

SCM Configuration Guide for WE VolP

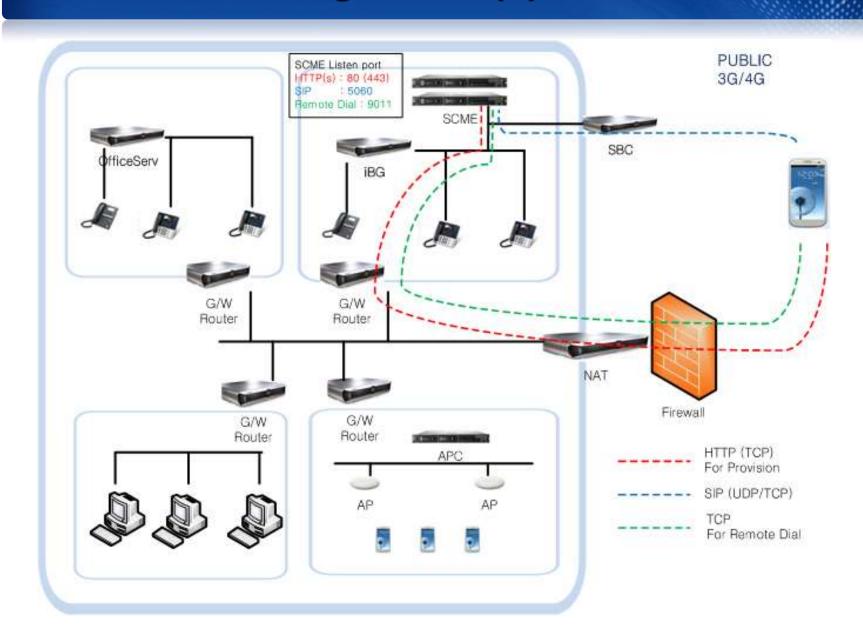
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- Chapter3. Smart Routing
- Chapter4. Inter SCME Smart Routing
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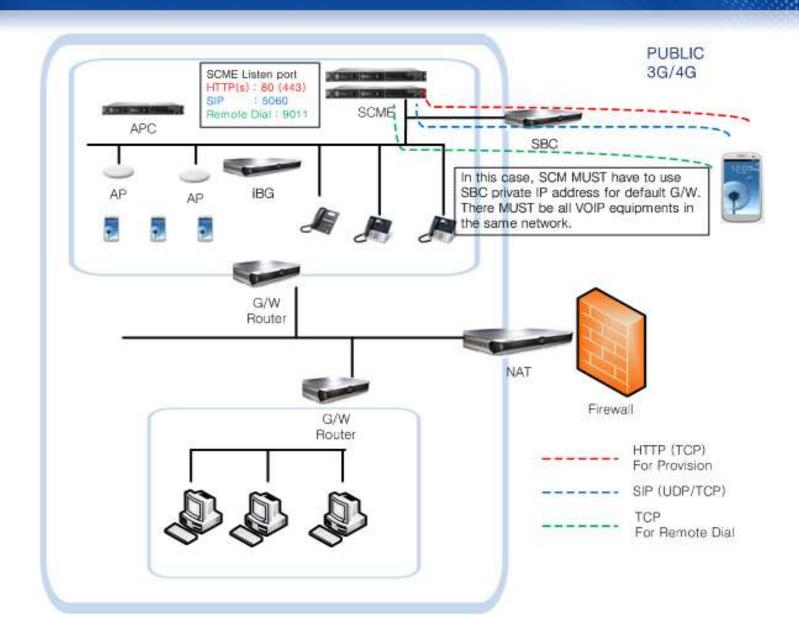
Chapter 1. Basic Configuration



Basic Mobile Configuration (1)



Basic Mobile Configuration (2)

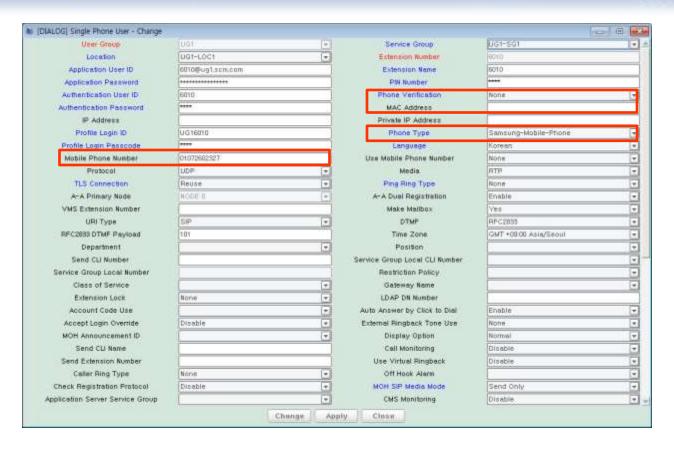


License Configuration



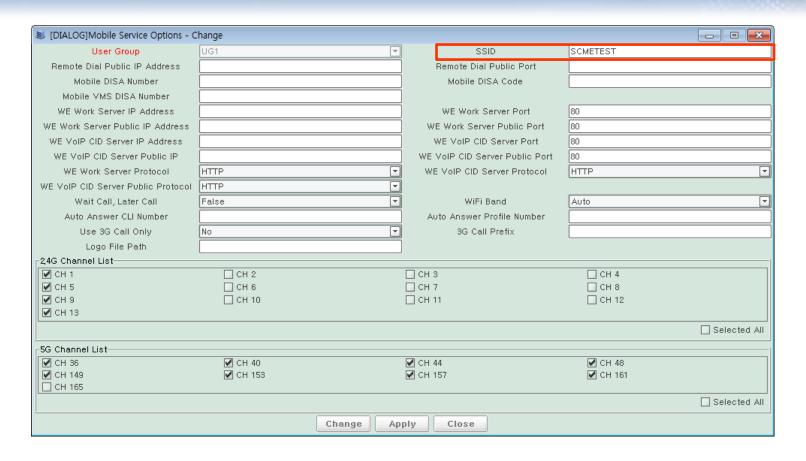
- To use WE VoIP, the Samsung Mobile Phones license is required.
- The license key is set in [CONFIGURATION > Miscellaneous > License] menu.

User Configuration



- Creating a user for WE VoIP is similar to creating an IP Phone User.[CONFIGURATION > User > Single Phone User/Multi-Extension Phone]
- Phone Type must be set to "Samsung-Mobile-Phone".
- Either Mobile Phone Number or MAC Address must be set.
- Mobile Phone Number or MAC Address is used to make the user profile

Mobile Service Options



- Input the SSID in the following menu.
 - [CONFIGURATION > Wireless Enterprise > Mobile Service Options]
- This SSID must be same to the SSID of Access Point using WE VolP.

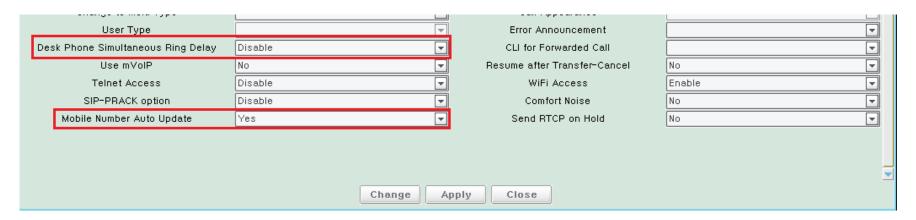
User Configuration Option(1/2)

- Oreate a user for WE VoIP service in [CONFIGURATION > User > Single Phone User] menu.
- Change the [Phone Type] to "Samsung-Mobile-Phone".
- Enter [Mobile Phone Number] which is used for the User Profile Key.
- Select [Use Mobile Phone Number] option.
 - None: Do not use the [Mobile Phone Number]. Ring to extension only.
 - Ring Only: Provides a simultaneous ring to extension and mobile phone number.
 - Dial Only: Provides a DISA(Direct Inward System Access) for a user out of WiFi zone.
 - Both: Supports both "Ring Only" and "Dial Only".



User Configuration Option(2/2)

- Additional WE VoIP user configurations are as follows. These options are not mandatory.
- Desk Phone Simultaneous Ring Delay
 - This option has meaning when a WE VoIP user configured [Use Mobile Phone Number] option to "Ring Only" or "Both". SCM has a delay to ring a desk phone so that the user can answer the call with the WE VoIP client.
- Mobile Number Auto Update
 - In case WE VoIP user change USIM, WE VoIP client lets SCM know the changed mobile number. SCM updates the number in the Single Phone User Configuration.

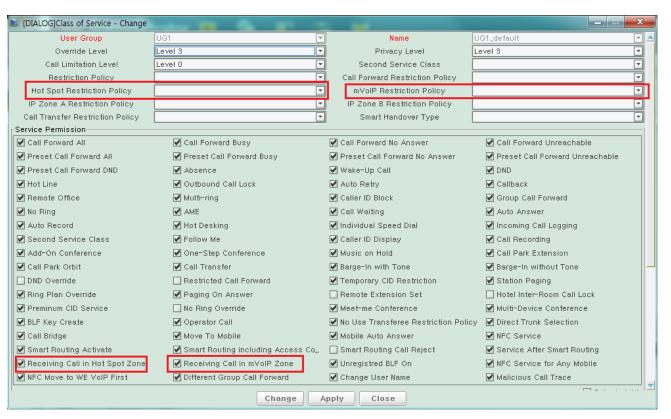


If multiple devices are used for the WE VoIP user, [Phone Type] is configured in [CONFIGURATION > User > Multi-Extension Phone] and other configuration is done in [CONFIGURATION > User > Multi-Phone User].

Call Restriction in Hot Spot zone or mVoIP mode

- SCM provides separate configuration method (COS) of call restriction when WE VoIP Users are registered in Hot Spot zone or mVoIP mode.
- Toll Restriction according to the user's location (Hot Spot Zone or mVoIP mode)
- Restriction of Receiving Call in Hot Spot Zone or mVoIP mode

When administrator checks [Receiving Call in Hot Spot Zone], WE VoIP users registered at Hot Spot zone can receive call. When administrator checks [Receiving Call in mVoIP Zone], WE VoIP users registered at mVoIP zone can receive call.



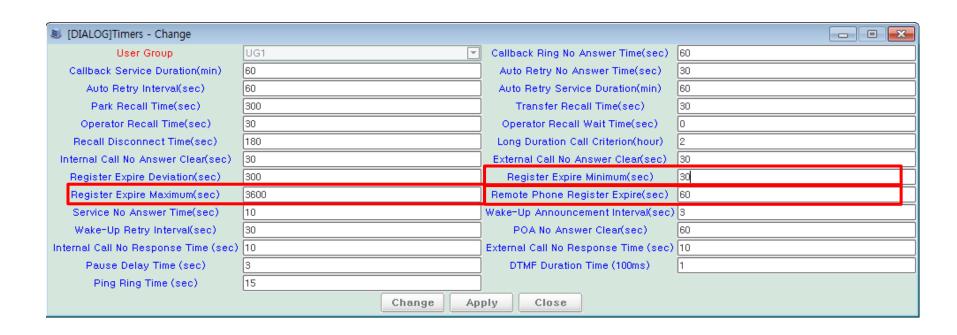
Register Expire Timer for Teleworker (Remote IP Phone)

All Phone uses identical Register Expire Timer.

Register Expire Timer has 3 value

- Minimum(sec) is used to check a minimum time that Register is expired.
- Maximum(sec) is used to check a maximum time that Register is expired.
- Remote Phone Register Expire(sec) is used to remote user send register with identical interval.
- •These timer is set in following menu.

[Configuration > User Group > Change User Group > Timers]



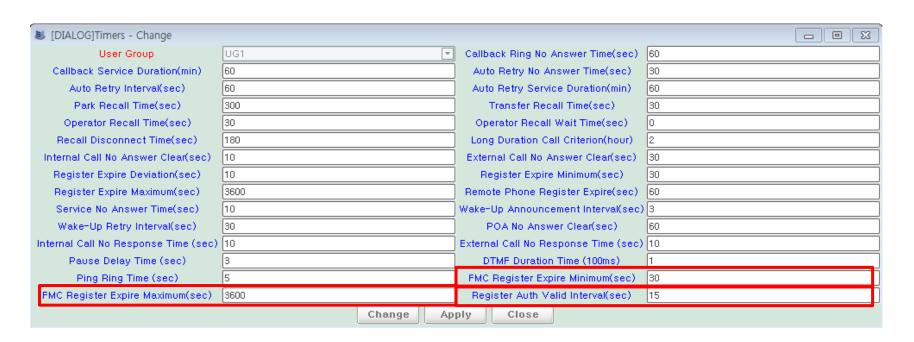
Register Expire Timer for mVoIP (Hot Spot)

All Phone uses identical Register Expire Timer.

Register Expire Timer has 3 value

- Minimum(sec) is used to check a minimum time that Register is expired.
- Maximum(sec) is used to check a maximum time that Register is expired.
- Remote Phone Register Expire(sec) is used to remote user send register with identical interval.
- •These timer is set in following menu.

[Configuration > User Group > Change User Group > Timers]



Chapter 2. Call Move



Call Move

- Ocall Move service moves the conversation on one phone to another without holding the call.
- Orall Move service is provided with Soft Menu, Programmable Button, Move Key and NFC Tagging.
- Call Move service provides followings.
 - Move To Mobile
 - Move To Number
 - Move To Multi-Device
 - Moved Call Pickup

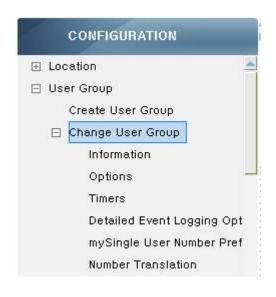
Configuration for Call Move (1/2)

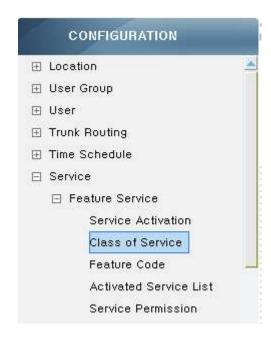
- Required Configuration in [CONFIGURATION > User Group > Change User Group > Information]
 - Service Call Access Code
 - **※** If Service Call Access Code is not configured, SCM does not provide outbound call.
- Required Configuration in [CONFIGURATION > Service > Feature Service > Class of Service]
 - Move To Mobile

- Mobile Auto Answer

- NFC Service

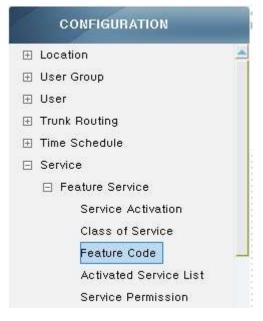
- NFC Service for Any Mobile
- NFC Move to WE VoIP First

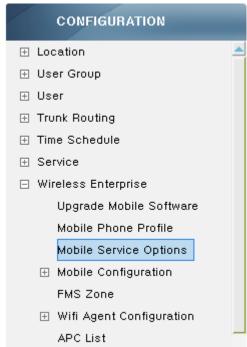




Configuration for Call Move (2/2)

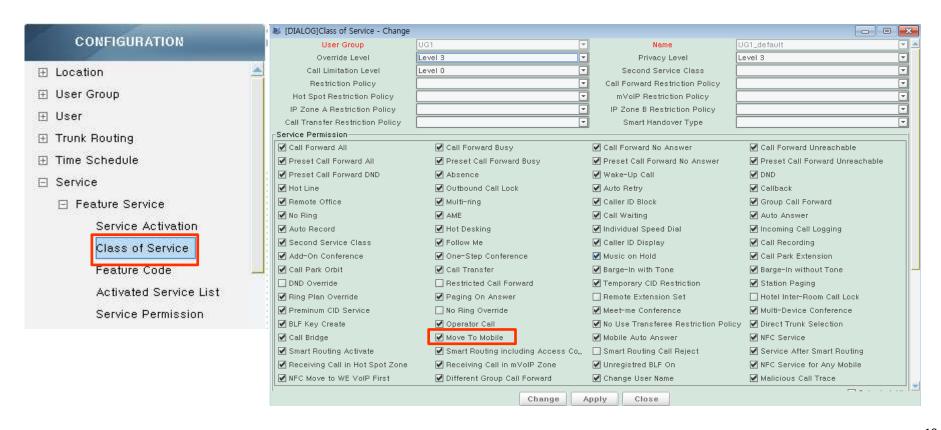
- Required Configuration in [CONFIGURATION > Service > Feature Service > Feature Code]
 - Move To Mobile Move To Multi-Device
 - NFC Pickup NFC Move To Desk
 - NFC Move To Mobile Moved Call Pickup
 - Move Cancel
- Required Configuration in [CONFIGURATION > Wireless Enterprise > Mobile Service Options]
 - Auto Answer CLI Number Auto Answer Profile Number





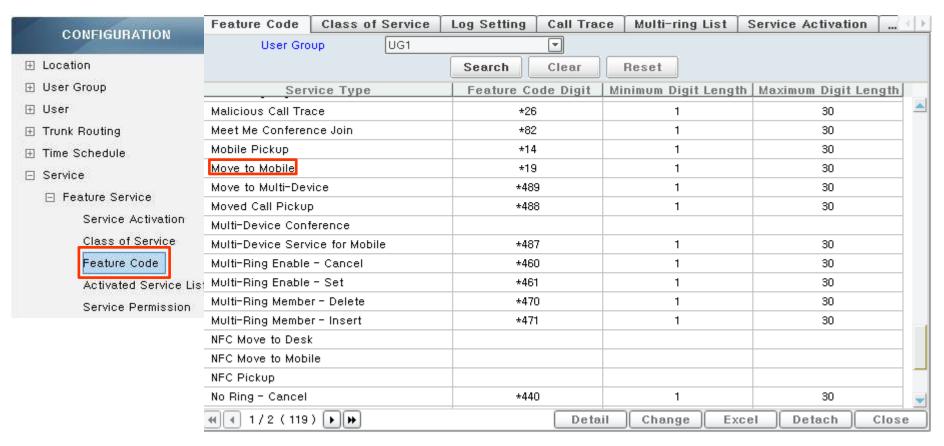
Move To Mobile / Move To Number(1/3)

- The 'Move to Mobile' soft menu will be displayed on the phone which is on conversation.
- If a user selects the soft menu, the conversation will be continued through the mobile phone.
- User needs to have mobile phone number.
- Service Call Access Code should be configured.
- The 'Move to Mobile' Service should be permitted in [CONFIGUARTION > Service > Class of Service] menu.



Move To Mobile / Move To Number(2/3)

- When a user selects the 'Move to Number' soft menu, the destination number for Call Move should be entered.
 Then the call is moved to the designated destination.
- The 'Move to Mobile' feature code should be defined in [CONFIGURATION > Service > Feature Service > Feature Code] menu.



Move To Mobile / Move To Number(3/3)

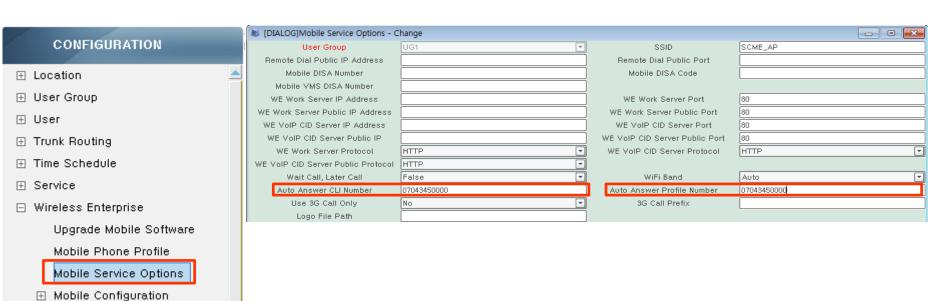
If the move service fails, the phone shows "Fail To Move".

FMS Zone

APC List

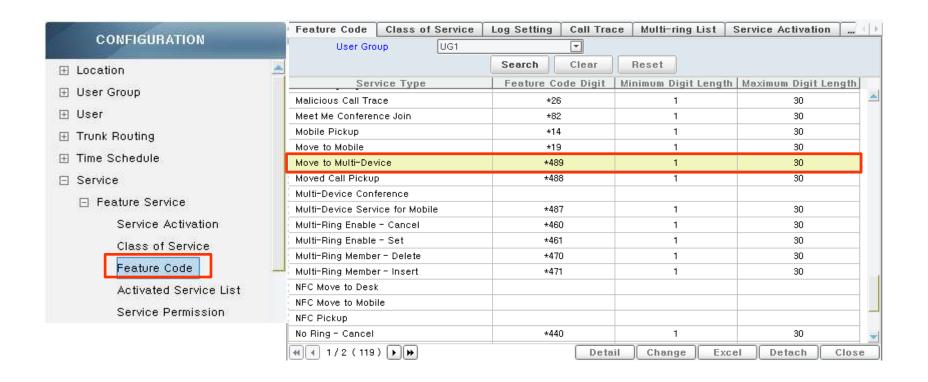
₩ifi Agent Configuration

- When moving the conversation to mobile, the call can be auto-answered. The Auto Answer Service is provided only for devices in which WE VoIP is installed.
- For auto answering, Auto Answer Number should be defined in [CONFIGURATION > Wireless Enterprise > Mobile Service Options] menu.



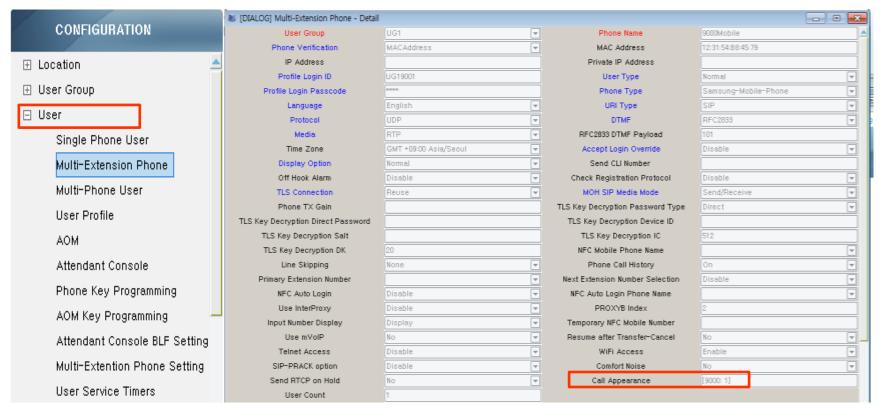
Move to Multi-Device(1/2)

- If a multi-device is on conversation, the 'Move to Multi-Device' soft menu will be displayed on the phone.
- 'Move To Multi-Device' Soft Menu is displayed on Desk Phone.
- The 'Move to Multi-Device' feature code should be defined in [CONFIGARITON > Service > Feature Service > Feature Code] menu.



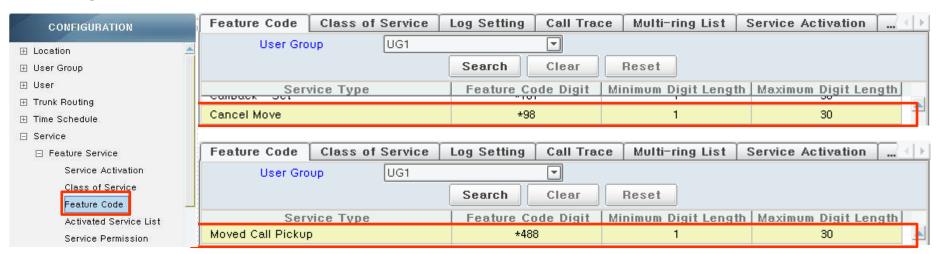
Move to Multi-Device(2/2)

- When user selects the destination devices, SCM moves the call to specific device.
- The destination device index is located in [CONFIGURATION > User > Multi-Extension Phone > Call Appearance]
 Menu.



Move Cancel / Moved Call Pickup

- When a user starts move service, the 'Move Cancel' soft menu will be displayed on the phone.
- 'Move Cancel' Soft Menu is displayed on Desk Phone.
- The 'Move Cancel' feature code should be defined in [CONFIGARITON > Service > Feature Service > Feature Code] menu.
- After moving the conversation to mobile, the desk phone can pick up the moved-out call through 'Moved Call Pickup' soft menu.
- The 'Moved Call Pickup' feature codes should be set in [CONFIGURATION > Service > Feature Service > Feature Code].



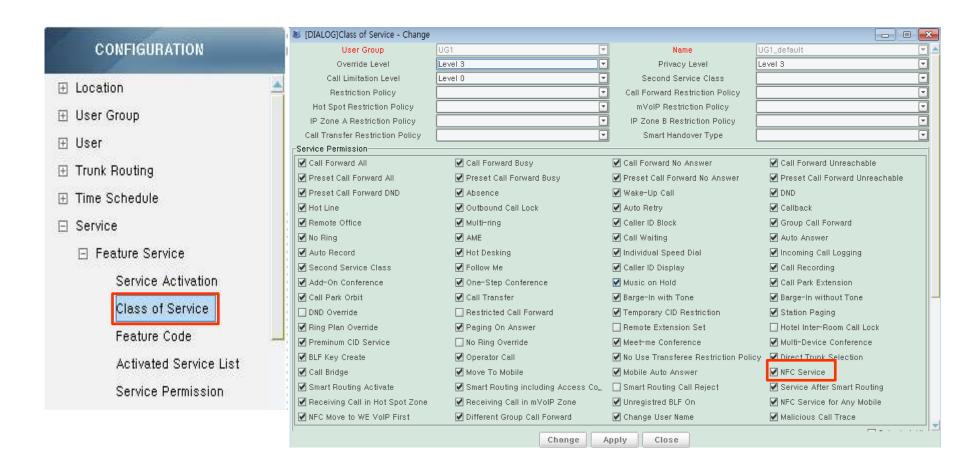
Call Move Using Move Button (1/3)

- The SMT-i5343 phone has 'Move' button.
- 9 The conversation through the desk phone can be moved to the other phone by pushing Move button.
- The paring between a desk phone and a mobile should be configured for Call Move service.
- If the mobile name is assigned in [CONFIGURATION > User > Single Phone User (or Multi-Extension Phone) > NFC Mobile Phone Name], the conversation of the desk phone can always be moved to the mobile.



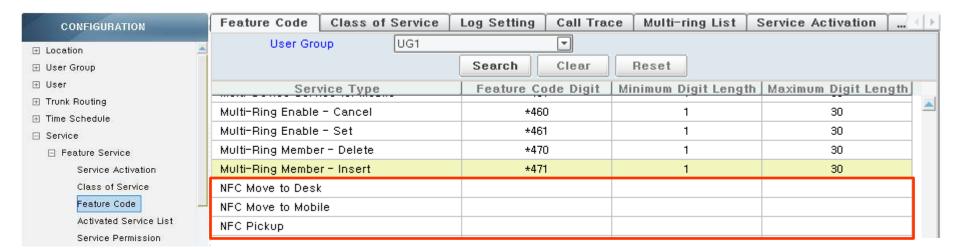
Call Move Using Move Button (2/3)

• The 'NFC Service' should be permitted in [CONFIGURATION > Service > Feature Service > Class of Service] menu.



Call Move Using Move Button (3/3)

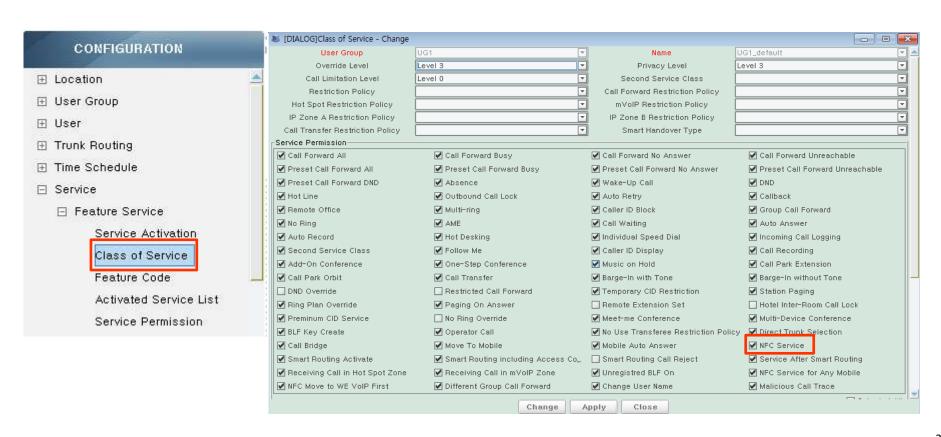
The 'NFC Move to Desk', 'NFC Move to Mobile' and 'NFC Pickup' feature codes should be set in [CONFIGURATION > Service > Feature Service > Feature Code].



- Move to Mobile
 If a desk phone is on conversation, the call can be moved to the mobile phone by using Move button.
- Move to Desk
 If a mobile is on conversation or is ringing, the call can be moved to the desk phone by using Move button.
 The 3G call on the mobile is not moved.
- Mobile Pickup Desk Call
 If a desk phone is ringing, the mobile phone can answer the call by using Move button.

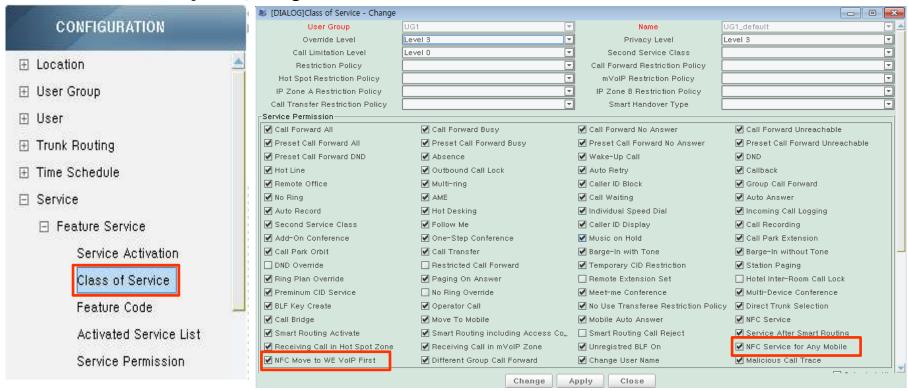
Call Move Using NFC Tagging (1/2)

- SCM supports NFC services through the NFC phone (such as SMT-i5343) and the mobile in which SDM (A Samsung Mobile App) is installed.
- The call which is ringing or is on conversation can be moved by touching SDM's menu.
- The paring between a desk phone and a mobile should be configured.
- The 'NFC Service' should be permitted in [CONFIGURATION > Service > Feature Service > Class of Service] menu.



Call Move Using NFC Tagging (2/2)

- If the 'NFC Service for Any Mobile' is permitted in [CONFIGURATION > Service > Feature Service > Class of Service] menu, user can use NFC Service using temporary pairing.
- NFC Move To Mobile
 - If a desk phone is on conversation, the call can be moved to the mobile phone by touching NFC interface between them.
 - If The 'NFC Move To WE VoIP First' should be permitted in [CONFIGURATION > Service > Feature Service > Class of Service] menu, change the destination to WE-VoIP.



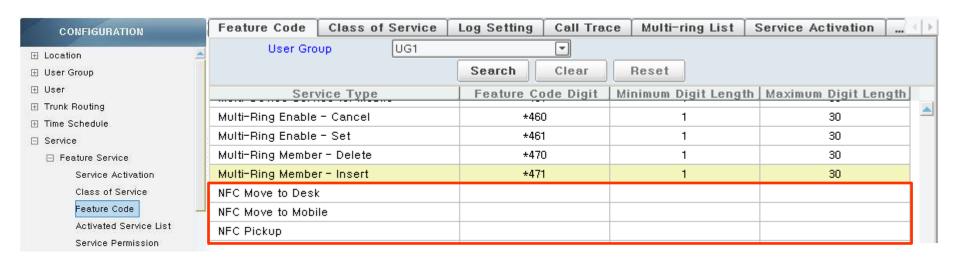
Call Move Using NFC Tagging

NFC Move To Desk

If a mobile is on conversation, the call can be moved to the desk phone by touching NFC interface between them.

NFC Pickup

If a desk phone is ringing, the mobile phone can answer the call by touching NFC interface between them.



Chapter 3. Smart Routing



Smart Routing

Extension subscribers when dialing a mobile phone number of WeVoIP subscriber, smart routing service is a service that analyzes the number and to call the extension number of WeVoIP subscriber without sending it to the outgoing trunk.

Smart Routing services are provided if the subscriber is registered and if the "Samsung-Mobile-Phone" User, and user have Mobile Phone Number.

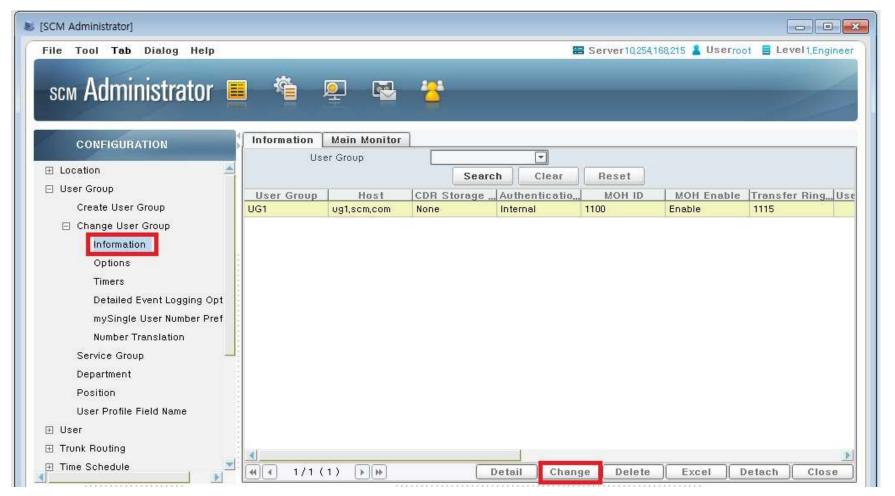
- **冷**[Configuration > User > Single Phone User]
- **凌** Configuration > User > Multi-Extension Phone
- **冷**[Configuration > User > Multi-Phone User]



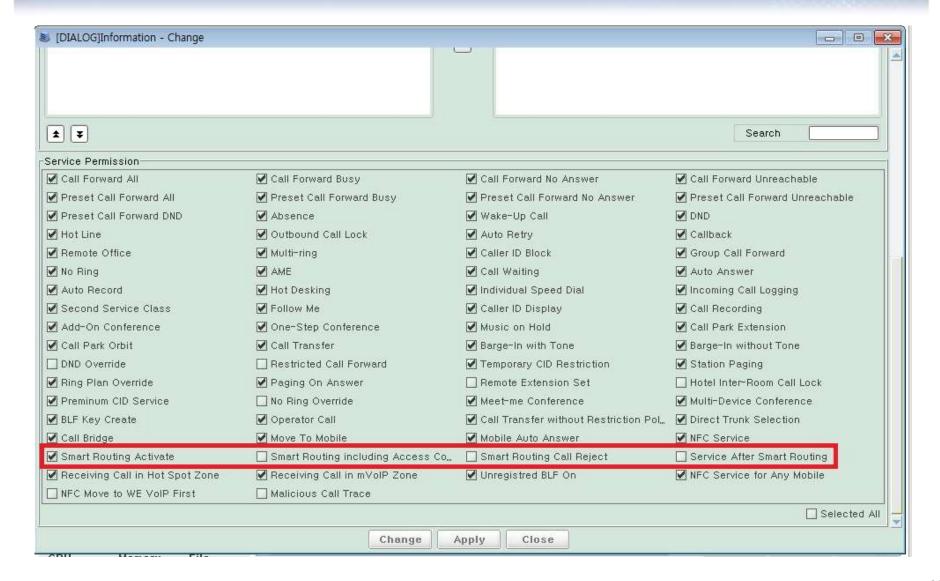
Smart Routing(cont.)

No use the smart routing service, please set the following items.

冷[Configuration > User Group > Change User Group > Information]



Class of Service Setting 1



Class of Service Setting 2

Item	Description
Smart Routing Activate	Operator will be able to choose whether or not to use smart routing service.
Smart Routing including Access Code	Operator will be able to choose whether to provide smart routing services to t he number that contains the Access code.
Smart Routing Call Reject	It is the ability to choose to call directly to the mobile phone through the Trunk. Subscribers that use this item will not be able to receive the smart routing ser vice.
Service After Smart Routing	If there is a service the subscriber set, you will be able to choose whether to a pply the smart routing. The service that Operator set, Call Forward, Do Not Disturb, Absense, Follow Me is belong.

★If the WeVoIP subscriber has no response when receiving a call to an extension number of WeVoIP subscriber through a smart routing service, the system can offers a redial service to mobile phone number of the subscriber.

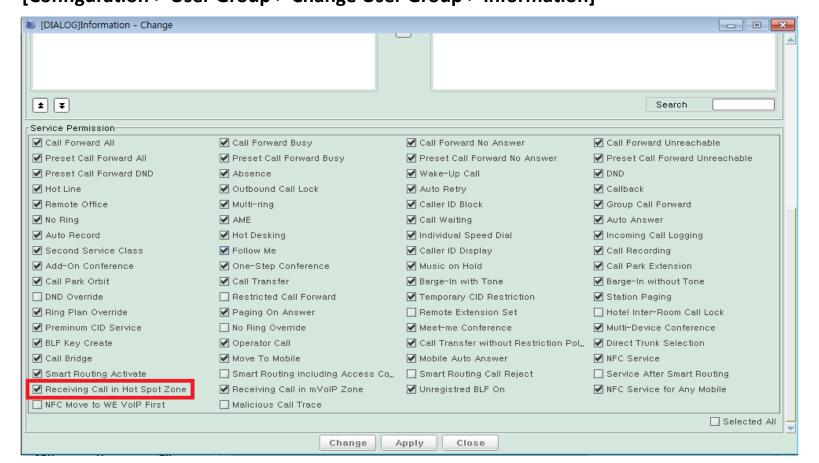
 ★For use the recall service, Operator should set the [Service Call Access Code], in [Configuration > User Group > Change User Group > Information] Menu.

Receiving Call in Hot Spot Zone

[Receiving Call in Hot Spot Zone] is used to Allow the WeVoIP subscribers can receive call in the Hot Spot Zone.

Hot Spot Zone] means that an external Wifi network.

YTo use the [Receiving Call in Hot Spot Zone], need to set the following item in the menu. [Configuration > User Group > Change User Group > Information]



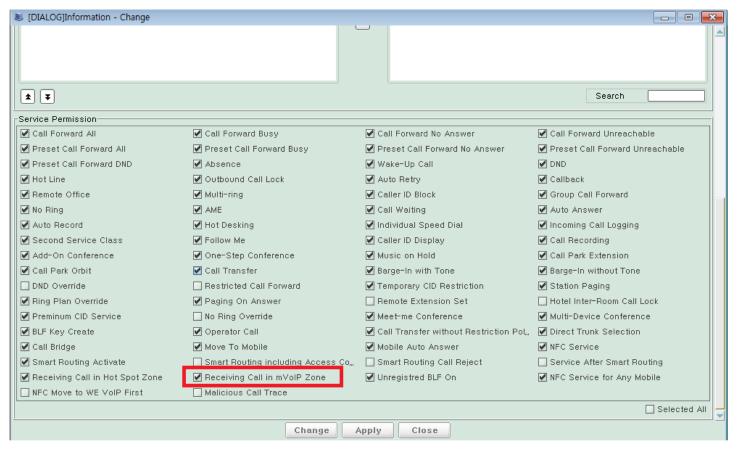
Receiving Call in mVoIP Zone

Receiving Call in mVoIP **Zone**] is used to Allow the WeVoIP subscribers can receive call in the mVoIP **Zone**.

[mVoIP Zone] means that an external data network.

➤To use the [Receiving Call in mVoIP Zone], need to set the following item in the menu.

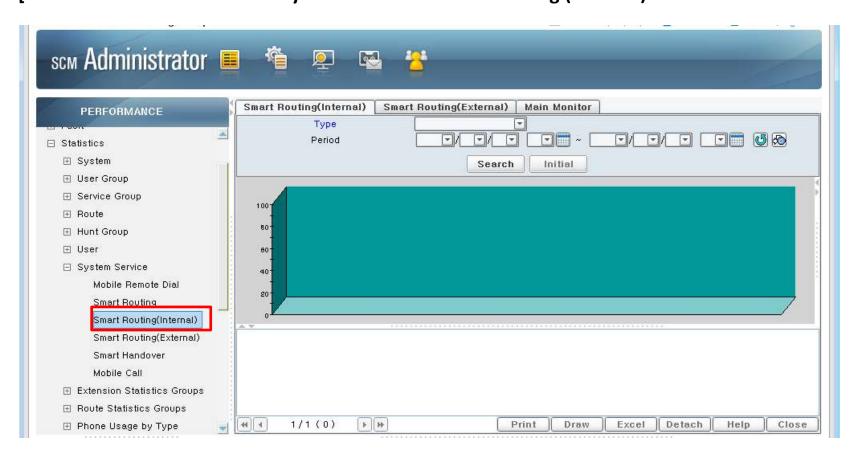
[Configuration > User Group > Change User Group > Information]



Smart Routing Statistics

➤ Smart Routing Statistics

[PERFORMANCE > Statistics > System Service > Smart Routing (Internal)

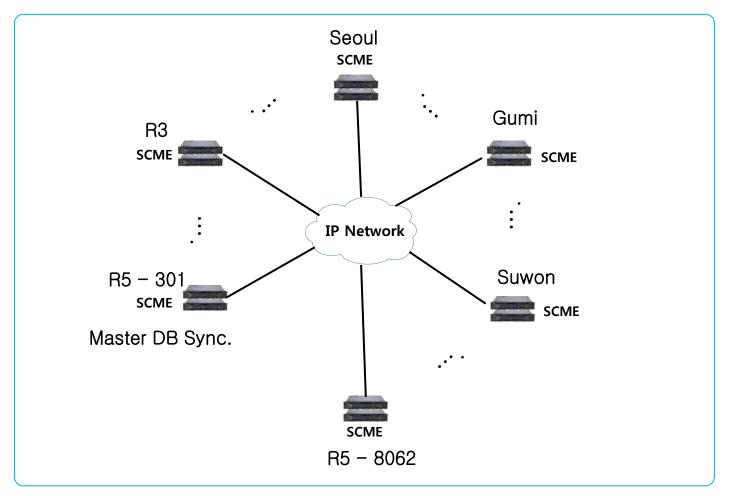


Chapter 4. Inter SCME Smart Routing

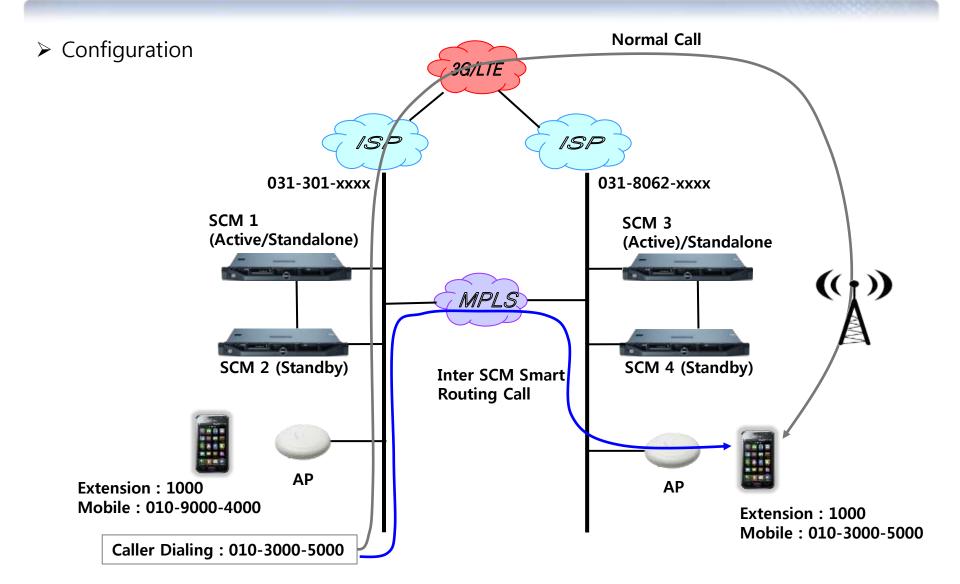


Specifications

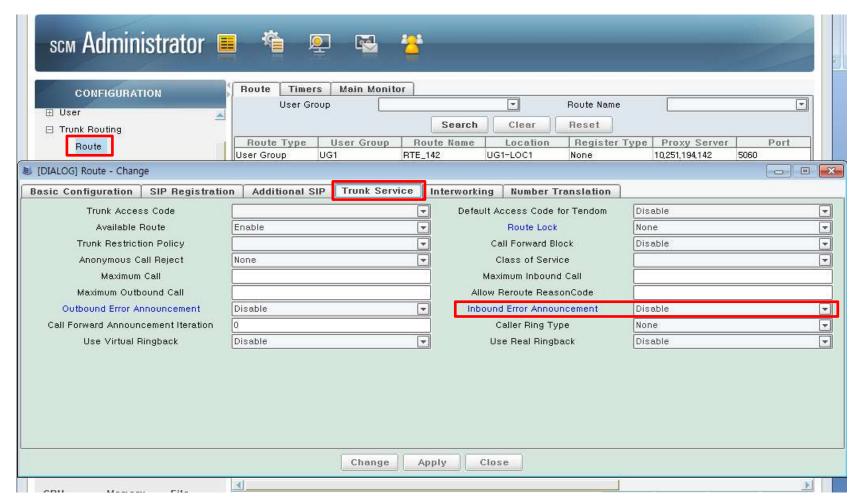
- Mobile Number Sharing: Max. 1,000,000 number
- SCME Capacity: 100 System Inter SCME Smart Routing



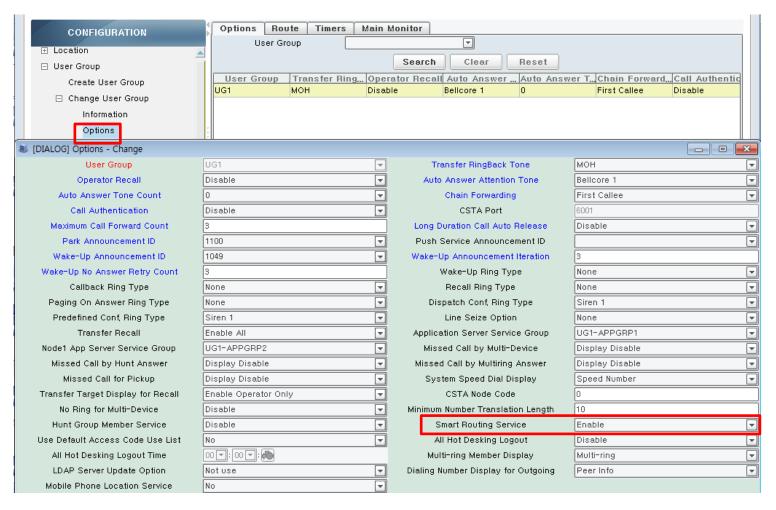
- ➤ Inter SCM Smart Routing is auto-routing functionality when SCMs are connected with peering.
- >SCM automatically recognizes the mobile number when subscribers are dialing to trunk
- ➤ Route Configuration and Restriction of Inter SCM Smart Routing
- 1) SCM Peering have to be set before using Inter SCM Smart Routing [Inbound Error Announcement]
 - → must be set to DISABLE to use rerouting when Inter SCM Smart Routing Call fails
 - Option to Enable/Disable Smart Routing Service at individual User Group [Configuration > User Group>Change User Group>Options] Smart Routing Service
 - To restrict Inter SCM Smart Routing at specific access code.
 [Configuration > Inter-SCM Setting>Inter SCM Routing]
 delete value of SCM Access Code
 - Functionality to restrict mobile number when Inter SCM Smart Routing [Configuration > Trunk Routing > Smart Routing Restriction List] add mobile number



Inbound Error Announcement Disable [CONFIGURATION > Trunk Routing > Route] press "Change" button Select "Trunk Service" and check "Inbound Error Announcement



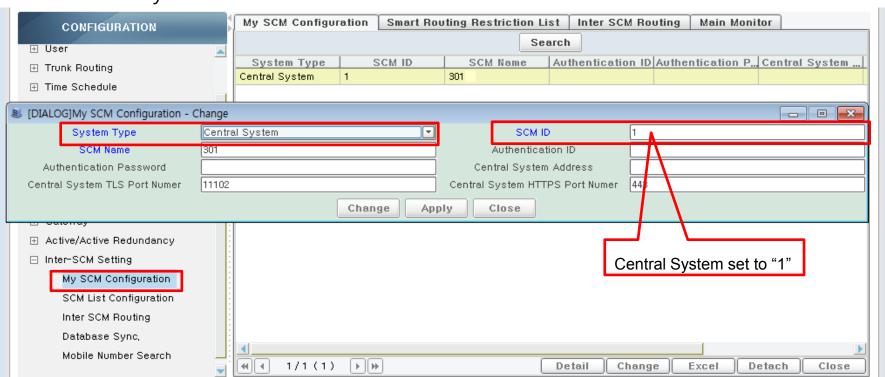
Option to Enable/Disable Smart Routing Service at individual User Group
 [Configuration > User Group>Change User Group>Options] Smart Routing Service



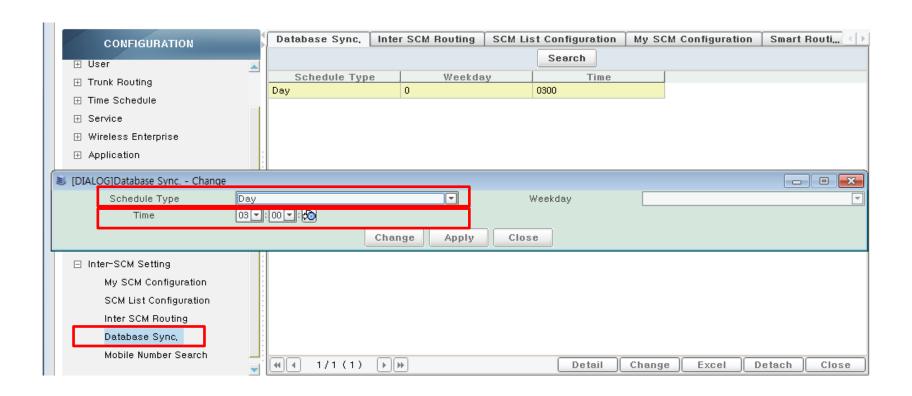
(2) Synchronization of Mobile number between SCM For synchronization work, Central system is necessary, the SCM of rest, must be set to Normal system. Central system plays a role in collecting the mobile Number of Normal System.

➤ To synchronize the mobile phone number stored in other SCMs
Please set the following items in [Configuration > Inter-SCM Setting] menu.
[My SCM Configuration]
It is the item to be set in both the Central system.

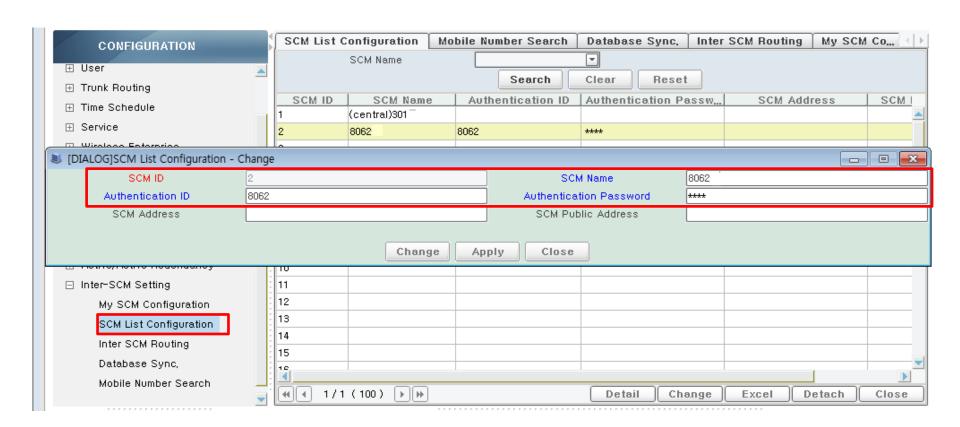
→ 031-301 System



➤ Database sync. Time Setting



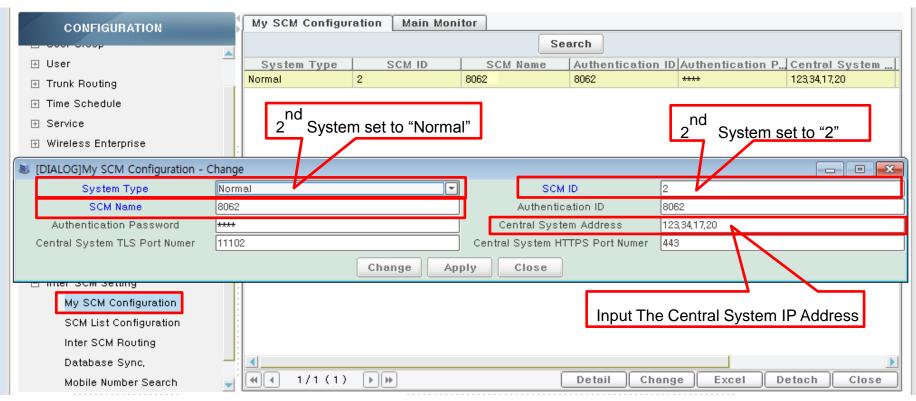
➤ Check the Inter SCM List Configuration



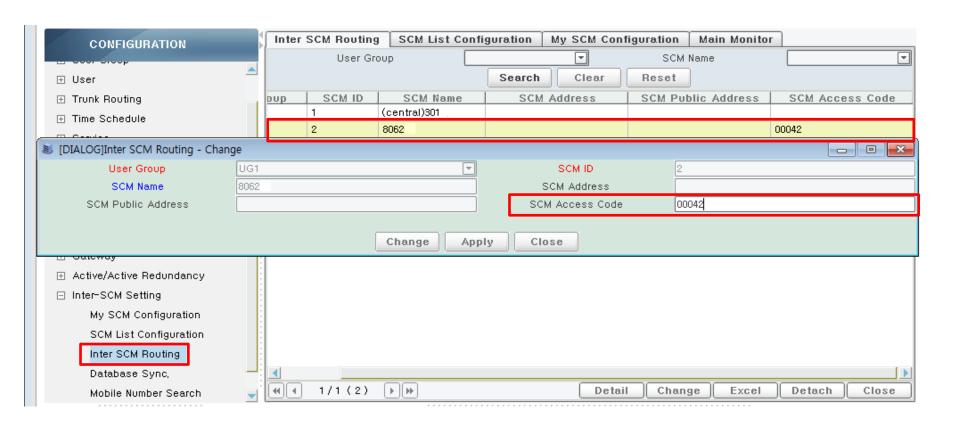
Inter SCM Smart Routing for 2nd System

➤ To synchronize the mobile phone number stored in other SCMs
Please set the following items in [Configuration > Inter-SCM Setting] menu.
[My SCM Configuration]
It is the item to be set in the Normal system

→ 031-8062 System



After Inter SCM Smart Routing Database Sync., input the 2nd System Access Code [Configuration > Inter-SCM Setting>Inter SCM Routing] delete value of SCM Access Code



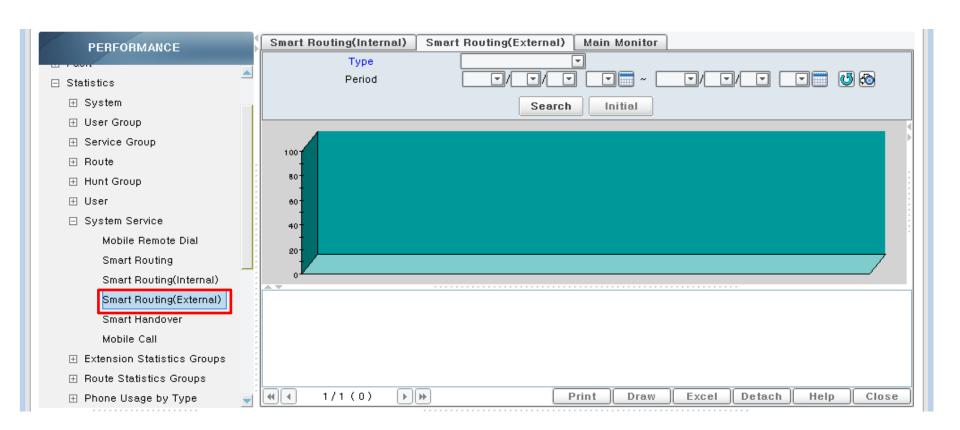
Inter SCM Smart Routing for 2nd System

➤ After Inter SCM Smart Routing Database Sync. , input the 2nd System Access Code [Configuration > Inter-SCM Setting>Inter SCM Routing] delete value of SCM Access Code

CONFIGURATION	Inter SCM Routing My Sc	CM Configuration SCM List Con	figuration Main Monito	г
	User Group	✓	SCM Name	•
⊕ User		Search Clear	Reset	
	nun SCM ID SCM	Name SCM Address	SCM Public Address	SCM Access Code
	1 (central)3	01		00041
⊕ Service	2 8062			
₩ireless Enterprise				
■ [DIALOG]Inter SCM Routing - Char	nge			
User Group	UG1	SCM ID	1	
SCM Name	(central)301	SCM Address		
SCM Public Address		SCM Access Code	00041	
	Change	Apply Close		
☐ Inter-SCM Setting				
My SCM Configuration				
SCM List Configuration				
Inter SCM Routing				
Database Sync,		C	.)(a)	
Mobile Number Search	■ 4 1/1(2) ▶ ▶	Detai	Change Excel	Detach Close

Inter SCM Smart Routing Statistics

➤Inter SCM Smart Routing Statistics
[PERFORMANCE > Statistics > System Service > Smart Routing (External)



Chapter 5. Smart Handover



Smart Handover

- ➤ When the We VoIP subscriber has moved out of the WIFI network during WIFI call, this function is used to provide continuity of currency.
- Smart handover is divided into the 'Handover-Out' and 'Handover-In'.

 The Smart Handover-Out is that when WE VoIP subscribers move out of WIFI network during a call, WIFI call is switched to 3G by automatically before it goes out from the WIFI network. The Smart Handover-In is that when WE VoIP subscribers move in of WIFI network during on Smart Handover-Out, 3G call is switched to WIFI by automatically.

➤The statistics of success/failure for Smart Handover services is provided through the SCM Administrator. It is found in the [PERFORMANCE > Statistics > System Service >

Smart Handover] menu.

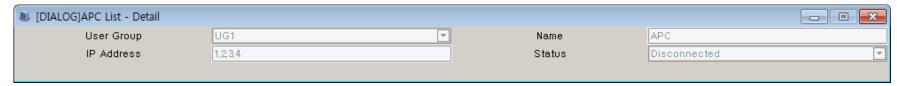


The Smart Handover function is only available in WE VoIP device. So WE VoIP configurations must be required basically.

And Samsung AP/APC must be required.

Interworking APC

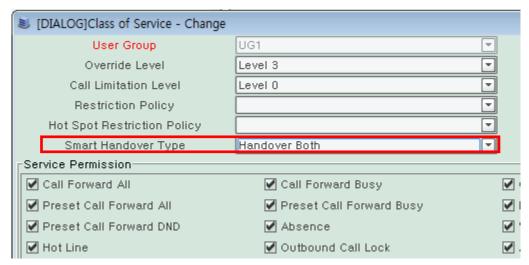
- To use a Smart Handover function, TLS link should be established between SCM Express and APC.
- ➤ Maximum 24 APC can be configured and can be confirmed the current connection status of APC in the [CONFIGURATION > Wireless Enterprise > APC List] menu.



Item	Description		
User Group	Select a user group for which APC will be configured		
Name	Specify the APC name.		
IP Address	Specify the APC IP Address.		
Status	Confirm the current connection status of APC.		

Class of Service Setting 1

- To use a Smart Handover function, creating of Class of Service is needed.
- ➤ Class of Service can be set in the **[CONFIGURATION > Service > Feature Service > Class of Service]** menu. When create a Class of Service, Smart Handover Type should be set. Each type as follows.



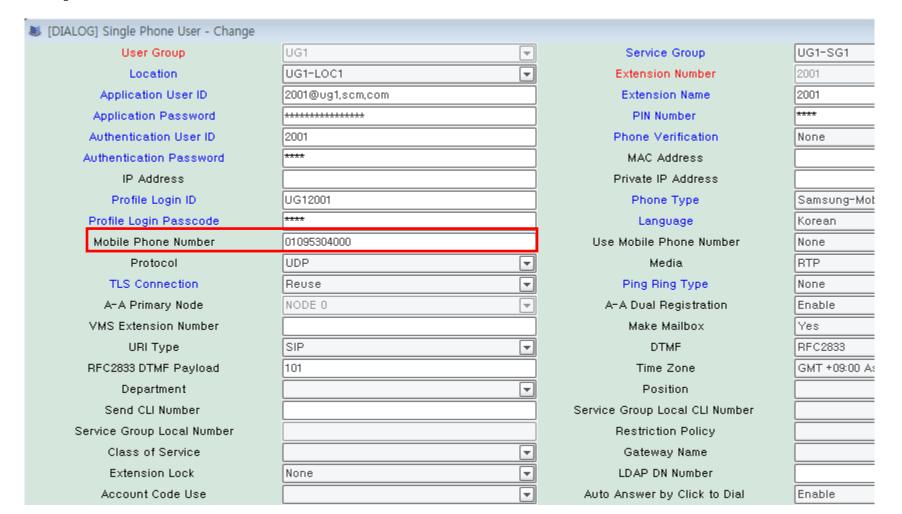
Item	Description		
Blank	Handover services are not allowed.		
Handover Out	Handover Out service is only allowed.		
Handover Both	Handover Out/In service is allowed.		

Class of Service Setting 2

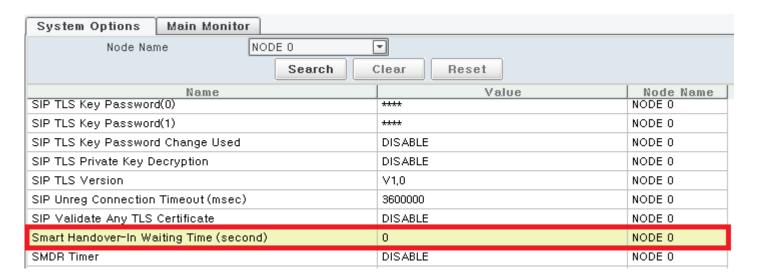
➤ Class of Service created is allocated per user in the [CONFIGURATION > User > Single Phone User/Multi-Phone User] menu.

■ [DIALOG] Single Phone User - Change			
User Group	UG1 ▼	Service Group	UG1-SG1
Location	UG1-LOC1 ▼	Extension Number	2001
Application User ID	2001@ug1,scm,com	Extension Name	2001
Application Password	***************************************	PIN Number	****
Authentication User ID	2001	Phone Verification	None
Authentication Password	****	MAC Address	
IP Address		Private IP Address	
Profile Login ID	UG12001	Phone Type	Samsung-Mot
Profile Login Passcode	****	Language	Korean
Mobile Phone Number	01095304000	Use Mobile Phone Number	None
Protocol	UDP ▼	Media.	RTP
TLS Connection	Reuse ▼	Ping Ring Type	None
A-A Primary Node	NODE 0 ▼	A-A Dual Registration	Enable
VMS Extension Number		Make Mailbox	Yes
URI Type	SIP ▼	DTMF	RFC2833
RFC2833 DTMF Payload	101	Time Zone	GMT +09:00 As
Department	▼	Position	
Send CLI Number		Service Group Local CLI Number	
Service Group Local Number		Restriction Policy	
Class of Service	▼	Gateway Name	
Extension Lock	None ▼	LDAP DN Number	
Account Code Use	▼	Auto Answer by Click to Dial	Enable

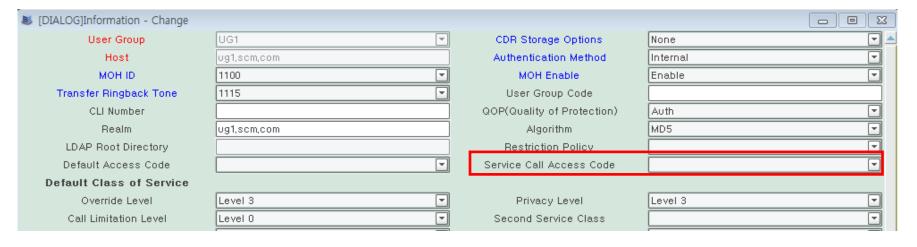
➤WE VoIP subscriber's available mobile number must be configured to each user. Mobile number can be set in the [CONFIGURATION > User > Single Phone User/Multi-Phone User] menu.



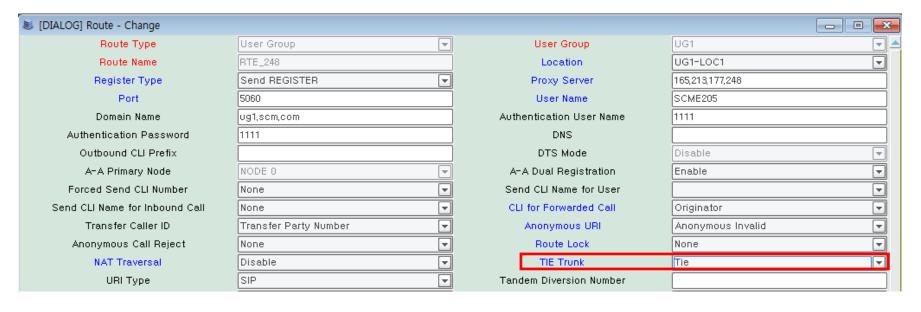
- ➤When WE VoIP is moved in the WIFI network, Smart Handover-In is available function after being WE VoIP registered with the SCM Express. There are needed a Service Guard Time because registering with the SCM Express are needed a few seconds.
- ➤So, Smart Handover-In is working after Service Guard Time.
- ➤ Default Service Guard Time is 0 seconds and Service Guard Time can be changed in the [CONFIGURATION > Miscellaneous > System Options > Smart Handover-In Waiting Time (second)] menu.



- ➤To use Smart Handover-Out, it is needed the access code for Smart Handover-Out.
- ➤ The access code can be configured in the [CONFIGURATION > User Group > Change User Group > Information > Service Call Access Code] menu.

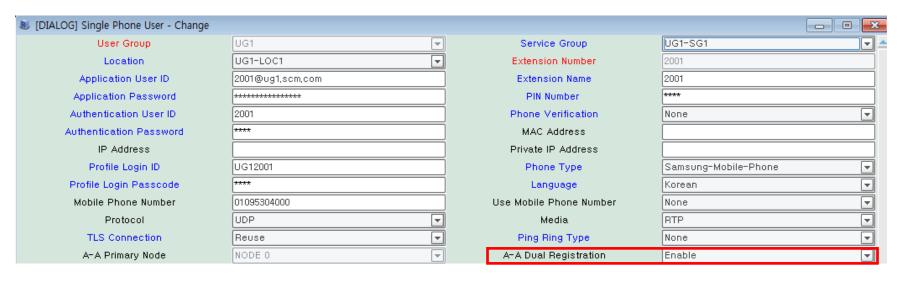


➤ When VoIP is moved out the WIFI network during external call, Smart Handover-Out is working. In this case, route type must be set to TIE for Smart Handover-Out operation. That configuration can be set in the [CONFIGURATION > Trunk Routing > Route > TIE Trunk] menu.



Handover Service Limitations

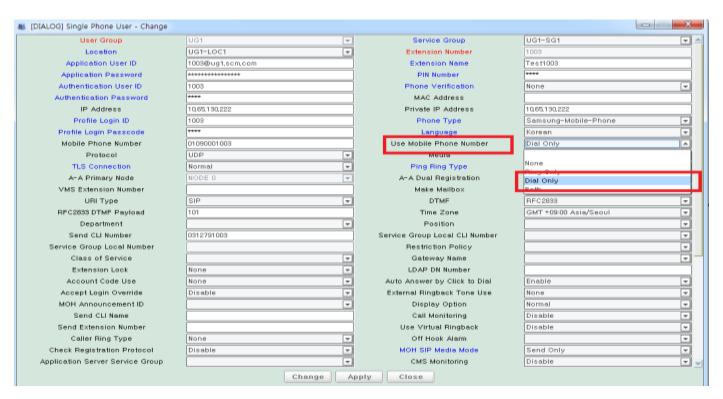
- Smart Handover is only served basic internal/external call case. Hold call is not served the Smart Handover.
- ➤In Active-Active system case, WE VoIP must be enabled a dual registration option for Smart Handover operation. That configuration can be set in the [CONFIGURATION > User > Single Phone User/Multi-Phone User] menu.



Configuration Remote Dial(User)

➤A WE VoIP client can make a call through SCM, even though the client is out of WIFI network. In this case, a WE VoIP client can request the 'Mobile Remote Dial' service **through a data channel.**If SCM receives the request, SCM makes a 3G call to the WE VoIP first,. And if the WE VoIP answers the call, SCM makes a call to the destination which was requested before by the WE VoIP, After the destination answers the call. **SCM lets them be connected**.

▶ Remote Dial can be set in the [CONFIGURATION > User > Single Phone User/Multi-Phone User] menu.

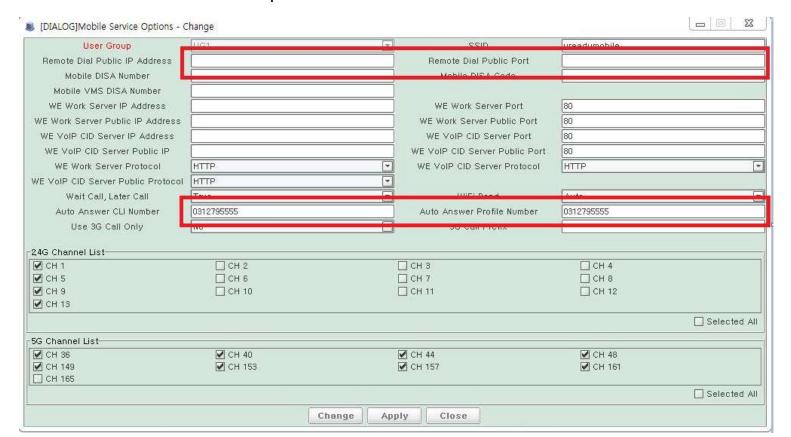


Configuration Remote Dial(WeVoIP Client)

➤ Set port forwarding at Firewall Equip. (or SBC)

凌 Configuration->Wireless Enterprise->Mobile Service Options]

- -Set Public IP address, Public Port to be used at Remote Dial.
- Auto Answer CLI Number and Auto Answer Profile Number are configured. (If the WE VoIP client can answer the 3G call automatically)
- A We VoIP client receive the provision data from SCM.







Notes on using mVoIP

[Usage minimization of battery]

- UDP is used as the SIP signal.
- UDP when using wireless from (4G) carrier's network, and after 45 seconds, in order to prevent a phenomenon that expire port maintenance time of the wireless carrier network NAT, is set to 90 seconds or less the expiration date of the registration
 - → Not minimizing battery usage.

[Resolve]

- TLS is used as the SIP signal.
- FMC Registration Expires Time to 3600 seconds.

mVoIP Site Configuration

Configure the mVoIP network, there is a Case of three actual

- (1) In the Private SCM, if use the SBC.
- (2) In the Public SCM only.
- (3) In the Private SCM, if use NAT.
- (4) Change the Priority of the voice codec (G.729)

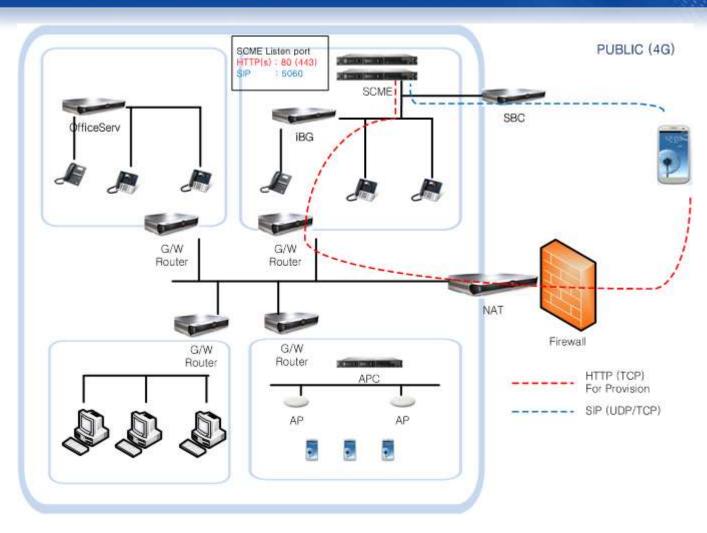
Common Configuration

[Configuration in SCM]

Configuration > User > Single Phone User		
Protocol	TLS	Protocol is applied in the same way internal WiFi, external WiFi, also mVoIP. The Single phone user, phone type is the "Samsung-Mobile-Phone", teleworkers to set the TLS
TLS connection	Reuse	
Use mVoIP	Yes	Phone type may be a "Samsung-Mobile-Phone"

Configuration > User Group > Change User Group > Timer			
Register Expire Deviation (sec)	0	Expiration of registration, common applied to the IP phone and FMC	
FMC Register Expire Minimum (sec)	60	Expiration of registration, common applied to the IP phone and FMC	
FMC Register Expire Maximum (sec)	300~600	Expiration of registration, common applied to the IP phone and FMC	
FMC Phone Register Expire (sec)	(Default 60) 3600	- for if it is mVoIP, and set in 3600 to advance this value - The Single phone user, phone type is the "Samsung-Desktop-Phone", tele-workers to set the TLS	

(1) In the Private SCM, if use SBC



- mVoIP Provisioning through NAT : HTTP(80), HTTPS(443)
- mVoIP Media and SIP signaling through SBC

(1) In the Private SCM, if use SBC

[Configuration in SCM]

Configuration > Miscellaneous> System Options		
SIP Public TCP Port	20000	It is not being used (TCP / UDP = 5060, TLS = 5061) SIP Well Known
SIP Public TLS Port	20200	Ports. Block by the carrier's network of Well Known port when using in Korea.
SIP Public UDP Port	20200	
System Public IP For Call	SBC Public IP	
System Public IP For Phone Provision	NAT(Firewall) Public IP	

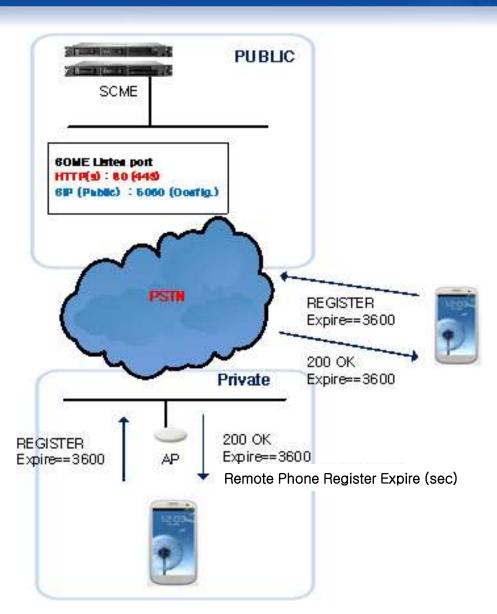
[others]

SBC		
TLS Expire Time	3600 sec	
Expire Time	3600 sec	
Listening Public SIP port	20200	Set the SIP port the same ports as the SIP Public Port that you set in the SCME

SIP Public TLS port settings to the SBC must be matched the receive port of the Public

NAT(Firewall)		
Port Forwarding	TCP 80/443	NAT for Provision

(2) In the Public SCM only

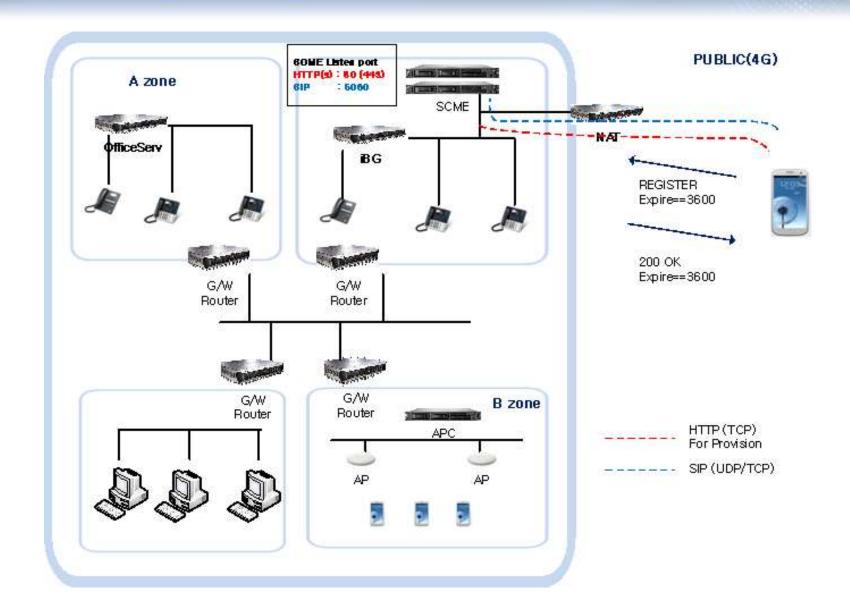


(2) In the Public SCM only

[Configuration in SCM]

Configuration > Miscellaneous> System Options			
SIP TCP Port	20000	It is not being used (TCP / UDP = 5060, TLS = 5061) SIP Well Known	
SIP TLS Port	20200	Ports. Block by the carrier's network of Well Known port when using in Korea.	
SIP UDP Port	20200		
SIP Public TCP Port	20000	1	
SIP Public TLS Port	20200		
SIP Public UDP Port	20200	1	
System Public IP For Call	SCM IP		
System Public IP For Phone Provision	SCM IP		

(3) In the Private SCM, if use NAT



(3) In the Private SCM, if use NAT

[Configuration in SCM]

Configuration > Miscellaneous> System Options		
SIP Public TCP Port	20000	It is not being used (TCP / UDP = 5060, TLS = 5061) SIP Well Known
SIP Public TLS Port	20200	Ports. Block by the carrier's network of Well Known port when using in Korea.
SIP Public UDP Port	20200	
System Public IP For Call	SBC Public IP	
System Public IP For Phone Provision	NAT(Firewall)의 Public IP	
System under NAT	Enable	

Configuration > Location > MPS Freezone		
Add Private IP Zone	IP, Subnet	SCM and other Private routable IP phone (FMC) network interworking additional. (Picture: A Zone, B Zone)

[others]

NAT(Firewall)		
Port Forwarding	TCP 80/443	For Provision port
Listening Public SIP port	20200	Set the SIP port the same ports as the SIP Public Port that you set in the SCME

Set the value of the SIP Public TLS port of the NAT Port Forwarding SCM

(4) Change the priority of the voice codec(G.729)

[Configuration in SCM]

Configuration > Location		
Intra-Location Audio codec	1016	If the user is the same location, and selects the codec is not used. It is to be a top priority the codec you want to use from the Device.

Cases, such as SBC Trunk location and user location

[Concept]

- Selected as the highest priority codec function that turns.
- If mVoIP, WE VOIP (Client) using a G.729 has the highest priority of.

(Annex) Port List for services

Service	TCP Port	UDP Port	Description
General	20, 21	-	FTP Server
	22	-	Secure Shell
	23	_	Telnet
	80, 443	_	HTTP Web Server
	389		LDAP Server
	123	123	NTP
Provisioning	69	-	TFTP Server
J	8088	-	Gateway Provisioning
	-	6000	Phone upgrade from Proprietary to SIP
NMS	-	161	SNMP Agent
Personal	8080, 9500	-	Personal Assistant
Management	4002, 4003, 4004	-	Single Sign-On, PWP for UMS/Conference
System	20001, 20002,	-	SCM Administrator
Management	20003, 20005,		
	20006		
	5432	-	PostGRE DBMS connection
Call	5060, 5061	5060	SIP signaling
UMS	5080, 8624	5080	Call signaling for UMS
	_	14002~14130	RTP Path for UMS
	25, 143, 993	_	Signaling for E-mail Server
	3681, 3683, 2001, 2	-	Signaling for Outlook client
	2001		
	2200	-	UMS File server

(Annex) Port List for services

Service	TCP Port	UDP Port	Description
Conference	3333	5090, 5098	Call signaling for Conference
	-	44000~49998	RTP path for Conference
MOH	-	35000~35999	RTP path for MOH/Announcement
MPS	-	40000~40799	RTP path for MPS(Media Proxy Service)
Others	6000~6127	-	CSTA link for each user group
	9050, 9052	-	PMS link
	9090, 9092, 9094	-	Proprietary Application server link
	9000, 9002, 5110	-	Voice Monitoring server link
	9010, 9011	-	MVS client link
	18124, 18126	-	mySingle link
	10306, 2300	-	CDR(Call Data Record)
	-	1812, 1813	Radius Server

Thank you

Samsung Electronics Co., Ltd.



