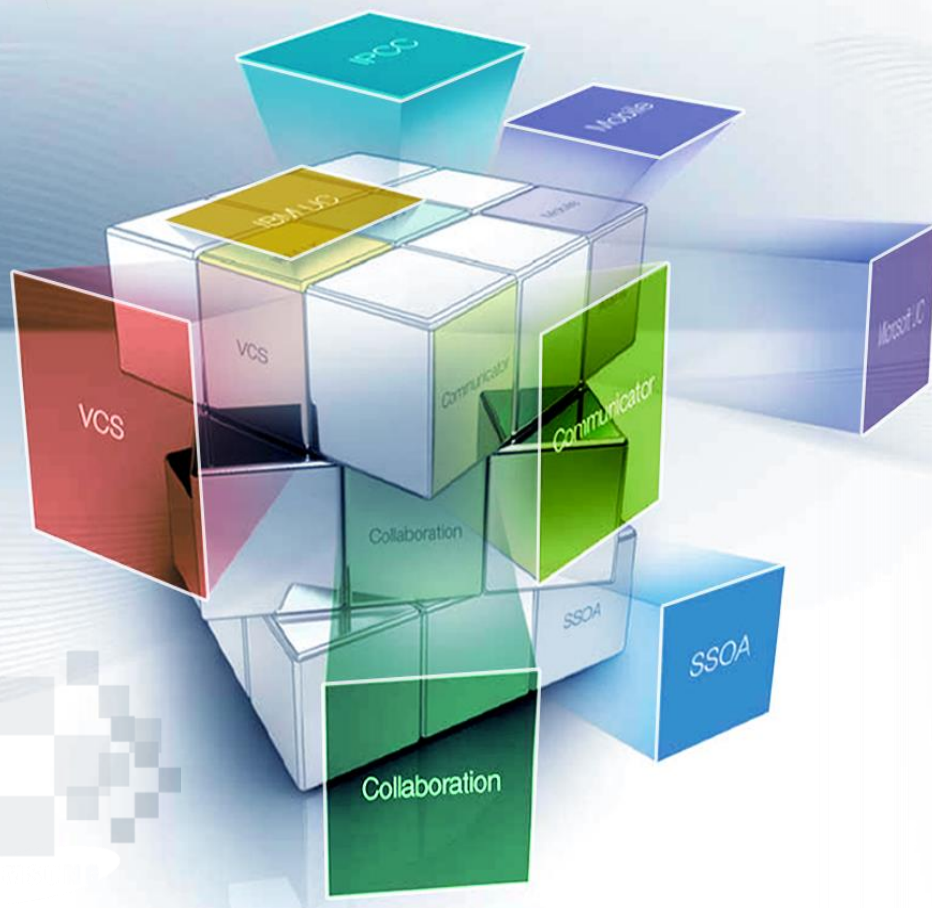


# SCM Express V6.0.0 Configuration Guide



# History

Version	Date	Changes
1.0	2016.05	Initial version for V6.0.0.x



# Contents

- | Busy Override
- | User SBC
- | G500 system provisioning

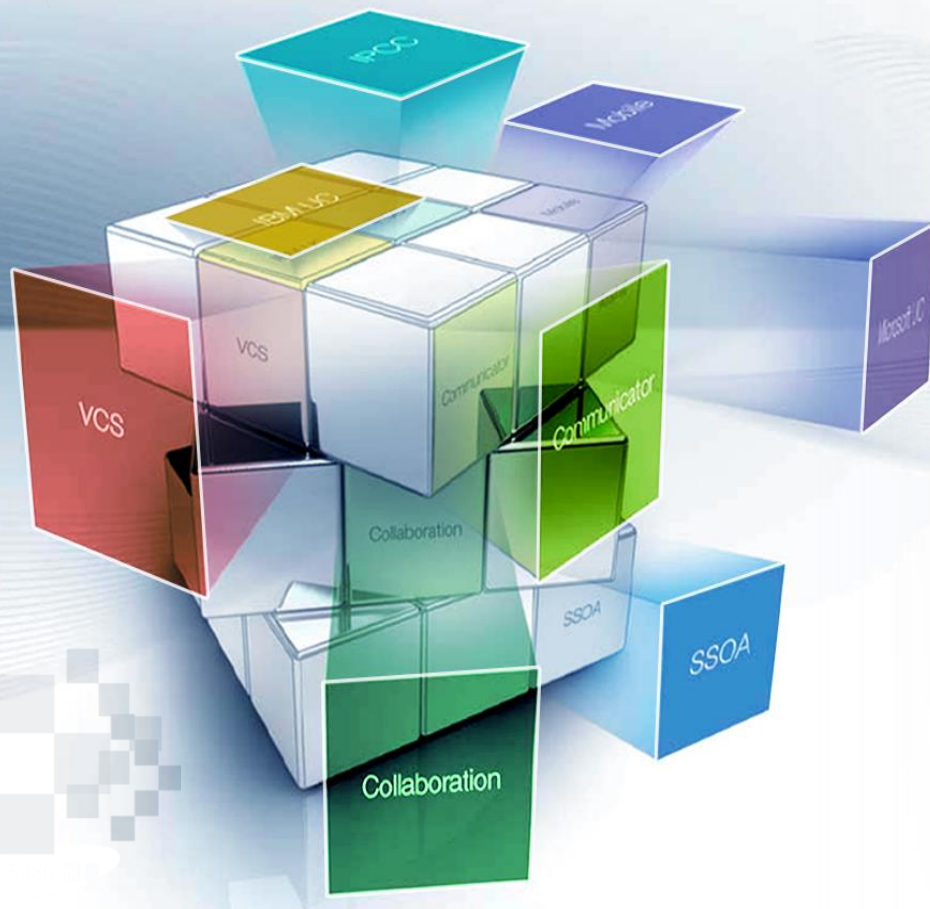


# ❖ V5.4.4.x Cautions

## < Installation Cautions! >

- From V5.4.4.x release, OS (Operating System) is changed to CentOS 6. (Previous SCM versions supports CentOS 5)
- This version **MUST** be installed on S500-II or S700 server. (When installing on S500, main memory must be 8GB)

# Busy Override





# ❖ Conf 1) Busy Override

SCM will do their best to make a trunk call although all trunk lines are busy if the user dials the 'busy override' feature code and 'outgoing call number'.

The Busy Override should be set in the [CONFIGURATON > Service > Feature Service > Class of Service] menu.

The screenshot displays the SCM Administrator web interface. On the left, the 'CONFIGURATION' menu is expanded, showing 'Service' > 'Feature Service' > 'Class of Service'. The main window shows the '[DIALOG]Class of Service - Change' dialog box. The 'User Group' is set to 'UG1', 'Override Level' is 'Level 4', and 'Name' is 'high override'. The 'Service Permission' section contains a grid of checkboxes for various features. The 'Busy Override' checkbox is highlighted with a red box. Other visible features include AME, Auto Record, Barge-In without Tone, Call Forward Busy, Call Move Service, Call Transfer, Caller ID Display, DND Override, Dispatch Call, Hot Line, Internal Wi-Fi Push Service, Move To Mobile, Music on Hold, No Use Transferee Restriction Policy, Paging On Answer, Preset Call Forward Busy, Receiving Call in Hot Spot Zone, Absence, Auto Retry, Call Forward No Answer, Call Park Extension, Call Waiting, Change User Name, Deny International Call Forward/Tran..., Follow Me, Hotel Inter-Room Call Lock, Malicious Call Trace, Move to WE VoIP First (Move Key), Multicast Paging, One-Step Conference, Pairing Service for Any Mobile, Preset Call Forward DND, Receiving Call in mVoIP Zone, Ring Back Override, Add-On Conference, BLF Key Create, Call Bridge, Call Forward Unreachable, Call Park Orbit, Callback, Conference Member Eject, Different Group Call Forward, Group Call Forward, Hotspot Push Service, Meet-me Conference, Multi-Device Conference, No Ring, Operator Call, Premium CID Service, Preset Call Forward No Answer, Remote Extension Set, Second Class of Service, Auto Answer, Barge-In with Tone, Call Forward All, Call Logging, Call Recording, Caller ID Block, DND, Direct Trunk Selection, Hot Desking, Individual Speed Dial Insert/Delete, Mobile Auto Answer, Multi-ring, No Ring Override, Outbound Call Lock, Preset Call Forward All, Preset Call Forward Unreachable, Remote Office, and Service After Smart Routing.

SCM Administrator

File Tool Tab Dialog Help

scm Administrator

CONFIGURATION

- Work Routing
- Time Schedule
- Service
  - Feature Service
    - Service Activation
    - Class of Service
    - Feature Code
    - Activated Service List
    - Service Permission
  - Group Service
    - Group Call Forward
  - Speed Dial
  - User Service
  - DTMF Detection Service
  - Selective Service
    - Predefined Text Message
  - Hotel Service
    - Directory Service Display

System Viewer

System: [MINE] os6-scm-15

Status: [MASTER] Active Alone

Alarm: CRI ( 0 ) MAJ ( 1 ) MIN ( 0 )

CPU Memory File

Message

[DIALOG]Class of Service - Change

User Group: UG1

Override Level: Level 4

Call Limitation Level: Level 0

Leaving Office Class of Service:

Call Forward Restriction Policy:

mVoIP Restriction Policy:

IP Zone B Restriction Policy:

Outside Work Restriction Policy:

Name: high override

Privacy Level: Level 5

Second Class of Service:

Restriction Policy:

Hot Spot Restriction Policy:

IP Zone A Restriction Policy:

Call Transfer Restriction Policy:

Smart Handover Type: None

Service Permission

- ☒ AME
- ☒ Auto Record
- ☒ Barge-In without Tone
- ☒ Call Forward Busy
- ☒ Call Move Service
- ☒ Call Transfer
- ☒ Caller ID Display
- ☐ DND Override
- ☒ Dispatch Call
- ☒ Hot Line
- ☒ Internal Wi-Fi Push Service
- ☒ Move To Mobile
- ☒ Music on Hold
- ☒ No Use Transferee Restriction Policy
- ☒ Paging On Answer
- ☒ Preset Call Forward Busy
- ☒ Receiving Call in Hot Spot Zone
- ☐ Receiving Call Forward
- ☒ Absence
- ☒ Auto Retry
- ☒ Busy Override
- ☒ Call Forward No Answer
- ☒ Call Park Extension
- ☒ Call Waiting
- ☒ Change User Name
- ☒ Deny International Call Forward/Tran...
- ☒ Follow Me
- ☐ Hotel Inter-Room Call Lock
- ☒ Malicious Call Trace
- ☒ Move to WE VoIP First (Move Key)
- ☒ Multicast Paging
- ☒ One-Step Conference
- ☒ Pairing Service for Any Mobile
- ☒ Preset Call Forward DND
- ☒ Receiving Call in mVoIP Zone
- ☒ Ring Back Override
- ☒ Add-On Conference
- ☒ BLF Key Create
- ☒ Call Bridge
- ☒ Call Forward Unreachable
- ☒ Call Park Orbit
- ☒ Callback
- ☒ Conference Member Eject
- ☒ Different Group Call Forward
- ☒ Group Call Forward
- ☒ Hotspot Push Service
- ☒ Meet-me Conference
- ☒ Multi-Device Conference
- ☒ No Ring
- ☒ Operator Call
- ☒ Premium CID Service
- ☒ Preset Call Forward No Answer
- ☐ Remote Extension Set
- ☐ Second Class of Service
- ☒ Auto Answer
- ☒ Barge-In with Tone
- ☒ Call Forward All
- ☒ Call Logging
- ☒ Call Recording
- ☒ Caller ID Block
- ☒ DND
- ☒ Direct Trunk Selection
- ☒ Hot Desking
- ☒ Individual Speed Dial Insert/Delete
- ☒ Mobile Auto Answer
- ☒ Multi-ring
- ☐ No Ring Override
- ☒ Outbound Call Lock
- ☒ Preset Call Forward All
- ☒ Preset Call Forward Unreachable
- ☒ Remote Office
- ☒ Service After Smart Routing

Change Apply Close

2016-05-25 14:30:44

# ❖ Conf 2) Busy Override

The Busy Override feature code should be configured in the **[CONFIGURATION > Service > Feature Service > Feature Code]** menu.

The screenshot displays the SCM Administrator web interface. The left sidebar shows a tree view under 'CONFIGURATION' with 'Feature Code' selected. The main area shows a table of feature codes. The 'Busy Override' row is highlighted with a red box. Below the table, there are buttons for 'Detail', 'Change', 'Excel', 'Detach', 'Help', and 'Close'. At the bottom, there is a 'System Viewer' section showing system status and an 'Event Viewer' section showing recent events.

Service Type	Feature Code Digit	Minimum Digit Length	Maximum Digit Length
Auto Retry - Cancel	+170	1	30
Auto Retry - Set	+171	1	30
Barge-In with Tone	+23	1	30
Barge-In without Tone	+24	1	30
<b>Busy Override</b>	<b>+83</b>	<b>1</b>	<b>30</b>
Call Bridge			
Call Forward All - Cancel	+610	1	30
Call Forward All - Set	+611	1	30
Call Forward Busy - Cancel	+620	1	30
Call Forward Busy - Set	+621	1	30
Call Forward Busy/NoAnswer - Cancel	+640	1	30
Call Forward Busy/NoAnswer - Set	+641	1	30
Call Forward Clear All	+60	1	30
Call Forward No Answer - Cancel	+630	1	30
Call Forward No Answer - Set	+631	1	30
Call Forward No Answer - Time Set			

System Viewer  
 System: [MINE] os6-scm-15  
 Status: [MASTER] Active Alone  
 Alarm: CRI ( 0 ) MAJ ( 1 ) MIN ( 0 )  
 CPU Memory File

Event Viewer

Level	Type	Date/Time	Node Name	System Name	Description
Major	ALARM	2016-04-18 17:29:43	NODE 1	os6-scm-16	SUBSCRIBER [MAX=200][CURRENT=198][99]
Major	ALARM	2016-04-18 17:02:28	NODE 0	os6-scm-15	SUBSCRIBER [MAX=200][CURRENT=198][99]

Message Completed (Total : 100 / 126) [2016-05-25 14:47:40] 2016-05-25 14:47:51

## ❖ Conf 3) Busy Override

SCM will release the ongoing call made though the busy trunk if the opposite site of the busy call has the lower privacy level than busy override caller's override level. The Override/Privacy Level can be set in the **[CONFIGURATON > Service > Feature Service > Class of Service]** menu.

The screenshot displays the SCM Administrator interface with the 'Class of Service - Change' dialog box open. The dialog box is titled '[DIALOG]Class of Service - Change'. It features several dropdown menus and a large grid of checkboxes for service permissions.

- User Group:** Set to 'UG1'.
- Override Level:** Set to 'Level 4'.
- Call Limitation Level:** Set to 'Level 0'.
- Name:** Set to 'high override'.
- Privacy Level:** Set to 'Level 5'.
- Second Class of Service:** Set to 'Second Class of Service'.
- Restriction Policy:** Set to 'Restriction Policy'.
- Hot Spot Restriction Policy:** Set to 'Hot Spot Restriction Policy'.
- IP Zone A Restriction Policy:** Set to 'IP Zone A Restriction Policy'.
- Call Transfer Restriction Policy:** Set to 'Call Transfer Restriction Policy'.
- Smart Handover Type:** Set to 'None'.

The **Service Permission** section contains a grid of checkboxes for various features:

- ☒ AME
- ☒ Auto Record
- ☒ Barge-In without Tone
- ☒ Call Forward Busy
- ☒ Call Move Service
- ☒ Call Transfer
- ☒ Caller ID Display
- ☐ DND Override
- ☒ Dispatch Call
- ☒ Hot Line
- ☒ Internal Wi-Fi Push Service
- ☒ Move To Mobile
- ☒ Music on Hold
- ☒ No Use Transferee Restriction Policy
- ☒ Paging On Answer
- ☒ Preset Call Forward Busy
- ☒ Receiving Call in Hot Spot Zone
- ☐ Rejected Call Forward
- ☒ Absence
- ☒ Auto Retry
- ☒ Busy Override
- ☒ Call Forward No Answer
- ☒ Call Park Extension
- ☒ Call Waiting
- ☒ Change User Name
- ☒ Deny International Call Forward/Tran...
- ☒ Follow Me
- ☐ Hotel Inter-Room Call Lock
- ☒ Malicious Call Trace
- ☒ Move to WE VoIP First (Move Key)
- ☒ Multicast Paging
- ☒ One-Step Conference
- ☒ Pairing Service for Any Mobile
- ☒ Preset Call Forward DND
- ☒ Receiving Call in mVoIP Zone
- ☒ Ring Back Override
- ☒ Add-On Conference
- ☒ BLF Key Create
- ☒ Call Bridge
- ☒ Call Forward Unreachable
- ☒ Call Park Orbit
- ☒ Callback
- ☒ Conference Member Eject
- ☒ Different Group Call Forward
- ☒ Group Call Forward
- ☒ Hotspot Push Service
- ☒ Meet-me Conference
- ☒ Multi-Device Conference
- ☒ No Ring
- ☒ Operator Call
- ☒ Premium CID Service
- ☒ Preset Call Forward No Answer
- ☐ Remote Extension Set
- ☐ Second Class of Service
- ☒ Auto Answer
- ☒ Barge-In with Tone
- ☒ Call Forward All
- ☒ Call Logging
- ☒ Call Recording
- ☒ Caller ID Block
- ☒ DND
- ☒ Direct Trunk Selection
- ☒ Hot Desking
- ☒ Individual Speed Dial Insert/Delete
- ☒ Mobile Auto Answer
- ☒ Multi-ring
- ☐ No Ring Override
- ☒ Outbound Call Lock
- ☒ Preset Call Forward All
- ☒ Preset Call Forward Unreachable
- ☒ Remote Office
- ☒ Service After Smart Routing

The 'Change', 'Apply', and 'Close' buttons are located at the bottom right of the dialog box.



# ❖ Conf 4) Busy Override

The Class of Service can be configured in the **[CONFIGURATION > Trunk Routing > Route > Trunk Service Tab]** menu. To release the busy line, the priority order should be checked using override/privacy level in the Class of Service.

The screenshot shows the SCM Administrator web interface. The left sidebar contains a 'CONFIGURATION' menu with 'Trunk Routing' expanded and 'Route' selected. The main window is titled '[DIALOG] Route - Change' and has several tabs: 'Basic Configuration', 'SIP Registration', 'Additional SIP', 'Trunk Service' (active), 'Interworking', and 'Number Translation'. The 'Trunk Service' tab contains various configuration options. The 'Class of Service' dropdown is highlighted with a red box and set to 'high override'. Other options include 'Trunk Access Code', 'Available Route', 'Trunk Restriction Policy', 'Anonymous Call Reject', 'Maximum Call', 'Maximum Outbound Call', 'Outbound Error Announcement', 'Call Forward Announcement Iteration', 'Use Virtual Ringback', 'Virtual Ringback for Outbound Call', 'Default Access Code for Tendon', 'Route Lock', 'Call Forward Block', 'Maximum Inbound Call', 'Allow Reroute ReasonCode', 'Inbound Error Announcement', 'Caller Ring Type', 'Use Real Ringback', and 'Auto Answer Ignore'.

At the bottom of the interface, there is a 'System Viewer' section showing system status and a table of alarms.

**System:** [MINE] os6-scm-15  
**Status:** [MASTER] Active Alone  
**Alarm:** CRI ( 0 ) MAJ ( 1 ) MIN ( 0 )

Severity	Type	Time	Node	System	Description
Major	ALARM	2016-04-18 17:29:43	NODE 1	os6-scm-16	SUBSCRIBER [MAX=200][CURRENT=198][99]
Major	ALARM	2016-04-18 17:02:28	NODE 0	os6-scm-15	SUBSCRIBER [MAX=200][CURRENT=198][99]

At the bottom, there is a 'Message' bar showing 'Completed (Total : 5 / 5)' and a timestamp '2016-05-25 15:04:07'.

## ❖ Conf 5) Busy Override

If the maximum call is 2 and there are 2 calls, SCM will find the longest continuous call that satisfying with the priority order condition amount 2 calls. The call will released forcibly.

If the maximum call is not set, SCM will check these conditions after receiving 486 Busy response and then make a busy override call again.

The screenshot shows the SCM Administrator interface with the 'Route - Change' dialog box open. The 'Maximum Call' field is highlighted with a red rectangle. The 'Class of Service' is set to 'high override'.

**SCM Administrator**

**CONFIGURATION**

- Location
- User Group
- User
- Trunk Routing
  - Route**
  - Priority Routing
  - Location Based Routing
  - Access Code
  - Time Based Routing
  - Load Balance Routing
  - Common Route Prefix
  - Inbound MCN
  - Outbound MCN
  - Toll Restriction List
  - Toll Restriction Policy
  - Smart Routing Restriction List
  - CLI Routing

**System Viewer**

System: [MINE] os6-scm-15  
 Status: [MASTER] Active Alone  
 Alarm: CRI ( 0 ) MAJ ( 1 ) MIN ( 0 )

CPU Memory File

**[DIALOG] Route - Change**

**Basic Configuration** | SIP Registration | Additional SIP | Trunk Service | Interworking | Number Translation

Trunk Access Code: [ ]  
 Available Route: [Enable]  
 Trunk Restriction Policy: [ ]  
 Anonymous Call Reject: [None]  
**Maximum Call**: [ ]  
 Maximum Outbound Call: [ ]  
 Outbound Error Announcement: [Disable]  
 Call Forward Announcement Iteration: [0]  
 Use Virtual Ringback: [Disable]  
 Virtual Ringback for Outbound Call: [Disable]

Default Access Code for Tendum: [Disable]  
 Route Lock: [None]  
 Call Forward Block: [Disable]  
 Class of Service: [high override]  
 Maximum Inbound Call: [ ]  
 Allow Reroute ReasonCode: [ ]  
 Inbound Error Announcement: [Disable]  
 Caller Ring Type: [None]  
 Use Real Ringback: [Disable]  
 Auto Answer Ignore: [Enable]

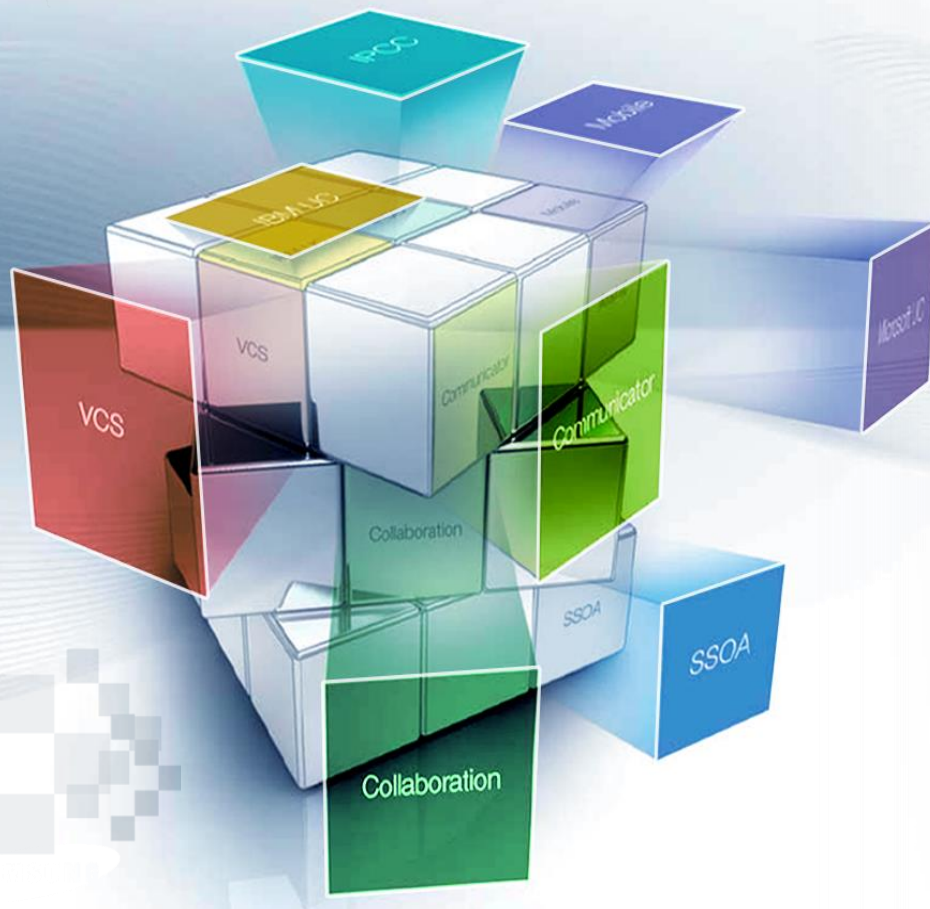
Change Apply Close

Level	Type	Date/Time	Node Name	System Name	Description
Major	ALARM	2016-04-18 17:29:43	NODE 1	os6-scm-16	SUBSCRIBER [MAX=200][CURRENT=198][99]
Major	ALARM	2016-04-18 17:02:28	NODE 0	os6-scm-15	SUBSCRIBER [MAX=200][CURRENT=198][99]

Clear Detach Help Close

Message Completed (Total : 5 / 5) [2016-05-25 15:04:07] 2016-05-25 15:04:44

# User SBC



# User SBC (1/2)

- Multiple SBCs for user registration are supported. SBC information such as IP address and port is used to make profile of a user.
  - Create 'User SBC' in the [CONFIGURATION > User > User SBC].
  - User SBCs can be created up to 35 for each Node and maximum 2500 users can be assigned to one User SBC.
  - Several User SBCs with same IP and port are supported.

The screenshot shows the SCM Administrator web interface. The left sidebar has a 'CONFIGURATION' section with 'User SBC' highlighted. The main content area shows the 'User SBC' configuration page with a table of existing entries and a 'User SBC - Detail' dialog box.

User Group	Name	Node Name	IP Address	UDP Port	TCP Port
UG1	Seoul_SBC	NODE 0	1.1.1.1	5060	5061
UG1					

The 'User SBC - Detail' dialog box shows the following fields:

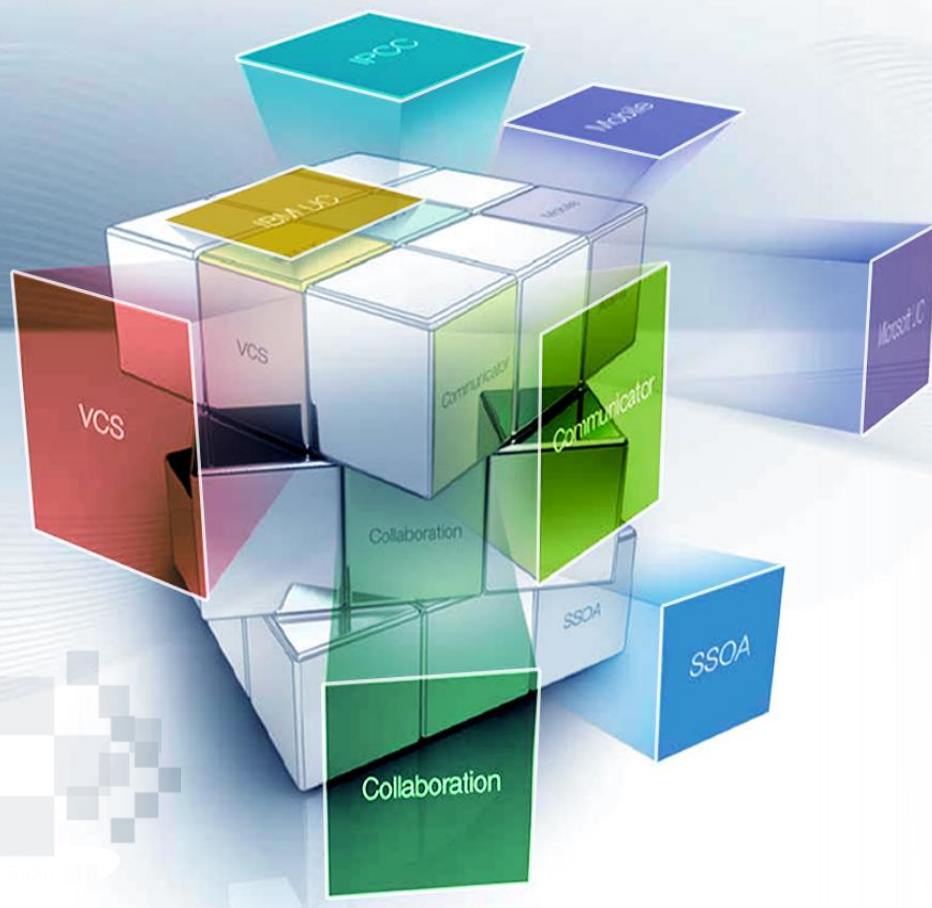
- User Group: UG1
- Node Name: NODE 1
- IP Address: 2.2.2.2
- TCP Port: 5061
- Name: Suwon\_SBC
- UDP Port: 5060
- TLS Port: 5061

The 'Phone Name' list shows a range from 3000 to 3012, with '3000' selected.





# Enhanced Number Translation Feature





# Enhanced Number Translation Feature

## ● User Group's Number Translation Feature is enhanced.

- ⌚ [CONFIGURATION > User Group > Change User Group > Number Translation].
- ⌚ Re-translation feature is supported.
- ⌚ If subscriber dial a 031+2791111, SCM provides a service as 6902.

SCM Administrator

File Tool Tab Dialog Help Server10.251.191.169 Userroot Level1.Engineer

PERFORMANCE CONFIGURATION MANAGEMENT VM/AA CONFERENCE

CONFIGURATION

- Location
- User Group
  - Create User Group
  - Change User Group
    - Information
    - Options
    - Timers
    - Detailed Event Logging Opt
    - mySingle User Number Pref
    - Number Translation**
    - Click to Dial Callee Number
    - Premium CID List
    - International Call Prefix
  - Delete User Group
  - Service Group
  - Service Group MCN
  - Department

System Viewer

System: OS6-SCM-17  
Status: Active Alone  
Alarm: CRI ( 0 ) MAJ ( 1 ) MIN ( 0 )

CPU Memory File

Message

Number Translation Main Monitor

User Group

Search Clear Reset

User Group	Check Digit	Delete Length	Insert Digit	Retranslation
UG1	031	3		Enable
UG1	2791111	7	6902	Disable
UG1	6902	4	232302	Enable
UG1	7777	4		Disable
UG1	8888	6		Disable
UG1	9031	4		Enable

1 / 1 ( 6 ) Detail Create Change Delete Excel Detach Help Close

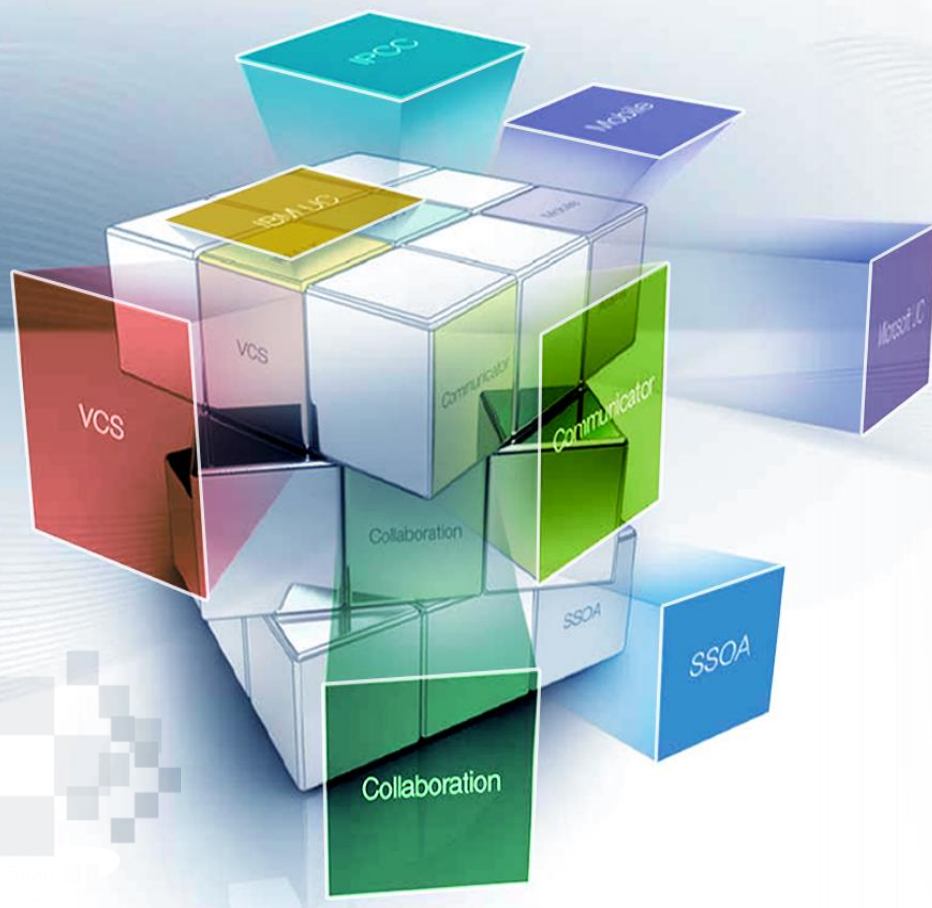
Event Viewer

Level	Type	Date/Time	Node Name	System Name	Description
Major	ALARM	2016-06-07 19:11:08	NODE 0	OS6-SCM-17	Route[scm23] Register Expired

Clear Detach Help Close

2016-06-16 21:52:09

# G500 sysetem - SNMP configuration provisioning



# ❖ G500 system – SNMP configuration provisioning

- SNMP configuration is provided to G500 System
- Refer to [CONFIGURATION > Miscellaneous > SNMP Config]

The screenshot displays the SCM Administrator web interface. The top navigation bar includes links for '파일', '도구', '찾', '다이얼로그', and '도움말'. The main header shows 'SCM Administrator' with icons for '통계/성능', '환경 설정', '관리', '음성메일/자동중계대', and '회의시스템'. The left sidebar lists various configuration categories under '환경 설정', with 'SNMP 구성' selected. The main content area is titled 'SNMP 구성' and '메인 모니터'. It features a table for configuring SNMP traps and a '찾기' button. Below the table, there are navigation controls and buttons for '저제히', '변경', '엑셀', '창분리', '도움말', and '닫기'. At the bottom, there is an 'Event Viewer' section and a 'Message' bar indicating a successful update at 2016-10-13 10:20:20.

임기 커뮤니티	쓰기 커뮤니티	트랩 커뮤니티	R/W 서버 1	R/W 서버 2	R/W 서버 3	트랩 서버 1

System Viewer  
 시스템: OS6-SCM-08  
 상태: Active Alone  
 알람: CRI ( 0 ) MAJ ( 0 ) MIN ( 0 )  
 CPU      메모리      파일

Message      [변경] 완료      [2016-10-13 10:20:20]



***Thank you***