

iPECS eMG80 System Installation

(iPECS-eMG80_SW-TRA-01-002)

11 July, 2013

REVISION HISTORY

ISSUE	DATE	DESCRIPTION OF CHANGES
0.1	09-JUL-13	Preliminary release
0.2	11-July-13	Domestic Training

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DIP switch

Mode Switch

Switch		Function	On	Off
MODE	1	Database Write Protect	Protect (Cannot modify)	Unprotect (Can modify)
	2	Initialization	Initialize DB on reset	Read stored DB on reset

Install wizard

step 0

- Connect LAN cable between PC and eMG80(MPB)
- Add the second IP address("10.10.10.2xx") on your PC to connect eMG80.
or
- Change MPB IP address as below.

Maint>ns hi xxx.xxx.xxx.xxx (set MPB IP address)

Maint>ns hg xxx.xxx.xxx.xxx (set MPB default gateway address)

Maint>ns hm xxx.xxx.xxx.xxx (set MPB net mask)

Maint>ns cs xxx.xxx.xxx.xxx (set system private IP start address)

Maint>ns ce xxx.xxx.xxx.xxx (set system private IP end address)

Maint>ns cm xxx.xxx.xxx.xxx (set system private IP net mask)

Install wizard

step 0

Enter default web admin ID(admin) and Password (1234)

iPECS eMG80 Web Admin x

https://192.168.123.187

iPECS
iPECS eMG80

User ID:

Password:

Login

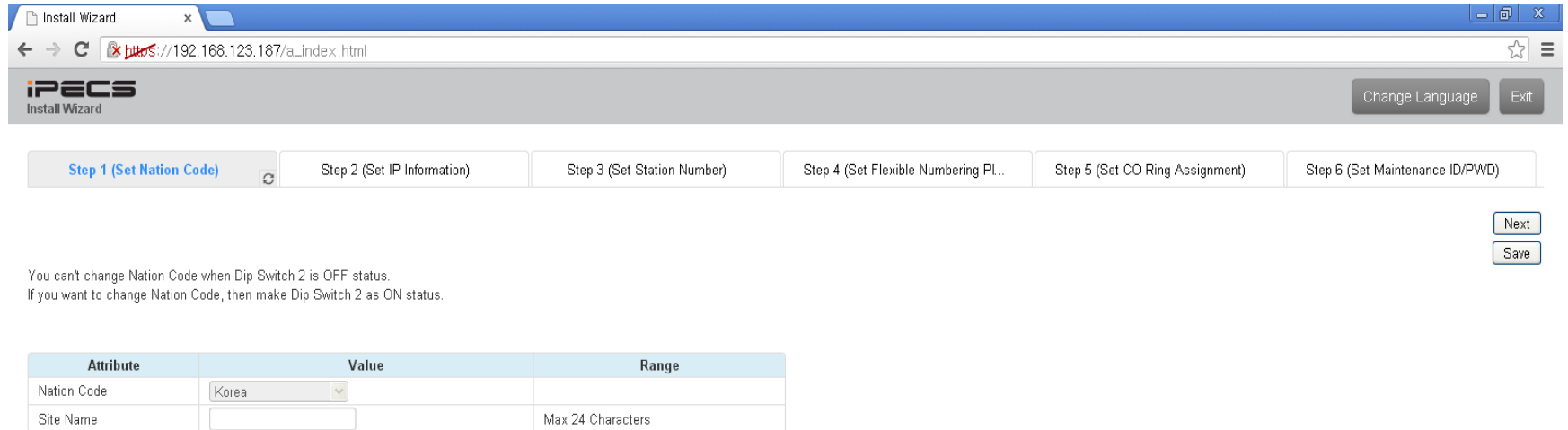
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Install wizard

step 1

- Set nation code and site name



Install Wizard

https://192.168.123.187/a_index.html

ipecs
Install Wizard

Change Language Exit

Step 1 (Set Nation Code) Step 2 (Set IP Information) Step 3 (Set Station Number) Step 4 (Set Flexible Numbering PL.. Step 5 (Set CO Ring Assignment) Step 6 (Set Maintenance ID/PWD)

Next
Save

You can't change Nation Code when Dip Switch 2 is OFF status.
If you want to change Nation Code, then make Dip Switch 2 as ON status.

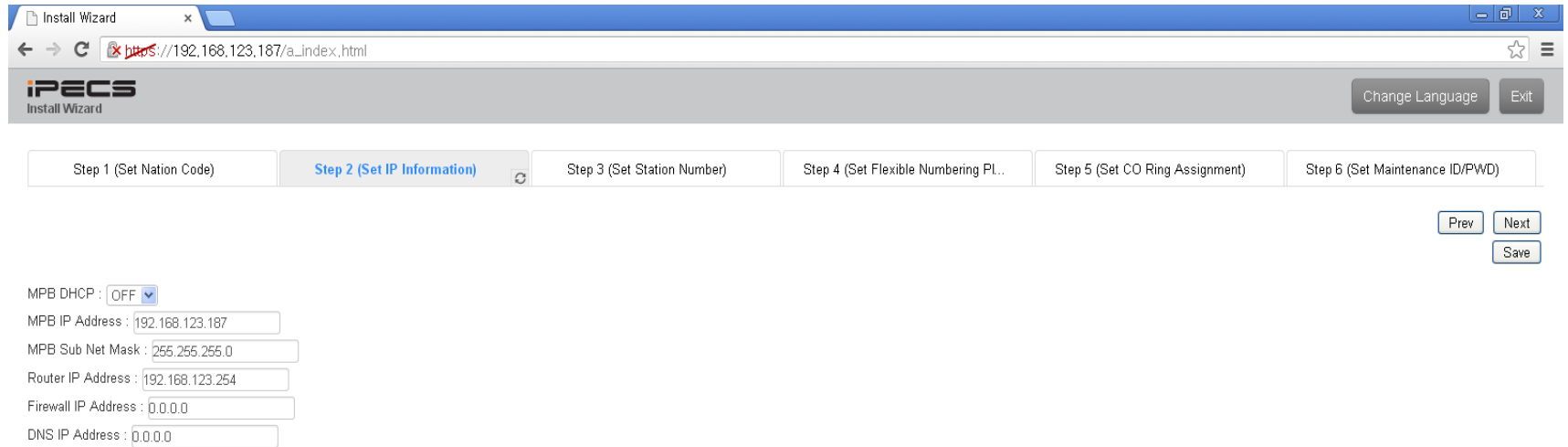
Attribute	Value	Range
Nation Code	Korea	
Site Name		Max 24 Characters

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Install wizard

step 2

- Set system(MPB) IP address



Install Wizard

https://192.168.123.187/a_index.html

iPECS
Install Wizard

Change Language Exit

Step 1 (Set Nation Code) **Step 2 (Set IP Information)** Step 3 (Set Station Number) Step 4 (Set Flexible Numbering PL..) Step 5 (Set CO Ring Assignment) Step 6 (Set Maintenance ID/PWD)

Prev Next
Save

MPB DHCP : OFF

MPB IP Address : 192.168.123.187

MPB Sub Net Mask : 255.255.255.0

Router IP Address : 192.168.123.254

Firewall IP Address : 0.0.0.0

DNS IP Address : 0.0.0.0

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Install wizard

step 3

- Set Station number

Install Wizard

https://192.168.123.187/a_index.html

ipecs
Install Wizard

Change Language Exit

Step 1 (Set Nation Code) Step 2 (Set IP Information) **Step 3 (Set Station Number)** Step 4 (Set Flexible Numbering PL.. Step 5 (Set CO Ring Assignment) Step 6 (Set Maintenance ID/PWD)

Enter Station Index Range (1 - 140) : ? Load

Station Index Range 1-50

Multiple Station Number to change

☐ Enter Ordering Range : - Start Station Number :

Range Save

Index ^{1a}	Station Number ^{1a}	IP Address ^{1a}	MAC Address ^{1a}	New Station Number
1	100	192.168.123.187	b40edc281c32	<input type="text" value="100"/>
2	101	192.168.123.187	b40edc281c32	<input type="text" value="101"/>
3	102	192.168.123.187	b40edc281c32	<input type="text" value="102"/>
4	103	192.168.123.187	b40edc281c32	<input type="text" value="103"/>
5	104	192.168.123.187	b40edc281c32	<input type="text" value="104"/>
6	105	192.168.123.187	b40edc281c32	<input type="text" value="105"/>
7	106	192.168.123.187	b40edc281c32	<input type="text" value="106"/>
8	107	192.168.123.187	b40edc281c32	<input type="text" value="107"/>
9	108	192.168.123.187	b40edc281c32	<input type="text" value="108"/>
10	109	192.168.123.187	b40edc281c32	<input type="text" value="109"/>
11	110	192.168.123.187	b40edc281c32	<input type="text" value="110"/>
12	111	192.168.123.187	b40edc281c32	<input type="text" value="111"/>
13	112	192.168.123.187	b40edc281c32	<input type="text" value="112"/>
14	113	192.168.123.187	b40edc281c32	<input type="text" value="113"/>

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Install wizard

step 4

- Set numbering pan for CO access, attendant call, pickup, hunt group

Order	Attribute	Value
1	Access CO In First CO Group	9
2	Attendant Call	0
3	Direct Call Pick-Up	*77
4	Station Group Pilot Number	*401 - *440

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Install wizard

step 5

- Set ring assignment

Install Wizard

[←](#)
[→](#)
[↻](#)
[https://192.168.123.187/a_index.html](#)

☆

☰

ipecs

Install Wizard

Change Language

Exit

Step 1 (Set Nation Code)

Step 2 (Set IP Information)

Step 3 (Set Station Number)

Step 4 (Set Flexible Numbering PL..)

Step 5 (Set CO Ring Assignment)

Step 6 (Set Maintenance ID/PWD)

Prev

Next

Save

Check All	Attribute	Value	Range	Station Delay Value [Station:Delay]
<input type="checkbox"/>	Day	<input checked="" type="radio"/> Station Range Range : <input type="text"/> - <input type="text"/> Delay : <input type="text"/>	0~9	[100:0]
<input type="radio"/> Hunt Group		<input type="text"/>		
<input type="radio"/> VSF		Announcement : <input type="text"/> Auto Drop : <input type="checkbox"/>	0~70	
<input type="radio"/> AA Ring Time		<input type="text"/>	0~30	
<input type="radio"/> Net Station		<input type="text"/>		
<input type="checkbox"/>	Night	<input checked="" type="radio"/> Station Range Range : <input type="text"/> - <input type="text"/> Delay : <input type="text"/>	0~9	[100:0]
<input type="radio"/> Hunt Group		<input type="text"/>		
<input type="radio"/> VSF		Announcement : <input type="text"/> Auto Drop : <input type="checkbox"/>	0~70	
<input type="radio"/> AA Ring Time		<input type="text"/>	0~30	
<input type="radio"/> Net Station		<input type="text"/>		
<input type="checkbox"/>	Timed Ring	<input checked="" type="radio"/> Station Range Range : <input type="text"/> - <input type="text"/> Delay : <input type="text"/>	0~9	[100:0]
<input type="radio"/> Hunt Group		<input type="text"/>		
<input type="radio"/> VSF		Announcement : <input type="text"/> Auto Drop : <input type="checkbox"/>	0~70	

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Install wizard

step 6

- Set web admin ID and password default ID/Password could not be used

Install Wizard

https://192.168.123.187/a_index.html

iPECS
Install Wizard

Change Language Exit

Step 1 (Set Nation Code) Step 2 (Set IP Information) Step 3 (Set Station Number) Step 4 (Set Flexible Numbering PL.. Step 5 (Set CO Ring Assignment) **Step 6 (Set Maintenance ID/PWD)**

Prev Finish Save

Add User

User ID	<input type="text"/>	Max 16 Characters & Digits English Only / First letter must be Alphabet
Password	<input type="password"/> <input type="checkbox"/> Show Password	Max 16 Characters & Digits

User List

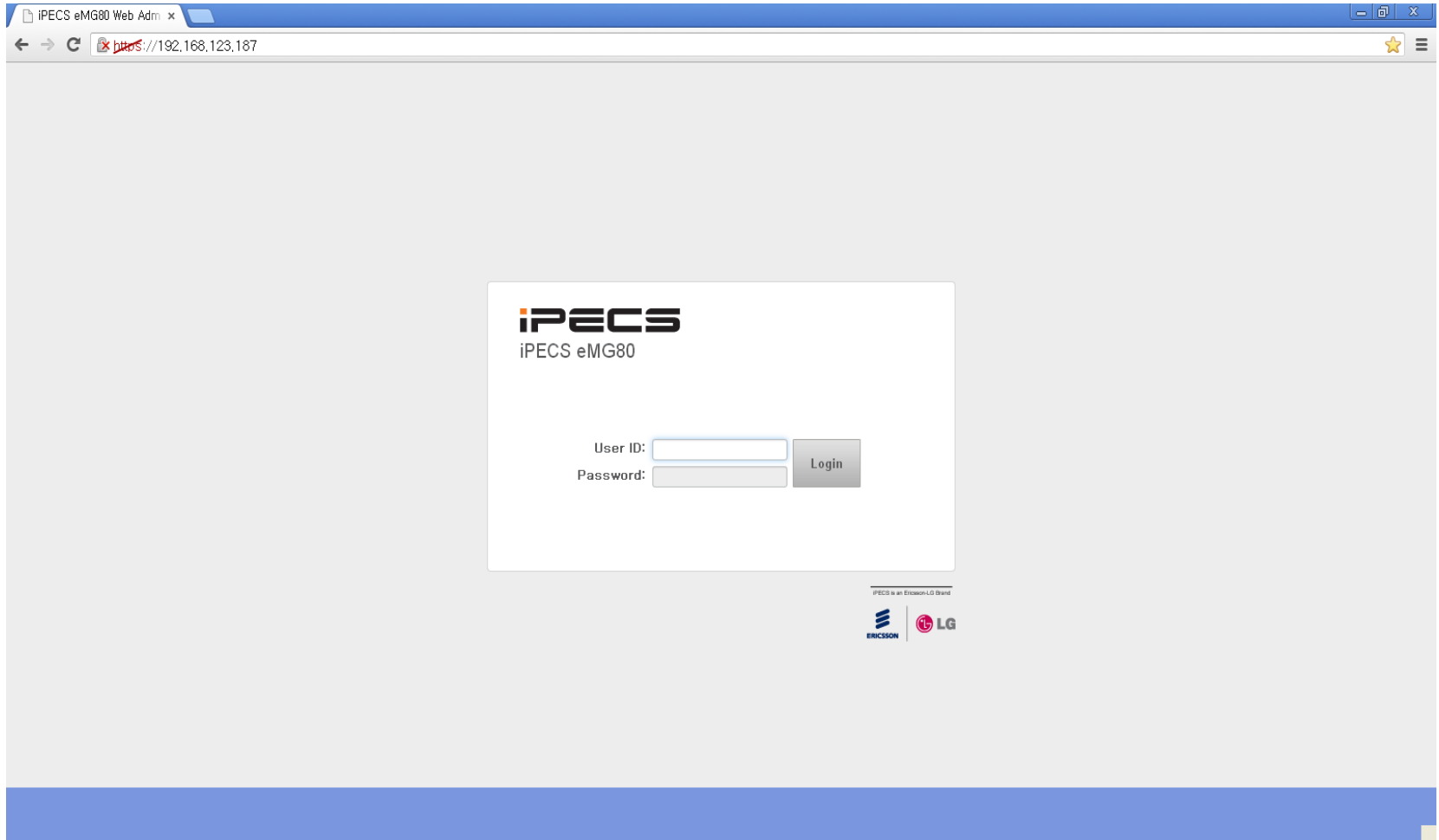
User ID	Privilege
---------	-----------

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Install wizard

step 7

- Enter system admin using saved ID and password in step 6



The screenshot shows a web browser window with the title "iPECS eMG80 Web Admin". The address bar displays "https://192.168.123.187". The main content area is a light gray background with a white login box in the center. The login box contains the iPECS logo and the text "iPECS eMG80". Below this, there are two input fields: "User ID:" and "Password:". To the right of the "Password:" field is a "Login" button. At the bottom right of the login box, there is a small text "iPECS is an Ericsson-LG Brand" and the logos for Ericsson and LG.

IP address

Set system

PECS
PECS eMG80

Administration Maintenance

PGM Search

System ID & Numbering Plans

- System ID(100)
- System Overview
- Device Port Num Change(101)
- > System&Device IP(102~103)
- CO Device Sequence Number(104)
- Flexible Station Number(105)
- Flexible Numbering Plan(106~109)
- 8 Digit Table(238)

Station Data

Board Based Data

CO Line Data

System Data

Favorite PGM System&Device IP(102~103) x

MPB DHCP : OFF

MPB IP Address : 192.168.123.187

MPB Sub Net Mask : 255.255.255.0

Router IP Address : 192.168.123.254

System IP Range : 10.123.187.10 - 10.123.187.254

System Sub Net Mask : 255.255.255.0

Automatic IP Assign : ON

Second System IP Address : 0.0.0.0

Second System Net Mask : 255.255.255.0

Firewall IP Address : 0.0.0.0

First MAC Range : 000000000000 - 000000000000

Second MAC Range : 000000000000 - 000000000000

DNS IP Address : 0.0.0.0

System IP Range : MFIM think that this ranged is included to System IP. And so, MFIM can consider to Local IP.
If a station has 10.123.59.125, System can consider ARP off and Multicast ON by default.

Second System IP Address & Net Mask : If there is another range for system IP, you can assign Second system IP address and Net Mask.

Registration

Local IP device

The screenshot shows the IPECS eMG80 Web Admin interface. The browser address bar displays `https://192.168.123.187/a_index.html`. The interface includes a top navigation bar with 'Administration' and 'Maintenance' tabs, and a left sidebar with a menu of system data and tables. The 'Registration Table(235)' is selected in the sidebar and also in the top navigation bar. The main content area displays a table with 5 rows and 4 columns: Index, MAC Address, Maximum Port, and Device ID. The table contains the following data:

Index	MAC Address	Maximum Port	Device ID
1	001a7ea44b28	1	0
2	00405a157c9e	1	0
3	b40edc281848	1	0
4	000000000000	0	0
5	000000000000	0	0

Below the table, there is a 'Save' button. The footer of the interface displays 'Copyright Ericsson-LG Co., Ltd. 2013.'

Register IP phone or IP gateway using registration table (PGM235)

Registration

SIP phone and Mobile application

iPECS eMG80 Web Admin

192.168.123.187/a_index.html

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iPECS eMG80 Administration Maintenance Change Language Log Out

PGM Search

System ID & Numbering Plans

Station Data

Board Based Data

CO Line Data

System Data

Station Group Data

ISDN Line Data

SIP Data

Tables Data

Networking Data

Zone Data

Device Login

Remote device Register(442)

> Station User Login(443)

DECT Data

Green Mode

Initiation

Favorite PGM System&Device IP(102~103) Registration Table(235) Station User Login(443) System Attributes(160~161)

Enter Index Range (1 - 140) : Load Save

Index Range 1-10

ID / Desired Number Save

Enter Index Range : -

Start Station Number :

Save Password (same with ID value) : ☐

ID Save

Index	Registered Number	Linked	Version	ID	Password	Zone	Desired Number	Nation Code	Language	Remark
1				1	*****	1		Korea	Korean	
2				150	*****	1	150	Korea	Korean	
3				151	*****	1	151	Korea	Korean	
4						1		Korea	Korean	
5						1		Korea	Korean	
6						1		Korea	Korean	
7						1		Korea	Korean	
8						1		Korea	Korean	
9						1		Korea	Korean	
10						1		Korea	Korean	

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Register SIP phone or mobile phone and application (PGM443)

Registration

DECT phone

iPECS eMG80 Web Admin x

← → ↻ https://192.168.123.187/a_index.html ☆ ≡

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iPECS
iPECS eMG80

Administration Maintenance Change Language Log Out

PGM Search

System ID & Numbering Plans

Station Data

Board Based Data

CO Line Data

System Data

Station Group Data

ISDN Line Data

SIP Data

Tables Data

Networking Data

Zone Data

Device Login

DECT Data v

> [DECT Registration\(0#\)](#)

DECT Attributes(491)

Green Mode

Initialization

Favorite PGM System&Device IP(102~103) x Registration Table(235) x Station User Login(443) x System Attributes(160~161) x [DECT Registration\(0#\)](#) x

Save

Attribute	Value	Comment
<input type="radio"/> Park Code	NOT PROGRAMMED	
<input type="radio"/> AC Code	1111	
<input type="radio"/> DECT Subscribe All Data Erase Password		
Option		
<input type="radio"/> DECT Subscribe enable	Desired Station Phone Type 130 5 (GDC-5xx) v	subscribe enable
<input type="radio"/> DECT Unsubscribe	Desired Station	
<input type="radio"/> DECT User Authentication	Desired Station	
<input type="radio"/> DECT Mobility	Desired Station DECT Mobility ON/OFF OFF v write	
<input type="radio"/> Station Erase	Desired Station	

DECT Registered Station		
Order	Station	Registration Status

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Registration

Remote IP device

iPECS eMG80 Web Admin x

← → ↻ https://192.168.123.187/a_index.html ☆ ≡

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iPECS
iPECS eMG80

[Administration](#) [Maintenance](#) [Change Language](#) [Log Out](#)

PGM Search

System ID & Numbering Plans

Station Data

Board Based Data

CO Line Data

System Data

Station Group Data

ISDN Line Data

SIP Data

Tables Data

Networking Data

Zone Data

Device Login ▾

> [Remote device Register\(442\)](#)

Station User Login(443)

DECT Data

Green Mode

Initialization

Remote device Register(442) x ↺

Enter Index Range (1 - 70) : ? [Load](#) [Save](#)

Index Range 1-10

Index	MAC Address	Password	Zone	Nation Code	Remark
1	001A7EA6A12F	<input type="text"/>	1	Korea ▾	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
8	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>
10	<input type="text"/>	<input type="text"/>	1	Korea ▾	<input type="text"/>

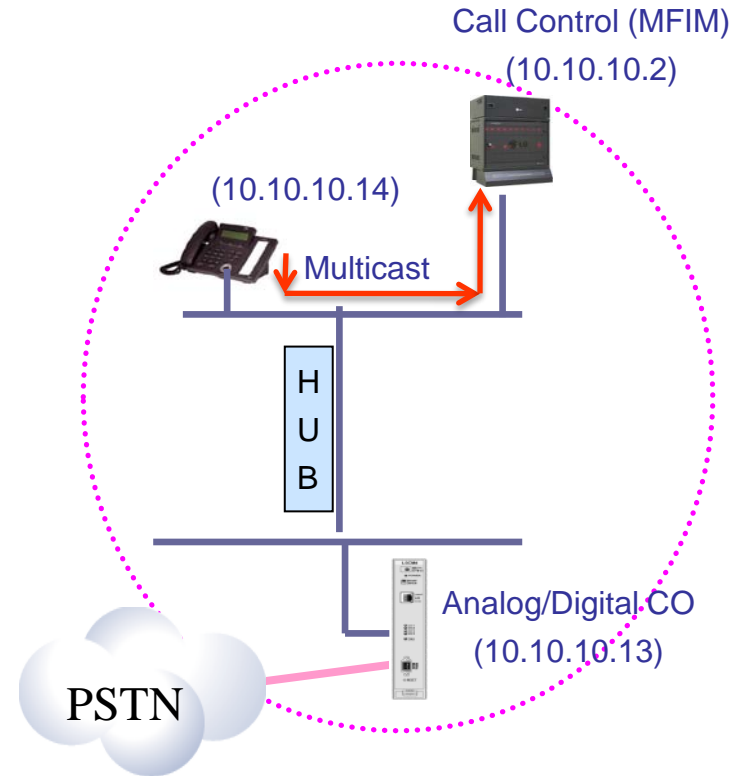
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Registration Mode

Local

Local - No Router Equipped

1. Device Plug ON
2. You can press TRANS button for fast register in IP Phone.
3. Or >reg multi in maint mode of gateway.
4. If there are many Devices, you can preprogram in Off line web admin for ordering register.

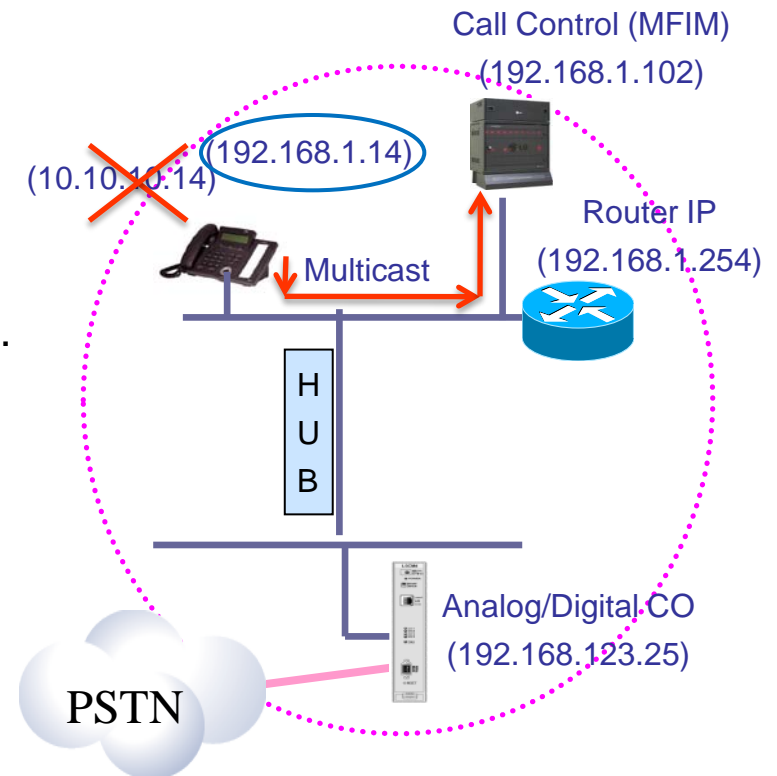


Registration Mode

Local

Local - Router Equipped

1. I recommend that you should not use IP that is not assigned by Network manager. **Some IP manager server can protect the unknown IP.**
2. If there are many Devices, you can preprogram in Off line web admin for ordering register. Or, PGM 235, Mac register in case of small devices.
3. Device Plug IN.
4. You can press TRANS button for fast register in IP Phone.
5. Or >reg multi in maint mode of gateway.



Registration Mode

Local-Remote

- Local-Remote : We defined that it's located remote but has own IP known by routers. And so, it's included as Local. We consider that it's same as VPN.

Board Based Data

Board Base Attributes(132)

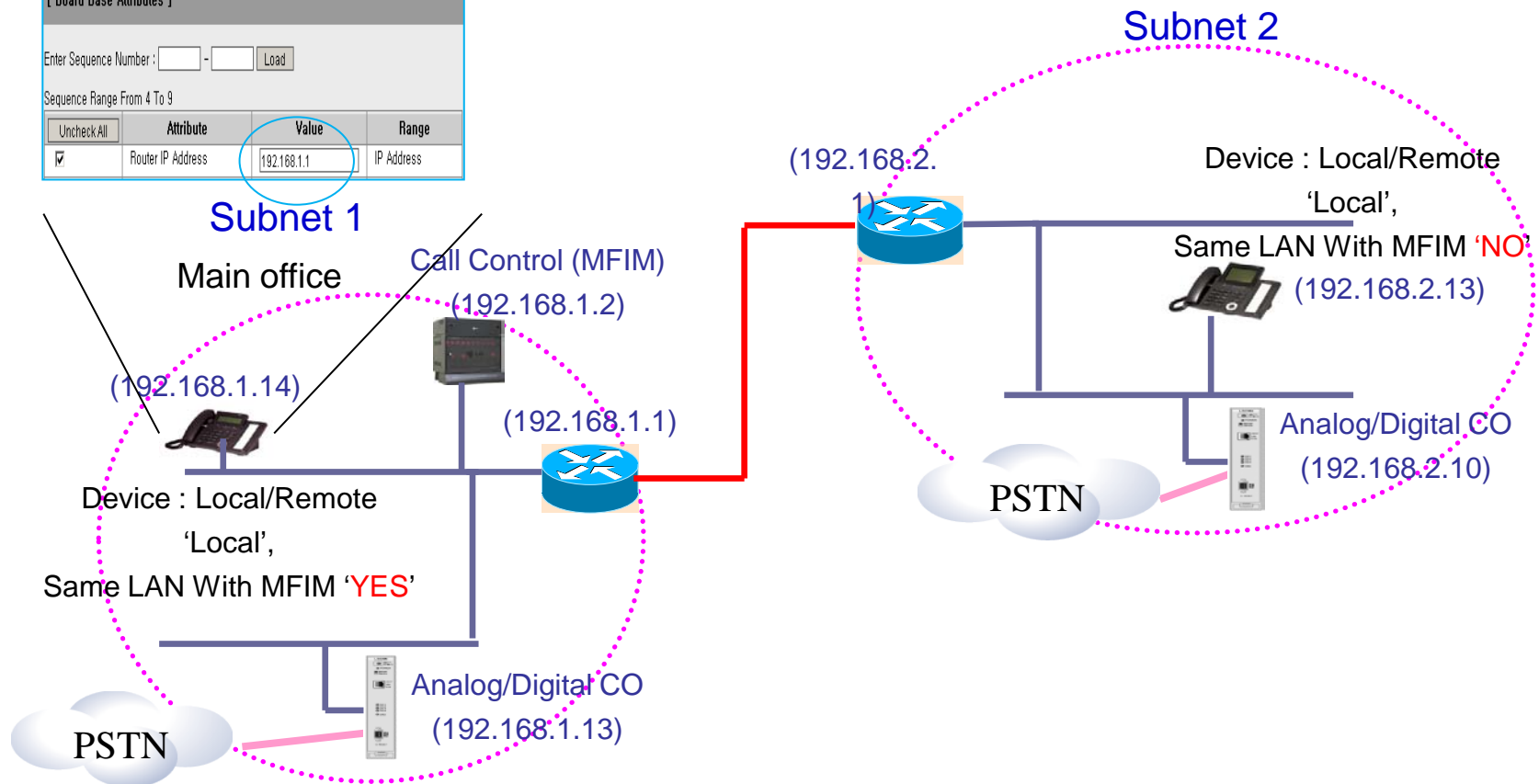
[Board Base Attributes]

Enter Sequence Number : -

Sequence Range From 4 To 9

Uncheck All	Attribute	Value	Range
<input checked="" type="checkbox"/>	Router IP Address	192.168.1.1	IP Address

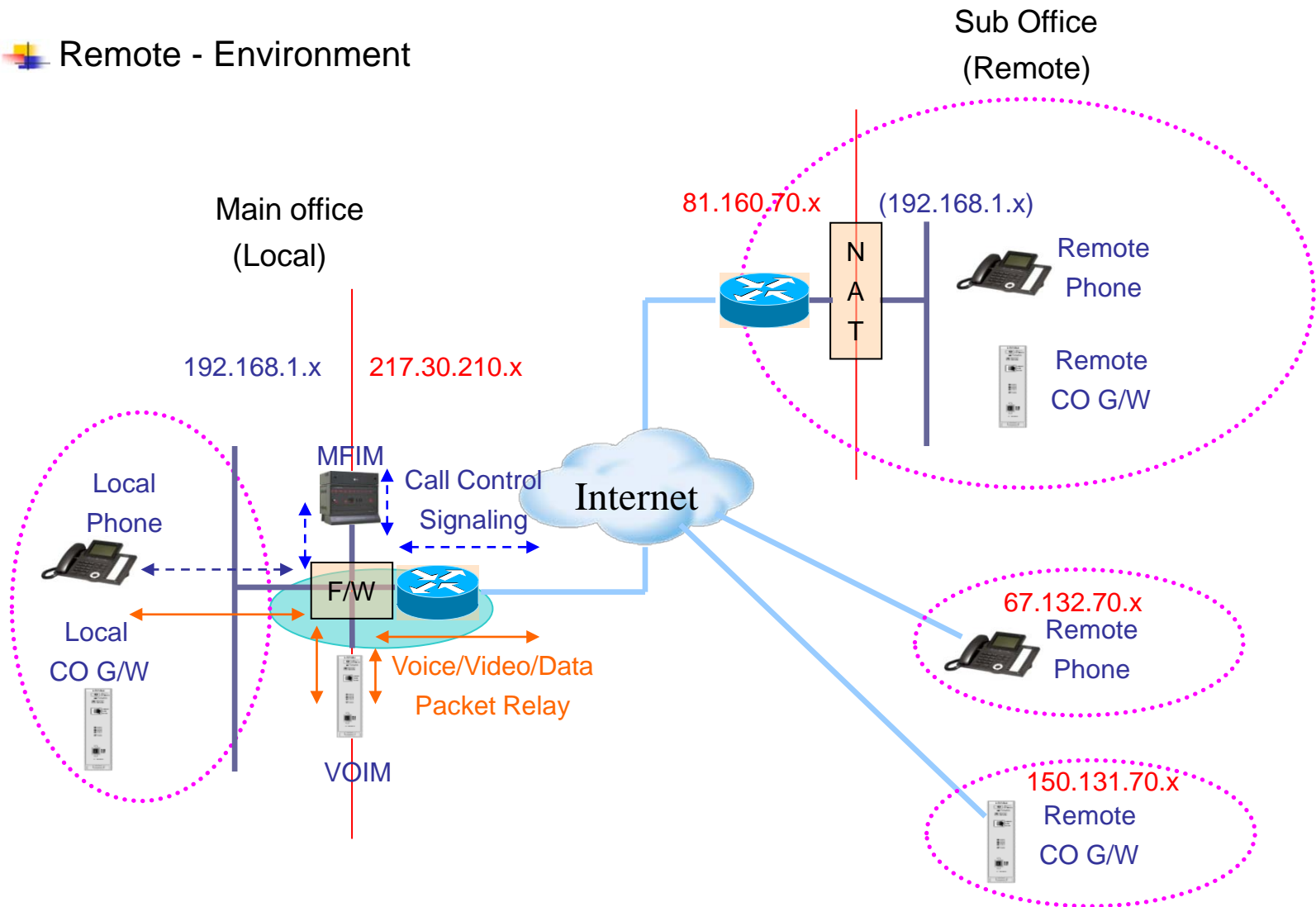
In local device, it's very important to set ADM 132.



Registration Mode

Remote

Remote - Environment



Registration Mode

Remote

Remote – Signaling Communication

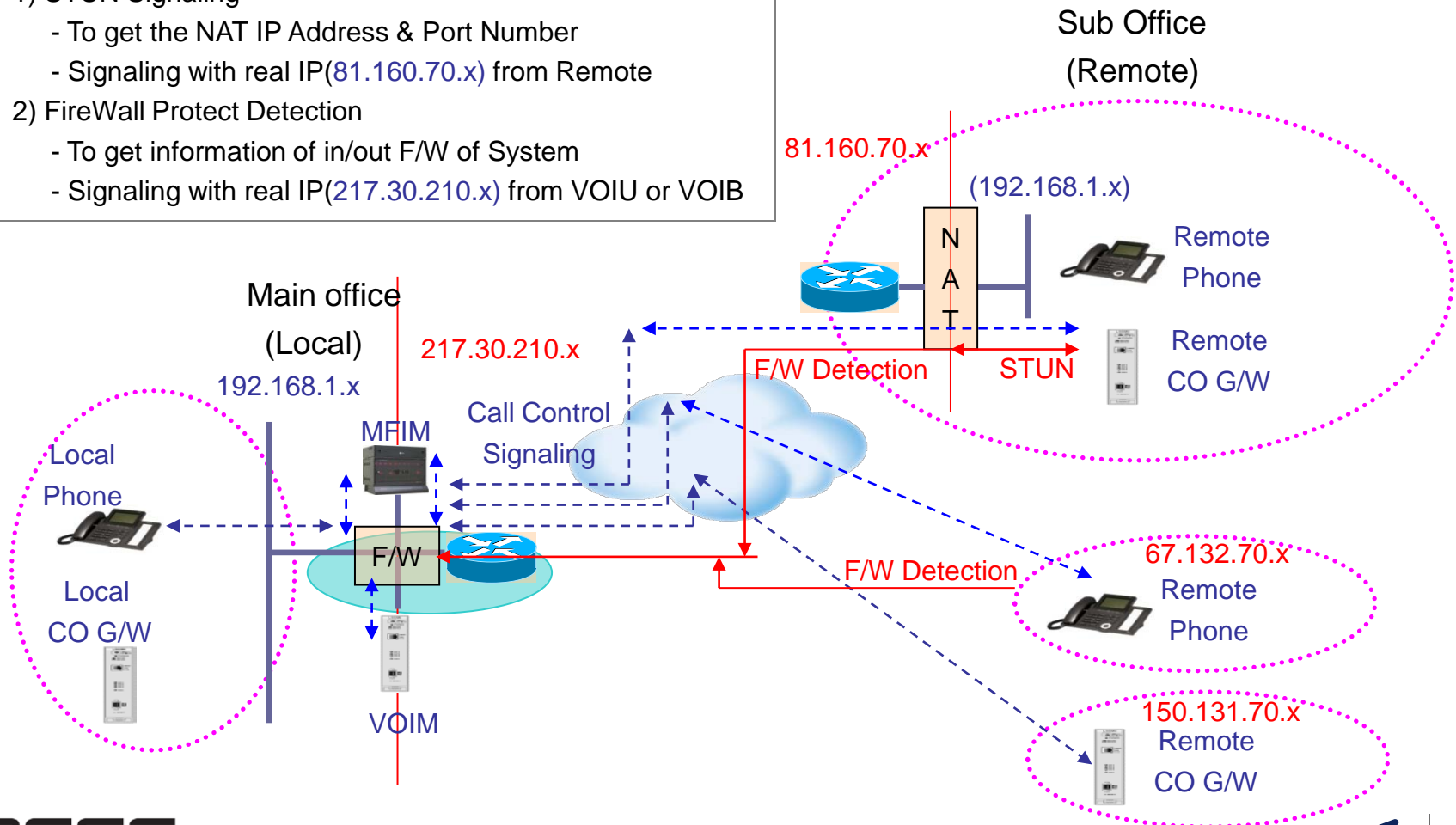
☞ Automatic from Remote when Register to System

1) STUN Signaling

- To get the NAT IP Address & Port Number
- Signaling with real IP(81.160.70.x) from Remote

2) FireWall Protect Detection

- To get information of in/out F/W of System
- Signaling with real IP(217.30.210.x) from VOIU or VOIB



Registration Mode

Remote

Remote - RTP Packet Relay via VoIP

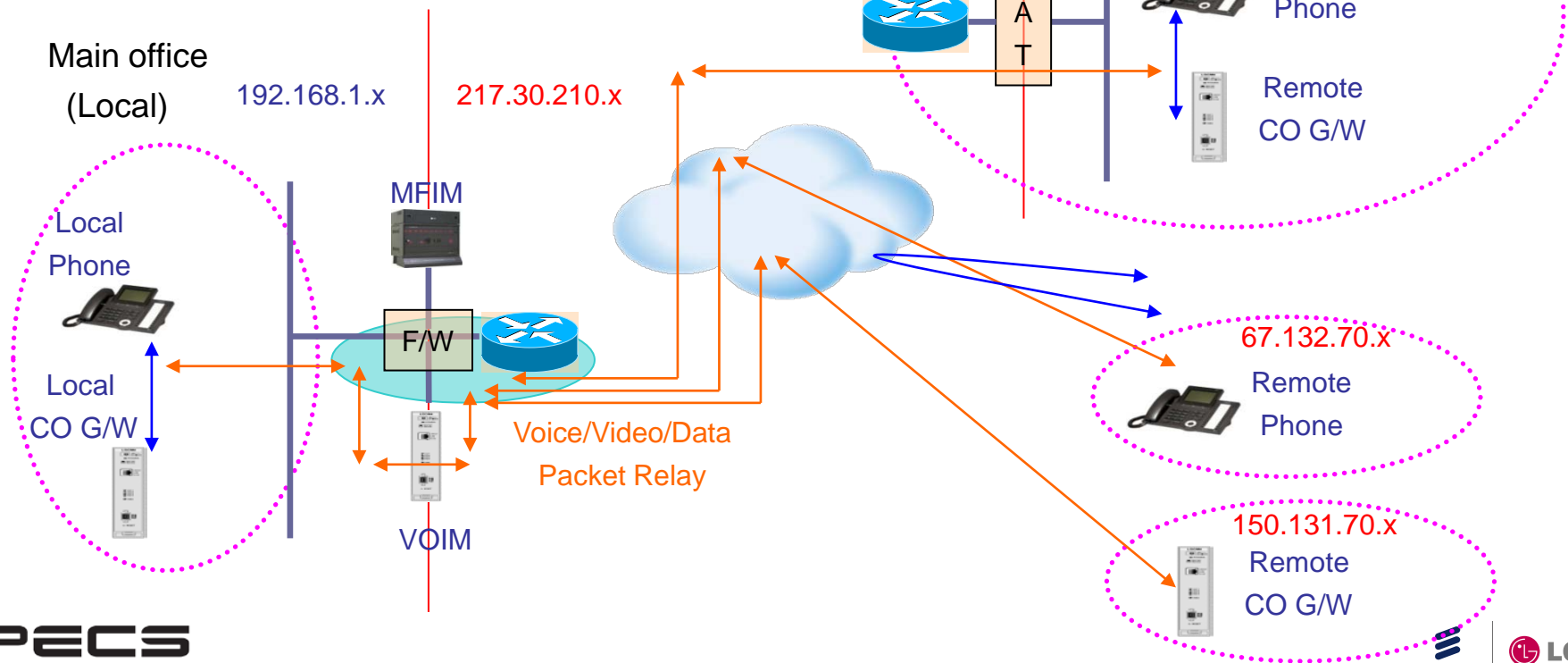
Automatic or by Programming

1) Direct Communication

- Between Local and Local
- Between Remote and Remote (same site or non-NAT)

2) RTP packet Relay via VoIP module of system side

- Between Local and Remote
- Between Remote and Remote in (different site & NAT)



Registration Mode

Remote

Remote – Registration

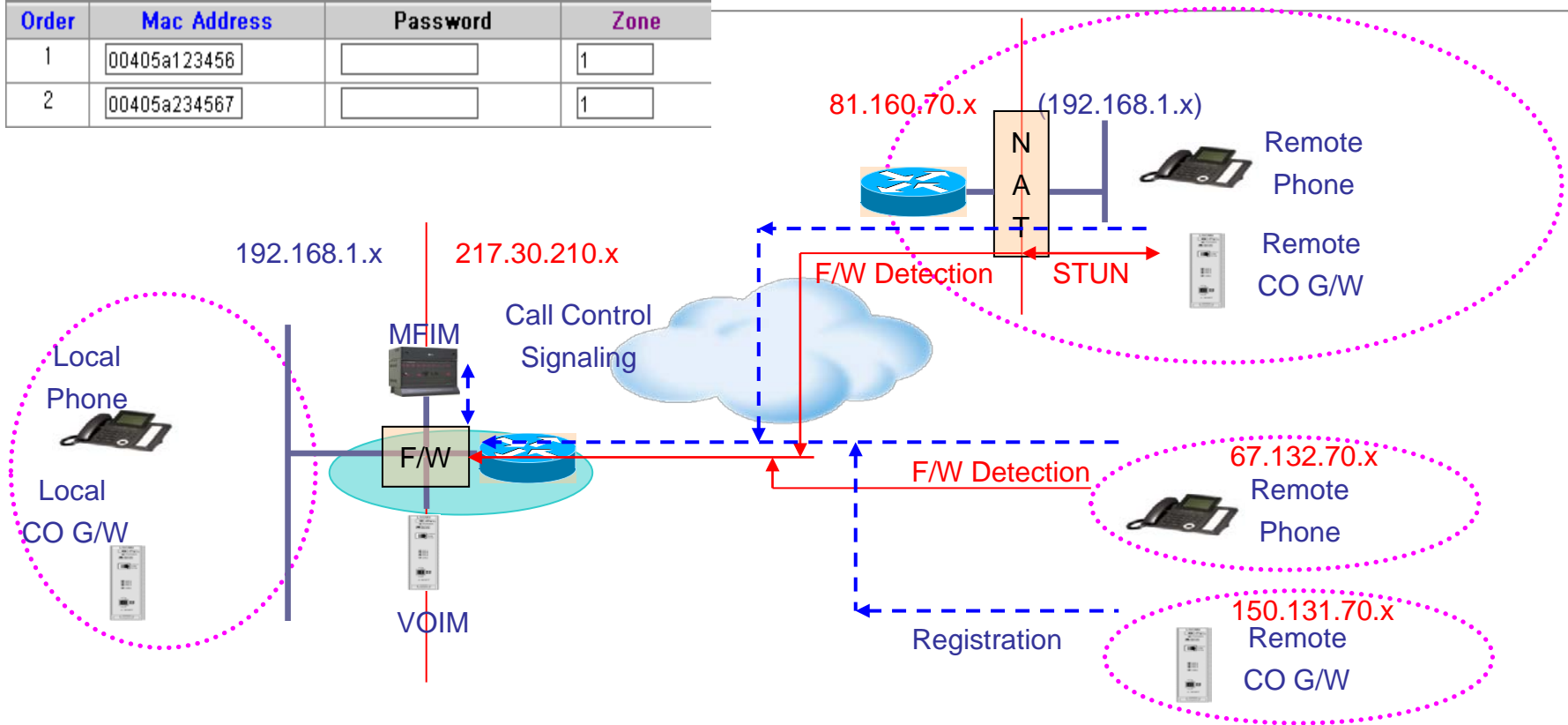
Device Login			
Remote device Register(442)			
Order	Mac Address	Password	Zone
1	00405a123456		1
2	00405a234567		1

Authorization for the 1st Registration

- Table is automatically initialized when Registration is completed

Remote Mode Device Feature : Automatic self STUN and F/W Detection

- get Internet IP(NAT IP, 81.160.70.x) of Remote Device
- determine MFIM IP : inside (192.168.1.x) or outside(217.30.210.x) ?



Remote – Remote Device Self Programming. Setting 'Remote' has high priority whether it's same LAN or not.

Network Configuration

Serial

Command (View Network Resources)

Command (Set Network Resources)

```
main> nr view
```

```
Registration Mode : Local Mode
IP Mode           : Fixed Mode
ip address        : 10.64.64.11
subnet mask       : 255.255.255.0
gateway address   : 0.0.0.0
mfip gateway address : 150.150.150.64
vlan tag          : N/A
priority tag      : N/A

mac address       : 00:40:5a:14:2b:a9
```

```
main> nr set
```


```
Mode(1:Local/2:LocalRemote/3:Remote) : 2
DHCP (Y/N)                             : N
IP Address                             : 192.168.150.54
GATEWAY                                : 192.168.150.254
SUBNET MASK                            : 255.255.255.0
MFIM IP Address                        : 150.150.150.64
VLAN TAG (0~4094|del)                  : N/A
PRIORITY TAG (0~7|del)                  : N/A
```

```
[Network Configuration]
REGISTRATION MODE : LOCAL REMOTE
IP MODE           : FIXED
IP Address        : 192.168.150.54
GATEWAY           : 192.168.150.254
SUBNET MASK       : 255.255.255.0
MFIM IP Address   : 150.150.150.64
VLAN TAG (0~4094) : N/A
PRIORITY TAG (0~7) : N/A
```

```
SAYE&RESET(S) or IGNORE&EXIT(I)?
```

Network Configuration WEB

LAN Settings



SLTM8

[Home](#)
[LAN](#)
[System](#)
[Security](#)
[Upload](#)
[Reset](#)
[Logout](#)

[LAN Status](#) **[LAN Settings](#)** [VLAN](#) [DiffServ](#) [Network Jitter](#)

LAN Configuration

☐ Use DHCP to obtain LAN configuration

☒ Specify fixed LAN configuration

IP Address:

IP Netmask:

IP Gateway:

Set Remote : ☐ Remote ☒ Local

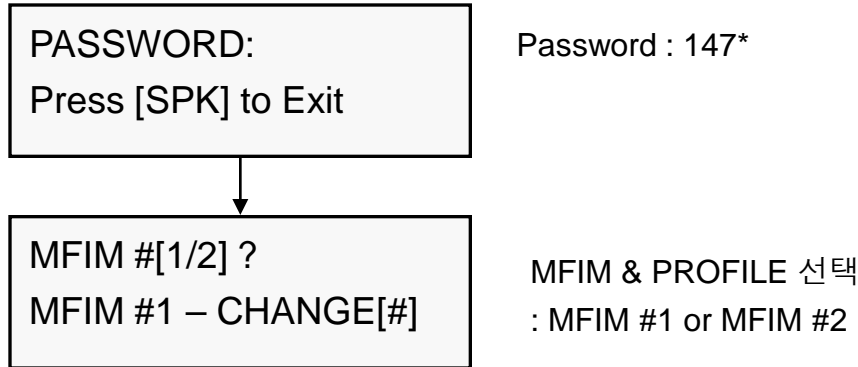
Same LAN with MFIM : ☐ Yes ☒ No

User can assign network resources like DHCP mode, IP Address, VLAN etc.

Network Configuration

Phone

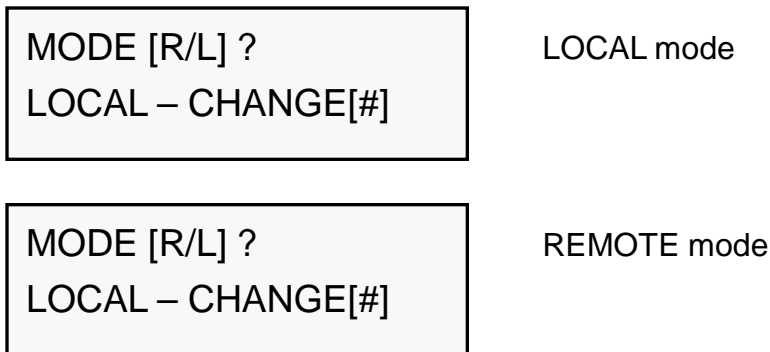
1) Input Password & Profile selection



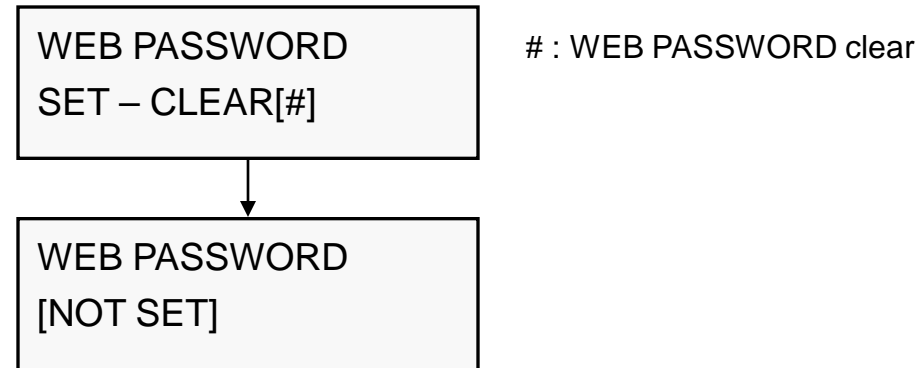
Password : 147*

MFIM & PROFILE 선택
: MFIM #1 or MFIM #2

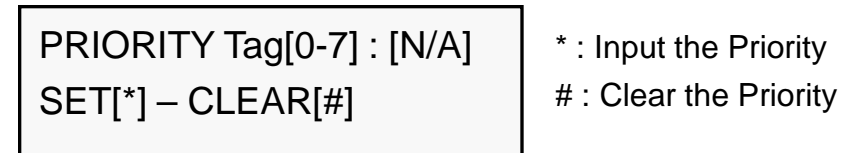
2) REMOTE/LOCAL MODE



3) WEB PASSWORD clear



4) Input Priority



Network Configuration

Phone-Vlan Tag

5) Input VLAN Tag

VLAN Tag[1-4094] : [N/A]
SET[*] – CLEAR[#]

* : Input the VLAN Tag
(1~4094)
: Clear the VLAN Tag

7) Input PCVLAN Tag

PCVLAN Tag[1-4094] : [N/A]
SET[*] – CLEAR[#]

* : Input the PC port's VLAN Tag (1~4094)
: Clear the PC port's VLAN Tag

6) Input PC Port's Priority

PC PRIORITY Tag[0-7] : [N/A]
SET[*] – CLEAR[#]

* : Input the Priority
: Clear the Priority

8) DHCP Enabled/Disabled

DHCP ?
[ENABLED] – CHANGE[#]

DHCP ENABLED

DHCP ?
[DISABLED] – CHANGE[#]

DHCP DISABLED

Network Configuration

Phone-LAN

9) Input DEVICE Number

INPUT DEVICE NUMBER:



INPUT DEVICE NUMBER:
Device Number:100

Input the DEVICE Number



INPUT DEVICE NUMBER:
Device Number:100

HOLD/SAVE KEY : Save the Device Number

10) SAME LAN with MFIM ?

SAME LAN WITH MFIM ?
[YES] – CHANGE[#]

SAME LAN WITH MFIM ?
[NO] – CHANGE[#]

11) Input MFIM's IP ADDRESS

MFIM #1 IP
ADDRESS(DOT:*)
10.10.10.2

Network Configuration

Phone-LAN

12) Input Gateway's IP ADDRESS

```
ROUTER #1 IP  
ADDRESS(DOT:*)  
0.0.0.0
```

13) Input Phone's IP ADDRESS

```
PHONE #1 IP  
ADDRESS(DOT:*)  
10.10.10.10
```

14) Input NETMASK ADDRESS

```
PHONE #1  
NETMASK(DOT:*)  
255.255.255.0
```

15) Display Phone's MAC Address

```
MAC ADDRESS  
00:40:5a:xx:xx:xx
```

Display Phone's MAC Address

16) Set Default configuration Setting

```
SET DEFAULT  
CONFIG(DOT:*)
```

If want to default set, press '*'.

iPECS

Your Communications Solution