



V2.0 CO Features

iPECS-MG

Business Enabled Communications



Contents

- Private CO Group based on STA
- ARS with Digit Conversion Table
- Tone Table based on CO line
- Authorization Code (System Password)
- Digit Map Service
- Virtual Subscriber

Private CO Group (1/2)



How to seize CO line (CO Line/Group/Loop/Private CO)

- **CO Line Access : To access a CO line directly**

- Dial {CO Line Access} feature code and line number(e.g. 88+001). (CO Line Access -PGM113-41)
- Press [CO Line] flexible button (Button Program, [PGM] + Flex button + 1 + 88XXX)

- **CO Group Access : To access a CO Group**

- Dial {CO Group Access} Code (e.g. 9, 801). (CO Group Access -PGM114)

- **Loop CO Access : To access a CO Group based on Station CO Group Access Authority**

- Dial {Loop key} feature code (e.g. 684). (Loop Key -PGM113-90)
- Press [Loop] flexible button (Button Program, [PGM] + Flex button + 1 + 684)

- **Private CO Group Access**

- Dial Private CO Group access code. (PGM 136)

◆ Numbering Plan

Numbering Plan Type(110)[N]
System Numbering Plan(111)[N]
Flexible Station Number(112)[N]
Feature Numbering Plan(113)[N]
◆ CO Group Access Code(114)[N]
Station Group Number(115)[N]
ACD Group Number(118)[N]

Private CO Group (2/2)

Private CO Group

- Each Station has his own Private CO Group access code. (Max 2 Private Group)
- Attributes
 - Private CO Usage : Off/Private CO only/ Private CO, Normal / Normal, Private CO
 - Private CO Only** : All Private CO Line are busy, system provide Busy Tone
 - Private CO, Normal** : All Private CO Line are busy, Private CO Group Access code will be operated as normal CO Group Access Code.
 - Normal, Private CO** : All Normal CO Line are busy, Private CO Group Access code will be operated .
 - CO Group Access Code : CO Group Access Code to seize Private CO Group.
It should be one of CO Group Access Code (PGM114)
 - CO Line 1~5 : 5 CO Line can be assigned as Private CO line.

[Station Private CO Attribute]
PGM 136

Enter Station Range : -

Station Range From 3000 to 3000

Check All	Attribute						
<input type="checkbox"/>	Private CO Usage : <div style="border: 1px solid gray; padding: 2px; display: inline-block;"> Private CO only Off Private CO only Private CO, Normal CO </div>						
	Private CO Group		CO Line 1	CO Line 2	CO Line 3	CO Line 4	CO Line 5
<input type="checkbox"/>	1	9	10	11			
<input type="checkbox"/>	2						

ARS with Digit Conv. Table (1/2)

CO Group Access Code

- Each CO Group Access Code allows user to access the CO group using differential option.
- Attributes
 - CO Line Choice : Round/Last/First
 - Outgoing CO Gr. : CO Group no, Not assigned (Loop CO Group code)
 - AND Digit : Automatic Network Dialing, it can be sent after seizing the CO line
 - ARS Service : ON/OFF → NEXT Page

[CO Group Access Code Attributes]
PGM 180

Enter CO Group Access Code: Load Overview Save

CO Group Access Code : 801

<input type="checkbox"/>	Attribute	Value	Range
<input type="checkbox"/>	Access Code Name	<input type="text" value="PRI"/>	Max 16 Characters
<input type="checkbox"/>	CO Line Choice	<input type="button" value="Round"/>	
<input type="checkbox"/>	Outgoing Group No	<input type="text" value="1"/>	01-72, empty=not assign
<input type="checkbox"/>	AND Digit	<input type="text"/>	Max 10 Digits
<input type="checkbox"/>	Emergency Force Service	<input type="button" value="OFF"/>	
<input type="checkbox"/>	ARS Service	<input type="button" value="ON"/>	
1st ARS Service			
<input type="checkbox"/>	1st ARS CO Group Access code	<input type="text" value="806"/>	Max 8 Digits
<input type="checkbox"/>	1st ARS Digit Usage	<input type="button" value="Use original digits"/>	
<input type="checkbox"/>	1st ARS Digit Conversion Table	<input type="text"/>	1-9, empty=not assign
2nd ARS Service			
<input type="checkbox"/>	2nd ARS CO Group Access code	<input type="text"/>	Max 8 Digits
<input type="checkbox"/>	2nd ARS Digit Usage	<input type="button" value="Use converted digits"/>	
<input type="checkbox"/>	2nd ARS Digit Conversion Table	<input type="text"/>	1-9, empty=not assign

* Outgoing CO group no, must be assigned for ARS service.

ARS with Digit Conv. Table (2/2)

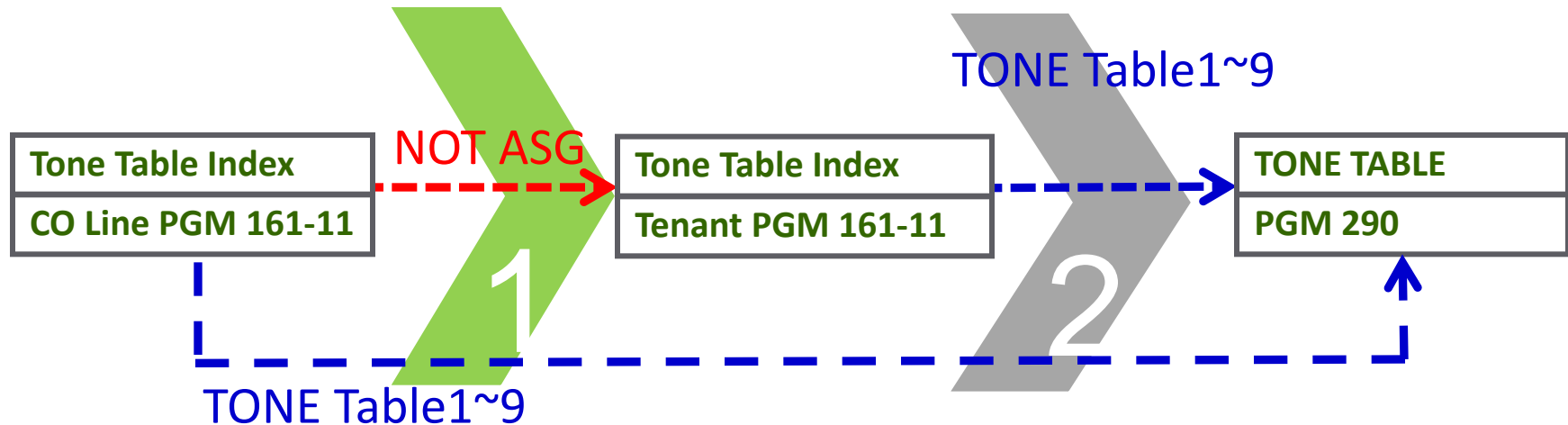
■ CO Group Access Code – ARS

- **If a selected CO group is not available for some reason (All Busy, Line Fault, etc), Alternative Route Selection (ARS) will connect calls using another designated CO group. There are 2 Step of ARS Service**
 - **ARS CO group access code 1 / 2 :** ARS CO Group Access code can be assigned for ARS Service
 - **ARS Usage :** It defines how to apply digit for ARS Service.
 - 1) **converted digit :** System sends changed digits to PSTN when ARS is applied
 - 2) **original digits:** System sends original digits to PSTN when ARS is applied
 - 3) **converted digits with digit conversion table :** system applied digit conversion table about changed digits in PGM180 when ARS is applied. and then, system sends changed digits to PSTN .
 - 4) **original digits with digit conversion table :** system applied digit conversion table about original digits in PGM180 when ARS is applied. and then, system sends changed digits to PSTN .
 - **ARS Digit Conversion Table :** It defines digit conversion table index when ARS usage is 3) or 4)
- **Example :** User dials 9 010XXXXXXXXX (9, 801 is CO Group Access code)
 PGM (251) Digit conversion table 1 for LCR: 9 010 -> 801 011
 Digit conversion table 9 for ARS: 010 ->33010, 011->44010
 - 1) converted digits : 011XXXXXXXXX is sent to PSTN
 - 2) original digits : 010XXXXXXXXX is sent to PSTN
 - 3) converted digits(with Digit conv table 9) : 44010XXXXXXXXX is sent to PSTN
 - 4) original digits(with Digit conv table 9) : 33010XXXXXXXXX is sent to PSTN

Tone Table for CO line

Tone Table based on CO line

- Tone Table Index (PGM 161-11) : Each CO line has a Tone Table
- If this is not assigned, then, Tone Table Index for aTenant(PGM280-9) can be applied.



Tone-Table PGM290

Tone Index : [1-20][21-40][41-60][61-73]						
Uncheck All	Index	Tone Name	Tone Type	Tone Time (1~600)sec	Tone Port (1~19[PGM 264])	Prompt/Annc. No (1~255/1~100[PGM 259])
<input checked="" type="checkbox"/>	1	1st Dial Tone	Normal	10	10	
<input checked="" type="checkbox"/>	2	2nd Dial Tone	Normal	10	11	
<input checked="" type="checkbox"/>	3	CO Dial Tone	Prompt	10		5
<input checked="" type="checkbox"/>	4	DISA Dial Tone	Announcement	10		
<input checked="" type="checkbox"/>	5	LCR Virtual Tone	VMIB MOH 3	10		
<input checked="" type="checkbox"/>	6	Digit Conversion Virtual Tone	SLT MOH 1	10		
<input checked="" type="checkbox"/>	7	Password Dial Tone	Normal	10	1	

Tone Type

- Normal
- Normal
- Prompt
- Announcement
- Internal MOH
- External MOH
- VMIB MOH 1
- VMIB MOH 2
- VMIB MOH 3
- VMIB MOH 4
- SLT MOH 1
- SLT MOH 2
- SLT MOH 3
- SLT MOH 4
- SLT MOH 5

Authorization Code (DN/System Password)

■ Meaning of Authorization Code

- “Authorization Code” means
 - Extension Password (**DN Number + Password(PGM131-4)**)
 - System authorization code (*** + ID + Password : PGM 225**)
- Each DN has Password. - All Case
 - COS, Tenant No of DN can be applied.
- System Password (Max. 2000 ID) – **Walking COS, DISA CO, Authorization Usage**
 - Each ID in System Authorization Table has COS, Tenant No, CO Access
 - DN / ID can be printed in SMDR information (DN number or *+ ID in INFO field)

[System Authorization Code]

PGM 225

[1-100][101-200][201-300][301-400][401-500][501-600][601-700][701-800][801-900][901-1000]
 [1001-1100][1101-1200][1201-1300][1301-1400][1401-1500][1501-1600][1601-1700][1701-1800][1801-1900][1901-2000]

Index	ID (Max 7Digits)	Password (Max 12 Digits)	COS (0~15)			Digit Conv. Tbl. (1~9) [PGM 251]	Tenant No (1~9, empty=not assign)	CO Access
			Day	Night	Timed			
1	<input type="text" value="123"/>	<input type="text" value="*****"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>	<input type="text"/>	OFF <input type="button" value="v"/>
2	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>	<input type="text"/>	OFF <input type="button" value="v"/>
3	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>	<input type="text"/>	OFF <input type="button" value="v"/>



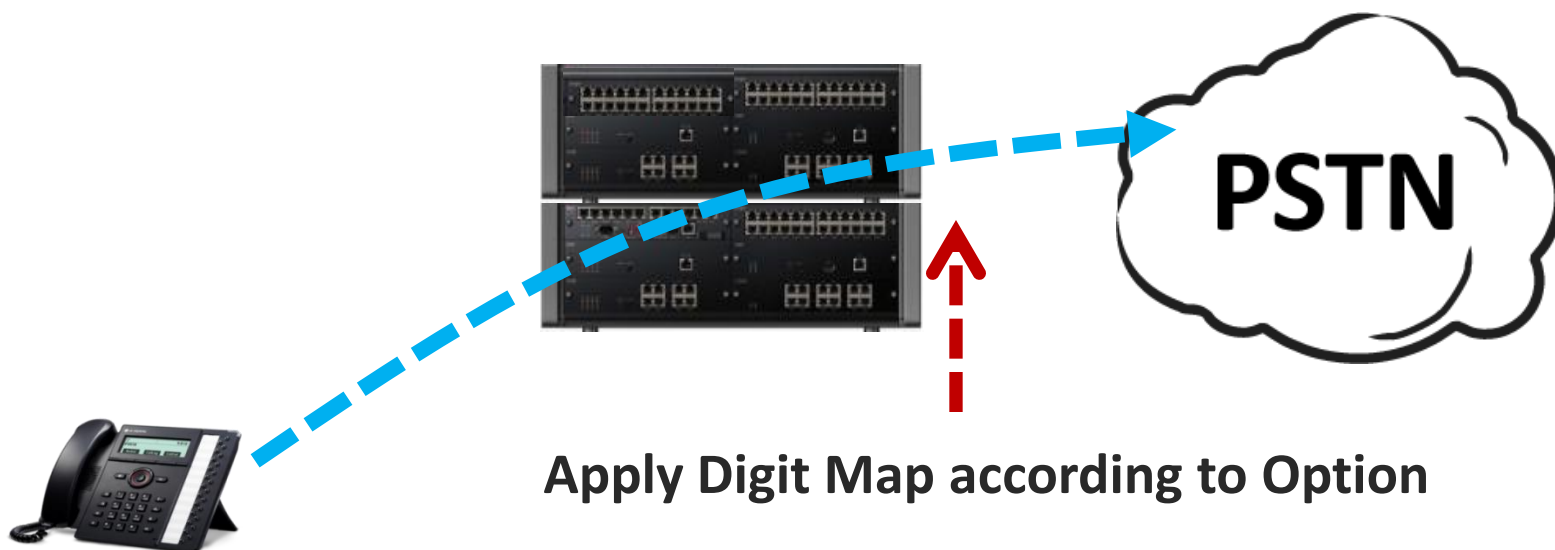
Digit Map Service (1/5)



What is Digit Map?

A system can analyze digits and it make an outgoing call without inter digit timer even if a user does not dial end mark “#”.

1. Digit Map Option table – User can assign this table based on NET Numbering/CO line/Tenant.
 - Select Apply Option CO – Enbloc CO only or All CO
 - User dialed digits or Real PSTN number
 - Assign Digit Map Digit Table index to analyze digits
2. Digit Map Digit table – User can assign PSTN number according to apply option with Option Rules



Digit Map Service (2/5)

Digit Map Option Table

Net Numbering	PGM 321-11
Outgoing CO	PGM 170-20
Tenant	PGM 280-12

High Priority



Low Priority

Apply Digit Map Option Table index
(1~20, Not assigned)

Attributes of Digit Map Option Table (Table 1 ~ 20)

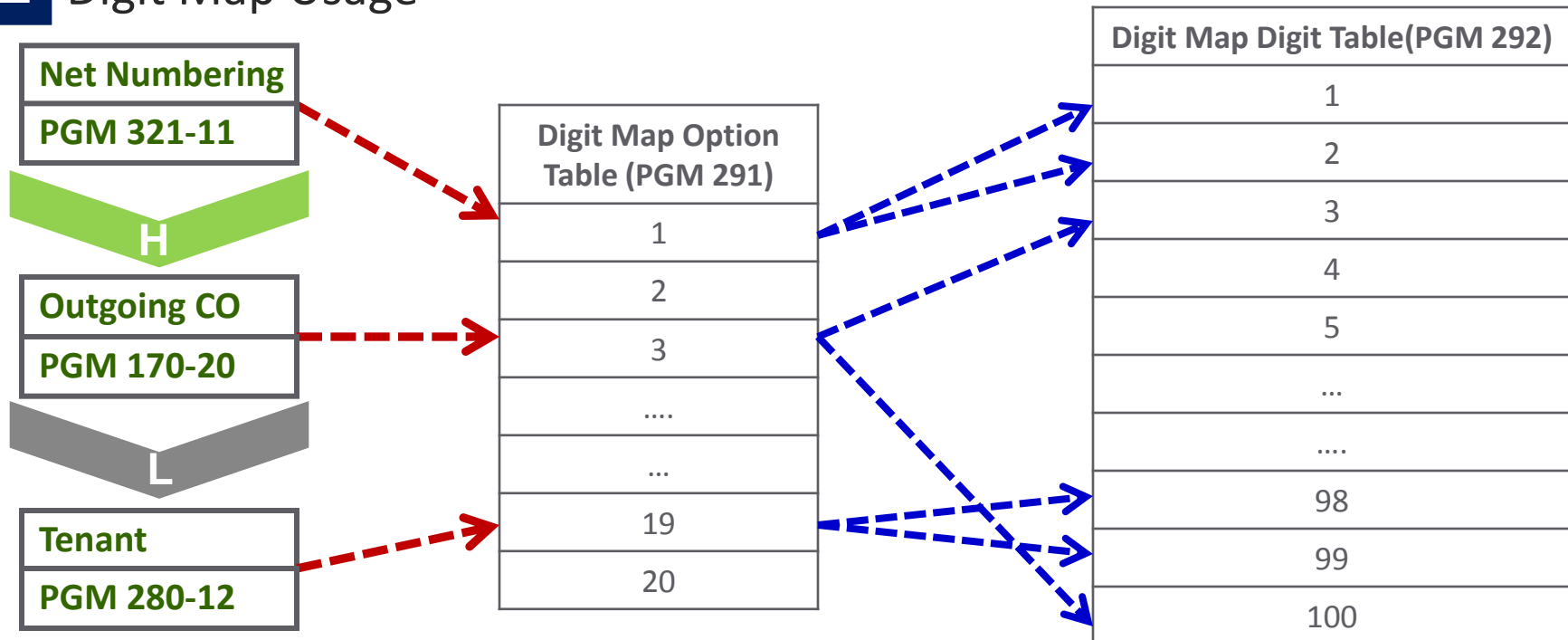
Attributes	Value	Definition	Remark
Apply Type(CO)	NOT USE	Do not apply this table	
	ENBLOC CO (user dialed digits) ALL (user dialed digits)	Apply Digit Map with user dialed digits. (except CO Access code)	
	ENBLOC CO (real PSTN number) All (real PSTN number)	Apply Digit Map with real PSTN number. (except CO Access code)	
Duplication Digit Timer		Assign Dup. digit timer	10~200, (100 msec)
Digit Map Digit Table Index	Index 1~ index 20	Assign Digit Map Digit table index to apply	Max. 20 index

Digit Map Service (3/5)

Digit Map Digit Table

- Digit Map Digit Attributes (Max. 100 table, Max. 100 entry)
 - Comment: The comment for a table (reference)
 - Implicit Digit: Option 'T' in digits is changed to Implicit digit
 - Digit: Telephone number to check digit map (Option Character can be applied)
 - Type of Number/Numbering Plan/Sending Complete IE/Usage can be programmed

Digit Map Usage



Digit Map Service (4/5)

Option List & Rule for Digit Map Digits

Digit Map Digit Option

Option	Meaning	Example
(Digit A Digit B)	'OR' option, Digit A or B can be located	(9 801)012 : 9012, 801012
[Digit A - Digit B]	'Range' option, all digit between A and B can be located	[2-4]012 : 2012, 3012, 4012
X	'MASK' option, All digit can be located.	9012XXXXXXXX: 9012 + 8 digits
?	'Duplication Digit Timer' option, Duplication digit timer(PGM291) can be applied	9012XXXXXX??: 9012 + 7~8 digits
T	'Implicit Digit' option, Implicit Digit(PGM292) can be located	T012XXXXXXXX: 9012 + 8 digits (T: 9)
.	'End' option, Digit Map analysis can be finished	9010. :9010 (without duplication digit timer)

Rules for Option List

- X The next digit of option 'X' should be 'X','?' or '.'.
- ? The next digit of option '?' should be '?'.
- T The option 'T' can be used only one time.
- . The option '.' should be used as last digit..
- X, ?, . These options cannot be located in a first digit.

Digit Map Service (5/5)

Example

- Condition

- Mobile Phone: 010 + 8 digits
- Local Area : 410~415 + 4digits

- Long Distance Area : 02~09 + 8 digits
- International: 001 or 002 + 2digits + 8 digits

- Program

- CO Line 1 ~30 (Sending Mode : Enbloc, digit map option table 1)
- Digit Map Option Table 1 (PGM291)

Table No : 1

Attribute	Value	Range
Apply type for CO line	Enbloc CO Line (real PSTN Number) ▼	
Duplication Digit Timer	30	10~200 (100 msec)
-, Apply for Enbloc/All CO Line(user dialed digit): user dialed digit can be applied (except CO access code) -, Apply for Enbloc/All CO Line(real PSTN number): real PSTN number can be applied (except CO access code)		
Digit Map Digit Table No. [PGM 292]		
Digit Map Index 1	1	1~100
Digit Map Index 2		1~100

- Digit Map Digit Table 1 (PGM292)

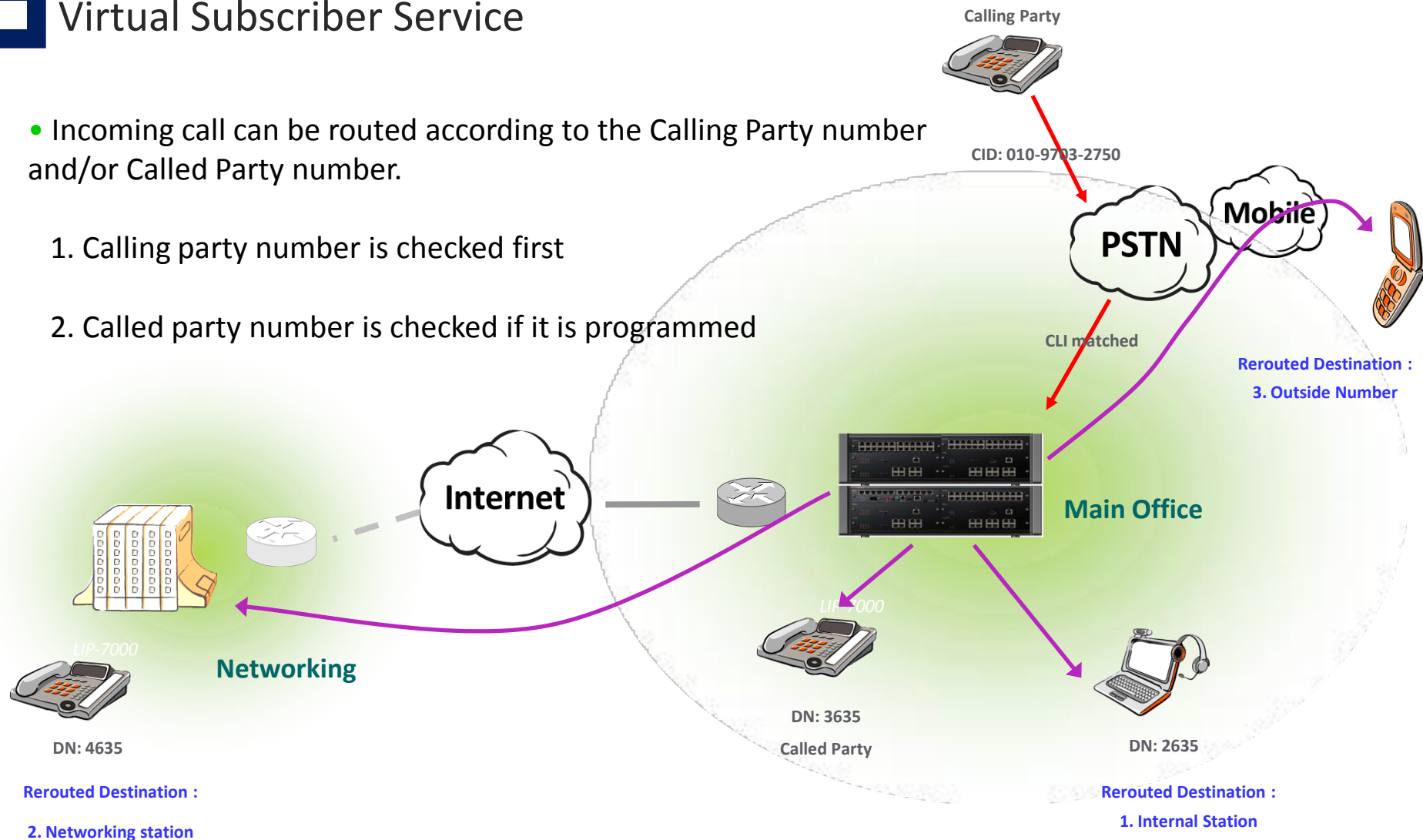
Digit Table No : 1

Attribute	Value				Range
Table Comment	<div></div>				Max. 32 Characters
Implicit digit('T')	<div></div> [Digit : 0~9, *, #, Option: (), [-], X, ?, ,]				Max. 32 digits
Digit Map Digit Table Entry Attributes					
Index	Digit(0~9,*,#) Option:(),[-],X,?,T,.	Number Of Type	Numbering Plan	Sending Complete	Usage
1	<div>010XXXXXX</div>	<div>Unknown</div>	<div>Unknown</div>	<div>Without IE</div>	<div>On</div>
2	<div>0[2-9]XXXXXXX</div>	<div>Unknown</div>	<div>Unknown</div>	<div>Without IE</div>	<div>On</div>
3	<div>41[0-5]XXXX</div>	<div>Unknown</div>	<div>Unknown</div>	<div>Without IE</div>	<div>On</div>
4	<div>00[1 2]XXXXXXXXXX</div>	<div>Unknown</div>	<div>Unknown</div>	<div>Without IE</div>	<div>On</div>

Virtual Subscriber Service

- Incoming call can be routed according to the Calling Party number and/or Called Party number.

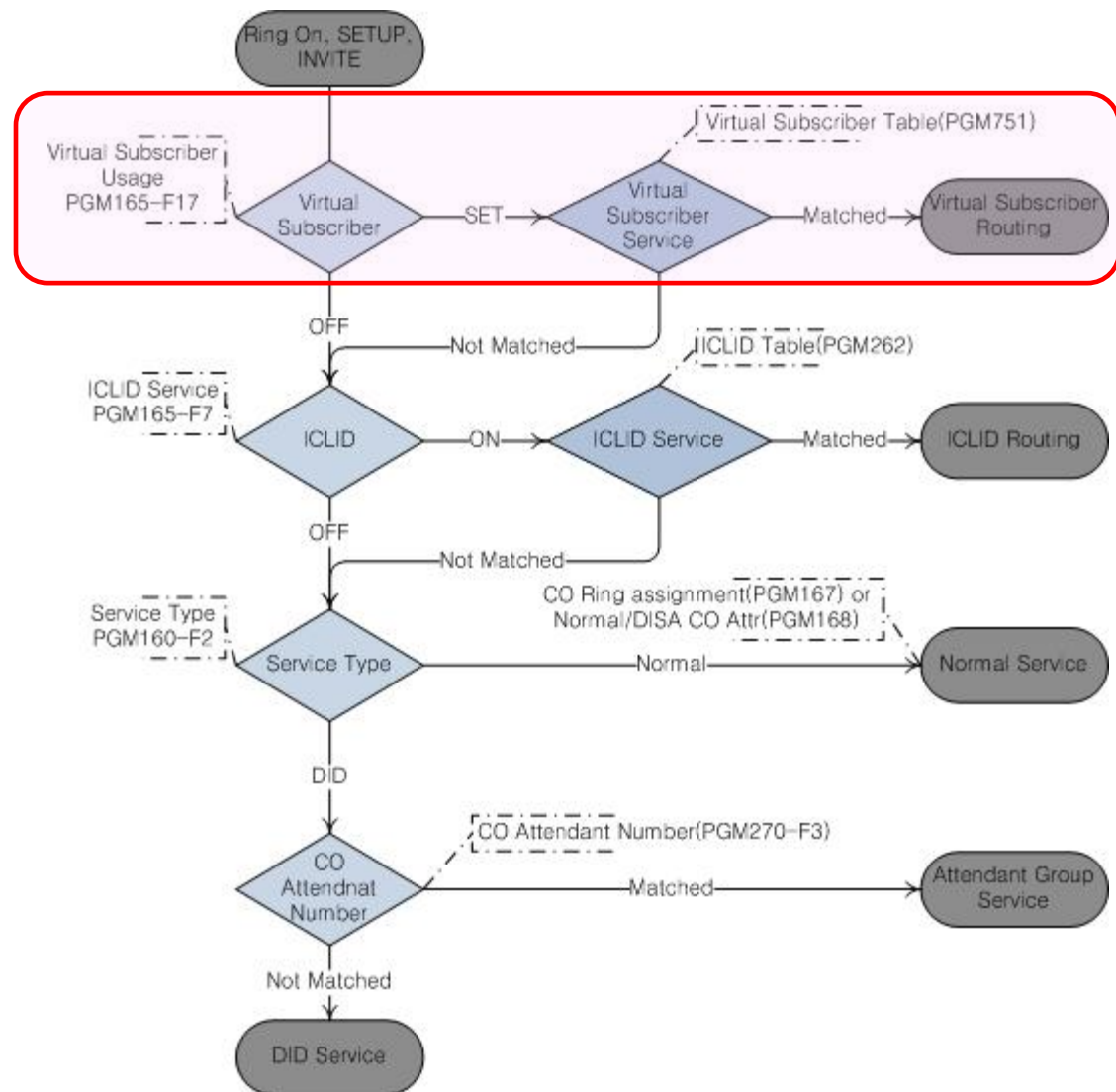
1. Calling party number is checked first
2. Called party number is checked if it is programmed



Virtual Subscriber Service (2/19)

CO Ring & DID Flow

- Virtual Subscriber
 - Virtual Subscriber Table (PGM751)
 - Virtual CLI Table (PGM 750)
- ICLID
 - ALT CO Ring Table(PGM181)
- DID
 - Digit Conv.(PGM251)
- Normal
 - Ring Assign(PGM167)
 - DISA/CCR
- Alternative Dest.
 - ALT Dest. (PGM169)
 - Related to CAUSE



Virtual Subscriber Service (3/19)

Types of Virtual Subscriber – CO based

PGM 165

Order	Check All	Attribute	Value	Range
PGM 165				
17	<input type="checkbox"/>	Virtual Subscriber Usage	<div>NO, normal service</div> <div> NO, normal service ALLOW DENY MATCH </div>	

- Virtual Subscriber Usage
 - NO : Not use virtual subscriber service
 - ALLOW : Allow the virtual subscriber service only for the matched case.
If not matched, the call is disconnected.
 - DENY : Disconnect a call when the conditions are fulfilled.
If not matched, the call will be handled as normal DID call.
 - MATCH : Allow the virtual subscriber service only for the matched case.
If not matched, the call will be handled as normal DID call.

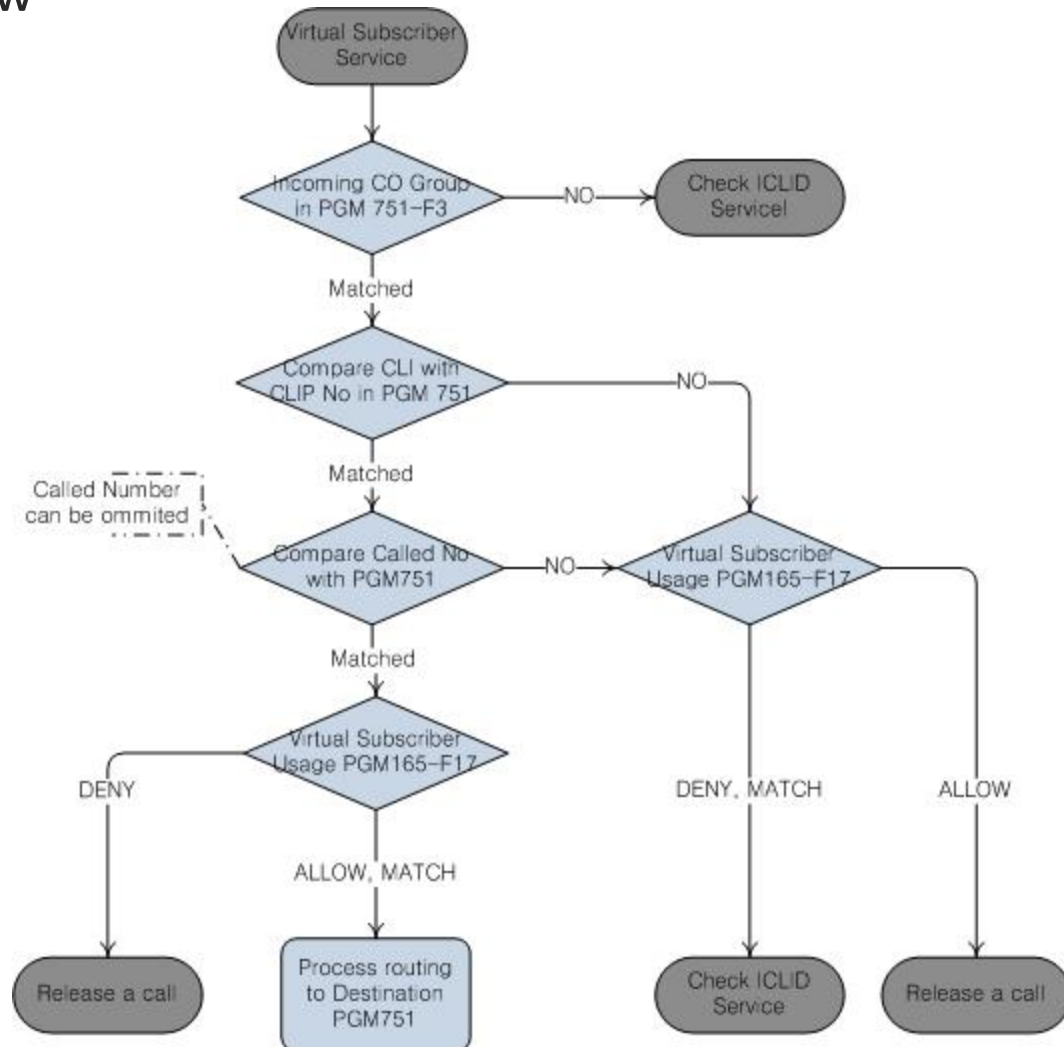
Summary

Type	Fulfilled Conditions	Not fulfilled Conditions
ALLOW	Service Virtual Subscriber	Disconnected
DENY	Disconnected	Normal call
MATCH	Service Virtual Subscriber	Normal call

Virtual Subscriber Service (4/19)

Virtual Subscriber Service Flow

- Virtual Subscriber
 - Check incoming CO Group
 - Compare CLI
 - Compare Called number
 - Check Virtual Subscriber Usage
 - Check Digit Conv. Table
 - Routing to Destination
- Destination
 - Station
 - Station Group
 - CCR / Drop
 - VMIB
 - ATD Call
 - CO Access
 - Page
 - Speed
 - CONF Room
- Related PGM
 - Virtual Subscriber Table (PGM751)
 - Virtual CLI Table (PGM750)



Virtual Subscriber Service (5/19)

Virtual Subscriber Table

PGM 751

[Virtual Subscriber Table]

Bin Order : [1-20][21-40][41-60][61-80][81-100][101-120][121-140][141-160][161-180][181-200][201-220][221-240][241-260][261-280][281-300] Save

Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)	Called Number (Max 32 Digits) (0~9, *, #, X, C, N)	Inc CO Grp No (1~72)	Max Virtual Calls (0~254)	COS (0~15)			Tenant No (1~9)	Digit Conv. Tbl.(1~9)[PGM 251]	Type	Virtual CLI Og CO Grp (1~72) / Table Index (1~300) [PGM 750]	Destination (Max 32 Digits)
					Day	Night	Timed					
1					0	0	0	1	1	ALL	All Cases - Table Index	
2					0	0	0	1	1	IND	Station - Table Index OG Grp - Table Index OG Grp - Table Index OG Grp - Table Index	
3					0	0	0	1	1	ALL	All Cases - Table Index	

Conditions

Attributes for Virtual Subscriber

- Conditions
 - CLIP Number
 - Called Number
 - Incoming CO Group Number
 - Max Virtual Calls at the same time
- Attributes for Virtual Subscriber
 - COS(Day/Night/Timed)
 - Tenant Number
 - Digit Conversion Table
 - Virtual CLI
 - Destination

Virtual Subscriber Service (6/19)

Virtual Subscriber Table – Mandatory Condition

PGM 751

Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)	Called Number (Max 32 Digits) (0~9, *, #, X, C, N)	Inc CO Grp No (1~72)	Max Virtual Calls (0~254)
1	450XXXX	300X	1	0
2	XXX87870			254
3	4504845		3	
4	C4845	620	1	
5	080C	4XXX	4	
6	N		5	3
7				

- Mandatory Condition
 - CLIP Number
 - Incoming CO Group Number
- CLIP Number
 - The incoming call's CLI should be matched with this CLIP Number
 - Wild characters can be used(X, C, N)
- Inc CO Group Number
 - Should be assigned to use the virtual subscriber service.
 - If not assigned, that index doesn't checked.

Virtual Subscriber Service (7/19)

Virtual Subscriber Table – Optional

PGM 751

Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)	Called Number (Max 32 Digits) (0~9, *, #, X, C, N)	Inc CO Grp No (1~72)	Max Virtual Calls (0~254)
1	450XXXX	300X	1	0
2	XXX87870			254
3	4504845		3	
4	C4845	620	1	
5	080C	4XXX	4	
6	N		5	3
7				

- Called Number
 - Can be omitted
 - If it is not programmed, the system doesn't check even if a incoming call has called number
 - If this field is programmed, the called number of incoming calls should be matched with field.
 - Wild characters can be used(X, C, N)
- Max Virtual Calls Number
 - Maximum incoming CO calls that virtual subscriber service is applied at the same time.
 - If not assigned, there is no limit.

Virtual Subscriber Service (8/19)

Virtual Subscriber Table – Attributes for V.S. (1)

PGM 751

Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)	Called Number (Max 32 Digits) (0~9, *, #, X, C, N)	Inc CO Grp No (1~72)	Max Virtual Calls (0~254)	COS (0~15)			Tenent No (1~9)	Digit Conv. Tbl. (1~9) [PGM 251]
					Day	Night	Timed		
1	450XXXX	300X	1	0	2	2	2	1	1
2	XXX87870			254	0	0	0	3	1
3	4504845		3		1	1	1	1	1
4	C4845		1		0	0	0	6	1
5	080C		4		0	0	0	2	1
6	N		5	3	5	5	5	1	1
7					0	0	0	1	1

- COS / Tenant Number
 - When the conditions are fulfilled for virtual subscriber service, the system will route the virtual subscriber to new destination according to these COS and Tenant.
- Digit Conversion Table
 - The destination of the virtual subscriber will be changed according to this digit conversion table.

Virtual Subscriber Table – Attributes for V.S. (2)

PGM 751

Virtual CLI		Destination (Max 32 Digits)
Type	Og CO Grp (1~72) / Table Index (1~300) [PGM 750]	
ALL ▼	All Cases - Table Index <input type="text" value="1"/>	<input type="text" value="100"/>
IND ▼	Station - Table Index <input type="text" value="2"/>	<input type="text" value="901032178945"/>
	OG Grp <input type="text" value="1"/> - Table Index <input type="text" value="1"/>	
	OG Grp <input type="text" value="2"/> - Table Index <input type="text" value="7"/>	
	OG Grp <input type="text" value="6"/> - Table Index <input type="text" value="3"/>	
	OG Grp <input type="text"/> - Table Index <input type="text"/>	
	OG Grp <input type="text"/> - Table Index <input type="text"/>	
	OG Grp <input type="text"/> - Table Index <input type="text"/>	
	Others - Table Index <input type="text" value="5"/>	

- Virtual CLI
 - New CLI when a virtual subscriber makes outgoing call
 - Type : ALL / IND
 - Can make new CLI according to the destination.
- Destination
 - New destination when the conditions are fulfilled.
 - Check Digit Conv. Table with new COS and Tenant No
 - If not assigned, the Called(dialed) number will be the destination of the virtual subscriber.



How To Program the CLIP Number (or Called Number)

- Wild Characters
 - X : any One digit
 - C : any digits(block)
 - N : no digits
- X : any One digit
 - X can not be used with other wild characters at the same time.
 - X should be used sequentially and block of X should be used only once.
 - X should be located in front of numbers or at the end of numbers.
 - **XXX**1234, 1234**XXXX** : OK
 - **XXX**1234**XXX**, 1234**X**678**XX** , 1234**XXX**890 : Not OK
- C : any digits (block)
 - C can not be used with other wild characters at the same time.
 - C can be only the first or last digit.
 - C can not be assigned more than one in one number.
 - If C is assigned with only itself, the comparing digits should be longer than 1. If the length is 0, the result of compare is “not matched”(note – In manual, C means blank. so, it should be modified)
 - **C**123, 1234**C** : OK
 - **C**123**C**, **CC**123, **C**123**C**, 123**C**567 : Not OK



How To Program the CLIP Number (or Called Number)

- N : no digits
 - N can not be used with other wild characters at the same time.
 - N can not be used with other digits.
 - N can not be assigned more than one in a number.
 - N : OK
 - N1234, 1234N, N123N, 123N567, NN : Not OK



Virtual Subscriber Service (12/19)

How To Compare the CLIP Number (or Called Number)

Caller ID
450 - 4875



PGM 751	
Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)
1	450XXXX
2	XXX87870
3	4504875
4	C4875
5	080C
6	N
7	

- Compare Incoming CLI(4504875)
 - Index 1 : matched
 - Index 2 : not matched
 - Index 3 : matched
 - Index 4 : matched
 - Index 5 : not matched
 - Index 6 : not matched
- Matched cases
 - Index 1 : digit length 7 is same.
Postfix masked numbers are matched.
450 + XXXX(any 4 digits).
 - Index 3 : digit length 7 is same.
Whole digits are matched.
 - Index 4 : End masked numbers are matched.
C(any length of digits) + 4875
- Select the highest priority
 - case of Index 3 has the highest priority



How To Compare the CLIP Number – Priority

- Priority of the matched cases

- Whole Numbers or No Numbers(N)
 - > Prefix Masked Numbers(XXX1234)
 - > Postfix Masked Numbers(1234XXXX)
 - > Beginning Masked Numbers(C1234)
 - > End Masked Numbers(1234C or only C)
 - > Length Matching(XXXXXXXXX)

Highest Priority



Lowest Priority

- Same Priority

- lower index is chosen
- Ex) Index 3 (prefix masked number) : matched → apply this Index
Index 20 (prefix masked number) : matched
- Example for Prefix and Postfix Masked Number. (ex. CLI is 1234567)
 - X234567, XX34567, XXX4567, XXXX567, XXXXX67, XXXXXX7 : same priority (Prefix Masked)
 - 123456X, 12345XX, 1234XXX, 123XXXX, 12XXXXX, 1XXXXXX : same priority (Postfix Masked)
- Example for Beginning and End Masked Number. (ex. CLI is 1234567)
 - C234567, C34567, C4567, C567, C67, C7 : same priority (Begin Masked)
 - 123456C, 12345C, 1234C, 123C, 12C, 1C : same priority (End Masked)



How To Compare the CLIP Number – Examples (1)

- CLI is 4504875
 - Index 1 is matched (postfix mask)
450XXXX
4504875
=> 1) The length of digits is same.
2) The first 3 digits(450) are matched.
3) 4875 is masked by XXXX.
 - Index 3 is matched (whole number)
=> 1) The length of digits is same.
2) All digits are matched.
 - Index 7 is matched (end mask)
=> 1) C means any digits.
- Index 3(whole number) > Index 1(postfix) > Index 7(end mask)
- Index 3 is selected

PGM 751	
Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)
1	450XXXX
2	XXX7208551570
3	4504875
4	C570
5	001720C
6	N
7	C
8	



How To Compare the CLIP Number – Examples (2)

- CLI is 0017208551570
 - Index 2 is matched (prefix mask)
 - => 1) The length of digits is same.
 - 2) The first 3 digits(001) are masked by XXX.
 - 3) The remaining digits(7208551570) are matched.
 - Index 4 is matched (begin number)
 - => 1) The length of digits is different.
 - 2) The last 3 digits(570) are matched.
 - 3) C means any digits.
 - So, 0017208551 is masked by C.
 - Index 5 is matched (end mask)
 - => 1) The length of digits is different.
 - 2) The first 6 digits(001720) are matched.
 - 3) C means any digits.
 - So, 8551570 is masked by C.
 - Index 7 is matched (end mask)
 - 1) C means any digits.
 - Index 2 is selected, because the priority is the highest.
- No CLI in a call
 - Index 6 is only matched.
 - NOTE1 : Index 7 is Not matched with NO CLI.
 - To compare with 'C', the compared digits should be longer than 1.
 - NOTE2 : Index 8 is Not matched with NO CLI.
 - NO CLI should be specified by 'N'.

PGM 751

Index	CLIP Number (Max 24 Digits) (0~9, *, #, X, C, N)
1	450XXXX
2	XXX7208551570
3	4504875
4	C570
5	001720C
6	N
7	C
8	

Virtual Subscriber Service (16/19)

Virtual CLI – New CLI for Virtual Subscriber

- The virtual subscriber can use the Virtual CLI table index to make his/her new CLI.
- If Representative CLI Usage is ON(PGM 170-11), the Virtual CLI is Not applied.
- Case 1 (ALL type)
 - Regardless the destination, always makes CLI with the assigned virtual cli table index.
- Case 2 (IND type)
 - Station : The destination is station.
 - Pair of (OG Group, Table Index) : When the destination is routed to the assigned OG CO group, then, Virtual CLI is made according to the assigned virtual cli table index.
 - Others : All cases that the destination is not station and not routed to assigned OG CO group.

PGM 750

Index	DIGIT (Max 24 Digits(0~9,*,#,B,E,X))
1	BXXXEXXXXX
2	765BXXXEX
3	BXXX873EX
4	EXXXBXX00
5	EXXXX
6	450BXXXX
7	

PGM 751

Virtual CLI		Destination (Max 32 Digits)
Type	Og CO Grp (1~72) / Table Index (1~300) [PGM 750]	
ALL	All Cases - Table Index 1	100
IND	Station - Table Index 2	901032178945
	OG Grp 1 - Table Index 1	
	OG Grp 2 - Table Index 7	
	OG Grp 6 - Table Index 3	
	OG Grp - Table Index	
	OG Grp - Table Index	
	OG Grp - Table Index	
	Others - Table Index 5	

PGM 160-3



Virtual CLI Table

- Wild Characters
 - X : any One digit
 - B : From the start
 - E : From the last
- X : any One digit
 - X should be used sequentially.
 - X should be located after B or E.
 - BXXX1234, 1234EXXXX : OK
 - BX, EXXX : OK
 - 123BX, EXXX456 : OK
 - XXXB1234XXE, 12345XX : Not OK
 - 1234XXX890 : Not OK
- B : From the start
 - B can not be used only with itself.
 - After B, X should be located.
 - B can be used only one time.
- E : From the last
 - E can not be used only with itself.
 - After E, X should be located.
 - E can be used only one time.

PGM 750

Index	DIGIT (Max 24 Digits(0~9,*,#,B,E,X))
1	BXXXEXXXXX
2	765BXXXEX
3	BXXX873EX
4	EXXXBXX00
5	EXXXX
6	450BXXXX
7	

Virtual CLI - Example

- Incoming CLI is 0017114504885
- Case 1 (ALL type)
 - According to index 1 of Virtual CLI,
 - BXXX : copy 3 digits from the start → 001
 - EXXXXX : copy 5 digits from the last → 04885
 - The Virtual CLI : 00104885.
- Case 2 (IND type)
 - Station : According to index 2,
 - 765 : copy 765
 - BXXX : copy 3 digits from the start → 001
 - EX : copy 1 digit from the last → 5
 - The Virtual CLI : 7650015.
 - Destination : via OG CO group 6
 - According to index 3,
 - BXXX : copy 3 digits from the start → 001
 - 873 : copy 873
 - EX : copy 1 digit from the last → 5
 - The Virtual CLI : 0018735.

PGM 750	
Index	DIGIT (Max 24 Digits(0~9,*,#,B,E,X))
1	BXXXEXXXXX
2	765BXXXEX
3	BXXX873EX
4	EXXXBXX00
5	EXXXX
6	450BXXXX
7	

PGM 751		
Virtual CLI		Destination (Max 32 Digits)
Type	Og CO Grp (1~72) / Table Index (1~300) [PGM 750]	
ALL <input checked="" type="checkbox"/>	All Cases - Table Index 1	100
	Station - Table Index 2	
	OG Grp 1 - Table Index 1	
	OG Grp 2 - Table Index 7	
	OG Grp 6 - Table Index 3	
	OG Grp - Table Index	
	OG Grp - Table Index	
	OG Grp - Table Index	
IND <input checked="" type="checkbox"/>	Others - Table Index 5	

Virtual CLI - Example

- Incoming CLI is 0017114504885
- Case 2 (IND type)
 - Destination : via OG CO group 2
 - Virtual CLI : Index 7
 - No digits in the index 7 → Virtual CLI is not applied.
 - The original CLI is used.
 - The Virtual CLI : 0017114504885.

PGM 750	
Index	DIGIT (Max 24 Digits(0~9,*,#,B,E,X))
1	BXXXEXXXXX
2	765BXXXEX
3	BXXX873EX
4	EXXXBXX00
5	EXXXX
6	450BXXXX
7	

PGM 751		Destination (Max 32 Digits)
Virtual CLI		
Type	Og CO Grp (1~72) / Table Index (1~300) [PGM 750]	
ALL <input checked="" type="checkbox"/>	All Cases - Table Index <input type="text" value="1"/>	<input type="text" value="100"/>
	Station - Table Index <input type="text" value="2"/>	
	OG Grp <input type="text" value="1"/> - Table Index <input type="text" value="1"/>	
	OG Grp <input type="text" value="2"/> - Table Index <input type="text" value="7"/>	
	OG Grp <input type="text" value="6"/> - Table Index <input type="text" value="3"/>	
	OG Grp <input type="text"/> - Table Index <input type="text"/>	
	OG Grp <input type="text"/> - Table Index <input type="text"/>	
	OG Grp <input type="text"/> - Table Index <input type="text"/>	
	Others - Table Index <input type="text" value="5"/>	
IND <input checked="" type="checkbox"/>		