front of the group queue.

4. 1: XXX, 2: XXX, 3: XXX, 4: XXX, 5: XXX, 6:XXX = ring plan and destination during each ring plan. The destination can be a station, station group, trunk or trunk group. If trunk or trunk group is selected the trunks must be programmed as E&M trunks to allow the received digits to be re-sent on the facility(s). This is referred to as DID Repeat digits over tie line.

NOTE: An entry of the character "B" means to repeat the received digits.

- 5. CW: Call waiting Yes/No . Allow a second DID call to be received
- 6. MC: This is the maximum number of simultaneous calls to this DID the system will allow. If more call attempts are made the system will return a busy signal to the caller.
- **7.** DC: The number of digits to delete. This is useful with Tandem switching, mixed numbering plans and DID Repeat digits over tie line. Maximum number of digits that can be deleted is 16.
- 8. NAME: Input up to 11 characters to identify call.

Names are written using the keypad. Each press of a key selects a character. Pressing the dial pad key moves the cursor to the next position. For example, if the directory name is "SAM SMITH," press "7" three times to get the letter "S." Press "2" once to get "A." Continue selecting characters from the table below to complete your message. Pressing the bottom left programmable key changes the letter from upper case to lower case.

NOTE: When the character you want appears on the same dial pad key as the previous character, press the UP key to move the cursor to the right.

- **9.** TONE: Ring tone options for a specific DID number (No. $1 \sim 8$).
- **10.** CAD: Ring cadence options for a specific DID number at SLT's (No. $1 \sim 5$).

DCS KEYSETS

COUNT	1	2	3	4	5
DIAL 0	space	?)	0
DIAL 1	Q	Z	,		1
DIAL 2	А	В	С	@	2
DIAL 3	D	E	F	#	3
DIAL 4	G	Н		\$	4
DIAL 5	J	К	L	%	5
DIAL 6	М	Ν	0	^	6
DIAL 7	Р	R	S	&	7
DIAL 8	Т	U	V	*	8
DIAL 9	W	Х	Y	(9
DIAL *	:	=	[]	*

The # key can be used for the following special characters: #, space, &, !, :, ?, ., %, \$, -, <, >, /, =, [,], @, ^, (,), _, +, {, }, |, ;, \, " and \sim .

• iDCS, DS and ITP KEYSETS

COUNT	1	2	3	4	5
DIAL 0	<	>)	0
DIAL 1	space	?	,	!	1
DIAL 2	A	В	С	@	2
DIAL 3	D	Е	F	#	3
DIAL 4	G	Н	I	\$	4
DIAL 5	J	K	L	%	5
DIAL 6	М	Ν	0	^	6
DIAL 7	Р	Q	R	S	7
DIAL 8	Т	U	V	*	8
DIAL 9	W	Х	Y	Z	9
DIAL \star		Π	[]	*

- 1. When the character you want appears on the same dial pad key as the previous character, press UP to move the cursor one space to the right.
- 2. Other symbols are available for DIAL #.

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1.	Press TRANSFER 714. Display shows.	DID DIGIT DGT:	(<u>0</u> 01)
2.	Enter valid index number, e.g. 005, via dial keypad	DID DIGIT DGT:	(<u>0</u> 05)
	OR		
	Press UP or DOWN key to make selection.		
	Press RIGHT soft key to move cursor.		
3.	Enter digits to be translated (e.g. 5065)	DID DIGIT	(005)
	via dial keypad and press RIGHT	DGT: <u>5</u> 065	
	soft key to move cursor.		

4. Enter the MOH source for this entry. OR
DID DIGIT (005)
MOH SOURCE : F-TRK

Press UP or DOWN key to select option. Press RIGHT soft key to return to step 3 above.

5. Enter station or group number for each Ring Plan destination via dial keypad (e.g. 530) OR

Press UP or DOWN key to make selection. Press RIGHT soft key to advance to next Ring Plan. Press RIGHT soft key to ENTER and move cursor.

6. Press UP or DOWN key to make selection or select via dial pad 1 for YES, 0 for NO.

DID	DIGI	C	(005)
CW:1	10	DE	LETE:0

(005)

2:

Press RIGHT soft key to advance to the next step.

7. Enter the number of digits to be deleted and press RIGHT soft key to return to step 1, OR

Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next

MMC.

DEFAULT DATA: NO ENTRIES

RELATED ITEMS: TRUNK PROGRAMMING

DID DIGIT (005) CW:YES DELETE:0

MMC: 724 DIAL NUMBERING PLAN

DESCRIPTION:

This MMC allows the technician to change directory numbers for stations, trunks, station groups, trunk groups and feature access codes. The system can be preprogrammed with a default three or four digit numbering for station, station groups and trunk numbers depending on the position of the DIP switches on the MCP card. Default numbering plan is <u>only</u> assigned once the system is powered up for the first time OR once the system memory has been manually cleared. There is an error message provided to prevent the accidental duplication of a directory number or feature access code.

DIAI	L OPTION	DESCRIPTION
00	STN NUM PLAN	This is where station directory numbers are changed or assigned
01	TRK NUM PLAN	This is where trunk directory numbers are changed or assigned
03	MISC NUM PLAN	This is where directory numbers for relays, MOH ports, and the Internal Modem are changed or assigned
04	STNG NUMBER PLAN	This is where station group numbers are changed or assigned
05	TRKG NUMBER PLAN	This is where trunk group numbers are changed or assigned
06	FEAT NUMBER PLAN	This is where feature access codes are changed or assigned. Dialing codes are entered via the dial pad key by pressing the dial pad number, the required steps to select this feature. For example, for OHVA, the number 6 would be pressed three times. NOTE: Please remember that this program is system-wide.
07	SO-STN NUM PLAN	NOT USED IN USA.
09	NTWK LCR NUMPLAN	This is where additional LCR access codes are entered in the case where two or more systems are networked together.
10	VIRT EXT NUMPLAN*	This is where virtual station directory numbers are changed or assigned.

11	MGI NUM PLAN	This is where the MGI port directory numbers are changed or assigned.	
12	ITP NUM PLAN*	This is where IP-based station directory numbers are changed or assigned	
13	WLAN NUM PLAN	This is where wireless handsets directory numbers are assigned or changed.	
14	SPNET NUM PLAN*	This is where Samsung proprietary switch-to-switch enhanced IP networking port directory numbers are changed or assigned	
15	H323T NUMPLAN*	This is where VOIP H.323 trunk port directory numbers are changed or assigned	
17	SIP-T NUM PLAN*	This is where VOIP SIP trunk port directory numbers are changed or assigned	
18	IP-UMS NUM PLAN	This is where IP UMS directory numbers are changed or assigned (FOR FUTURE USE)	
19	SIP-S NUM PLAN	This is where SIP-based station directory numbers are changed or assigned	

IMPORTANT:

The num plans that are marked with "" are affected by the virtual cabinet configurations in MMX 857. See MMC 857 for details.

÷			
COUNT→	1	2	3
DIAL 2	ABAND	BARGE	CAMP
DIAL 3	DGPALM	E-LCR1	FAUTO
DIAL 4	GPPK	HDSET	IG
DIAL 5	LCR	LCR	LCR
DIAL 6	MMPA	NEW	OHVA
DIAL 7	PAGE	PAGE	RB
DIAL 8	TCLIP	UA	VMADM
DIAL 9	WAKEUP	WAKEUP	WAKEUP

FEATURE NUMBERING DIAL KEY PAD

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1.	Press TRANSFER 724. Display shows.	STN NUM PLAN :C1 S2-P01:201 \rightarrow
2.	Press UP or DOWN key to make selection	FEAT NUMBER PLAN
	and press RIGHT soft key to advance cursor.	ABAND : 64 \rightarrow
3.	Press UP or DOWN key to make selection	FEAT NUMBER PLAN
	OR	ABAND : 64 \rightarrow
	Dial letters of feature name (e.g., 71).	_
4.	Then press RIGHT soft key to advance	FEAT NUMBER PLAN
	cursor.	PAGE : NONE \rightarrow
	Enter desired directory number digits	FEAT NUMBER PLAN
	(e.g., 55) via the dial keypad.	PAGE : NONE \rightarrow 55_
5.	Press LEFT soft key to enter change and	FEAT NUMBER PLAN
	continue to make changes.	<u>PAGE</u> : NONE \rightarrow 55
	-	
6	Press TRANSEER to store and evit	

 Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: SEE BELOW

STN NUM PLAN:	201 ~ 2xx OR 2001 ~ 2xxx			
TRK NUM PLAN:	701 ~ 7xx OR 7001 ~ 7xxx			
STNG NUMBER PLAN:	500 ~ 5xx OR 5000 ~ 5xxx			
TRKG NUMBER PLAN:	9, 800 ~ 8xx			
MISC NUMB PLAN:				
MISC NUM PLAN:		Purpose		
	MISC01: 371	BGM/MOH		
	MISC02: 361	External Page		

	MISC03: 362		Relay Type 1:
			Common Bell/Loud Bell
	MISC04: 363		Relay Type 2:
			Common Bell/Loud Bell
	MISC05: 3999		Internal Modem
FEAT NUMBER PLAN:	ABAND	64	
	ABW	NONE	
	ACCT	47	
	ALLCLR	NONE	
	ALMCLR	57	
	AUTH	*	
	BARGE	NONE	
	BILL	NONE (NOT USED) IN USA)
	BLOCK	NONE	
	BOSS	NONE	
	CAMP	45	
	CANMG	42	
	СВК	44	
	CHIN	NONE (NOT USED	IN USA)
	CHOUT*	NONE (NOT USED	IN USA)
	CHOICE	NONE	
	CONF	46	
	CONP	NONE	
	CR	NONE	
	CREDIT	NONE (NOT USED	IN USA)
	DGPALM	NONE	
	DIR	NONE	
	DIRPK	65	
	DISALM	58	
	DIVERT	NONE	
	DLOCK	13	
	DND	40	
	DND0	NONE	
	E-LCR1	NONE	
	E-LCR2	NONE	
	E-LCR3	NONE	
	E-LCR4	NONE	
	FAUTO	14	
	FLASH	49	
	FWD	60	
	GRPK	66	
	HDSET	NONE	
	HLDPK	12	
	HOLD	11	
	HOTEL	NONE (NOT USED	IN USA)
	IG	53	
	INFDSP	NONE	
	LCR	NONE	
	LISTN	NONE	
	LNR	19	

	LOG	NONE
	MMPA	56
	MMPG	54
	MSG	43
	MYGRPK	NONE
	NEW	18
	NOCLIP	NONE
	NPAGE	NONE
	OHVA	NONE
	OPER	0
	PAGE	55
	PAGPK	10
	PARK	NONE
	PMSG	48
	PTHR	NONE
	RB	NONE
	REJECT	NONE
	RP	NONE
	RSV	NONE
	RTO	NONE
	SETMG	41
	SIP CW	77
	SLOCAT	NONE
	SLTALM	NONE
	SLTMMC	15
	SNR	17
	SPEED	16
	S RELOC	NONE [NOT USED IN USA]
	STATE	NONE
	TCLIP	NONE
	UA	67
	VMADM	NONE
	VMAME	NONE
	VMMEMO	#
	VMMSG	NONE
	WAKEUP	NONE
	WCOS	59
NTWK LCR NUM PLAN:	NONE	
VIRT EXT NUM PLAN:	3501~3522 & 3401~3440	
MGI NUM PLAN:	3801~	
ITP NUM PLAN:	3201 ~	
WLAN NUM PLAN:	3301 ~	
SPNET NUM PLAN:	8301 ~	
H323 TRK NUM PLAN:	8401 ~	
SIP TRK NUM PLAN:	8501 ~	
IP UMS NUM PLAN:	8665 ~	
SIP STN DIAL NO:	3301~	

MMC: 832 VoIP OUTBOUND DIGITS

DESCRIPTION:

This MMC provides the means to set the MGI internal numbering plan for digit dialing and conversion when using IP trunking application.

- ACCESS DGT: This is the access code that is used once the MGI is accessed; this directs a call based on the routing tables used. An access code table then references an access code and correlates an IP address to the access code for routing. A maximum of 8 digits are available with 63 access code entries (00~62).
- **DGT LENGTH:** This field requests the number of digits that are expected to be received to make up the whole access code.
- **DEL.LENGTH:** This is the number of digits to delete after receiving the access code.

NOTE: If no digits are deleted the access code will be sent as part of the call to the destination to continue routing at the far end destination.

- **INSERT DGT:** This is the digit(s) to insert for routing at the destination. This can be used when different numbering plans exist or if a dial 9 access is needed to be inserted in the dialed digits.
- IP TABLE 1: This is the first table referenced for routing the access code to an IP address The system has 63 IP tables (00~62) with 16 entries (00~15) in each table.
- **IP START:** This entry indicates where in a table to start looking for an IP code to associate with the access code. This can be used to manage where to start looking for an IP address in high traffic MGI applications. Example: If IP address routing to the desired destination is known to be in the last 7 entries of a table the IP START location would be 8. IP address searching would start at entry 8.
- **SERVER USE:** This parameter determines whether a H.323 Gatekeeper (MMC836) will be utilized to establish this connection (0:no, 1:yes).

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next \ensuremath{MMC}

ACTION

DISPLAY

1.	Press TRANSFER 832. Display shows the first access code entry	[<u>0</u> :00] 0	ACCESS DGT
	number and access code.		
2.	Press UP or DOWN key to select an entry OR	[<u>0</u> :00] 0	ACCESS DGT
	Press RIGHT soft key to move cursor		
3.	Press RIGHT soft key to move cursor. Press UP or DOWN key to select an option	[<u>0</u> :00] 1	ACCESS DGT
	OR Press RIGHT soft key to move cursor.	[<u>0</u> :00] <u>1</u>	ACCESS DGT
3.	Using the keypad input an access code that will reference an IP address table.	[<u>0</u> :00] 8 <u>0</u>	ACCESS DGT
4.	Press RIGHT soft key to enter data and move cursor.	[<u>0</u> :00] 80	DGT LENGTH
	Press UP or DOWN key to select an option entry.		
5.	Press RIGHT soft key to move cursor. Using the keypad enter the number of digits in the	[<u>0</u> :00] <u>2</u>	DGT LENGTH
	access code. Press RIGHT soft key to enter data and move cursor.		
6.	Press UP or DOWN key to select an entry Press RIGHT soft key to move cursor.	[<u>0</u> :00] 1	DEL. LENGTH
7.	Using the keypad enter the number of digits	[<u>0</u> :00]	DEL. LENGTH
	of the access code to delete. Press RIGHT soft key to enter data and to	2	
	move cursor.		
8.	Press UP or DOWN key to select an option. Press RIGHT soft key to move cursor.	[<u>0</u> :00]	INSERT DGT

- 9. Using the keypad enter the digits to insert. Press RIGHT soft key to enter data and move cursor.
- 10. Press UP or DOWN key to make selection. Press RIGHT soft key to move cursor.
- 11. Using the keypad enter two digit IP table to translate dialed numbers to IP address.
- Press RIGHT soft key to move cursor. Using the keypad enter two digit IP translation start location to search for an IP address OR
- Image: n. $\begin{bmatrix} 0:00 \end{bmatrix}$ IPTABLE 10000IPTABLE 1101IPTABLE 1101IPSTART100IPSTART

9

[0:00] INSERT DGT

 Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: ACCESS DGT: 00~09 (digits 0~9) ,10~62 NONE DGT LENGTH: 1 (digits 0~9), 10~62 NONE DEL.LENGTH: 0 INSERT DGT: NONE IP TABLE 1: 00 IP START: NONE GK USE: NO

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 833: VOIP ADDRESS TABLE MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

OfficeServ 74	400
TECHNICAL	MANUAL

MGI DSP OPTION

DESCRIPTION:

This MMC provides various MGI DSP options.

IMPORTANT: You must first select the MGI Card Type: MGI (use for configuring MGI card), or MGI16 (use for configuring MGI64).

- CODEC FRAME COUNT: Selects which audio codec compression will be used and transmission interval time of VoIP packets generated from MGI card. Selections - MGI3: G729A (8K), G.729 (8K), G.711 (64K), G.723.1 (5.3K~6.4K). Does not apply to ITP to ITP communications. Use settings in MMC 840/MMC 841 for ITP to ITP communications.
- ECHO CANCEL: Enables or disables echo cancellation (0: disable, 1: enable). This function removes echo that is generated by voice reflection and packet delay.
- SILENCE SUP: This parameter determines whether silence suppression is used (0: disable, 1: enable). This prevents transmission during the silence period of a call, and conserves bandwidth when enabled.
- **IN FILTER:** This option select input filtering of the DSP (0: disable, 1: enable). This should always be set as ENABLE.
- **OUT FILTER:** This option select output filtering of the DSP (0: disable, 1: enable). This should always be set as ENABLE.
- **INPUT GAIN:** PCM input gain value of DSP. The range is -31dB~31dB (0~63). This sets the quality of PCM voice from the VoIP DSP to the site.
- VOICE VOL: This value selects the voice volume. The range is -31dB~31dB (0~63).
- JITTER OPT: This is a scale value that introduces a intentional buffer (delay) of the transmission of VoIP packets generated by the MGI card. This value determines whether the focus is on packet loss or packet delay. The range is 00~12.
- **MIN JITTER:** Decides the minimum time to consider delay for jitter adjustment. The range is 010~300ms.

- **MAX JITTER:** Decides the maximum time to consider delay for jitter adjustment. The range is 010-300ms.
- **FAX ECM:** This option selects retry of Fax-over-IP, in the case that errors are detected (0: disable, 1: enable).
- MAX FAX CNT: This is maximum number of channels that can be *simultaneously utilized* for Fax-over-IP. The range is 00~16.
- **DTMF TYPE:** There are two types of DTMF transmission: INBAND, which is industry standard (H.245) type DTMF transport, and OUTBAND which is a Samsung proprietary method.
- **TOS FIELD:** An eight-bit binary value that will be utilized by external routers, switches, etc (*that optionally support TOS-bit prioritization*) to identify the transport-priority value of data packets generated by the MGI card. This value can be left at default value (0000000) if your network infrastructure does not support this method of bandwidth management.
- **FAX RETRY:** The number of attempts to resend a failed fax transmission.
- **RTP CHECK TIME:** Interval between RTCP packets sent from MGI cards.

Note: Does not apply to ITP to ITP calls (where both ITP's are in same public zone, or both in same private zone). For ITP to ITP calls, use settings in MMC 840/MMC 841.

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

G.729A

- Press TRANSFER 835. Display shows the first option. Press UP or DOWN key to select MGI3 or MGI2 OR
 Press RIGHT soft key to move cursor. Press UP or DOWN key to select an parameter.
 Press RIGHT soft key to enter data and move
 AUDIO CODEC
 AUDIO CODEC
 AUDIO CODEC
- Press RIGHT soft key to enter data and move cursor.

4. Press UP or DOWN key to select an option OR

MGI3:AUDIO CODEC G.729

Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: AUDIO CODEC: G.729A ECHO CANCEL: ENABLE SILENCE SUP: ENABLE IN FILTER: ENABLE **OUT FILTER: ENABLE INPUT GAIN: 31** VOICE VOL: 31 **JITTER OPT: 04** MIN JITTER: 030ms MAX JITTER: 150ms(MGI3) FAX ECM: ENABLE MAX FAX CNT: 02 DTMF TYPE: OUTBAND(MGI3) **TOS DATA: 00000** FAX RETRY: 0 **RTP CHECK TIME: 5 seconds**

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

SIP OPTIONS

DESCRIPTION:

This MMC permits the adjustments of optional Session Initiation Protocol (SIP) trunking parameters. The MGI supports SIP and H.323 on a per call-per-port basis. The settings are systemwide.

NOTE: When changing any IP address/value, listed below, three digits must be input for each (octet) field. Example 192.168.1.10 input must be: 192 168 001 010

SIP Stack Configuration

- **RE-TRANS T1:** The initial re-transmission time if no answer based on the RFC2543 specification. Default 500 ms.
- **RE-TRANS T2:** The maximum re-transmission time if no answer based on the RFC2543 specification. Default 4000 ms.
- RE-TRANS T4: The time the User Agent Server waits after receiving the ACK message. Based on the RFC2543 specification. Default 5000ms. The range is 0~9900.
- **GENERAL RING:** The server shall re-transmit the response during this amount of time until the requested re-transmission is received. For example, the wait time after sending 200 OK for INFO. The range is 0~99900.
- INVITE RING: After the client sends ACK for the INVITE Final Response, the client cannot confirm if the server received the ACK message. The client waits for this amount of time after sending ACK for the Final Response. The range is 0~99900.
- **PROVISIONAL:** After receiving the Provision Response, the User Agent shall wait for this amount of time until Timeout ends. The range is 0~999900.
- **INV NO RESP:** Before sending Cancel for the Invite Request, the User Agent shall wait for this amount of time. The range is 0~99900.
- **GEN NO RESP:** Before sending Cancel for General Request, the User Agent shall wait for this amount of time. The range is 0~99900.

• **REQ RETRY:** After sending General Request, the User Agent shall wait for the Final Response for this amount of time. The range is 0~99900.

EXT: SIP Extension Configuration

- **IP-UMS PORT:** UDP Socket port number for IP-UMS.
- **EXPIRE TIME:** Expiration time period for SIP stations registration. When OfficeServ gives a valid response for SIP stations REGISTER request, OfficeServ informs the SIP station that the registration will be valid for the time period specified in this field. Unit is a second.
- **SIGNAL PORT:** UDP Socket port number which is open for SIP station.

TRK: SIP Trunk Configuration

- **iBG EXPIRE:**Expiration time period for Ubigate's registration. Ubigate acts as a SIP station.
- INCOM MODE: This option selects how incoming calls are routed: FOLLOW DID TRANS (MMC 714), FOLLOW TRUNK RING (MMC 406), FOLLOW INCOM DGT (MMC 406)
- **DEFAULT ISP:** For future use. If OfficeServ can interoperate with multiple ITSPs at the same time, this field used to select the default one.

ISP1-4: SIP Carrier Options

- **SIP Server:** This option enables or disables the SIP profile.
- **SVC AVAIL:** This field indicates the status of the SIP trunking service availability.
- **REGIST ADDR:** SIP registrar address. Provided by the ITSP (Internet Telephony Service Provider).
- **REGIST PORT:** SIP registrar server port to use.
- **OUT PROXY:** The outbound proxy server address provided by the ITSP.
- **ALTER PROXY:** The alternate outbound proxy server address.
- **PROXY PORT:** The outbound proxy server port.

- **PROXY NAME:** The proxy domain name.
- ***DNS SERVER1:** The address of the main domain name server.
- ***DNS SERVER2:** The address of the secondary domain name server.

*7200 does not have these fields.

- **USER NAME:** User name for the SIP account provided by the ITSP.
- **AUTH USER:** Authentication user name for the SIP account. Provided by the ITSP.
- **AUTH PSWD:** Authentication password for the SIP account. Provided by the ITSP.
- **REG PER USR:** If this option is enabled, each station will use a separate login account, which is specified in MMC 839, for the ITSP. If this option is enabled, there must be user name and password data in the MMC 839.
- SESSION TMR: Session timer is to check the aliveness of current SIP session between two SIP User Agents by sending the session timer signal periodically. Either UPDATE or RE-INVITE message can be used for session timer signal.
- SESSION EXP: The time interval for session timer signals expiration.
- **TRK REG EXP:** The time interval for OfficeServ registration request. The final expiration time period is determined by Expires value specified in the response message sent by the ITSP.
- ALIVE NOTI: This option is the check the aliveness of the ITSP. If this field is set to OPTIONS, the SIP OPTION messages will be sent periodically based on the time value in NOTIFY TIME.
- **NOTIFY TIME:** The time interval for sending the SIP OPTIONS message.
- **EXCLUSIVE:** When set to YES, all incoming SIP messages from unidentified sources will be rejected. Only SIP messages from the designated outbound proxy server will be accepted.
- **IMS OPTION:** When this option is enabled, the SIP message format will be changed to interact with the IMS switch.

- **ASSERTED ID:** If the ITSP requires use of the P-Asserted-ID field, OfficeServ can be set according to the ITSPs requirement.
 - **PRIMARY:** P-Asserted-ID contains primary number and FROM header contains secondary number.
 - **ALTERNATE:** P-Asserted-ID header contains secondary number and FROM header contains primary number.
- **PRIVACY:** When this option is enabled, the caller line ID will not be sent.
- **SIP PEERING:** This option allows the SIP to be used as the networking protocol among different PBX.
- **CLIP TABLE:** This option select which of the four CLIP tables to use in the MMC 321 (SEND CLI NUMBER).
- **SS TYPE:** This option sets the type of SIP service for supplementary service.
 - **Centrix:** Use REFER method.
 - **PBX MNGD:** Use RE-INVITE method.
 - **Samsung:** Use proprietary method.
- **302 RESP:** When this option is enabled, OfficeServ will respond to the "302" SIP message. This is used for call forwarding feature on ITSP.
- **USER TABLE:** This option selects the USER TABLE number for use in the MMC 839.
- **DEST TYPE:** Specified which value to be referenced to determine the destination DID number.
- **CODEC NEGO:** This option enables or disables auto CODEC negotiation for SIP trunking.
- HOLD RE-INV: When enabled, OfficeServ will send INVITE message to the ITSP when HOLD key is pressed.
- SIP CARRIER: SIP carrier (ITSP) name

PROGRAM KEYS

Used to scroll through options
Used to enter selections
Move cursor left and right
Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 837. Display shows the first available option. Press volume UP or DOWN key to select the option	<u>S</u> IP : RE-TRANS T1 05
	or press RIGHT soft key to move cursor and select the option.	
2.	Press volume UP or DOWN key to select an option OR press RIGHT soft key to move	TRK : iBG EXPIRE 0010
	select an option.	
3.	Press volume UP or DOWN key to select an option OR press RIGHT soft key to move	EXT : <u>I</u> P-UMS PORT 05070
	cursor and press volume UP or DOWN key to select an option.	
4.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP1 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP2 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP3 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	
	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor	ISP4 : SIP SERVER DISABLE
	cursor and press volume UP or DOWN key to select an option.	

- Press TRANSFER to store and exit OR Press SPEAKER to store and advance to next MMC.
- GATEWAY CALL ID: 1234 DEFAULT DATA: CALLER ID TYPE: ANI **DEFAULT DIL NO.: 5000** UDP PORT:TRUNK: 05060 UDP PORT: IP UMS: 05070 **RE-TRANS.T1 TIME: 500ms** RE-TRANS.T2 TIME: 4000ms RE-TRANS.T4 TIME: 5000ms **GENERAL RING TM: 5000ms INVITE LING TIME: 5000ms PROVISIONAL TIME: 180000ms** INV.NO RESP TIME: 5000ms GEN.NO RESP TIME: 5000ms **REQ.RETRY TIME: 5000ms** SIP SERVER ENBLE: DISABLE **REGISTRAR PORT: 5060** OUTBOUND PROXY PORT: 5060 SIGNAL PORT: 10000 SEND CLIP TABLE: 1 **INCOMING MODE: FOLLOW DID TRANS**

RELATED ITEMS: MMC 405: CO LINE NO. MMC 615: MGI GROUP MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 714: DID TRANSLATIONS MMC 321: CLIP TABLE

SIP USER

DESCRIPTION:

This MMC is used for SIP Trunking applications where the SIP source requires registration on a "per-user" basis. This means that each station on the OfficeServ 7100 system that accesses SIP trunks (inbound or outbond calls) will require an unique user ID and password.

NOTE: In order to use this MMC, you must set "GW SERVICE"=ENABLE in MMC 837.

If your SIP server does <u>not</u> authenticate on a per-user basis, then this MMC is <u>not</u> required.

Up to 100 (01 \sim 100) registrations can be entered.

- 1. Move cursor (using right soft key) to the registration number and use the volume up and down button to scroll through up to 100 users.
- Press the right soft key to move the cursor to the "usernum" field and use volume up/down buttons to toggle between "usernum" and "password". Enter the "usernum" (usually DID assigned to the station) and the corresponding password for each registration.

SYSTEM IP OPTION

DESCRIPTION:

This MMC provides various proprietary Samsung VoIP/IP integration options. The options set in this MMC are system-wide.

No	Option	Description	Default
0	PHONE VERSION	 Sets running IP-based phone and new phone software version with the system. For example if version is 2.05 enter 0205. The version must match the version of software loaded in TFTP server. 0 LARGE DGP: Large LCD phone 1 LARGE ITP: Large LCD IP-based phone 2 2LINE ITP2: line LCD IP-based phone 3 WIPM APPL: Wireless IP-based mobile phone software. 4 SOFT PC 5 SOFT PDA 6 WIPM BOOT: Wireless IP-based mobile phone boot program. 7 SOFT MENU: Soft menu version 	0000
1	PHONE TFTP IP	Sets phone software upgrade TFTP server IP address.	0.0.0.0
2	ITP REGISTRATION	 Defines the method that IP-based phones use to register themselves with the system. 0 TYPE: Defines the method that IP-based phones use to registration themselves with the system. a) SYS PSWD: System will authenticate the IP-based phones with the value contained within parameter ITP REGISTRATION: PSWD within this same MMC. b) PHONE PSWD: System will authenticate the IP-based phones according to entries made in MMC 840. c) DISABLE: System will not authenticate 	- SYS PSWD
		IP-based phones at all.	(100.4)
		1 PSWD: This is a system-wide password value used for registration of IP phones.	'1234 [']
3	EASYSET OPTION	Sets EasySet link via LAN option with the system.	-
		0 PSWD: This is a system-wide password value used for authentication of EasySet server.	'1234'
		 ALIVE TIME: This is a EasySet link via LAN alive check timer. 	0 SEC

No	Option	Description	Default
4	CTI LINK OPTION	Sets CTI link via LAN option with the system.	-
		0 SMDR REPORT: Sets YES or NO for SMDR data to CTI link via LAN.	NO
		1 UCD REPORT: Sets YES or NO for UCD data to CTI link via LAN.	NO
		2 ALIVE TIME: This is a CTI link via LAN alive check timer. If this sets 0, the system will not check link alive.	300 SEC
5	ITP DSP PARA	Sets IP phone DSP parameters of system-wide.	-
		 M-FRAME: This value determines the transmission interval time of VoIP packets generated by the IP phone. This data is effective only when DOWN = SYS DATA in this MMC. The range is 10~40 ms. Applies only to ITP to ITP calls (when both ITPs are in same zone). 	10 ms
		 JITTER: Decides the minimum time to consider delay for jitter adjustment. This data is effective only when DOWN = SYS DATA in this MMC. The range is 10~90 ms. Applies only to ITP to ITP calls (when both ITPs are in same zone). 	20 ms
		2 TOS: An eight-bit binary value that will be utilized by external routers, switches, etc(that optionally support TOS- bit prioritization)-to identify the transport-priority value of data packets generated by the IP phone. This value can be left at default value(00000) if your network infrastructure does not support this method of bandwidth management. This data is effective only when DOWN = SYS DATA in this MMC. Applies only to ITP to ITP calls (when both ITPs are in same zone).	all bits 0
		3 CONTROL; 1 SYS BASE 2 ITP BASE	SYS BASE
		4 CODEC 1 MGI FIRST 2 ITP FIRST	MGI FIRST
		 3 DOWN: Determines data uses system-wide data or each phone data for IP-based phone DSP control. a) SYS DATA: System-wide data will be used.(MMC 841 data) b) PHONE DATA: Each phone data will be used.(MMC 840 data) 	SYS DATA

No	Option	Description	Default
6	ITP TX GAIN/HSET	Sets IP-based phone Handset TX gain value of each level.	-
7	ITP RX GAIN/HSET	Sets IP-based phone Handset RX gain value of each level.	-
8	ITP TX GAIN/MIC	Sets IP-based phone MIC gain value of each level.	-
9	ITP RX GAIN/SPKR	Sets IP-based phone SPKR gain value of each level.	-
10	ITP VERS UPGRADE	Sets IP-based phone software upgrade option with the system. Used for automatic software upgrades.	-
	("PHONE TFTP IP" and "PHONE VERSION" must be set).	 0 TYPE: Sets IP-based phone software upgrade type a) MMC COMMAND: IP-based phone software upgraded manually in MMC 840. b) PHONE CON: IP-based phone software upgraded automatically at phone connection. c) AUTO TIME: IP-based phone software upgraded automatically at set time. 	MMC COMMAND
		1 START TIME: IP-based phone software automatic upgrade start time.	0000. (Disable)
		2 INTERVAL: IP-based phone software automatic upgrade interval time.	10 seconds.
11	MGI ALIVE PERIOD	Time interval between heart beat check between MGI and MCP.	-
12	LICENSE KEY	Soft phone and SIP Stack license key	NONE
13	LICENSE STATUS	SOFTP ALLOW	0
		SOFTP USED	0
		SOFTP CONN	0
		NEWS ALLOW (not supported in US)	NONE
		NSIP-S MAX	0
		NSIP-S USED	0
		NSIP-S CONN	0
		SSIP-S MAX	0
		SSIP-S USED	0
		SSIP-S CONN	0
		SIP STACK	0
		H.3223 STACK	0

No	Option	Description	Default
	DATA CARD IPC	YES (NOT USED IN US)	YES
	ITP RING VOLUME	LEVEL 1-8	1
14	SIP STACK ALLOW	MAX COUNT	0
		SOFTP USED	0
15	ITP MAX LIMIT	SOFTP ALLOW	0
		SOFTP USED	0
16	WIP DSP PARA	M-FRAME:	40 MSEC
		ECHOCNCL:	ENABLE

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 841. Display shows the first available option.	ITP RESIGTRATION ENABLE /ITP PSWD		
2.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.	ITP REGIST PSWD 4321		

- 3. Press UP or DOWN key to select an option and press RIGHT soft key to enter data and move cursor to the Step 1 position.
- 4. Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.

Press UP or DOWN key to select an option and press RIGHT soft key to store entry and move cursor

5. Press TRANSFER to store and exit OR

Press SPEAKER to store and advance to next MMC.

ITP REGIST PSWD 8228

ITP REGIST PSWD 8228

EASYSET PASSWORD

DEFAULT DATA: SEE DESCRIPTIONS

RELATED ITEMS: MMC 615: MGI GROUP MMC 616: MGI USER MMC 830: ETHERNET PARAMETERS MMC 831: MGI PARAMETERS MMC 832: VOIP OUTBOUND DIGITS MMC 833: VOIP ADDRESS TABLE MMC 834: H.323 OPTIONS MMC 835: MGI DSP OPTIONS MMC 836: H.323 GATEKEEPER OPTIONS MMC 837: SIP OPTIONS MMC 838: PRIVATE IP ADDRESSES MMC 840: IP SET INFO MMC 841: SYSTEM IP OPTIONS

SIP STATION INFO

DESCRIPTION:

This MMC provides various proprietary Samsung SIP integration options of non-Samsung SIP terminals. The options set in this MMC are system-wide.

No	Option	Description	Default
0	[3301] REGISTERED	To indiicte if the SIP phone is registered to server or not (read	NO
		only).	
		Options: NO OR YES	
1	[3301] IP ADDRESS	Sets SIP phone IP address (read only).	0.0.0.0
2	[3301] USER ID	Enter User ID or SIP station number for registering to the SIP	3301
		server.	
3	[3301] PASSWORD	Enter the password for registering to the SIP server.	0000
4	[3301] TONE SRV	An option to provide the service tone from the SIP server or	USE SYS TEM
		the SIP phone.	TONE
		Options: USE SYSTEM TONE OR USE PHONE TONE	
5	[3301] CALL WAIT	To provide to disable call waiting tone for second call to SIP	DISABLE
		phone.	
		Options: DISABLE OR ENABLE	
6	[3301] PHONE TYPE	To display the type of SIP phone registered (read only)	DISCONNECT
		Options: DISCONNECTED OR CONNECTED	

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC

ACTION

DISPLAY

1.	Press TRANSFER 842. Display shows the first available option.	[<u>3</u> 301]REGISTRATION NO			
2.	Press UP or DOWN key to select an station OR press RIGHT soft key to move cursor.	[3302] <u>R</u> EGISTRATION NO			
3.	Press UP or DOWN key to select an option OR press RIGHT soft key to move cursor.	[3302] <u>I</u> P ADDRESS 0.0.0.0			

- 4. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 5. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 6. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- 7. Press **UP** or DOWN key to select an option OR press RIGHT soft key to move cursor.
- Press UP or DOWN key to select an option and press RIGHT soft key to enter data and move cursor to the Step 1 position. OR
- Press TRANSFER to store and exit OR
 Press SPEAKER to store and advance to next MMC.

DEFAULT DATA: SEE DESCRIPTIONS

RELATED ITEMS: MMC 724: NUMBER PLAN MMC 841: SYS IP OPTN MMC 857: VIRTUAL CABINET

[3302]<u>U</u>SER ID 3302

[3302]<u>P</u>ASSWORD 0000

[3302]<u>T</u>ONE SRV USE SYSTEM TONE

[3302]<u>C</u>ALL WAIT DISABLE

[3302]<u>PHONE</u> TYPE DISCONNECT

VIRTUAL CABINETS

DESCRIPTION:

Any device or resource on the OS7400 that does not have a physical port connection will now be found in the Virtual Cabinet Items found in the virtual cabinets are logical devices such as virtual extensions, logical resources such as VoIP trunks and SPnet trunks, or logical connections that connect to IP phones.

- Cabinets 4 and 5 are "Virtual Cabinets"
- Each Virtual Cabinet has 12 slots with 32 logical ports per slot. The slots are numbered 1 \sim 12.

Use this MMC to modify and configure Virtual cabinets.

<u>MMC 857 configuration directly affects the appearance in the numbering plan</u> (MMC 724) for these devices.

Virtual Cabinet	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	Slot 10	Slot 11	Slot 12
	VIR- SLT	VIR- SLT	VIR- SLT	VIR- DGP	VIR- DGP	VIR- DGP	SIP- STN	WIRED -ITP	WIRED -ITP	WIFI	WIRED -ITP	WIRED -ITP
	VIR- DGP	VIR- DGP	VIR- DGP	VIR- SLT	VIR- SLT	VIR- SLT	VIR- SLT	VIR- SLT	WIFI	WIRED- ITP		
	WIRED- ITP	WIRED- ITP	WIRED- ITP	WIRED- ITP	WIRED- ITP	WIRED- ITP	VIR- DGP	VIR- DGP	SIP- STN	SIP- STN		
4							WIRED- ITP	WIRED- ITP	IP UMS/A CD	IP UMS/A CD		
							IP UMS/A CD	WIFI				
								SIP- STN				
								IP UMS/A CD				
	WIRED -ITP	WIRED -ITP	WIRED -ITP	SO- STN	SO- STN	G- CONF	SPNet- TRK	SPNet- TRK	SIP- TRK	SIP- TRK	H323	H323
5				G- CONF	G- CONF	SO- STN	SO- STN	G- CONF	SPNet- TRK	SPNet- TRK	SPNet- TRK	SPNet- TRK
						SPNet- TRK					SIP- TRK	SIP- TRK

The virtual assignments with the default settings are shown below:

Bold = Default

VIRTUAL ASSIGNMENT TYPES:

SLT: Virtual extension (Single Line Telephone) DGT: Virtual extension (Digital Telephone) **ITP: ITP Phone extensions** WIP: Wireless handset extensions SIP-S: SIP Stations IPUMS: Unified Messaging Server (For Future Use) SOSTN: Not used in the U.S. GCONF: Group Conference resource SPNET: SPNet IP trunk for system networking SIP-T: SIP IP Trunk numbers H323: H.323 IP trunk numbers

PROGRAM KEYS

UP & DOWN	Used to scroll through options
KEYPAD	Used to enter selections
SOFT KEYS	Move cursor left and right
SPEAKER	Used to store data and advance to next MMC
HOLD	Used to clear previous entry

ACTION

DISPLAY

1. Press TRANSFER 857. Display shows.

C4-S01:SLT SLT

2. Enter number 4-5 for cabinet number And enter 1-12 for slot number. OR

Press volume button to scroll

C4-S01:SLT SLT

- 3. Press volume button to scroll card type and Select card type by pressing RIGHT soft key.
- 4. Press TRANSFER button to save and exit OR Press SPEAKER button to advance to the next MMC.

C4-S01:SLT DGP

DEFAULT DATA: NONE

RELATED ITEMS: MMC 724 NUMBER PLAN MMC 822 VIRTUAL EXTENSION TYPE