

### 3.20.3. CLI (SMG)

- SMG Telnet, SSH RS-232
  - CLI
  - CLI
  - « »
  - (-7)
    - MTP
    - (MTP message accounting)
    - (MTP signalling link faults and performance)
    - (MTP signalling link availability)
    - (MTP signalling link utilization)
    - (MTP signalling link set and route set availability)
    - (MTP signalling point status)
- CDR
- CDR
- 1
  - LAPD E1
  - Q.931 E1
  - SORM E1
  - -7 E1
- FTP
- H.323
- H.323-
- -7
- -7
- DHCP-
- PPTP-
- NTP
- SNMP
- PBX
- Q.931
- RADIUS
- RADIUS
- Q.850
- SIP/SIP-T
- SIP/SIP-T
- SIP
- PRI-
- PRI-
- PRI-
- -7
- switch
  - 802.1q
  - QoS
- syslog

- IVR
- 
- 
- SMG-2016/3016
  - 
  - SMG-2016/3016
    - interface
    - shutdown
    - bridging to
    - flow-control
    - frame-types
    - speed
    - speed auto
    - show interfaces configuration
    - show interfaces status
    - show interfaces counters
  - 
  - - channel-group
    - lacp mode
    - mode
    - lacp port-priority
    - lacp rate
  - VLAN SMG-2016
    - pvid
  - STP/RSTP
    - spanning-tree enable
    - spanning-tree pathcost
    - spanning-tree priority
    - spanning-tree admin-edge
    - spanning-tree admin-p2p
    - spanning-tree auto-edge
  - -
    - mac-address-table aging-time
    - show mac address-table count
    - show mac address-table include/exclude interface
  - - mirror <rx|tx> interface
    - mirror <rx|tx> analyzer
    - mirror add-tag
    - mirror <rx|tx> added-tag-config
    - mirror <rx|tx> vlan
  - SELECTIVE Q-IN-Q
    - add-tag
    - overwrite-tag
    - remove
    - clear
    - selective-qinq enable
    - selective-qinq list
    - show interfaces selective-qinq lists
  - DUAL HOMING
    - backup interface
    - backup-interface mac-per-second
    - backup-interface mac-duplicate
    - backup-interface preemption
    - show interfaces backup
  - LLDP
    - lldp enable
    - lldp hold-multiplier
    - lldp reinit
    - lldp timer
    - lldp tx-delay
    - lldp lldpdu
    - show lldp configuration
    - show lldp neighbor
    - show lldp local
    - show lldp statistics
    - show lldp lldpdu
  - QOS
    - qos default
    - qos type
    - qos map
    - cntrset
    - show cntrset
    - show qos
  - 
  - - 
    - - running-config
      - candidate-config
    -

- 
- 
- 
- config
- exit
- history

,

SMG :


- *(com-)*– CLI ;
- *Telnet 23*– (com-);
- *SSH 22*– (com-).

SMG

CLI *tracemode.*

30 —

help	
quit	
logout	
exit	
history	
radact [on/off]	/ RADIUS
radshow	RADIUS-
resolve	. :
rstat	RDIUS
q931timers	Q.931
mspping [on/off] <idx>	/ , idx – – 0..5
stream [stream]	1, , stream – 0..15)
e1stat <stream>	1
alarm	
sync	
syncfreq	
setsync	. - < >
checkmod	. : < > < >
frmtrace	1. : < > < > < > • : l1, l2, l3 • : 1 – , 0 –
cic <linkset>	, <linkset> – -7
checknum	
cfg read	, 1

callref	SIP-
rtpdebug <level>	RTP , <level> – <div> .</div>
mspcports	RTP-
mspcshow <device>	
sipstat	SIP-
sipclrst	SIP-
sipreg	. : <user>, <trunk <self user>>
sipreg user	( reginfo)
sipreg trunk self	SIP-
sipreg trunk user	SIP-
route	,
showcall	
license	
mspreglog	
mspunreglog	
talk	
trunk cps	. : <idx> –
trunk stat	. : <idx> –
sys	,
hwreboot	
trace	
reginfo	
regcon	<b>unregcon (   )</b>
unregcon	
stop	

,

:

**trace start**

:

**trace stop**

/

:

trace <POINT> on/off <IDX> <LEVEL>

:

<POINT>	
<IDX>	
<LEVEL>	

31 — (<POINT>)

<POINT>		<IDX>
hwpkt	1	0..15
stream	1	0..15
port		
isup	ISUP -7	
mtp3	MTP3 -7 1	0..15
sipt	SIP/-T/-I	
pril3	DSS1 1	0..15
sw	TDM-	
mspc	IP-	
mspd		0..7
net	2-	
sync		
erl1	SIP-	
erl3	SIP-	
snmp	SNMP	
np	()	
mod		
alarm		
radius	RADIUS	

## SMG Telnet, SSH RS-232

, Telnet, SSH RS-232 ( CLI). : 192.168.1.2, 255.255.255.0.

, CLI (Command Line Interface) web-, .

copy running\_to\_startup.

: admin, : rootpasswd.

.

### CLI

32 — CLI

?			
alarm global			
alarm list clear			

alarm list show			,
config			
CPU load statistic			CPU
date			.
	<DAY>	1-31	
	<MONTH>	1-12	
	<YEAR>	2011-2037	
	<HOURS>	00-23	
	<MINS>	00-59	
dhcp start			DHCP-
dhcp stop			DHCP-
exit			CLI
firmware update tftp			
	<FILE>		FILE –
	<SERVERIP>	IP- AAA.BBB.CCC.DDD	SERVERIP – IP- TFTP-
firmware update ftp			
	<FILE>		FILE –
	<SERVERIP>	IP- AAA.BBB.CCC.DDD	SERVERIP – IP- FTP-
firmware update usb	<FILE>		
			FILE –
firmware update_and_reboot tftp			
	<FILE>		FILE –
	<SERVERIP>	IP- AAA.BBB.CCC.DDD	SERVERIP – IP- TFTP-
firmware update_and_reboot ftp			
	<FILE>		FILE –
	<SERVERIP>	IP- AAA.BBB.CCC.DDD	SERVERIP – IP- FTP-
firmware update_and_reboot usb			
	<FILE>		FILE –
history			
license check			(License installed – ; <i>License NOT installed – )</i>
	<LICENSE>	SMG-PBX-2000	
		SMG-SORM/	
		SIP-PBX-Demo/	
		SMG-PBX-3000/	
		SMG-H323/	
		SMG-RCM/	
		SMG-VAS-500/	
		SMG-DEMO	
license download			
	<FILE>		
	<SERVERIP>	IP- AAA.BBB.CCC.DDD	
license update			
license reset	no/yes		
management			-7
mirroring			

number check			<p>. , SIP, PRI V5.2 . :</p> <ul style="list-style-type: none"><li>• <i>calling-table</i> – ;</li><li>• <i>called-table</i> – ;</li><li>• <i>NOT found in</i> – ;</li><li>• <i>found in</i> – ;</li></ul> <p>SIP/PRI/V5.2 abonent ID[11] index [0] — SIP/PRI/V5.2 [ID ] [ ]</p> <p><i>Prefix index [6]</i> – [ ]</p>
	<NUMPLAN>	0-15/0-255	
	<NUMBER>	31	
	<COMPLETE>	yes/no	
mirroring			Ethernet
password			CLI
pcmdump			1
	<STREAM>	0-15	STREAM – ;
	<FILE>		FILE –
quit			CLI
reboot	<YES_NO>	yes/no	
sh			CLI Linux Shell
sntp retry			SNTP
statistic			
tcpdump			Ethernet-
	<DEVICE>	eth0/eth1/local	DEVICE –
	<FILE>		FILE –
	<SNAPLEN>	0-65535	SNAPLEN – , (0 – )
tftp put			TFTP. , tcpdump pcmdump
	<LOCAL_FILE>		
	<REMOTE_FILE>		
	<SERVERIP>	IP- AAA.BBB.CCC.DDD	
tracemode			

CLI

Telnet, *admin*.

:

- 1. CLI, /, **password** <Enter>.
- 2. :  
New password:
- 3. :

Retype password:  
(Password for admin changed by root)

- 4. Flash: , **config**, **copy running\_to\_startup** <Enter>.

« »

Q.752 -.

:

statistic

(-7)

:

mtp

:

Change to MTP statistic mode SMG-[STAT]-[MTP]>

, MTP

<LINK>	1
<LINKSET>	-7
<TIME1>	, ()
<TIME2>	, ()

MTP

:

signalling link allstat <LINK> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> signalling link allstat 8 12 0

:

8- E1 12 00 .

(MTP message accounting)

Q.752 -, 15

:

message accounting <LINK> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> message accounting 8 12 0

:

+-----+   SS7 MTP message accounting. Link 08   +-----+			
Period: 00:00:00 - 00:00:00 ( 0 sec)   +-----+			
Messages   Octets   +-----+			
Received   0   0   +-----+			
Transmitted   0   0   +-----+			

:

MTP 8- E1 12 00 .

(MTP signalling link faults and performance)

Q.752 -, 1

:

signalling link faults\_and\_performance <LINK> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> signalling link faults\_and\_performance 8 12 0



:

+-----+		
	MTP SL faults and performance.      Link   08	
+-----+		
	Period: 00:00:00 - 00:00:00 (      0 sec)	
+-----+		
	Duration the In-service state             0 sec	
+-----+		
	SL failure events all reasons             0	
+-----+		
	Number of SU received in error             0	
+-----+		

:

8- E1 12 00.

(MTP signalling link availability)

Q.752-, 2

:

**signalling link availability** <LINK> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> signalling link availability 8 12 0

:

+-----+		
	MTP SL availability.                      Link   08	
+-----+		
	Period: 00:00:00 - 00:00:00 (      0 sec)	
+-----+		
	Duration of SL unavailability             0 sec	
+-----+		

:

8- E1 12 00

(MTP signalling link utilization)

Q.752-, 3

:

**signalling link utilization** <LINK> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> signalling link utilization 8 12 0

:

+-----+		
	MTP SL utilization.                      Link   08	
+-----+		
	Period: 00:00:00 - 00:00:00 (      0 sec)	
+-----+		
	SIF and SIO octets transmitted             0	
+-----+		
	SIF and SIO octets received                     0	
+-----+		
	MSUs discarded due congestion             0	
+-----+		

:

8- E1 12 00

(MTP signalling link set and route set availability)

Q.752 -, 4

:

**signalling link availability** <LINKSET> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> signalling link availability 8 12 0

:

+-----+   MTP SL utilization. Link 08   +-----+		
Period: 00:00:00 - 00:00:00 ( 0 sec)   +-----+		
SIF and SIO octets transmitted	0	
+-----+		
SIF and SIO octets received	0	
+-----+		
MSUs discarded due congestion	0	
+-----+		

:

() 8- 12 00

(MTP signalling point status)

Q.752 -, 5

:

**signalling point status** <LINK> <TIME1> <TIME2>

:

SMG-[STAT]-[MTP]> signalling point status 8 12 0

:

+-----+   MTP signalling point status. Link 08   +-----+		
Period: 00:00:00 - 00:00:00 ( 0 sec)   +-----+		
Adjacent SP inaccessible	0	
+-----+		
Duration of SP inaccessible	0 sec	
+-----+		
MSUs discarded due error	0	
+-----+		

:

8- 1 12 00

:

**packets**

:

SMG-[STAT]-[PACKETS]>

:

show <TIME1> <TIME2>

:

<TIME1>	, ();
<TIME2>	, ();

:

SMG-[STAT]-[PACKETS]> show 12 0

:

+-----+   Packet statistic   +-----+		
Period: 12:00:17 - 13:22:32 ( 4935 sec)   +-----+		
Packets received	0	
+-----+		
Packets transmitted	0	
+-----+		
Packets lost	0	
+-----+		
Packets lost (percentage)	0.000000	
+-----+		
Packets bad	0	
+-----+		
Packets bad (percentage)	0.000000	
+-----+		
Packets trip-time average	0 ms	
+-----+		
Packets trip-time min	0 ms	
+-----+		
Packets trip-time max	0 ms	
+-----+		

:

12 00

-7 management.

SMG> management
Entering management mode.
SMG-[MGMT]>

?			
exit			
history			
nslookup	<HOST>		IP- <i>HOST-</i>
ping host	<HOST>		PING-
ping ip	<IP>	IP- AAA.BBB.CCC.DDD	PING- IP-

e1 stat clear	<STREAM>	0-15	1
e1 stat show	<STREAM>	0-15	1
ss7link	<SS7_LINK>	0-15	-7
quit			CLI

## -7

-7 **ss7link** <Link>, <Link> – -7, 0 15.

```
SMG-[MGMT]> ss7link 0
E1[0]. Signaling is SS7
SMG-[MGMT]-[SS7LINK][0]>
```

?			
chan block	<CHAN_INDEX>	1-31	(BLO)
chan ccr			CCR .
	<CHAN_INDEX>	1-31	
	start		
	state		
	stop		
chan group block			
	<CHAN_INDEX_START>	1-31	CHAN_INDEX_START – E1 ;
	<CHAN_COUNT>	2-31	CHAN_COUNT –
chan group reset			
	<CHAN_INDEX_START>	1-31	CHAN_INDEX_START – E1 ;
	<CHAN_COUNT>	2-31	CHAN_COUNT –
chan group unblock			
	<CHAN_INDEX_START>	1-31	CHAN_INDEX_START – E1 ;
	<CHAN_COUNT>	2-31	CHAN_COUNT –
chan rel	<CHAN_INDEX>	1-31	
chan reset	<CHAN_INDEX>	1-31	
chan rlc	<CHAN_INDEX>	1-31	
chan unblock	<CHAN_INDEX>	1-31	
exit			
link clr outage			« »
link send LFU			« »
link send LIN			« »
link send LUN			« »
link set congestion			« »
link set outage			« »
link start emergency			
link start normal			
link stop			
quit			CLI
show info chan			
show info link			

( SMG-1016M)      **mirroring.**

```
SMG> mirroring
Change to the mirroring mode
SMG-[MIRRORING]>
```

?			
apply	yes/no		
exit			
quit			CLI
set	:		
	<PORT>	CPU/ GE_PORT0/ GE_PORT1/ GE_PORT2/ SFP0/ SFP1	<i>PORT-</i> ;
	<NAME>		<i>NAME-</i> :
		src_in/	<i>src_in-</i> - , (-);
		src_out/	<i>src_out-</i> - , (-);
		dst_in/	<i>dst_in-</i> -- , -;
		dst_out	<i>dst_out-</i> -- , -;
	<ACT>	on/off	
show			

/      **config.**

**do,**      CLI      **top**      CLI.

```
SMG> config
Entering configuration mode.
SMG-[CONFIG]>
```

?			
alarm path	<set>	off or /mnt/sd[abc][1-7]*	: <i>Off -;</i> <i>/mnt/sd[abc][1-7]*-</i>
access category			
cdr			CDR
copy running_to_startup			( )
copy startup_to_running			
count linkset			-7
count trunk			
count trunk_direction			
ount sipt-interface			SIP

ount radius-profile			RADIUS
delete modifiers-table			
count sipcause-profile			Q.850 sip-reply
count routing-profile			
count h323-interface			h.323
count ss7timers			-7
delete linkset	<OBJECT_INDEX>		-7
delete trunk	<OBJECT_INDEX>		
delete trunk_direction	<OBJECT_INDEX>		
delete sipt-interface	<OBJECT_INDEX>	SIP	SIP
delete radius-profile	<OBJECT_INDEX>	RADIUS	RADIUS
delete modifiers-table	<OBJECT_INDEX>		
delete sipcause-profile	<OBJECT_INDEX>	q.850 sip-reply	q.850 sip-reply
delete routing-profile	<OBJECT_INDEX>		
delete h323-interface	<OBJECT_INDEX>	H.323	H.323
delete ss7timers	<OBJECT_INDEX>	-7	-7
delete hunt-group	<OBJECT_INDEX>		
delete pickup-group	<OBJECT_INDEX>		
e1	<E1_INDEX>	0-15	E1
exit			
firewall dynamic			
firewall static			
ftpd			ftp-
h323 configuration			.323
h323 interface	<H323_INDEX>	0-63	.323
history			
hunt-group	<hunt-group_INDEX>	0-31	
log path			.
			:
	<apply>		
	<set>	local	local – ;
		/mnt/sd[abc][1-7]*	/mnt/sd[abc][1-7]* –
	<show>		
linkset	<LINKSET_INDEX>	0-15	-7
modifiers table	<MODTBL_INDEX>	0-255	
network			
new linkset			-7
new trunk			
new trunk_direction			
new sipt-interface			SIP-T
new radius-profile			RADIUS
new modifiers-table			
new sipcause-profile			q.850 sip-reply
new routing-profile			
new h323-interface			H.323
new ss7timers			-7

new hunt-group			
new pickup-group			
numplan			
pbx_profiles			PBX
ports range	<RANGE_PORT>	1-65535	UDP , (RTP) .38
ports show			UDP-
ports start	<START_PORT>	1024-65535	UDP-, (RTP) .38
q931-timers			Q.931
quit			CLI
radius			RADIUS
record			
reset_config			
route			
routing			
show running main by_step			
show running main whole			
show running network			
show running radius_servers			RADIUS-
show running snmp			SNMP
show startup main by_step			
show startup main whole			
show startup network			
show startup radius_servers			RADIUS-
show startup snmp			SNMP
sip configuration			SIP/SIP-T
sip interface	<SIPT_INDEX>	0-63	SIP/SIP-T
sip users			SIP/SIP-T
ss7cat			-7
ss7timers	<SS7_TIMERS_INDEX>	0-15	-7
submodule-usage			SM-VP
switch_port			
sync			
syslog			
trunk	<TRUNK_INDEX>	0-63	
trunk_direction	<DIRECTION_INDEX>	0-31	
v5.2			V5.2 E1

CDR

cdr.

```
SMG-[CONFIG]> cdr
Entering CDR-info mode.
SMG-[CONFIG]-[CDR]>
```

?			

archive			CDR
	<all>	31	
	<directory>		
category	save	yes/no	/ CDR
config			Configuration
duration count mode	<CDR_COUNT_MODE>	round-up/round-down /not-round	, ( )
emptysave	<CDR_EMPTY>	yes/no	/ CDR-
enabled	<CDR>	yes/no	/ CDR-
exit			
fields add <field>			(. CDR)
fields default			
fields flush			
fields set <field>	<FIELD_INDEX>	0-39	(. CDR)
file create mode	<CDR_FILE>		CDR:
		periodically/	<i>periodically</i> – c ;
		once-a-day/	<i>once-a-day</i> – ;
		once-an-hour	<i>once-an-hour</i> –
header	<CDR_HEADER>	yes/no	/ CDR- : SMG. CDR. File started at 'YYYYMMDDhhmmss', 'YYYYMMDDhhmmss' –
history			
localdisk			CDR ;
	<set>	/mnt/sd[abc][1-7]*	CDR
	<show>		
localkeep period			CDR
	<day>	0-30	
	<hour>	0-23	
	<min>	0-59	
localsave			CDR
	<no>		
	<yes>		
period day	<CDR_DAY>	0-30	CDR- ,
period hour	<CDR_HOUR>	0-23	CDR- ,
period min	<CDR_MIN>	0-59	CDR- ,
pickup mark	<CDR_pickup_MARK>	yes/no	/ CDR « »
quit			CLI
redirectmark	<CDR_REDIRECT_MARK>	yes/no	/ CDR « »
redirectsave	<CDR_REDIRECT>	yes/no	CDR Redirecting number, Redirecting number Calling party number
redirected duration	<CDR_REDIR_DURATION>	yes/no	
release initiator mark	<CDR_RELEASE>	yes/no	
show			CDR-
show_dirs			FTP-
signature	<CDR_SIGNATURE>	63	, ,
unsuccess	<CDR_UNSUCC>	yes/no	/ CDR- ( )
upload archive ftp /tftp			FTP/TFTP-
	<ARCHIVE_NAME>	63	
	<FTP/TFTP_server>	IP-	



upserver enabled	<CDR_UPLOAD>	yes/no	/ CDR-
upserver ipaddr	<CDR_SERVER_IPADDR>	63	IP-
upserver login	<CDR_SERVER_LOGIN>	63	
upserver passwd	<CDR_SERVER_PASSWD>	63	
upserver path	<CDR_SERVER_PATH>	63	, CDR-
upserver port	<CDR_SERVER_PORT>	1-65535	TCP-
upserver protocol	<CDR_VIA_PROTO>	FTP/SCP	, CDR
upserver_reserve enabled	<CDR_RESERV_ENA>	yes/no	/ CDR-
upserver_reserve ipaddr	<CDR_RESERV_IPADDR>	63	IP-
upserver_reserve login	<CDR_RESERV_LOGIN>	63	
upserver_reserve only_fail	<CDR_RESERV_ONLY_FAIL>	yes/no	/ CDR-
upserver_reserve passwd	<CDR_RESERV_PASSWD>	63	
upserver_reserve path	<CDR_RESERV_PATH>	63	, CDR-
upserver_reserve port	<CDR_RESERV_PORT>	1-65535	TCP-

## CDR

CDR **fields add** <field> **fields set** <field> <n>.

<field>	
acct-session-id	RADIUS Account-Session-Id, Acct-Session-Id, RADIUS
called in	( )
called out	( )
calling in	( )
calling out	( )
device sign	
disc code	Q.850
disc info	
duration	
global-callref	Global Call Reference (GCR)
incoming CID category	( )
incoming description	— / ( )
incoming E1 chan	1
incoming E1 stream	1
incoming ipaddr	IP-
incoming SIP call id	SIP Call-ID
incoming SS7 category	-7 ( )
incoming SS7 CIC	CIC
incoming type	
mark pickup	
mark redir	

mark release side	
numplan in	,
numplan out	,
outgoing CID category	( )
outgoing description	— / ( )
outgoing E1 chan	1
outgoing E1 stream	1
outgoing ipaddr	IP-
outgoing SIP call id	SIP Call-ID
outgoing SS7 category	-7 ( )
outgoing SS7 CIC	CIC
outgoing type	
radius-rejected	RADIUS-
redirecting in	( )
redirecting out	( )
sequential number	
time connect	
time disconnect	
time setup	

#### access category.

```
SMG-[CONFIG]> access category
Entering Access-Category mode.
SMG-[CONFIG]-[ACCESS-CAT]>
```

?			
config			Configuration
exit			
quit			CLI
set access			:
	<CAT_IDX>	0-63	CAT_IDX – ;
	<ACCESS_IDX>	0-63	ACCESS_IDX –, ;
	<ACCESSIBLE>	enable/disable	ACCESSIBLE – (, )
set name			
	<CAT_IDX>	0-63	CAT_IDX – ;
	<NAME>	, 31 (, , «_»)	NAME –
show	<CAT_IDX>	0-63	
showall			

#### 1

e1 <E1\_INDEX>, <E1\_INDEX> – 1.

```
SMG-[CONFIG]> e1 0
Entering E1-stream mode.
SMG-[CONFIG]-E1[0]>
```

?			
alarm	<ON_OFF>	on/off	/ E1
config			Configuration
crc4	<ON_OFF>	on/off	/ CRC4 E1
disabled			
enabled			
equalizer	<ON_OFF>	on/off	/ 1
exit			
history			
lapd			LAPD E1
linecode AMI			AMI
linecode HDB3			HDB3
name		letter or number or '_', '.', '-'. Max 63 symbols	1
q931			Q931 E1
quit			CLI
remalarm	<ON_OFF>	on/off	/
show			
signaling	<Signaling type>	Q931_USR Q931_NET SS7 SORM V5.2LE SORM-TRANSIT	: Q931_USR, Q931_NET, SS7, SORM, V5.2LE, SORM-TRANSIT
slipIND	<ON_OFF>	on/off	
slipTO	<TIMEOUT>	5sec/ 10sec/ 20sec/ 30sec/ 45sec/ 1min/ 2min/ 3min/ 5min/ 10min/ 15min/ 30min/ 1hour/ 2hour/ 6hour	, ,
sorm			SORM E1

ss7			-7 E1
-----	--	--	-------

**LAPD E1**

Q.931 ( **signaling**).      1 **lapd**.

```
SMG-[CONFIG]-E1[0]> lapd
E1[0]. Signaling is Q931
SMG-[CONFIG]-E1[0]-[LAPD]>
```



?			
config			Configuration
exit			
history			
N200	<N200>	0-255	
quit			CLI
show			LAPD
t200	<T200>	0-255	T200, x100
t203	<T203>	0-255	T203, x100

**Q.931 E1**

Q.931 ( **signaling**).      1 **q931**.

```
SMG-[CONFIG]-E1[0]> q931
E1[0]. Signaling is Q931
SMG-[CONFIG]-E1[0]-[Q931]>
```

?			
access category	<CAT_IDX>	0-31	
categoryAON	<CAT_AON>	0-15	AO
channel			/
	<CHAN_NUM>	[0-31] or 'all'	
	<on_off>	on/off	
chanorder	<CHAN_ORDER>		:
		up_ring/	<i>up_ring</i> - ;
		down_ring/	<i>down_ring</i> - ;
		up_start/	<i>up_start</i> - ;
		down_start	<i>down_start</i> - .
config			Configuration.
exit			
history			
InBand in Disconnect	<on_off>	on/off	« PI In-Band DISCONNECT»
invokeID	<INVOKE_ID>	1024-65535	(    )

numplan	<CLD_PLAN_ID>	unknown/ ISDN/ telephony/ National/ Privat	. <div> E.164 – ISDN/telephony</div>
qsig	<ON_OFF>	on/off	/ QSIG
quit			CLI
RestartChannel	<SEND>	send/don't_send	/ RESTART
RestartInterface	<SEND>	send/don't_send	/ RESTART
RoutingProfile	<PROF Number>	[0-127] or none	
SendCatAON	<ON_OFF>	on/off	/ SETUP <div></div>
SendDialTone	<ON_OFF>	on/off	/ DialTone overlap-
SendEndOfDial	<ON_OFF>	on/off	/ « »
show			Q931
trunk	<trunk_index>	0-31	

## SORM E1

SORM ( **signaling**).      1 **sorm**.

```
SMG-[CONFIG]-E1[0]> sorm
E1[0]. Signaling is SORM
SMG-[CONFIG]-E1[0]-[SORM]>
```

?			
activity	<ON_OFF>	on/off	/ L1
han1(2) mode	<SORM_MODE>	DCE/DTE	chan1 (2). : DCE, DTE
chan1(2) send L3 Reset	<ON_OFF>	on/off	/ 1(2) L3
chan1(2) send L3 Restart	<ON_OFF>	on/off	/ 1 L3
chan1(2) send SABME	<ON_OFF>	on/off	/ (SABME) 1(2)
cmd	<CMD_ADDR>	1/3	
config			Configuration
exit			
history			
mode		Tcp/x25	
protocol specification	<SPECIFICATION>	order_70/ KZ_specification/ order_268	
quit			CLI
resp	<RESP_ADDR>	1/ 3	
show			SORM
tcp interface	<IFACE_NAME>		TCP
tcp port1		10000-65535	tcp- -1
tcp port2		10000-65535	tcp- -2

timer 10min	<ON_OFF>	on/off	/
-------------	----------	--------	---

## -7 E1

-7 ( signaling). E1 ss7.

```
SMG-[CONFIG]-E1[0]> ss7
E1[0]. Signaling is SS7
SMG-[CONFIG]-E1[0]-[SS7]>
```

?			
CIC fill			CIC , :
	<CIC>	0-65535	CIC – CIC
	<step>	0-255	step –
CIC set			CIC :
	<TIMESLOT>	0-31	TIMESLOT –
	<CIC>	0-65535	CIC – CIC
config			Configuration
Dchan	<D_CHAN>	0-31	D- :  0 – D- ( )
DPC MTP3		0-16383	DPC MTP3
exit			
history			
linkset	<linkset_index>	0-15	-7
quit			CLI
show			-7
SLC	<slc>	0-15	-7

## firewall dynamic.

```
SMG-[CONFIG]> firewall dynamic
Entering dynamic firewallmode.
SMG-[CONFIG]-[DYN-FIREWALL ]>
```

?			
blacklist add	<BLACKIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	
blacklist remove by addr	<BLACKIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	
blacklist remove by pos	<POSITION>	0-65635	
blacklist show all			
blacklist show count			,
blacklist show address	<BLACKIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	
blacklist show first	<COUNT>	0-4095	
blacklist show last	<COUNT>	0-4095	
blacklist show position	<POSITION>	0-65635	
block history show all			

block show count			
block show address	<BLACKIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	
block show first	<COUNT>	0-4095	
block show last	<COUNT>	0-4095	
block show position	<POSITION>	0-65635	
blocklist remove by addr	<BLACKIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	
blocklist remove by pos	<POSITION>	0-65635	
blocklist show all			
blocklist show count			
blocklist show address	<BLACKIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	
blocklist show first	<COUNT>	0-4095	
blocklist show last	<COUNT>	0-4095	
blocklist show position	<POSITION>	0-65635	
exit			
history			
quit			CLI
set block_time			,
	<SERVICE>	SIP/WEB/TELNET/SSH/OTHER	
	<BLCKTIME>	60-352800	
set enable	<ENA>	on/off	/
set tries			,
	<SERVICE>	SIP/WEB/TELNET/SSH/OTHER	
	<TRIES>	1-10	
set forgive_time			
	<SERVICE>	SIP/WEB/TELNET/SSH/OTHER	
	<FORGIVETIME>	60-352800	
set increment			
	<SERVICE>	SIP/WEB/TELNET/SSH/OTHER	
	<INCREMENT_FLG>	no/yes	
show			
whitelist add	<WHITEIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	IP- ,
whitelist remove by addr	<WHITEIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	IP- ,
whitelist remove by pos	<POSITION>	0-65635	IP- ,
whitelist show all			,
whitelist show count			,
whitelist show address	<WHITEIP>	IP- AAA.BBB.CCC.DDD CIDR AAA.BBB.CCC.DDD/FF	,
whitelist show first	<COUNT>	0-4095	,
whitelist show last	<COUNT>	0-4095	,
whitelist show position	<POSITION>	0-65635	,

#### firewall static.

```
SMG-[CONFIG]> firewall static
Entering static firewall mode
SMG-[CONFIG]-[FIREWALL]>
```

--	--	--	--

?			
add profile	<PROF_NAME>	, , '_', 63	firewall
add rule	<direction>		firewall
		forward	
		input	
		output	
	<ENABLE>	enable/disable	/
	<RULE_NAME>	, . 63	
	<S_IP>	AAA.BBB.CCC.DDD	IP-
	<S_MASK>	AAA.BBB.CCC.DDD	
	<R_IP>	AAA.BBB.CCC.DDD	IP-
	<R_MASK>	AAA.BBB.CCC.DDD	
	<PROTO>		
		any	
		tcp	
		udp	
		icmp	
tcp+udp			
<S_PORT_START>	1-65535		
<S_PORT_END>	1-65535		
<D_PORT_START>	1-65535		
<D_PORT_END>	1-65535		
<ICMP_TYPE>		ICMP	



	<div> <div>none</div> <div>any</div> <div>echo-reply</div> <div>destination-unreachable</div> <div>network-unreachable</div> <div>host-unreachable</div> <div>protocol-unreachable</div> <div>port-unreachable</div> <div>fragmentation-needed</div> <div>source-route-failed</div> <div>network-unknown</div> <div>host-unknown</div> <div>network-prohibited</div> <div>host-prohibited</div> <div>TOS-network-unreachable</div> <div>TOS-host-unreachable</div> <div>communication-prohibited</div> <div>host-precedence-violation</div> <div>precedence-cutoff</div> <div>source-quench</div> <div>redirect</div> <div>network-redirect</div> <div>host-redirect</div> <div>TOS-network-redirect</div> <div>TOS-host-redirect</div> <div>echo-request</div> <div>router-advertisement</div> <div>router-solicitation</div> <div>time-exceeded</div> <div>ttl-zero-during-transit</div> <div>ttl-zero-during-reassembly parameter-problem</div> <div>ip-header-bad</div> <div>required-option-missing</div> <div>timestamp-request</div> <div>timestamp-reply</div> <div>address-mask-request</div> <div>address-mask-reply</div> </div>		
	<ACTION>		- :
		accept	<i>ACCEPT</i> -, , firewall;
		drop	<i>DROP</i> -, , firewall - , ;
		reject	<i>REJECT</i> -, , firewall, , , TCP RST, ICMP destination unreachable.
	<P_IDX>	1-65535	firewall
add rule geoip	<direction>		GeoIP- firewall
		input	:
		output	

<ENABLE>	enable/disable	/
<RULE_NAME>	, . 63	
<COUNTRY>		,
<PROTO>		
	any	
	tcp	
	udp	
	icmp	
	tcp+udp	
<S_PORT_START>	1-65535	
<S_PORT_END>	1-65535	
<D_PORT_START>	1-65535	
<D_PORT_END>	1-65535	
<ICMP_TYPE>		ICMP

	<div>none</div> <div>any</div> <div>echo-reply</div> <div>destination-unreachable</div> <div>network-unreachable</div> <div>host-unreachable</div> <div>protocol-unreachable</div> <div>port-unreachable</div> <div>fragmentation-needed</div> <div>source-route-failed</div> <div>network-unknown</div> <div>host-unknown</div> <div>network-prohibited</div> <div>host-prohibited</div> <div>TOS-network-unreachable</div> <div>TOS-host-unreachable</div> <div>communication-prohibited</div> <div>host-precedence-violation</div> <div>precedence-cutoff</div> <div>source-quench</div> <div>redirect</div> <div>network-redirect</div> <div>host-redirect</div> <div>TOS-network-redirect</div> <div>TOS-host-redirect</div> <div>echo-request</div> <div>router-advertisement</div> <div>router-solicitation</div> <div>time-exceeded</div> <div>ttl-zero-during-transit</div> <div>ttl-zero-during-reassembly parameter-problem</div> <div>ip-header-bad</div> <div>required-option-missing</div> <div>timestamp-request</div> <div>timestamp-reply</div> <div>address-mask-request</div> <div>address-mask-reply</div>		
	<ACTION>		- :
		accept	<i>ACCEPT</i> -, , firewall;
		drop	<i>DROP</i> -, , firewall - , ;
		reject	<i>REJECT</i> -, , firewall, , , TCP RST, ICMP destination unreachable.
	<P_IDX>	1-65535	firewall
add rule string	<direction>		firewall - .
		input	
		output	

<ENABLE>	enable/disable	/
<RULE_NAME>	, . 63	
<CONTENT>	, . 127	,
<S_IP>	AAA.BBB.CCC.DDD	IP-
<S_MASK>	AAA.BBB.CCC.DDD	
<R_IP>	AAA.BBB.CCC.DDD	IP-
<R_MASK>	AAA.BBB.CCC.DDD	
<PROTO>		
	any	
	tcp	
	udp	
	icmp	
	tcp+udp	
<S_PORT_START>	1-65535	
<S_PORT_END>	1-65535	
<D_PORT_START>	1-65535	
<D_PORT_END>	1-65535	
<ICMP_TYPE>		ICMP

	<div>none</div> <div>any</div> <div>echo-reply</div> <div>destination-unreachable</div> <div>network-unreachable</div> <div>host-unreachable</div> <div>protocol-unreachable</div> <div>port-unreachable</div> <div>fragmentation-needed</div> <div>source-route-failed</div> <div>network-unknown</div> <div>host-unknown</div> <div>network-prohibited</div> <div>host-prohibited</div> <div>TOS-network-unreachable</div> <div>TOS-host-unreachable</div> <div>communication-prohibited</div> <div>host-precedence-violation</div> <div>precedence-cutoff</div> <div>source-quench</div> <div>redirect</div> <div>network-redirect</div> <div>host-redirect</div> <div>TOS-network-redirect</div> <div>TOS-host-redirect</div> <div>echo-request</div> <div>router-advertisement</div> <div>router-solicitation</div> <div>time-exceeded</div> <div>ttl-zero-during-transit</div> <div>ttl-zero-during-reassembly parameter-problem</div> <div>ip-header-bad</div> <div>required-option-missing</div> <div>timestamp-request</div> <div>timestamp-reply</div> <div>address-mask-request</div> <div>address-mask-reply</div>		
	<ACTION>		- :
		accept	ACCEPT -, , firewall;
		drop	DROP -, , firewall - , ;
		reject	REJECT -, , firewall, , , TCP RST, ICMP destination unreachable.
	<P_IDX>	1-65535	firewall
apply			firewall
config			Configuration
del profile	<ID>	1-65535	firewall

del rule	<ID>	1-65535	firewall
exit			
modify profile	<ID>	1-65535	firewall
	<NAME>	,, '_'. 63	
modify rule	<Type>	action dport_end dport_start enable icmp-type name prof_id proto r_ip r_mask s_ip s_mask sport_end sport_start traffic-type	firewall ( )
	<ID>	1-65535	
	<param>		
move down	<ID>	1-65535	
move up	<ID>	1-65535	
quit			CLI
set eth	<PROFILE ID>	0-65535	PROFILE ID = 0 ,
set pptp	<PPP_IDX>	0-5	
	<PROFILE ID>	0-65535	PROFILE ID = 0 ,
set vlan	<VLAN_IDX>	VLAN1...VLAN8	VLAN
	<PROFILE ID>	0-65535	PROFILE ID = 0 ,
show config			
show interfaces			
show system			

## FTP

**ftpd.**

```
SMG-[CONFIG]> ftpd
Entering ftpd mode.
SMG-[CONFIG]-[FTPd]>
```

?			
config			Configuration
exit			
quit			CLI
set enable	<EN>	on/off	/ FTP-
set port	<PORT>	1-65535	FTP-

set interface	<IFACE_NAME>	255	FTP-
set timeout idle	<TIME>	0-600	,
set timeout login	<TIME>	0-600	,
set timeout session	<TIME>	0-600	,
show config			FTP-
show user			
user add	<USER_NAME>		
	<PASSWD>		
	<CDR_ACCESS>		CDR
	<LOG_ACCESS>		LOG
	<MNT_ACCESS>		MNT ( )
	<CFG_ACCESS>	no_access/r/w/r no_access/r/w/r no_access/r/w/r no_access/r/w/r	CFG ( )
user del	<IDX>	1-4	
user modify access	<IDX>	0-4	:
	<CDR_ACCESS>	no_access/r/w/r	• CDR, /
	<LOG_ACCESS>	no_access/r/w/r	• log, /;
	<MNT_ACCESS>	no_access/r/w/r	• mnt, /
	<CFG_ACCESS>	no_access/r/w/r	• cfg, /
user modify password	<IDX>	0-4	.
	<PASSWD>		

## H.323

### h323 configuration.

```
SMG-[CONFIG]> h323 configuration
Entering H323Config-mode.
SMG-[CONFIG]-H323(config)>
```

?			
alias H323ID	<IDX>	63	Gatekeeper'
cisco1700_adaptation	<ON_OFF>	on/off	/ cisco1700
config			Configuration
exit			
gatekeeper discover	<ON_OFF>	on/off	/ GK
gatekeeper DSCP	<GK_DSCP_RAS>	0-63	IP diffserv RAS
gatekeeper H323ID	<GK_H323ID>	63 none	GateKeeper ID. "none" ID.
gatekeeper local subscribers	<ON_OFF>	on/off	GK
gatekeeper mode	<GK_MODE>		GK:

		none/	<i>none</i> – ;
		local/	<i>local</i> – ;
		remote	<i>remote</i> – .
gatekeeper ipaddr	<IPADDR>	AAA.BBB.CCC.DDD	IP- GK
gatekeeper keepalive	<KEEPAL>	10-86400	GK
gatekeeper port	<PORT>	1-65535	GK
gatekeeper tech-prefix	<GK_TECH_PREFIX>	255 none	GK. "none" .
gatekeeper ttl	<TTL>	90-86400	GK
gatekeeper use	<ON_OFF>	on/off	/ GK
history			
iface	<IFACE_NAME>	255	H.323
port	<PORT>	1-65535	TCP- H.323
primary DGK H323ID	<DGK_H323ID>	63 none	ID Directory GateKeeper. "none" ID
primary DGK ipaddr	<DGK_IPADDR>	AAA.BBB.CCC.DDD	IP- Directory GateKeeper
secondary DGK H323ID	<DGK_H323ID>	63 none	ID Directory GateKeeper. "none" ID
secondary DGK ipaddr	<DGK_IPADDR>	AAA.BBB.CCC.DDD	IP Directory GateKeeper
quit			CLI
show			

## H.323-

**h323 interface** <H323\_INDEX>, <H323\_INDEX> – , H.323.

```
SMG-[CONFIG]> h323 interface 0
Entering H323-mode.
SMG-[CONFIG]-H323-INTERFACE[0]>
```

?			
access category	<CAT_IDX>	0-31	
alias H323ID clear	<H323ID>	63	Gatekeeper
alias H323ID set	<H323ID>	63	Gatekeeper
codec disable	<CODEC_IDX>	0-3	. - 0 () 3 ()
codec pte	<CODEC_IDX>	0-3	payload time
	<PTE>	10/20/30/40/50/ 60/70/80/90	
codec ptype	<CODEC_IDX>	0-3	payload type. static -
	<PTYPE>	0-127 static	
codec set	<CODEC_IDX>	0-3	
	<CODEC>	G.711-U/ G.711-A/ G.729/ G.723.1_5.3/ G.723.1_6.3	
config			Configuration
destination clear			
destination set	<HOSTNAME>	63	
DSCP RTP	<DSCP_RTP>	0-255	DSCP RTP-



DSCP SIG	<DSCP_SIG>	0-255	DSCP SIG-
DTMF mime	<DTMF_c>	0-255	SIP-INFO
DTMF mode	<DTMF_m>	inband/ RFC2833/ SIP-INFO	DTMF
DTMF payload	<DTMF_p>	96-127	RFC2833
ecan	<CANCELLATION>		:
		voice/	<i>Voice</i> – ;
		nlp-off-voice/	<i>Nlp-off-voice</i> – , NLP . , , NLP. , , ;
		modem/	<i>Modem</i> – ( , NLP , );
		off	<i>Off</i> – ( )
exit			
faststart	<ON_OFF>	on/off	/ faststart
fax detection	<DETECTION>		:
		no/	<i>no</i> – ;
		callee/	<i>callee</i> – ;
		caller/	<i>caller</i> – ;
		callee_and_caller	<i>callee_and_caller</i> –
gain rx	<GAIN>		, / , , SMG
gain tx	<GAIN>		, / , SMG
gatekeeper	<ON_OFF>	on/off	/ GK ()
h245tunneling	<ON_OFF>	on/off	/
history			
interface rtp	<IFACE_NAME>	255	RTP
jitter adaptation period	<JT_AP>	1000-65535	- ,
jitter adjust mode	<JT_AM>		:-
		non-immediate/	<i>non-immediate</i> – ;
		immediately	<i>immediately</i> – .
jitter deletion mode	<JT_DM>	soft/hard	. , : <ul style="list-style-type: none"> <li>• <i>soft</i> – , ;</li> <li>• <i>hard</i> – , , .</li> </ul>
jitter deletion threshold	<JT_DT>	0-500	.
jitter init	<JT_INIT>	0-200	-
jitter max	<JT_MAX>	0-200	()
jitter min	<JT_MIN>	0-200	() -
jitter mode	<JT_MODE>		:-
		adaptive/	<i>adaptive</i> –
		non-adaptive	<i>non-adaptive</i> –
jitter vbd	<JT_VBD>	0-200	VBD
max_active	<MAX_ACTIVE>	0-65535	
name	<s_name>	, , ' _ ' 31	H.323
nat	<NAT>	enable/disable	/ NAT
numbering plan	<NUMPLAN>	0-15/0-255	
port	<PORT>	1-65535	TCP- , SIP
quit			CLI
routing_profile	<prof>	0-127	
RTCP control	<RTCP_c>	2-255	(RTCP period), RTCP

RTCP period	<RTCP_p>	5-255	, RTCP
show config			H.323
src verify	<ON_OFF>	on/off	/ IP- UDP-, SDP, IP- UDP-
t38 bitrate	<BITRATE>	nolimit/2400/4800/ 7200/9600/12000/ 14400	.38
t38 disable			T.38
t38 enable			T.38
t38 fillbitremoval	<ON_OFF>	on/off	/ ,
t38 pte	<T38_PTE>	10/20/30/40	.38
t38 ratemgmt			:
	<T38_RATE_MGMT>	localTCF/	<i>local TCF</i> – , TCF
		transferredTCF	<i>transferred TCF</i> – , TCF
t38 redundancy	<T38_REDUNDANCY>	off/1/2/3	<ul style="list-style-type: none"> <li>• <i>off</i>–</li> </ul>
trunk	<TRUNK>	0-31	
VAD_CNG	< ON_OFF >	on/off	/ /
vbd codec	<CODEC>	G.711-U, G.711-A	, VBD
vbd enable			V.152
vbd disable			V.152
vbd payload type	<VBD_p>	Static,96-127	, VBD

**hunt-group** <hunt-group\_INDEX>, <hunt-group \_INDEX> – .

```
SMG-[CONFIG]> hunt-group 0
Entering HuntGroup-mode.
SMG-[CONFIG]-HUNT-GROUP[0]>
```

?			
config			Configuration
exit			
history			
move number to		start	
		End	
		position	
quit			CLI
set conference number		*,#,D,0-9. Or 'none' for blank(delete) number	
set ltimer		Number in the range 5-255	L-
set mode		(all/seqFisrt/ seqNext/seqAllFirst/ seqAllNextr)	
set name		letter or number or '_', '!', ' '. Max 63 symbols	
set number			
set record-and-notify mode	<MODE>	simultaneous-notification/ sequential-notification	" " – /

set record-and-notify duration	<DURATION>	15-120	
set stimer		Number in the range 5-255	S-
set number-mask		Max 255 symbols	
set recall-busy		yes/no	/ « »
set recall-declined		yes/no	/ « »
set release-mode	<MODE>	default/silent	- /

## -7

**linkset** <LINKSET\_INDEX>, <LINKSET\_INDEX> - .

```
SMG-[CONFIG]> linkset 0
Entering Linkset-mode.
SMG-[CONFIG]-LINKSET[0]>
```

?			
access category	<CAT_IDX>	0-31	
alarm_ind	<ON_OFF>	on/off	/ -7
CCI	<ON_OFF>	on/off	-7
CCI frequency	<FREQ>	0-127	-7
cdpn digit in IAM	<ON_OFF>	on/off	CdPN IAM overlap
chan_order			-7
	<CHAN_SELECT>	up_ring/	<i>up_ring-</i>
		down_ring/	<i>down_ring-</i>
		up_start/	<i>up_start-</i>
		down_start/	<i>down_start -</i>
		odd_up_ring/	<i>odd_up_ring-</i>
		odd_down_ring/	<i>odd_down_ring-</i>
		even_up_ring/	<i>even_up_ring-</i>
		even_down_ring	<i>even_down_ring-</i>
china	<ON_OFF>	on/off	/ -7
combined	<ON_OFF>	on/off	/
config			Configuration
DPC	<DPC_ID>	0-16383	- DPC
emergency alignment	<ON_OFF>	on/off	
exit			
history			
ignore hold	<ON_OFF>	off/on	CPG remote hold remote retrieval
init	<INIT_MODE>	blocked/ individual-ublock/ group-unblock/ group-reset	
interworking	<INTERWORK>		:
		no_change/	<i>no_change-</i>
		no_encountered/	<i>no_encountered-</i> , , ISDN;
		encountered	<i>encountered-</i> ( ISDN , , ISDN, , )

name	<s_name>	, , '_', 31	
net_ind			:
	<NET_IND>	international/	<i>international-</i>
		reserved/	<i>reserved-</i>
		federal/	<i>federal-</i>
		national	<i>national-</i>
numbering plan		0-15	LinkSet
OPC	<OPC_ID>	0-16383	-7
primary linkset	<PRI_LINKSET>	0-15	-7,
quit			CLI
release on suspend	<ON_OFF>	on/off	/ suspend
reserv linkset	<RES_LINKSET>	0-15	-7
routing_profile	<prof>	0-127	
satellite	<SATELLITE>	override_no_satellite/	-7
		transit/	
		add_one	
secondary linkset	<SEC_LINKSET>	0-15	-7,
show			-7
ss7timers	<index>	0-15	-7
stream SLC	<ON_OFF>	off/on	/ « SLC»
TMR	<TMR>	speech/	(Transmission Medium Requirement) -7
		64kb_unrestricted/	
		3.1KHz_audio/	
		transit	
trunk	<trunk_index>	0-31	-7

## -7

**ss7timers** <SS7\_TIMERS\_INDEX>, <SS7\_TIMERS\_INDEX> - .

```
SMG-[CONFIG]> ss7timers 0
Entering SS7Timers-mode.
SMG-[CONFIG]-SS7-TIMERS[0]>
```

?			
config			Configuration
exit			
history			
quit			CLI
set mtp2 T1	<TIMER>	400-500	MTP2 T1 (100)
set mtp2 T2	<TIMER>	50-500	MTP2 T2 (100)
set mtp2 T3	<TIMER>	10-20	MTP2 T3 (100)
set mtp2 T4 normal	<TIMER>	75-95	MTP2 T4 normal (100)
set mtp2 T4 emergency	<TIMER>	4-6	MTP2 T4 emergency (100)
set mtp2 T6	<TIMER>	30-60	MTP2 T6 (100)
set mtp2 T7 normal	<TIMER>	5-20	MTP2 T7 normal (100)
set mtp3 T2	<TIMER>	7-20	MTP3 T2 (100)
set mtp3 T4	<TIMER>	5-12	MTP3 T4 (100)

set mtp3 T12	<TIMER>	8-15	MTP3 T12 (100)
set mtp3 T13	<TIMER>	8-15	MTP3 T13 (100)
set mtp3 T14	<TIMER>	20-30	MTP3 T14 (100)
set mtp3 T17	<TIMER>	8-15	MTP3 T17 (100)
set mtp3 T22	<TIMER>	1800-3600	MTP3 T22 (100)
set mtp3 T23	<TIMER>	1800-3600	MTP3 T23 (100)
set isup T1	<TIMER>	150-600	ISUP T1 (100)
set isup T5	<TIMER>	3000-9000	ISUP T5 (100)
set isup T6	<TIMER>	100-600	ISUP T6 (100)
set isup T7	<TIMER>	200-300	ISUP T7 (100)
set isup T8	<TIMER>	150-600	ISUP T1 (100)
set isup T9	<TIMER>	300-2400	ISUP T9 (100)
set isup T12	<TIMER>	150-600	ISUP T12 (100)
set isup T13	<TIMER>	3000-9000	ISUP T13 (100)
set isup T14	<TIMER>	150-600	ISUP T14 (100)
set isup T15	<TIMER>	3000-9000	ISUP T15 (100)
set isup T16	<TIMER>	150-600	ISUP T16 (100)
set isup T17	<TIMER>	3000-9000	ISUP T17 (100)
set isup T18	<TIMER>	150-600	ISUP T18 (100)
set isup T19	<TIMER>	3000-9000	ISUP T19 (100)
set isup T20	<TIMER>	150-600	ISUP T20 (100)
set isup T21	<TIMER>	3000-9000	ISUP T21 (100)
set isup T22	<TIMER>	150-600	ISUP T22 (100)
set isup T23	<TIMER>	3000-9000	ISUP T23 (100)
set isup T24	<TIMER>	1-20	ISUP T24 (100)
set isup T25	<TIMER>	10-100	ISUP T25 (100)
set isup T26	<TIMER>	600-1800	ISUP T26 (100)
set isup T33	<TIMER>	120-150	ISUP T33 (100)
set isup T34	<TIMER>	20-40	ISUP T34 (100)
set isup T35	<TIMER>	150-200	ISUP T35 (100)
show			

**submodule-usage.**

```
SMG-[CONFIG]> submodule-usage
SMG-[CONFIG]-[SUBMODULE-USAGE]>
```

?			
config			Configuration
history			
quit			CLI
set msp	<INDEX> 0-5	On/off	/ SM-VP
show			

**modifiers table** <MODTBL\_INDEX>, <MODTBL\_INDEX> – .

```
SMG-[CONFIG]-TRUNK[0]> modifiers table
Entering TRUNK-Modifiers mode.
SMG-[CONFIG]-TRUNK[0]-MODIFIER>
```

?			
add			:
	<MODIFIER_MASK>	-, 255 , «(» «)»	MODIFIER_MASK-
	[CLD_RULE]	-, 30 ,	CLD_RULE-
	[CLG_RULE]		
caller ID request	<YES_NO>	no/yes	
change aoncat			:
	<MODIFIER_INDEX>	0-512	MODIFIER_INDEX-
	<AONCAT>	0-9/any	AONCAT-
change called numbering plan type			:
	<MODIFIER_INDEX>	0-8191	MODIFIER_INDEX-
	<CALLED_NP_TYPE>	nochange; unknown; isdn/telephony; national; private	CALLED_NP_TYPE-
change called rule			
	<MODIFIER_INDEX>	0-8191	MODIFIER_INDEX-
	<CALLED_RULE>	-, 30 ,	CALLED_RULE-
change called type			:
	<MODIFIER_INDEX>	0-8191	MODIFIER_INDEX-
	<CALLED_TYPE>		NUM_TYPE- :
		unknown/	unknown-
		subscriber/	Subscriber-
		national/	National- , Subscriber
		international/	International- - -
		network_specific	network_specific-
		nochange	nochange-
change calling category			
	<MODIFIER_INDEX>	0-8191	
	<CALLING_CAT_AON>	0-9/nochange	
change calling numbering plan type			:
	<MODIFIER_INDEX>	0-8191	MODIFIER_INDEX-

	<CALLING_NP_TYPE>	nochange/ unknown/ isdn/ telephony/ national/ private	<i>CALLING_NP_TYPE</i> –
change calling presentation			
	<MODIFIER_INDEX>	0-8191	
	<CALLING_PRESENT>	allowed/ restricted/ not_available/ spare/ nochange	
change calling rule			
	<MODIFIER_INDEX>	0-8191	<i>MODIFIER_INDEX</i> –
	<CALLING_RULE>	-, 30, .	<i>CALLING_RULE</i> –
change calling screen			
	<MODIFIER_INDEX>	0-8191	
	<CALLING_SCREEN>	not_screened/ user_passed/ user_failed/ network/nochange	
change calling type			:
	<MODIFIER_INDEX>	0-8191	<i>MODIFIER_INDEX</i> –
	<CALLING_TYPE>		<i>NUM_TYPE</i> – :
		unknown/	<i>unknown</i> –
		subscriber/	<i>Subscriber</i> –
		national/	<i>National</i> – Subscriber
		international/	<i>International</i> – - -
		network_specific/	<i>network_specific</i> –
		nochange	<i>nochange</i> –
change general access-cat			
	<MODIFIER_INDEX>	0-8191	
	<ACCESS>	0-31/nochange	
change general numplan			
	<MODIFIER_INDEX>	0-8191	
	<NUMPLAN>	0-15/nochange	
change mask			
	<MODIFIER_INDEX>	0-8191	<i>MODIFIER_INDEX</i> –
	<MODIFIER_MASK>	-, 255, «(» «)».	<i>MODIFIER_MASK</i> –
change modtable			
	<MODIFIER_INDEX>	0-8191	
	<NEW_MODTBL_INDEX>	0-255	
change numtype			
	<MODIFIER_INDEX>	0-8191	<i>MODIFIER_INDEX</i> –
	<NUM_TYPE>		<i>NUM_TYPE</i> – :

		unknown/	<i>unknown</i> –
		subscriber/	<i>Subscriber</i> –
		national/	<i>National</i> –      Subscriber
		international/	<i>International</i> –   -
		network_specific/	<i>network_specific</i> –
		any	<i>any</i> –
change type			(/)
	<MODIFIER_INDEX>	0-8191	
	<MODIFIER_TYPE>	calling/called	
exit			
history			
quit			CLI
remove	<MODIFIER_INDEX>	0-8191	
show	<MODIFIER_INDEX>	0-8191	
voice channel setup delay	<DELAY>	0-7	

## network.

```
SMG-[CONFIG]> network
Entering Network mode.
SMG-[CONFIG]-NETWORK>
```

?			
add interface pptpVPNclient			VPN/PPTP-
	<LABEL>	, , ' _ , ' , ' , ' , 255	<i>LABEL</i> –
	<IPADDR>	IP- AAA.BBB.CCC.DDD , , ' _ , ' , ' , ' , 63	<i>IPADDR</i> – IP- PPTP-
	<USER>	, , ' _ , ' , ' , ' , 63	<i>USER</i> –
	<PASS>		<i>PASS</i> –
add interface tagged			
	dynamic/static		
	<LABEL>	, , ' _ , ' , ' , ' , 255	<i>LABEL</i> –
	<VID>	1-4095	<i>VID</i> – VLAN ID
	<IPADDR>	IP- AAA.BBB.CCC.DDD	<i>IPADDR</i> – IP- PPTP-;
	<NETMASK>	AAA.BBB.CCC.DDD	<i>NETMASK</i> –
add interface untagged			
	dynamic/static		
	<LABEL>	, , ' _ , ' , ' , ' , 255	<i>LABEL</i> –
	<IPADDR>	IP- AAA.BBB.CCC.DDD	<i>IPADDR</i> – IP- PPTP-
	<NETMASK>	AAA.BBB.CCC.DDD	<i>NETMASK</i> –
config			Configuration
confirm			VLAN . ,
dhcp server			DHCP-
exit			
history			



ntp			NTP
quit			CLI
remove interface	<NET_IFACE_IDX>	0-39	
rollback			
set interface broadcast			
	<NET_IFACE_IDX>	0-39	
	<BROADCAST>	IP- AAA.BBB.CCC.DDD	
set interface COS			802.1
	<NET_IFACE_IDX>	0-39	
	<COS>	0-7	
set interface dhcp			DHCP-
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface dhcp_dns			IP- DNS- DHCP-
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface dhcp_no_gw			DHCP-
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface gateway			
	<NET_IFACE_IDX>	0-39	
	<IPADDR>	IP- AAA.BBB.CCC.DDD	
set interface dhcp_ntp			NTP DHCP-
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface gw_ignore			
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface h323			H.323
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface ipaddr			IP-
	<NET_IFACE_IDX>	0-39	
	<IPADDR>	IP- AAA.BBB.CCC.DDD	
	<NETMASK>	AAA.BBB.CCC.DDD	
set interface network-label			
	<NET_IFACE_IDX>	0-39	
	<LABEL>	, ' ', '!', '!', '!', '!', 255	
set interface radius			RADIUS
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface rtp			RTP-
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface run_at_startup			( VPN-)
	<NET_IFACE_IDX>	0-39	
	<STARTUP>	on/off	

set interface serverip			IP- PPTP-
	<NET_IFACE_IDX>	0-39	
	<IPADDR>	IP- AAA.BBB.CCC.DDD	
set interface signaling			SIP
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface snmp	<NET_IFACE_IDX>	0-39	SNMP
	<ON_OFF>	on/off	
set interface ssh			ssh
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface telnet			telnet
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface use_mppe			/ ( VPN-)
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set interface user_name			( VPN-)
	<NET_IFACE_IDX>	0-39	
	<USER>	, , ' _ , ' , ' , 63	
set interface user_pass			( VPN-)
	<NET_IFACE_IDX>	0-39	
	<PASS>	, , ' _ , ' , ' , 63	
set interface VID			VID
	<NET_IFACE_IDX>	0-39	
	<VID>	1-4095	
set interface web			web
	<NET_IFACE_IDX>	0-39	
	<ON_OFF>	on/off	
set settings dns primary	<IPADDR>	IP- AAA.BBB.CCC.DDD	IP- DNS-
set settings dns secondary	<IPADDR>	IP- AAA.BBB.CCC.DDD	IP- DNS-
set settings gateway_iface	<NET_IFACE_NAME>		,
set settings hostname	<HOSTNAME>	, , ' _ , ' , ' , 63	
set settings ssh	<PORT>	1-65535	TCP- SSH, 22
set settings telnet	<PORT>	1-65535	TCP- Telnet, 23
set settings use_ip_list	<ON_OFF>	on/off	/ IP-
set settings web	<PORT>	1-65535	TCP- web-, 80
show interface by_index			
show interface list			
show settings			
snmp			SNMP
ssh restart			SSH



IP-, web- confirm, .

## DHCP-

## dhcp server.

```
SMG-[CONFIG]-NETWORK> dhcp server
Entering Network mode.
SMG-[CONFIG]-[NETWORK]-[DHCPD]>
```

?			
conflicttime	<CONFLICT>	10-10000000	, IP- -, 10
declinetime	<DECLINE>	10-10000000	, IP- (DHCP decline), 10
dhcpd start			DHCP-
dhcpd stop			DHCP-
dns 0/1/2/3	<DNS>	IP- AAA.BBB.CCC.DDD	DNS-
domain	<DOMAIN>	31	, DHCP-
enabled	<ENABLE>	no/yes	/ DHCP-
exit			
gateway	<GW>	IP- AAA.BBB.CCC.DDD	, DHCP-
interface	<IFACE_NAME>	255	DHCP-
ipaddr end	<IPADDR>	IP- AAA.BBB.CCC.DDD	IP-
ipaddr start	<IPADDR>	IP- AAA.BBB.CCC.DDD	IP-
max_lease	<MAX_LEASE>	10-10000000 sec	IP-, DHCP, 10
maxleases	<MAXLEASES>	1-65535	
min_lease	<MIN_LEASE>	10-10000000 sec	IP-, DHCP, 10
netmask	<NETMASK>	IP- AAA.BBB.CCC.DDD	
ntp announce external server address	<NTP_SERVER>	IP- AAA.BBB.CCC.DDD	NTP 42
ntp announce external server enable	<ANNOUNCE_EXT>	no/yes	NTP 42
ntp announce local	<ANNOUNCE_LOCAL>	no/yes	NTP 42
offertime	<OFFER>	10-10000000	, IP- , 10
quit			CLI
savetime	<SAVE>	7200-10000000/off	, dhcpd.leases  off-
show config			DHCP: , , , , Wins-, ,
static_lease add			IP- -:
	<NAME>	63	NAME-
	<IPADDR>	IP- AAA.BBB.CCC.DDD	IPADDR- IP-
	<MAC>	MAC XX:XX:XX:XX:XX:XX	MAC- -
static_lease remove	<INDEX>	0-4095	IP- -
static_lease show			IP- -
wins	<WINS>	IP- AAA.BBB.CCC.DDD	IP- WINS- DHCP-

## PPTP-

```
SMG-[CONFIG]-NETWORK> pptp
Entering PPTP mode.
SMG-[CONFIG]-[NETWORK]-PPTP>
```

?			
add interface	<USER>	31	
	<PASS>	31	
	<IP_SRV>	IP- AAA.BBB.CCC.DDD	IP- PPTP-
	<LABEL>	31	
	< MPPE>	On/off	/
	<STARTUP>	On/off	
config			Configuration
exit			
history			
modify interface			PPTP
	label	31	
	mppe pssword	On/off	
		31	
	server_ip	IP- AAA.BBB.CCC.DDD	IP- PPTP
		On/off	PPTP
	startup username	31	
show			PPTP
start interface	<IDX_INERFACE>	0-16	PPTP-
status interface	<IDX_INERFACE>	0-16	
stop interface	<IDX_INERFACE>	0-16	PPTP-

## NTP

### ntp.

```
SMG-[CONFIG]-NETWORK> ntp
Entering NTP mode.
SMG-[CONFIG]-[NETWORK]-NTP>
```

?			
apply		no/yes	/ NTP
config			Configur ation
exit			
quit			CLI
restart ntp		no/yes	NTP
set ntp dhcp			NTP DHCP
	NET_IFA CE_IDX		
	ON_OFF	off/on	
set ntp local server enable	ON_OFF	off/on	NTP- SMG
set ntp local server interface	NET_IFA CE_IDX		NTP
set ntp period	NTP_PER IOD	10-1440	

set ntp server	NTP	63	NTP-, SMG
set ntp usage	ON_OFF	off/on	NTP-
show config			
timezone set		GMT/GMT+1/GMT-1/GMT+2/GMT-2/GMT+3/GMT-3/GMT+4/GMT-4/GMT+5/GMT-5/GMT+6/GMT-6/GMT+7/GMT-7/GMT+8/GMT-8/GMT+9/GMT-9/GMT+10/GMT-10/GMT+11/GMT-11/GMT+12	
		Asia	
		Europe	

## SNMP

### snmp.

```
SMG-[CONFIG]-NETWORK> snmp
Entering SNMP mode.
SMG-[CONFIG]-SNMP>
```

?			
add			SNMP-:
	<TYPE>	trapsink/ trap2sink/ informsink	TYPE- SNMP-
	<IP>	IP- AAA.BBB.CCC.DDD	IP- IP-
	<COMM>	31	COMM- ,
	<PORT>	1-65535	PORT- UDP-
config			Configuration
create user			( )
	<LOGIN>	31	
	<PASSWD>	8 31	
exit			
history			
modify community			SNMP- (, )
	<IDX>	0-15	
	<COMM>	31	
modify ip			SNMP- ( )
	<IDX>	0-15	
	<IP>	IP- AAA.BBB.CCC.DD	
modify port			SNMP- ( )
	<IDX>	0-15	
	<PORT>	1-65535	
modify type			SNMP- ( SNMP-)
	<IDX>	0-15	
	<TYPE>	trapsink/ trap2sink/ informsink	
quit			CLI
remove	<IDX>	0-15	SNMP-
restart snmpd	Yes/no		SNMP-

ro	<RO>	63	
rw	<RW>	63	
show			SNMP
syscontact	<SYSCONTACT>	63	
syslocation	<SYSLOC>	63	
sysname	<SYSNAME>	63	

### numplan.

```
SMG-[CONFIG]> numplan
Entering Numbering-plan mode.
SMG-[CONFIG]-[NUMPLAN]>
```

?			
config			Configuration
create prefix	<IDX_Numplan>	0-15/0-255	
delete prefix	<IDX Prefix>		
exit			
history			
prefix			
quit			CLI
set active		0-15/0-255	
set domain	<IDX>	0-15/0-255	
	<DOMAIN>	15	
set name	<IDX>	0-15/0-255	
	<NAME>	15	
show active count			
show active list			
show list			
show prefixes	<IDX>	0-15/0-255	
		no/yes	

### prefix <PREFIX\_INDEX>, <PREFIX\_INDEX> - .

```
SMG-[CONFIG]-[NUMPLAN]> prefix 0
Entering Prefix-mode.
SMG-[CONFIG]-[NUMPLAN]-PREFIX[0]>
```

?			
access category	<CAT_IDX>	0-31	
access check	<ON_OFF>	on/off	/

called np	<PFX_CLD_NPI>	transit/ unknown/ isdn/ telephony/ national/ private	(transit – )
called type			(transit – ).
	<PFX_CLD_TYPE>	unknown/	
		subscriber/	Subscriber number – . : abxxxx, bxxxx, xxxx
		national/	National number – , Subscriber. : ABCabxxxx, 2abxxxx, 10 < >
		international/	International number – - - . : < > ( «10» )
		specific_net/	
		transit	Transit –
command			:
	<PFX_COMMAND>	set/	set –
		clear/	clear –
		control	control –
config			Configuration
dial mode			:
	<MODE>	nochange/	nochange – ,
		enblock/	enblock –
		overlap	overlap – ( )
direction			:
	<PFX_DIRECTION>	local/	local –
		emergency/	emergency –
		zone/	zone –
		vedomst/	vedomst –
		toll/	toll –
		international	international –
duration	<PFX_DURATION>	0-255	,
exit			
getCID	<ON_OFF>	on/off	/ CallerID
history			
ivr	<IVR_INDEX>	0-255	IVR ivr
mask edit			
mask show			
modifiers table called	<MODTBL_INDEX>	0-255 none	,
modifiers table calling	<MODTBL_INDEX>	0-255 none	,
name	<s_name>	31 ( , '_' )	/
needCID	<ON_OFF>	on/off	/ CallerID
new access category	<CAT_IDX>	0-127	change-numplan
new numplan	<PLAN_IDX>	0-15/0-255	change-numplan
numplan	<PLAN_IDX>	0-15/0-255	
notdial ST	<USE_ST>	yes/no	/ (ST – sending complete PRI)
operator	<OPERATOR>	or/and	«/»
pickup-group	<PICKUP_GROUP_INDEX>	0-254/any	pickup-group. , ,

quit			CLI
service			
	<PFX_USER_SERVICE>	cf-unconditional/	<i>cf-unconditional-</i>
		cf-busy/	<i>cf-busy-</i>
		cf-no-reply/	<i>cf-no-reply-</i>
		cf-out-of-order/	<i>cf-out-of-order-</i>
		call-pickup/	<i>call-pickup-</i>
		conference/	<i>conference-</i>
		clear-all/	<i>clear-all-</i>
		intercom/	<i>intercom-</i>
		paging	<i>paging-</i>
show			
session time	<PFX_SESSION_TIME>	5-64800 off —	, ,
session warning time	<PFX_SESSION_TIME_WARN>	1-300 off — no warn	, ,
trunk	<TRUNK>	0-31	
type			:
	<PFX_TYPE>	trunk/	<i>trunk-</i>
		trunk-direction/	<i>trunk-direction-</i>
		change-numplan/	change-numplan —
		modifier/	<i>modifier-</i>
		user_service	<i>user_service-</i>
		pickup-group/	<i>pickup-group-</i>
		ivr	<i>ivr-</i> IVR

#### mask edit.

```
SMG-[CONFIG]-PREFIX[0]> mask edit
Entering Prefix-Mask mode.
SMG-[CONFIG]-PREFIX[0]-MASK>
```

?			
add			. - (calling) (called), - called
	<PREFIX_MASK>	-. 255 , «(» «)»	
	[PFX_MASK_TYPE]	calling/called [called]	
config			Configuration
history			
exit			
modify duration			
	<PREFIX_MASK_INDEX>	0-1024	<i>PREFIX_MASK_INDEX-</i>
	<DURATION>	0-255	<i>DURATION-</i>
modify Ltimer			« » Long timer
	<PREFIX_MASK_INDEX>	0-1024	<i>PREFIX_MASK_INDEX-</i>
	<LONG_TIMER>	0-255	<i>LONG_TIMER-</i>
modify mask			



	<PREFIX_MASK_INDEX>	0-1024	<i>PREFIX_MASK_INDEX-</i>
	<PREFIX_MASK>	-. 255 , «(» «)».	<i>PREFIX_MASK-</i>
modify prefix			
	<PREFIX_MASK_INDEX>	0-1024	<i>PREFIX_MASK_INDEX-</i> , ;
	<PFX_INDEX>	0-255	<i>PFX_INDEX-</i> ,
modify stimer			« » Short timer
	<PREFIX_MASK_INDEX>	0-1024	<i>PREFIX_MASK_INDEX-</i>
	<SHORT_TIMER>	[0-255]	<i>DURATION-</i>
modify type			- :
	<PREFIX_MASK_INDEX>	0-1024	<i>PREFIX_MASK_INDEX-</i> ,
	<PFX_MASK_TYPE>		<i>PFX_MASK_TYPE-</i> :
		calling/	<i>calling-</i>
		called	<i>called-</i>
quit			CLI
remove	<PREFIX_MASK_INDEX>	0-1024	
show			

**pickup-group** <pickup-group\_INDEX>, <pickup-group\_INDEX> – .

```
SMG-[CONFIG]> pickup-group 0
Entering pickup-group-mode.
SMG-[CONFIG]-PICKUP-GROUP[0]>
```

?			
exit			
history			
member add	<CALL_NUMBER>	symbols(not more then 30): *,#,D,0-9. Or 'none' for blank(delete) number.	
member remove	<GROUP_MEMBER_INDEX>	[0-19]	
member set number	<GROUP_MEMBER_INDEX>	[0-19]	
member set user-type			
	<GROUP_MEMBER_INDEX>	[0-19]	
	<USER_TYPE>	0 – 'restricted',	0 –
		1 – 'ordinary',	1 –
		2 – 'privileged'	2 –
show			

**PBX**

**pbx\_profiles.**

```
SMG-[CONFIG]> pbx_profiles
Entering PBX profiles mode.
SMG-[CONFIG]-PBX_PROFILES>
```

?			
add pbx			PBX- ,

	<NAME>	63	
	<PREFIX>	1-15	
	<PFX>	0-255/none	
config			Configuration
exit			
flash mode			flash
	<PROFILE_INDEX>	0-31	
	<FLASH>	none/ flash1/ flash2/ flash3	
history			
modifiers table incoming called			PBX-, , .
	<PROFILE_INDEX>	0-31	
	<MODTBL_INDEX>	0-255/none	
modifiers table incoming calling			PBX-, , .
	<PROFILE_INDEX>	0-31	
	<MODTBL_INDEX>	0-255/none	
modify pbx connected number transit	<CONNNUM>	normal/block	Connected number
modify pbx direct_pfx			, . SIP- ( )
	<PROFILE_INDEX>	0-31	
	<PFX>	0-255/none	
modify pbx inband messages			
	<PROFILE_INDEX>	0-31	
	<YES/no>		
modify pbx name			
	<IDX>	0-31	
	<NAME>	63	
modify pbx prefix			
	<IDX>	0-31	
	<PREFIX>	15 none	
modify pbx routing_profile	<IDX>	0-127	
timeout busy-signal	<TIMER>	0-31	« » « »
timeout cfnr	<TIMER>	0-31	(CFNR)
timeout cfoos	<TIMER>	0-31	(CFOOS)
timeout first-digit	<TIMER>	0-31	« »
timeout next-digit	<TIMER>	0-31	« »
quit			CLI

remove pbx	<IDX>	0-31	PBX
show pbx			PBX

Q.931

q931-timers.

```
SMG-[CONFIG]> q931-timers
Entering q931-timers mode.
SMG-[CONFIG]-[q931-T]>
```

?			
config			Configuration
exit			
quit			CLI
set	t301	30-360	t301
	t302	10-25	t302
	t303	4-10	t303
	t304	20-30	t304
	t305	30-40	t305
	t306	30-40	t306
	t307	180-240	t307
	t308	4-10	t308
	t309	6-90	t309
	t310	10-20	t310
	t312	6-12	t312
	t313	4-10	t313
	t314	4-10	t314
	t316	120-240	t316
	t317	120-240	t317
	t320	30-60	t320
	t321	30-60	t321
	t322	4-10	t322
show			Q.931

RADIUS

radius.

```
SMG-[CONFIG]> radius
Entering RADIUS mode.
SMG-[CONFIG]-RADIUS>
```

?			
acct ipaddr			IP- (Accounting)
	<IP_ADDR>	IP- AAA.BBB.CCC.DDD	IP_ADDR – IP-
	<SRV_IDX>	0-8	SRV_IDX –

acct port			(Accounting)
	<PORT>	0-65535	<i>PORT-</i>
	<SRV_IDX>	0-8	<i>SRV_IDX-</i>
acct secret			(Accounting)
	<SECRET>	31	<i>SECRET-</i>
	<SRV_IDX>	0-8	<i>SRV_IDX-</i>
acct server_group			(Accounting)
	<SRV_GROUP_ID>	0-3	<i>SRV_GROUP_ID-</i>
	<SRV_IDX>	0-7	<i>SRV_IDX-</i>
auth ipaddr			IP- (Authorization)
	<IP_ADDR>	IP- AAA.BBB.CCC.DDD	<i>IP_ADDR-</i> IP-
	<SRV_IDX>	0-8	<i>SRV_IDX-</i>
auth local	<AUTH_LOCAL>	no/yes	RADIUS-
auth port			(Authorization)
	<PORT>	0-65535	<i>PORT-</i>
	<SRV_IDX>	0-8	<i>SRV_IDX-</i>
auth secret			(Authorization)
	<SECRET>	31	SECRET -
	<SRV_IDX>	0-8	SRV_IDX -
auth server_group			(Authorization)
	<SRV_GROUP_ID>	0-3	<i>SRV_GROUP_ID-</i>
	<SRV_IDX>	0-7	<i>SRV_IDX-</i>
auth user	<AUTH_USER>	no/yes	web/telnet/ssh RADIUS
config			Configuration
deadtime	<DEADTIME>	5-60	-,
exit			
history			
iface	<IFACE_NAME>	255	RADIUS
profile	<PROFILE_INDEX>	0-31	RADIUS
quit			CLI
retries	<RETRIES>	2-5	
show config			RADIUS-
timeout	<TIMEOUT>	3-10	, (100)
voice-msg-table	<TABLE_INDEX>	0-31	RADIUS

## RADIUS

RADIUS **profile** <PROFILE\_INDEX>, <PROFILE\_INDEX> - RADIUS.

```
SMG-[CONFIG]-RADIUS> profile 0
Entering RADIUS-Profile-mode.
SMG-[CONFIG]-RADIUS-PROFILE[0]>
```

?			
acct answer	<ON/OFF>	off/on	/ acct call-orig=answer
acct CdPN			Accounting-Request:
	<CDPN_MODE>	CdPN-IN/	<i>CdPN-IN-</i> ( SETUP/INVITE)
		CdPN-OUT	<i>CdPN-OUT-</i>

acct CgPN			Accounting-Request:
	<CGPN_MODE>	CgPN-IN/	<i>CdPN-IN</i> – ( SETUP/INVITE)
		CgPN-OUT	<i>CdPN-OUT</i> –
acct duration count mode	<RADIUS_COUNT_MODE>	round-up/round-down/not-round	. , , ( )
acct originate	<ON/OFF>	off/on	/ acct call-orig=originate
acct restrict			( ):
	<RESTRICT>	none/	<i>none</i> –
		zone/	<i>zone</i> – ,
		local/	<i>local</i> –
		emergency/	<i>emergency</i> –
		restrict-all	<i>restrict</i> –
acct start	<ON_OFF>	on/off	/ acct. start
acct stop	<ON_OFF>	on/off	/ acct. stop
acct update	<ON_OFF>	on/off	/ acct. update
acct update_period	<PERIOD>	10sec/ 20sec/ 30sec/ 45sec/ 1min/ 2min/ 3min/ 5min/ 10min/ 15min/ 30min/ 1hour	acct. update
acct unsuccessfull	<ON_OFF>	on/off	/ RADIUS-
acct user-name answer			User-Name Accounting-Request answer:
	<USERNAME_MODE>	cgpn/	<i>cgpn</i> –
		ip_or_stream/	<i>ip_or_stream</i> – IP- ,
		trunk/	<i>trunk</i> – ,
		cdpn/	<i>cdpn</i> –
		initial_cgpn/	<i>initial_cgpn</i> –
		initial_cdpn	<i>initial_cdpn</i> –
acct user-name originate			User-Name Accounting-Request originate:
	<USERNAME_MODE>	cgpn/	<i>cgpn</i> –
		ip_or_stream/	<i>ip_or_stream</i> – IP- ,
		trunk/	<i>trunk</i> – ,
		cdpn/	<i>cdpn</i> –
		initial_cgpn/	<i>initial_cgpn</i> –
		initial_cdpn	<i>initial_cdpn</i> –
auth check on seize	<ON_OFF>	on/off	/ (Authorization)
auth check on stop-dial	<ON_OFF>	on/off	/ (Authorization)
auth check on local-redir	<ON_OFF>	on/off	/ (Authorization)

auth digestauth	<DIGESTAUTH>	rfc5090/ rfc5090-no-challenge/ draft-sterman	RADIUS-. - -
auth emergency-on-REJ	<PERMIT>	not-allow/allow	/
auth framedprotocol	<FRAMED_PROTOCOL>	none/ PPP/ SLIP/ ARAP/ Gandalf/ Xylogics/ X75_Sync	RADIUS <i>none</i> –
auth nas port type	<PORT_TYPE>	Async/ Sync/ ISDN_Sync/ ISDN_Async_v120/ ISDN_Async_v110/ Virtual/ PIAFS/ HDLC_Channel/ X25/ X75/ G3_Fax/ SDSL/ ADSL_CAP/ ADSL_DMT/ IDSL/ Ethernet/ xDSL/ Cable/ Wireless/ Wireless_IEEE_802.1	NAS ( , ), Async
auth pass	<PASSWD>	15	User-Password RADIUS-Authorization
auth restrict			( ):
	<RESTRICT>	none/	<i>none</i> –
		zone/	<i>zone</i> – ,
		local/	<i>local</i> –
		emergency/	<i>emergency</i> –
		restrict-all	<i>restrict-all</i> –

auth service type	<SERVICE_TYPE>	none/ Login/ Framed/ Callback_Login/ Callback_Framed/ Outbound/ Administrative/ NAS_Prompt/ Authenticate_Only/ Callback_NAS_Prompt/ Call_Check/ Callback_Administrative	, (none)
auth session time			, Access-Accept RADIUS:
	<SESSION_TIME_MODE>	ignore/ use_RFC_Session_timeout/ use_CISCO_h323_credit_time	<i>ignore</i> – <i>use_rfc_session_timeout</i> – Session-Timeout <i>use_cisco_h323_credit_time</i> – Session-Timeout Cisco VSA h323-credit-time
auth user-name answer			User-Name Access –Request answer:
	<USERNAME_MODE>	cgpn/ ip_or_stream/ trunk/ cdpn/ initial_cgpn/ initial_cdpn	<i>cgpn</i> – <i>ip_or_stream</i> – IP- , <i>trunk</i> – , <i>cdpn</i> – <i>initial_cgpn</i> – <i>initial_cdpn</i> –
auth user-name originate			User-Name Access –Request originate:
	<USERNAME_MODE>	cgpn ip_or_stream/ trunk/ cdpn/ initial_cgpn/ initial_cdpn	<i>cgpn</i> – <i>ip_or_stream</i> – IP- , <i>trunk</i> – , <i>cdpn</i> – <i>initial_cgpn</i> – <i>initial_cdpn</i> –
auth userpasswd	<ON_OFF>	on/off	/ SIP-
modifiers table auth mode	MODTABLE_MODE	default/ restricted	RADIUS <i>restricted</i> – ,
modifiers table acct mode	MODTABLE_MODE	default/ restricted	RADIUS <i>restricted</i> – ,
modifiers table incoming called	<MODTBL_INDEX>	0-255/none	(CdPN) , Called-Station-Id, xpgk-dst-number-in RADIUS-Authorization RADIUS-Accounting
modifiers table incoming calling	<MODTBL_INDEX>	0-255/none	(CgPN) , Calling-Station-Id, xpgk-src-number-in RADIUS-Authorization RADIUS-Accounting
modifiers table incoming redirecting	<MODTBL_INDEX>	0-255/none	(RedirPN) h323-redirect-number RADIUS-Authorization RADIUS-Accounting
modifiers table outgoing called	<MODTBL_INDEX>	0-255/none	(CdPN) , xpgk-src-number-out RADIUS-Authorization RADIUS-Accounting
modifiers table outgoing calling	<MODTBL_INDEX>	0-255/none	(CgPN) , xpgk-dst-number-out RADIUS-Authorization RADIUS-Accounting
config			Configuration
exit			
history			

quit			CLI
reset voice-msg-table			RADIUS
server_group	<SRV_GROUP>	0-3	RADIUS,
set vmt-reply-attribute		h323-return-code/Reply-Message	, RADIUS-reject
set voice-msg-table	<TABLE_IDX>	[0-31]	RADIUS
show			RADIUS
use acct	<ON_OFF>	on/off	/ Accounting- RADIUS-
use auth	<ON_OFF>	on/off	/ Authorization- RADIUS-
use class as ss7cat	<ON_OFF>	on/off	AV-pair Class -7
use eltex-vsa	<ON_OFF>	on/off	RCM
use full cisco-vsa	<ON_OFF>	on/off	Cisco-VSA RCM
use porta billing	<ON_OFF>	on/off	/ PortaBilling
use porta routing	<ON_OFF>	on/off	/ PortaRouting
use incoming called		original/processed	CdPN, <i>xpgk-dst-number-in</i> RADIUS-Authorization RADIUS-Accounting
use incoming calling		original/processed	CgPN, <i>xpgk-dst-number-in</i> RADIUS-Authorization RADIUS-Accounting
use snmp	<ON_OFF>	on/off	SNMP- RADIUS
use utc time	<ON_OFF>	on/off	UTC

#### auth\_calls:

```
SMG1016M-[CONFIG]> auth_calls
Entering Auth Calls mode.
SMG1016M-[CONFIG]-AUTH_CALLS>
```

?			
add number_pool	FIRST_NUMBER		—
	RANGE	1-65535	
config			Configuration
exit			
remove number_pool	INDEX	0-63	
remove by id number_pool	POOL_ID	1-65535	
set access category	CAT_IDX	0-127	
set category	CATEGORY	0-9	
set number_pool first_number	INDEX	0-63	
	NUMBER		
set number_pool range	INDEX	0-63	
	RANGE	1-65535	
set by id *	POOL_ID	1-65535	set number_pool *,
set numplan	PLAN_IDX	0-15 none	none –
set pbx_profile	PROFILE	0-15 none	PBX none – PBX
set radius_profile	RADIUS_PROFILE	0-31 no	RADIUS no – RADIUS
set select_mode			



	SELECT_MODE	sequential/	<i>sequential-</i>
		random	<i>random-</i>
show number_pool all			
show number_pool by_id	POOL_ID	1-65534	
show number_pool by_index	INDEX	0-63	
show user			



Call-record, .

#### record.

```
SMG-[CONFIG]> record
Entering Record-setup mode.
SMG-[CONFIG]-[RECORD]>
```

?			
exit			
ftp enabled	REC_FTP	no/yes	FTP-
ftp login	REC_FTPLOGIN	63	FTP
ftp mode recording			FTP-
	REC_MODE	once-a-day/	
		once-an-hour/	
		once-an-minute	
ftp passwd	REC_PASSWD	63	FTP
ftp path	REC_FTPPATH	63	FTP
ftp period day	REC_HOUR	0-23	once-a-day
	REC_MINUTE	0-59	
ftp period hour	REC_MINUTE	0-59	once-a-hour
ftp port	REC_FTPPORT	1-65535	FTP-
ftp remove-after-upload	REC_FTP_REMOVE	no/yes	FTP
ftp server	REC_FTPSERVER	63	FTP-
set action on full disk		stop-recording/remove-old-files	: /
set dirname		none , 63	
set dirname_IVR		none , 63	IVR
set files count per dir	FILECOUNT	100-65535 unlimited	
set files keep period day	KEEP_DAY	0-90	,
set files keep period hour	KEEP_HOUR	0-23	,
set notification	<NOTIFY_TYPE>	None	
		voice_message	
set path		off/mnt/sd[abc][1-7]*	

```
SMG-[CONFIG]-[RECORD]> mask
Entering Record-Mask mode.
SMG-[CONFIG]-[RECORD]-MASK>
```

?			
exit			
add			..
	REC_MASK_NUMPLAN	0-255 all	(all - )
	RECORD_MASK	255	, «(» «)»
	REC_MASK_TYPE		
		all/	
		calling/	
		called	
modify category	RECORD_MASK_INDEX	0-4095	
	CAT_IDX	0-31	
modify direction			
	RECORD_MASK_INDEX	0-4095	
	REC_MASK_TYPE	all/	
		calling/	
		called	
modify mask			. «(» «)».
	RECORD_MASK_INDEX	0-4095	
	PREFIX_MASK	255	
modify notification			
	RECORD_MASK_INDEX	0-4095	none -
	NOTIFY_TYPE		voice_message - ;
modify numplan			
	RECORD_MASK_INDEX	0-4095 none/voice_message	
	REC_MASK_NUMPLAN	0-255 all	
remove	RECORD_MASK_INDEX	0-4095	
show			

#### route.

```
SMG-[CONFIG]> route
Entering route mode.
SMG-[CONFIG]-ROUTE>
```

?			
config			Configuration
exit			
history			
quit			CLI
route add			:

	<DESTINATION>	IP- AAA.BBB.CCC.DDD	<i>DESTINATION- IP-</i>
	<MASK>	AAA.BBB.CCC.DDD	<i>MASK- IP-</i>
	<GATEWAY>	AAA.BBB.CCC.DDD	<i>GATEWAY- IP-</i>
	<METRIC>		<i>METRIC-</i>
	<IFACE_NAME>	255	<i>IFACE_NAME-</i>
	<ENABLE>	disable/enable	<i>ENABLE- /</i>
route del			:
	<IDX>	0-4095	<i>IDX-</i>
show			

## Q.850

**record.**

```
SMG1016M-[CONFIG]> release cause list 0
Entering RelCauseList-mode.
SMG1016M-[CONFIG]-REL-CAUSE-LIST[0]>
```

?			
add cause	<CAUSE>	1-127	q.850
config			Configuration
exit			
history			
quit			CLI
remove cause	<CAUSE>	1-127	q.850
set name	<LIST_NAME>	letter or number or '_', '.', ':'. Max 63 symbols	
show			

## SIP/SIP-T

**sip configuration.**

```
SMG-[CONFIG]> sip configuration
Entering SIP/SIP-T/SIP-I/SIP-profile config mode.
SMG-[CONFIG]-SIP(general)>
```

?			
cause codes KZ	<ON_OFF>	on/off	/
config			Configuration
dynamic route profile	<PROFILE>	0-63	SIP-
exit			
history			
ignore_RURI		no/yes	/ R-URI. «@» Request-URI, IP- ,
port destination	<PORT>	1-65535	,
port source	<PORT>	1-65535	SMG,
quit			CLI
ringing timeout	<RING_TIMER>	10-255	
save_database	on/off		/ . , - . web CLI

show			SIP-T
T1	<T1_TIMER>	0-255	SIP T1
T2	<T2_TIMER>	0-255	SIP T2
T4	<T4_TIMER>	0-255	SIP T4
transport			, SIP:
	<TRANSPORT>	UDP-only/	<i>UDP-only</i> – UDP-
		UDP-prefer/	<i>UDP-prefer</i> – UDP TCP. 1300 TCP, 1300 – UDP
		TCP-prefer/	<i>TCP-prefer</i> – UDP TCP. TCP. , TCP, UDP
		TCP-only	<i>TCP-only</i> – TCP-
write_timeout	<TIMEOUT>	1hour/ 2hours/ 4hours/ 6hours/ 8hours/ 12hours/ 16hours	( )

## SIP/SIP-T

**sip interface** <SIPT\_INDEX>, <SIPT\_INDEX> – SIP/SIP-T.

```
SMG-[CONFIG]> sip interface 0
Entering SIPT-mode.
SMG-[CONFIG]-SIP/SIPT/SIPI-INTERFACE[0]>
```

?			
access category	<CAT_IDX>	0-31	
alarm indication	<on/off>		
category mode	<MODE>	none category cpc cpc-rus	SIP , <i>none</i> – SIP
CCI	<on/off>	on/off	
cdpn default	<CDPN>	30 'none'	CDPN -
cdpn plus sign	<YES/NO>	no/yes	+ international. -
cgpn replace	<YES_NO>	no/yes	CgPN « / », – CgPN,
clearchan override	<on/off>	<on/off>	<i>clear channel override</i> - CLEARMODE <i>clear channel</i>
clearchan transit	<on/off>	<on/off>	<i>clear channel transit</i> – RTP , ( )
codec disable	<CODEC_IDX>	0-5	. – 0 () 5 ()
codec pte			payload time
	<CODEC_IDX>	0-5	
	<PTE>	10/20/30/40/50/60/70/80/90	
codec ptype			payload type. static -
	<CODEC_IDX>	0-5	
	<PTYPE>	0-127 static	
codec set			
	<CODEC_IDX>	0-5	

	<CODEC>	G.711-U/ G.711-A/ G.729/ G.723.1_5.3/ G.723.1_6.3	
command line	<command>	Allowed symbols: [0-9a-zA-Z-_.!~*() ;:=+\$,%#] always inside []. For clearing use 'none'	SIP
config			Configuration
diversion use sip-uri	<YES_NO>	no/yes	Diversion SIP-URI
DSCP RTP	<DSCP_RTP>	0-255	DSCP RTP-
DSCP SIG	<DSCP_SIG>	0-255	DSCP SIG-
DTMF allow_inband_DTMF	<DTMF_ALLOW_INBAND>	no/yes	inband DTMF
DTMF mime type			, DTMF INFO SIP
	<MIME_TYPE>	application/dtmf	application/dtmf – INFO application/dtmf SIP (* # 10 11)
		application/dtmf-relay	application/dtmf-relay – INFO application/dtmf-relay SIP (* # * #);
DTMF mode	<DTMF_m>	inband/ RFC2833/ SIP-INFO/ SIP-NOTIFY	DTMF
DTMF payload	<DTMF_p>	96-127	RFC2833
DTMF payload-equal	<DTMF_PT_EQ>	(off/on)	/ « RFC2833 PT»
duplicate enable	<YES_NO>	no/yes	INVITE
duplicate primary host			
	<REM_IPADDR>	IP- AAA.BBB.CCC.DDD	
	<REM_PORT>	0-65535	
duplicate secondary host			
	<REM_IPADDR>	IP- AAA.BBB.CCC.DDD	
	<REM_PORT>	0-65535	
early media header	<early media header>	(off/on)	P-Early-Media (RFC5009)
ecan			:
	<CANCELLATION>	voice/	<i>Voice</i> – ( )
		nlp-off-voice/	<i>Nlp-off-voice</i> – , NLP . , , NLP. ,
		modem/	<i>Modem</i> – ( , NLP , )
		off	<i>Off</i> –
exit			
egress_lines	<COUNT>	0-65535	SIP 0 —
history			
fax detection			:
	<DETECTION>	no/	<i>no</i> –
		callee/	<i>callee</i> –
		caller/	<i>caller</i> –
		callee_and_caller	<i>callee_and_caller</i> –

fax mode	<MODE>	T38_only/G.711_only/ T38_and_G.711	
fill empty display-name	FILL_DNAME	on/off	display-name display-name
gain rx	<GAIN>	-140 – 60	, / , , SMG
gain tx	<GAIN>	-140 – 60	, / , , SMG
history			
hold mode			:
		flash/	
		flash/star	« »
		flash/hash	« »
		flash/star/hash	, « »
hostname clear			
hostname set	<HOSTNAME>	63	
ignore RURI/To diff	<IGNORE_RURI_TO_DIFF>	off/on	Redirecting Original Called -7 SIP RURI To
inband_signal_ with_183_and_sdp	on/off		SIP 183/SDP PRI CALL PROCEEDING PROGRESS progress indicator=8 (In-band signal)
ingress_lines	<COUNT>	0-65535	SIP 0 —
jitter adaptation period	<JT_AP>	1000-65535	- ,
jitter adjust mode			:-
	<JT_AM>	non-immediate/	<i>non-immediate</i> –
		immediately	<i>immediately</i> –
jitter deletion mode			. , :
	<JT_DM>	soft/	<i>soft</i> – ,
		hard	<i>hard</i> – , ,
jitter deletion threshold	<JT_DT>	0-500	.
jitter init	<JT_INIT>	0-200	-
jitter max	<JT_MAX>	0-200	( ) -
jitter min	<JT_MIN>	0-200	( ) -
jitter mode			:-
	<JT_MODE>	adaptive/	<i>Adaptive</i> –
		non-adaptive	<i>non-adaptive</i> –
jitter vbd	<JT_VBD>	0-200	VBD
keep-alive enable			(NAT keep-alive) ( SIP-)
keep-alive disable			NAT keep-alive ( SIP-)
keep-alive mode			.
	<KEEP_ALIVE_MODE>	SIP-OPTIONS/	SIP-OPTIONS – OPTIONS
		SIP-NOTIFY/	SIP-NOTIFY – NOTIFY
		UDP-CRLF	UDP-CRLF – UDP
keep-alive period	<KEEP_ALIVE_PERIOD>	30-3600	
lines_mode	<LINES_MODE>	common/separate	: /
local ringback	<on/off>	on/off	early media
login	<LOGIN>	15	,
max_active	<MAX_ACTIVE>	0-65535	

mode	<mode>	profile/ SIP/ SIP-T/ SIP-I/ SIP-Q	(SIP- SIP)
name	<s_name>	, , '_' 31	
nat	<NAT>	enable/disable	/ NAT
net-interface rtp	<IFACE_NAME>	255	RTP
net-interface sig	<IFACE_NAME>	255	SIP
numbering plan	<NUMPLAN>	0-15/0-255	
options	<OPTIONS>	enable/disable	OPTIONS. . OPTIONS, 100rel, replaces timer,
options period	<OPTIONS_PERIOD>	30-3600	,
password	<PASSWD>	15	,
port	<PORT>	1-65535	UDP- , SIP
quit			CLI
radius profile	<RADIUS_PROFILE>	number [0-31] or 'no'	RADIUS SIP- <i>no-</i> .
Re-INVITE a=sendonly		on/off	Re-INVITE a=sendonly
redirection 302	<REDIRECTION>	on/off	/ (302)
redirection server	<REDIRECT_SERVER>	on/off	/ , , , . contact 302 . 302 ( redirection 302)
refer	<REFER>	enable/disable	/ REFER
register delay	<REGEXP>	500-5000	Register, ,
register expires	<REGEXP>	90-64800	
regmode	<REGMODE>	none/ trunk-mode/ user-mode	
reliable_1xx_ response	<ON_OFF>	Off/	<i>Off</i> – 100rel
		Support/ support-plus/	<i>support</i> INVITE 1 support: 100rel,
		require/ require-plus	<i>require</i> INVITE 1 require: 100rel,
routing_profile	<prof>	0-127	
RTCP control	<RTCP_c>	2-255	(RTCP period), RTCP
RTCP period	<RTCP_p>	5-255	, RTCP
RTP loss silence	<RTP_TIMEOUT_SILENCE>	1-30	RTP- . , , RTP-loss timeout
RTP loss timeout	<RTP_TIMEOUT>	10-300/ off	RTP-
sdp_in_18x	<ON_OFF>	on/off	SDP
sipdomain	<SIPDOMAIN>	IP- AAA.BBB.CCC.DDD	
show config			
sipcause profile	<SIPCAUSE>	[0-63]/ none	Q.850 sip-reply
sms port	<PORT>	0-65535	SMS SMPP

src verify	<ON_OFF>	on/off	IP- UDP-, SDP(on)/ IP- UDP- (off)
STUN ip	<IPADDR>	IP- AAA.BBB.CCC.DDD	IP- STUN-
STUN period	<PERIOD>	10-1800/0	
STUN port	<PORT>	1-65535	STUN- ( - 3478)
STUN use	<YES_NO>	yes/no	/ STUN
subnet mask clear			
subnet mask set	<SUBNET>	63 : AAA.BBB.CCC.DDD	
subscribers max_forwardings	<MAX_FORWARDINGS>	5/10	
t38 bitrate	<BITRATE>	nolimit/2400/4800/ 7200/9600/12000/ 14400	.38
t38 disable			T.38
t38 enable			T.38
t38 fillbitremoval	<T38_FBR>	on/off	/ ,
t38 pte	<T38_PTE>	10/20/30/40	.38
t38 ratemgmt			
	<T38_RATE_MGMT>	localTCF/	<i>local TCF-</i> , TCF
		transferredTCF	<i>transferred TCF-</i> , TCF
t38 redundancy	<T38_REDUNDANCY>	off/1/2/3	<i>off-</i>
timer enable	<YES_NO>	no/yes	/ SIP- RFC4028
timer refresher	<REFRESHER>	uac/uas	,
timer session Min-SE	<MIN_SE>	90-32000	, . <i>timer session expires</i>
timer session expires	<EXPIRES>	90-64800	, ,
transit sip header	YES_NO	no/yes	SIP
trunk	<TRUNK>	0-31	
trusted network	<YES_NO>	yes/no	« »
username	<USERNAME>	15	
VAD_CNG	<ON_OFF >	on/off	/ /
vbd codec	<CODEC>	G.711-U, G.711-A	, VBD
vbd enable			V.152
vbd disable			V.152
vbd payload type	<VBD_p>	Static,96-127	, VBD-
flash processing		on/off	flash

### sip registration.

```
SMG-[CONFIG]> sip registration
Entering sip-registration mode.
SMG-[CONFIG]-SIP-REGISTRATION>
```


?			



add one			
count			
exit			
history			
config			Configuration
quit			CLI
remove	<INDEX>	0-3000	
set authname			,
	<INDEX>	0-3000	
	<NAME>	63	
set authpass			,
	<INDEX>	0-3000	
	<NAME>	63	
set sipdomain			
	<INDEX>	0-3000	
	<NAME>	63	
set username			
	<INDEX>	0-3000	
	<NAME>	63	
show all			
show one	<ONE_INDEX>	0-3000	

# SIP

## 1 sip users.

 1 SIP-.

```
SMG-[CONFIG]> sip users
Entering SIP-Users mode.
SMG-[CONFIG]-SIP-USERS>
```

?			
add		group/user	/
config			Configuration
exit			
history			
quit			CLI
remove	<INDEX>	0-1999/0-2999	
savedb			. , - . web CLI
service user	<INDEX>	0-1999/0-2999	
service group	<INDEX>	0-63	
set authorization			
	<INDEX>	0-1999/0-2999	INDEX- SIP-
	<AUTHMODE>		AUTHMODE - :

		none/	<i>None</i> –
		register/	<i>register</i> –
		register_and_invite	<i>register_and_invite</i> –
set user allow unregistered			
	<INDEX>	0-1999/0-2999	
	<ON_OFF>	off/on	
set user access category			
	<INDEX>	0-1999/0-2999	
	<CAT_IDX>	0-31	
set user access mode			
	<INDEX>	0-1999/0-2999	
	<ACCESS>	Off/On/Off_1/ Off_2/Denied_1/ Denied_2/Denied_3/ Denied_4/Denied_5/ Denied_6/Denied_7/ Denied_8/Exclude	
set user blf groupID			( BLF )
	<INDEX>	0-1999/0-2999	
	<GROUP_ID>	0-15	
set user blf subscribers			
	<INDEX>	0-1999/0-2999	
	<BLF_SUBS>	0-200	
set user blf usage			blf ( )
	<INDEX>	0-1999/0-2999	
	<ON_OFF>	off/on	
set user category			
	<INDEX>	0-1999/0-2999	<i>INDEX</i> – SIP-;
	<CATEGORY>	0-9	<i>CATEGORY</i> –
set user cliro			CLIRO ( )
	<INDEX>	0-1999/0-2999	
	<ON_OFF>	off/on	
set user display name rule			:
	<INDEX>	0-1999/0-2999	
	<USE_DISPLAY_NAME>	received_only/	<i>received_only</i> –
		received_prefer/	<i>received_prefer</i> – ,
		configured_only	<i>configured_only</i> –
set user display name value			<i>none</i> –
	<INDEX>	0-1999/0-2999	
	<DISPLAY_NAME>	40 none	
set user domain			SIP-
	<INDEX>	0-1999/0-2999	<i>INDEX</i> – SIP-
	<DOMAIN>	15	<i>DOMAIN</i> –
set user egress lines			<i>separate.</i> [1;255] 0 –

	<INDEX>	0-1999/0-2999	
	<COUNT>	1-255 0	
set user ingress lines			<i>separate.</i> [1;255] 0 –
	<INDEX>	0-1999/0-2999	
	<COUNT>	1-255 0	
set user intercom header			SIP-
	<HEADER>	AIAA/	AIAA - Alert-Info: Auto Answer
		AII/	AII - Alert-Info: Intercom' for user
		AIIAA/	AIIAA - Alert-Info: info=alert-autoanswer
		AIIII/	AIIII - Alert-Info: info=intercom
		AIIRA/	AIIRA - Alert-Info: info=RingAnswer
		AIRA/	AIRA - Alert-Info: Ring Answer
		AMO/	AMO - Answer-Mode: Auto
		CIAA/	CIAA - Call-Info: ;answer-after=0
		CIESAA/	CIESAA - Call-Info: =\;answer-after=0
		CISSAA	CISSAA - Call-Info: \\\;answer-after=0
	<INDEX>	0-1999/0-2999	
set user intercom mode			:
	<INDEX>	0-1999/0-2999	
	<MODE>	sendonly/	<i>sendonly</i> –
		sendrecv/	<i>sendrecv</i> –
		ordinary/	<i>ordinary</i> – ( intercom header)
		reject	<i>reject</i> –
set user intercom priority			
	<INDEX>	0-1999/0-2999	
	<PRIORITY>	1-5	
set user intercom timer			. SIP- answer-auto
	<INDEX>	0-1999/0-2999	
	<TIMER>	0-255	
set user ipaddr			IP-
	<INDEX>	0-1999/0-2999	
	<IPADDR>	IP- AAA.BBB.CCC.DDD	
set user lines			common. [1;255] 0 –
	<INDEX>	0-1999/0-2999	
	<COUNT>	1-255 0	
set user lines-mode			
	<INDEX>	0-1999/0-2999	
	<LINES_MODE>	common	<i>ommon</i> –
		separate	<i>separate</i> –
set login			
	<INDEX>	0-1999/0-2999	
	<LOGIN>	63	
	<PASSWORD>	63	
set user name			SIP-
	<INDEX>	0-1999/0-2999	
	<NAME>	, 31	
set user no-source-port-control			-

	<INDEX>	0-1999/0-2999	
	<ON_OFF>	off/on	
set user number			SIP-
	<INDEX>	0-1999/0-2999	
	<NUMBER>		
set user numberAON			
	<INDEX>	0-1999/0-2999	
	<NUMBER>		
set user numberAON-for-redirection			
	<INDEX>	0-1999/0-2999	
	<NUMBER>		
set user numberList			.
	<INDEX>	0-1999/0-2999	
	<NUM_IDX>	0-15/0-255	
	<NUMBER>	[]/none	<i>none</i> –
set user numplan			
	<INDEX>	0-1999/0-2999	
	<PLAN_IDX>	0-15/0-255	
set user pbx_profile			PBX- SIP-
	<INDEX>	0-1999/0-2999	
	<PROFILE>	0-31	
set user Re-INVITE a=sendonly			hold re-invite a=sendonly
	<INDEX>	0-63	
	<HOLD>	off/on	
set user redirection			/ ( 302)
	<INDEX>	0-63	
	<REDIRECTION>	off/on	
set group access category			
	<INDEX>	0-63	
	<CAT_IDX>	0-31	
set group blf groupID			( BLF)
	<INDEX>	0-63	
	<GROUP_ID>	0-15	
set group blf subscribers			
	<INDEX>	0-63	
	<BLF_SUBS>	0-200	
set group blf usage			
	<INDEX>	0-6	
	<ON_OFF>	off/on	
set group category			
	<INDEX>	0-63	<i>INDEX</i> – SIP-
	<CATEGORY>	0-9	<i>CATEGORY</i> –
set group cliro			CLIRO ( )
	<INDEX>	0-63	
	<ON_OFF>	off/on	
set group domain			SIP-
	<INDEX>	0-63	<i>INDEX</i> – SIP-

	<DOMAIN>	15	<i>DOMAIN-</i>
set group egress lines			<i>separate. [1;255] 0 -</i>
	<INDEX>	0-63	
	<COUNT>	1-255 0	
set group ingress lines			<i>separate. [1;255] 0 -</i>
	<INDEX>	0-63	
	<COUNT>	1-255 0	
set group intercom header			SIP- :
	<HEADER>	AIAA/	AIAA - Alert-Info: Auto Answer
		AII/	AII - Alert-Info: Intercom' for user
		AIIAA/	AIIAA - Alert-Info: info=alert-autoanswer
		AIII/	AIII - Alert-Info: info=intercom
		AIIRA/	AIIRA - Alert-Info: info=RingAnswer
		AIRA/	AIRA - Alert-Info: Ring Answer
		AMO/	AMO - Answer-Mode: Auto
		CIAA/	CIAA - Call-Info: ;answer-after=0
		CIESAA/	CIESAA - Call-Info: =\;answer-after=0
		CISSAA	CISSAA - Call-Info: \\\;answer-after=0
	<INDEX>	0-63	
set group intercom mode			:
	<INDEX>	0-63	
	<MODE>	sendonly/	<i>sendonly-</i>
		sendrecv/	<i>sendrecv-</i>
		ordinary/	<i>ordinary- ( intercom header)</i>
		reject	<i>reject-</i>
set group intercom priority			
	<INDEX>	0-63	
	<PRIORITY>	1-5	
set group intercom timer			. SIP- answer-auto
	<INDEX>	0-63	
	<TIMER>	0-255	
set group lines			common. [1;255] 0 -
	<INDEX>	0-63	
	<COUNT>	1-255 0	
set group lines-mode			:
	<INDEX>	0-63	
	<LINES_MODE>	common/	<i>ommon-</i>
		separate	<i>separate-</i>
set group max			
	<INDEX>	0-63	
	<MAX_REG>	0-1999/0-2999	
set group name			
	<INDEX>	0-63	
	<NAME>	, 31	
set group numplan			
	<INDEX>	0-63	
	<PLAN_IDX>	0-15/0-255	

set group no-source-port-control			-
	<INDEX>	0-63	
	<ON_OFF>	off/on	
set group pbx_profile			PBX-
	<INDEX>	0-63	
	<PROFILE>	0-31	
set group profile			SIP-
	<INDEX>	0-63	
	<PROFILE>	0-31	
set group Re-INVITE a=sendonly			hold re-invite a=sendonly
	<INDEX>	0-63	
	<HOLD>	off/on	
set group redirection			/ ( 302)
	<INDEX>	0-63	
	<REDIRECTION>	off/on	
set group refer			REFER
	<INDEX>	0-63	
	<REFER>	off/on	
show count			SIP-
show list			SIP-
show user	<INDEX>	0-1999/0-2999	SIP-
show group	<INDEX>	0-63	

SIP- **service** <USER\_INDEX>, **USER\_INDEX** – SIP-.

```
SMG-[CONFIG]-SIP-USERS> service user 0
Entering User-Service mode for user 0
SMG-[CONFIG]-[SIP-USERS][0]-SERVICE>
```

?			
attach service block			
detach service block			
exit			
quit			CLI
set call-pickup enable	<ON_OFF>	off/on	« »
set cfb enable	<ON_OFF>	off/on	« »
set cfb number	<ON_OFF>	30 none	none –
set sfmr enable	<ON_OFF>	off/on	« »
set sfmr number	<ON_OFF>	30 none	none –
set cfos enable	<ON_OFF>	off/on	« »
set cfos number	<ON_OFF>	30 none	none –
set cfu enable	<ON_OFF>	off/on	« »

set cfu number	<ON_OFF>	30 none	<i>none</i> –
set clear-all enable	<ON_OFF>	off/on	« »
set conf-3way enable	<ON_OFF>	off/on	« ». « »
set conference enable	<ON_OFF>	off/on	« »
set ct enable	<ON_OFF>	off/on	« ». « »
set hold enable	<ON_OFF>	off/on	« »
set intercom enable	<ON_OFF>	off/on	« »
set one_touch_record enable	<ON_OFF>	off/on	« »
set password change enable	<ON_OFF>	off/on	« »
set password restrict out access active	<ON_OFF>	off/on	« ». <i>on</i> .
set password restrict out access enable	<ON_OFF>	off/on	« ». « »
set password restrict out once enable	<ON_OFF>	off/on	« ». « »
set password value	<VALUE>	4	« »
set restrict out enable	<ON_OFF>	off/on	« »
set restrict out value			:
	<ACCESS_MODE>	On/	<i>On</i> –
		Denied_6/	<i>Denied_6</i> –
		Denied_7/	<i>Denied_7</i> – ,
		Denied_8	<i>Denied_8</i> – , ,
show			
show count			

SIP- **service group** <USER\_INDEX>, USER\_INDEX – SIP-.

```
SMG-[CONFIG]-SIP-USERS> service group 0
Entering UserGroup-Service mode for user-group 0
SMG-[CONFIG]-[SIP-USERS][0]-GROUP-SERVICE>
```

?			
attach service blocks manual			–
attach service blocks radius			– RADIUS
detach service block			
exit			
quit			CLI
set call-pickup enable	<ON_OFF>	off/on	« »
set cfb enable	<ON_OFF>	off/on	« »
set cfb number	<ON_OFF>	30 none	. <i>none</i> – .
set sfmr enable	<ON_OFF>	off/on	« »
set sfmr number	<ON_OFF>	30 none	. <i>none</i> – .
set cfos enable	<ON_OFF>	off/on	« »

set cfo number	<ON_OFF>	30 none	. <i>none</i> – .
set cfu enable	<ON_OFF>	off/on	« »
set cfu number	<ON_OFF>	30 none	. <i>none</i> – .
set clear-all enable	<ON_OFF>	off/on	« »
set conf-3way enable	<ON_OFF>	off/on	« ». « »
set conference enable	<ON_OFF>	off/on	« »
set ct enable	<ON_OFF>	off/on	« ». « »
set hold enable	<ON_OFF>	off/on	« »
set intercom enable	<ON_OFF>	off/on	« »
set password change enable	<ON_OFF>	off/on	« »
set password restrict out access active	<ON_OFF>	off/on	« ». <i>on</i> .
set password restrict out access enable	<ON_OFF>	off/on	« ». « »
set password restrict out once enable	<ON_OFF>	off/on	« ». « »
set password value	<VALUE>	4	« »
set restrict out enable	<ON_OFF>	off/on	« »
set restrict out value			:
	<ACCESS_MODE>	On/	<i>On</i> – ;
		Denied_6/	<i>Denied_6</i> –
		Denied_7/	<i>Denied_7</i> – ,
		Denied_8	<i>Denied_8</i> – , ,
show			
show count			

**PRI-**

**pri-users.**

```
SMG-[CONFIG]> pri-users
Entering SIP-Users mode.
SMG-[CONFIG]-[PRI-USERS]>
```

?			
add user			
	<NUMBER>		
	<STREAM>	1 0-15	
remove by id	<USER_ID>	ID	ID
remove by index	<INDEX>		
service	<USER_INDEX>		
set by id access category			ID
	<USER_ID>	ID	
	<CAT_IDX>	0-127	
set by id access_mode			ID
	<USER_ID>	ID	



	<ACCESS>	Off/On/Off_1/Off_2/Denied_1/Denied_2/Denied_3/Denied_4/Denied_5/Denied_6/Denied_7/Denied_8/Exclude	
set by id name			ID
	<USER_ID>	ID	
	<USER_NAME>	63	
set by id number			ID
	<USER_ID>	ID	
	<NUMBER>		
set by id pbx_profile			PBX-ID
	<USER_ID>	ID	
	<PROFILE>	0-15	
set by id stream			, ID
	<USER_ID>	ID	
	<STREAM>	0-15	
set by index access category			
	<INDEX>		
	<CAT_IDX>	0-127	
set by index access_mode			
	<INDEX>		
	<ACCESS>	Off/On/Off_1/Off_2/Denied_1/Denied_2/Denied_3/Denied_4/Denied_5/Denied_6/Denied_7/Denied_8/Exclude	
set by index name			
	<INDEX>		
	<USER_NAME>	63	
set by index number			
	<INDEX>		
	<NUMBER>		
set by index pbx_profile			PBX-
	<INDEX>		
	<PROFILE>	0-15	
set by index stream			,
	<INDEX>		
	<STREAM>	0-15	
show all			PRI-
show by id	<USER_ID>	ID	ID
show by index	<INDEX>		
show count			PRI-
show list users			PRI-

**PRI-**

PRI- service <USER\_INDEX>, USER\_INDEX – PRI-.

```
SMG-[CONFIG]-[PRI-USERS]> service 0
Entering User-Service mode for user 0
SMG-[CONFIG]-[PRI-USERS][0]-SERVICE>
```

--	--	--	--

?			
attach service block			
detach service block			
set cfb enable	<ON_OFF>	off/on	« »
set cfb number	<ON_OFF>	30 none	. none – .
set sfmr enable	<ON_OFF>	off/on	« »
set sfmr number	<ON_OFF>	30 none	. none – .
set cfos enable	<ON_OFF>	off/on	« »
set cfos number	<ON_OFF>	30 none	. none – .
set cfu enable	<ON_OFF>	off/on	« »
set cfu number	<ON_OFF>	30 none	. none – .
show			
show count			

## PRI-

### pri\_profiles

SMG-[CONFIG]> pri\_profiles

Entering PRI profiles mode.

SMG-[CONFIG]-PRI\_PROFILES>

?			
add pri_profile	<NAME>	, 63	pri-
config			Configuration
exit			
quit			CLI
remove pri_profile	<PROFILE_INDEX>	0-31	pri-
set mode	<PROFILE_INDEX>	0-31	pri- ( / )
	<PROFILE_MODE>	start_first_forward/start_last_backward	
set modifiers_table outgoing called	<PROFILE_INDEX>	0-31	PRI-, ,
	<MODTBL_INDEX>	0-255/none	
set modifiers_table outgoing calling	<PROFILE_INDEX>	0-31	PRI-, ,
	<MODTBL_INDEX>	0-255/none	
set modifiers_table outgoing original_called	<PROFILE_INDEX>	0-31	PRI-, (original Called party number),
	<MODTBL_INDEX>	0-255/none	
set modifiers_table outgoing redirecting	<PROFILE_INDEX>	0-31	PRI-, (redirecting number),
	<MODTBL_INDEX>	0-255/none	

set name	<PROFILE_INDEX>	0-31	pri-
	<NAME>	, 63	
show			pri-
stream_list add	<PROFILE_INDEX>	0-31	1(Q.931) pri-
	<STREAM>	1-16	
stream_list remove	<PROFILE_INDEX>	0-31	1(Q.931) pri-
	<STREAM>	1-4	

-7

ss7cat.

```
SMG-[CONFIG]> ss7cat
Entering SS7-categories mode.
SMG-[CONFIG]-SS7-CAT>
```

?			
config			Configuration
exit			
quit			CLI
set			:
	<CAT_IDX>	0-15	CAT_IDX -
	<PBX_CAT>	0-255	PBX_CAT -
	<SS7_CAT>	0-255	SS7_CAT - -7
show			-7

switch

1 switch.

 1 SMG-1016M. .

```
SMG-[CONFIG]> switch
Entering switch control mode.
SMG-[CONFIG]-[SWITCH]>
```

?			
802.1q			802.1q
apply mirroring settings		no/yes	
apply port settings		no/yes	
confirm mirroring settings			. ,
confirm port settings			. ,
exit			

history			
LACP <sup>2</sup>			LACP
QoS_control			QoS
quit			CLI
save mirroring			
save vlan			VLAN
set mirroring			:
	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	<i>PORT</i> –
	<NAME>		<i>NAME</i> – :
		src_in/	<i>src_in</i> – – , (-)
		src_out/	<i>src_out</i> – – , (-)
		dst_in/	<i>dst_in</i> – – – , -
		dst_out	<i>dst_out</i> – – – , -
	<ACT>	on/off	
set port backup	<ON_OFF>	on/off	Dual Homing
	<B_MASTER>	GE_PORT0/GE_PORT1/ GE_PORT2/SFP0/SFP1	B_MASTER –
	B_SLAVE	GE_PORT0/GE_PORT1/ GE_PORT2/SFP0/SFP1	B_SLAVE –
	PREEMPTION		PREEMPTION – /
set port default vlan id			VLAN ID
	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<VLANID>	0-4095	
	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<EGRESS>		EGRESS – :
		unmodified/	<i>unmodified</i> – (.. , )
		untagged/	<i>untagged</i> – VLAN
		tagged/	<i>tagged</i> – VLAN
		double-tag	<i>double tag</i> – VLAN – VLAN –
set port ieee mode			

	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<IEEE>		IEEE – :
		fallback/	<i>Fallback</i> – VLAN, , , , «egress» «output»
		check/	<i>Check</i> – VID, «802.1q», , , VID. , «egress» «output»
		secure	<i>Secure</i> – VID, «802.1q», , , . , «egress» «output»,
set port LACP_trunk <sup>2</sup>			LACP
	<PORT>	CPU/ GE_PORT0/ GE_PORT1/ GE_PORT2/ SFP0/ SFP1	
	<LACP>	0-4	
set port MAC GE_PORT0	<MACADDR>	MAC- XX:XX:XX:XX:XX:XX	MAC-
set port output			:
	<PORT>	GE_PORT0/ GE_PORT1/ GE_PORT2/ CPU/ SFP0/ SFP1	<i>PORT</i> –
	<P_DEST>	GE_PORT0/ GE_PORT1/ GE_PORT2/ CPU/ SFP0/ SFP1	<i>P_DEST</i> –
	<ENABLE>	on/off	
set port speed	<SPEED>	1000M 100M (full-duplex/ half-duplex) 10M(full-duplex/ half-duplex) auto	
	<PORT>	GE_PORT0/GE_PORT1/ GE_PORT2	
			/ VLAN
set port vlan enabling			

	<PORT>	CPU/ GE_PORT0/ GE_PORT1/ GE_PORT2/ SFP0/ SFP1	
	<ENABLE>	on/off	
set port vlan override			VLAN ID
	<PORT>	CPU/ GE_PORT0/ GE_PORT1/ GE_PORT2/ SFP0/ SFP1	
	<OVER>	on/off	
show mirror settings			
show port settings			

## 802.1q

**switch 802.1q.**

```
SMG-[CONFIG]-[SWITCH]> 802.1q
Entering 802.1q_control mode.
SMG-[CONFIG]-[SWITCH]-[802.1q]>
```

?			
add VTU element			VTU-:
	<VID>	0-4095	VID – VLAN
	<PRIO>	0-7	PRIO – 802.1, VLAN, OVER (on)
	<OVER>	on/off	OVER – 802.1 VLAN (/)
	<GE_PORT0>		PORT –, , VID:
	<GE_PORT1>	unmodified/	– Unmodified– ;
	<GE_PORT2>	untagged/	– Untagged– VLAN;
	<CPU>	tagged/	– Tagged– c VLAN;
	<SFP0>	not_member	– Not_member– VID ,.. VLAN
	<SFP1>		
apply	<YES_NO>	yes/no	VTU
confirm			VTU. ,
exit			
QoS_control			QoS
quit			CLI
remove VTU element	<NUMBER>	0-4095	VTU-
save			VTU
set VTU override			/ 802.1 VLAN (/)
	<NUMBER>	0-4095	

	<OVER>	on/off	
set VTU priority			802.1, VLAN, «set VTU override»
	<NUMBER>	0-4095	
	<PRIO>	0-7	
set VTU settings_CPU			, , VID
	<NUMBER>	0-4095	
	<CPU>	unmodified/	<i>Unmodified</i> – ;
		untagged/	<i>Untagged</i> – VLAN;
		tagged/	<i>Tagged</i> – c VLAN;
		not_member	<i>Not_member</i> – VID , .. VLAN
settings_GE_PORT0			, , VID
	<NUMBER>	0-4095	
	<CPU>	unmodified/	<i>Unmodified</i> –
		untagged/	<i>Untagged</i> – VLAN
		tagged/	<i>Tagged</i> – c VLAN
		not_member	<i>Not_member</i> – VID , .. VLAN
settings_GE_PORT1			, , VID:
	<NUMBER>	0-4095	
	<CPU>	unmodified/	<i>Unmodified</i> –
		untagged/	<i>Untagged</i> – VLAN
		tagged/	<i>Tagged</i> – c VLAN
		not_member	<i>Not_member</i> – VID , .. VLAN
settings_GE_PORT2			, , VID:
	<NUMBER>	0-4095	
	<CPU>	unmodified/	<i>Unmodified</i> –
		untagged/	<i>Untagged</i> – VLAN
		tagged/	<i>Tagged</i> – c VLAN
		not_member	<i>Not_member</i> – VID , .. VLAN
settings_SFP0			, , VID:
	<NUMBER>	0-4095	
	<CPU>	unmodified/	<i>Unmodified</i> –
		untagged/	<i>Untagged</i> – VLAN
		tagged/	<i>Tagged</i> – c VLAN
		not_member	<i>Not_member</i> – VID , .. VLAN
settings_SFP1			, , VID:
	<NUMBER>	0-4095	
	<CPU>	unmodified/	<i>Unmodified</i> –
		untagged/	<i>Untagged</i> – VLAN
		tagged/	<i>Tagged</i> – c VLAN
		not_member	<i>Not_member</i> – VID , .. VLAN
show list			VTU-
show one	<NUMBER>	0-4095	VTU-
show table			VTU-

## QoS

*switch 802.1q* QoS\_control.

```
SMG-[CONFIG]-[SWITCH]> QoS_control
Entering QoS_control mode.
SMG-[CONFIG]-[SWITCH]-[QoS]>
```

?			
802.1q			802.1q
apply	<YES_NO>	yes/no	QoS
confirm			QoS. ,
exit			
quit			CLI
save			QoS
set 802.1 p_prio_mapping			802.1:
	<PRIO>	0-7	PRIO – 802.1
	<QUEUE>	0-3	QUEUE –
set default_VLAN_priority			802.1 , . 802.1 IP diffserv , (default vlan priority , IP, QoS: DSCP only, DSCP preferred, 802.1 p preferred, )
	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<DEFPRIO>	0-7	
set diffserv_prio_mapping			IP diffserv:
	<NUMBER>	*1	NUMBER – IP diffserv
	<QUEUE>	0-3	QUEUE –
set egress_limit			/
	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<EGR LIM>	on/off	
set egress_rate_limit	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	(/)
	<EGR RATE>	0-250000	
set ingress_limit_mode			,



	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<INGRMODE>		INGRMODE – :
		off/	<i>off</i> –
		all/	<i>all</i> –
		mult_flood_broad/	<i>mult_flood_broad</i> – (multicast), (broadcast) (flooded unicast)
		mult_broad/	<i>mult_broad</i> –
		broad	<i>broad</i> –
set ingress_rate_prio_0/1/2/3			(/), //
set QoS_mode	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	
	<QOSMODE>		QOSMODE – :
		DSCP_only/	<i>DSCP only</i> – IP diffserv
		802.1p_only/	<i>802.1p only</i> – 802.1
		DSCP_preferred/	<i>DSCP preferred</i> – IP diffserv 802.1, , IP diffserv
		802.1p_preferred	<i>802.1p preferred</i> – IP diffserv 802.1, , 802.1
			802.1
set remapping_priority	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/ SFP0(6)/ SFP1(7)	PORT –
	<NUM>	0-7	NUM –
	<REMAP>	0-7	REMAP –

show QoS	<PORT>	GE_PORT0(0)/ GE_PORT1(1)/ GE_PORT2(2)/ CPU(4)/SFP0 (6)/ SFP1(7)	QoS
show QoS_diffserv			IP diffserv
show QoS_priomap			802.1p

syslog

syslog.

```
SMG-[CONFIG]> syslog
Entering syslog mode.
SMG-[CONFIG]-SYSLOG>
```

?			
alarm	<ALARM>	0-99	, 0 –
apply	yes/no		
authlog set			syslog,
	IP	IP- AAA.BBB.CCC.DDD	
	PORT	1-65535	
	ONOFF	off/on	on/off – /
	LOCREM	local/remote	local/remote – remote, syslog
authlog show			
calls	<CALLS>	0-99	, 0 –
config			Configuration
exit			
h323	<H323>	0-99	H.323 , 0 –
hw			E1 , 0 –
	<E1>	0-15	E1 – 1
	<HW>	0-99	HW –
ipaddr	<IPADDR>	IP- AAA.BBB.CCC.DDD	IP- syslog-
isup	<ISUP>	0-99	ISUP , 0 –
msp	<MSP>	0-99	MSP , 0 –
port	<PORT>	1-65535	
Q931	<Q931>	0-99	Q.931 , 0 –
quit			CLI
radius	<RADIUS>	0-99	RADIUS , 0 –
rtp-create	<RTP>	0-99	RTP , 0 –
show			Syslog
sipt	<SIPT>	0-99	SIP-T , 0 –
start			syslog-
stop			syslog-
userlog			
	<IPADDR>	IP- AAA.BBB.CCC.DDD	IPADDR – IP- syslog-

<PORT>	1-65535	PORT – Syslog-
<MODE>		MODE – :
	off/	<i>off</i> –
	standart/	<i>standart</i> –
	full	<i>full</i> –

**user-voice-files.**

```
SMG-[CONFIG]> user-voice-files
Entering User voice-files setup mode.
SMG-[CONFIG]-USER_VOICE_FILES>
```

?			
exit			
quit			CLI
remove	<FILE_TYPE>	trunk_busy/ trunk_error/ number_fail/ access_denied_temp/ service_restricted/ access_restricted/ access_unpaid /user_unallocated /user_changing/ music_on_hold/ number_changed/ conf_greeting	
set	<FILE_TYPE>	trunk_busy/ trunk_error/ number_fail/ access_denied_temp/ service_restricted/ access_restricted/ access_unpaid /user_unallocated /user_changing/ music_on_hold/ number_changed/ conf_greeting	
show files			
show usage			

**IVR**

ivr.

```
SMG-[CONFIG]> ivr
Entering IVR-setup mode
SMG-[CONFIG]-IVR>
```

?			
add scenario			IVR
config			Configuration
delete scenario			IVR
download scenario		<SRC_PATH_AND_FILE_NAME> <DST_FILE_NAME> <SERVER_IP>	tftp
exit			
quit			CLI
remove scenario		Index [0-255]	IVR
set scenario filename		Index [0-255]	IVR
set scenario name		Index [0-255]	IVR
set scenario path		default or /mnt/sd[abc][1-7]	IVR
show list scenarios			IVR
show path scenario			IVR
show scenario		Index [0-255]	IVR

**trunk group <TRUNK\_INDEX>, <TRUNK\_INDEX> – .**

```
SMG-[CONFIG]> trunk group 0
Entering trunk-mode.
SMG-[CONFIG]-TRUNK[0]>
```

?			
channel add	CHAN_INDEX	0-31	E1-channels 1
channel order	CHAN_ORDER	successive_forward/ successive_backward/ start_first_forward/ start_last_backward	E1-channels Linkset-Line
channel remove	CHAN_INDEX	0-31	E1-channels 1
config			Configuration
cps max	<CPS_MAX>	0-255	CPS,
cps warn	<CPS_WARN>	0-255	CPS,
destination			Q931, -7, SIP-T, E1 -7
	<TG_ENTRY>	Q.931/ SS7/ SIPT/ E1-channels/ Linkset-Line	TG_ENTRY –
	<ENTRY_INDEX>		ENTRY_INDEX – ( Q931/-7, , SIP-T, -7)
direct prefix	<IDX>	0-255/none	,
disable all	<YES_NO>	yes/no	/

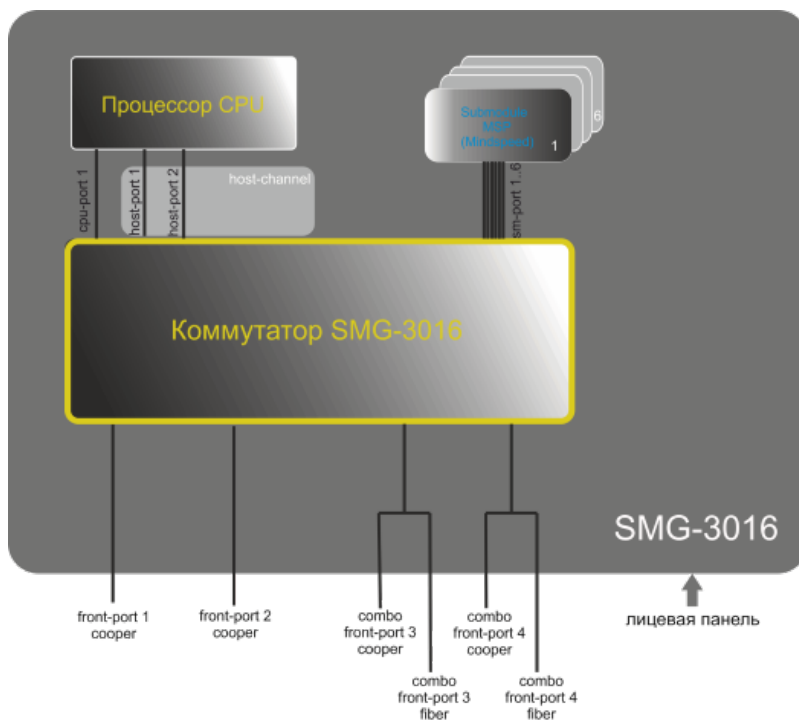
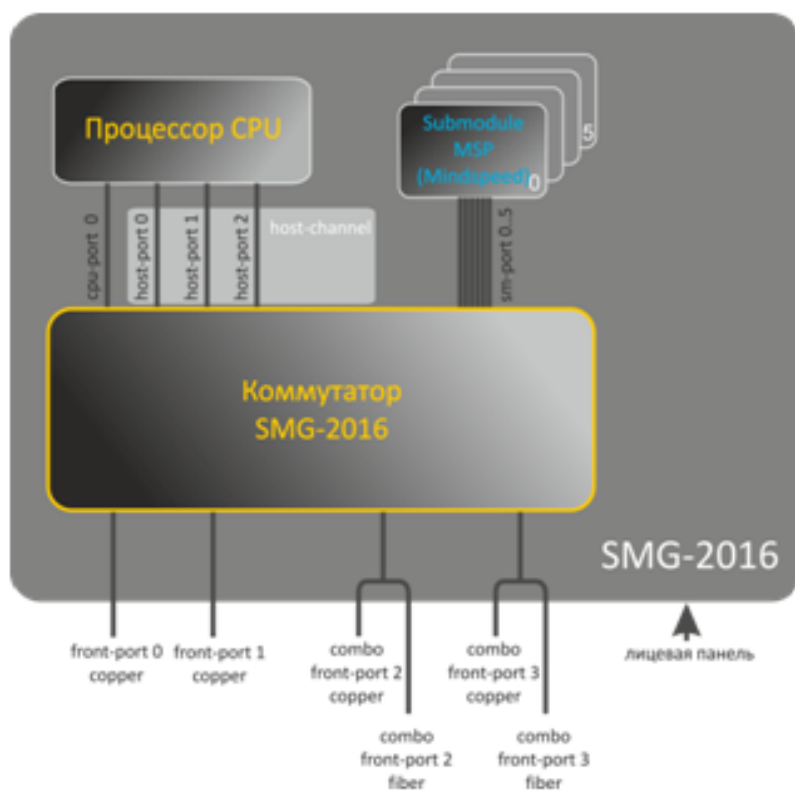
disable in			
disable out			
exit			
history			
linkset-line add	<LINE_INDEX>	0-15	Linkset-Line 1 -7
linkset-line remove	<LINE_INDEX>	0-15	Linkset-Line 1
local	<YES_NO>	yes/no	/ « »
modifiers table incoming called	<MODTBL_INDEX>	0-255/none	, ,
modifiers table incoming calling	<MODTBL_INDEX>	0-255/none	, ,
modifiers table outgoing called	<MODTBL_INDEX>	0-255/none	, ,
modifiers table outgoing original	<MODTBL_INDEX>	0-255/none	, ,
modifiers table incoming redirecting	<MODTBL_INDEX>	0-255/none	, ,
modifiers table outgoing calling	<MODTBL_INDEX>	0-255/none	, ,
name	<s_name>	, , ' _ . 31	
quit			CLI
radius profile incoming	<IDX>	0-31/no	RADIUS
radius profile outgoing	<IDX>	0-31/no	RADIUS
recover on egress failure	<RECOVER>	no/yes	
reserv	<TG_RSV_IDX>	0-31	
show			

**trunk direction <DIRECTION\_INDEX>, <DIRECTION\_INDEX> – .**

```
SMG-[CONFIG]> trunk direction 0
Entering trunk-mode.
SMG-[CONFIG] - TRUNK_DIRECTION[0]>
```

?			
config			Configuration
exit			
history			
list add	<TD_TRUNK>	0-63	
list remove	<TD_TRUNK>	0-63	
mode			:
		successive_forward/	
		successive_backward/	
		first_forward/	
		last_backward	
name	<s_name >	, 63	
quit			CLI
show			

SMG-2016/3016



SMG-2016 :

- *front-port* – ethernet-, . . .  
: 0 – 3.
  - 0 .. 1 – ;
  - 2 .. 3 – .
- *port-channel* – LAG front-port , front-port LACP-.  
: 1 – 4.

- *cpu-port*— SMG-2016.  
: 0.
- *host-port*— SMG-2016, (CPU) SMG-2016.  
: 0 – 2.
- *host-channel*— LAG host-channel , .  
: 1.
- *sm-port*— SMG-2016, SM-VP.  
: 0 – 5.

SMG-3016 :

- *front-port*— ethernet- , .  
: 1 – 4.
  - 1 .. 2 – ;
  - 3 .. 4 – -.
- *port-channel*— LAG front-port , front-port LACP-.  
: 1 – 4.
- *cpu-port*— SMG-3016.  
: 1.
- *host-port*— SMG-3016, (CPU) SMG-3016.  
: 1 – 2.
- *host-channel*— LAG host-channel , .  
: 1.
- *sm-port*— SMG-3016, SM-VP.  
: 1 – 6.

*unit number*, 1.

## SMG-2016/3016



SMG-3016 , , front-port = 1.

### interface

SMG-2016/3016.

:

interface <interface> <number>

:

<interface> – :

- front-port – ;
- host-channel – LAG host-channel ;
- port-channel – LAG .

<number> – :

- front-port: <unit/port>, :
  - unit – SMG-2016/3016, 1;
  - port – [0 .. 3]( 1 .. 3 SMG-3016);
- host-channel: 1;
- port-channel: [1 .. 4].

<number> all .

### shutdown

.

.

:

[no] shutdown

:

.

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> shutdown
```

## bridging to

[no] bridging to <interface> <range>

<interface> – :

- cpu-port;
- front-port – uplink-;
- host-channel;
- host-port;
- port-channel – LAG uplink-;
- sm-port.

<range> – /, :

- cpu-port: <1/0>;
- front-port: <unit/port>, :
  - unit – , [1],
  - port – , [0 .. 3];
- host-channel: [1];
- host-port: <unit/port>, :
  - unit – , [1],
  - port – , [0 .. 2];
- port-channel: [0 .. 4];
- sm-port: [0 .. 15]: <unit/port>, :
  - unit – , [1],
  - port – , [0 .. 5].

```
SMG2016-[CONFIG]-[SWITCH]-[if]> bridging to front-port all
```

## flow-control

/ (flow control) . *flow control* . , , , . , .

flow-control <act>

<act> – :

- on –;
- off –.

off

```
SMG2016-[CONFIG]-[SWITCH]-[if]> flow-control on
```

## frame-types

- ;
- VLAN.



frame-types <act>

:

<act> – :

- all – ;
- tagged – VLAN.

:

( )

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> frame-types all
```

.

## speed

.

: 10 /, 100 /, 1000 /. 10 /, 100 / : , .

:

speed <rate> [<mode>]

:

<rate> – : 10 M; 100 M; 1000 /; 10 /;

<mode> – :

- full-duplex – ;
- half-duplex – .

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> speed 10M full-duplex
```

10 /, .

## speed auto

.

:

speed auto

:

.

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> speed auto
```

.

## show interfaces configuration

SMG-2016.

:

show interfaces configuration <interface> <number>

:

<interface> – :

- front-port – uplink-;
- host-channel;
- host-port;
- port-channel – LAG uplink-;
- sm-port.

<number> – :

- all – ;
- front port: <unit/port>, :
  - unit – , [1],
  - port – , [0 .. 3].
- host-channel: [1];
- host-port:
  - unit – , [1],
  - port – , [0 .. 2].
- port-channel: [0 .. 4];
- sm-port: [0 .. 15]:
  - unit – , [1],
  - port – , [0 .. 5].

:

```
SMG2016-[CONFIG]-[SWITCH]> show interfaces configuration front-port all
Port                Duplex    Speed    Neg      Flow      Admin
                   -----    -----    -----    -----    -----
front-port 1/0      Full     10 Mbps  Enabled  Off       Up
front-port 1/1      Full     10 Mbps  Disabled Off       Up
front-port 1/2      Full     10 Mbps  Enabled  Off       Up
front-port 1/3      Full     10 Mbps  Enabled  Off       Up
SMG2016-[CONFIG]-[SWITCH]>
```

show interfaces status

, .

show interfaces status <interface> <number>

:

<interface> – :

- front-port – uplink-;
- host-channel;
- host-port;
- port-channel – LAG uplink-;
- sm-port.

<number> – :

- all – ;
- front port: <unit/port>, :
  - unit – , [1];
  - port – , [0 .. 3].
- host-channel: [1];
- host-port:
  - unit – , [1];
  - port – , [0 .. 2].
- port-channel: [0 .. 4];
- sm-port:
  - unit – , [1];
  - port – , [0 .. 5].

:

```
SMG2016-[CONFIG]-[SWITCH]> show interfaces status front-port all
Port                Media     Duplex    Speed    Neg      Flow      Link   Back
                   -----    -----    -----    -----    -----    -----    -----
front-port 1/0      N/A      N/A      N/A      N/A      N/A     Down   N/A
front-port 1/1      copper   Full     10 Mbps  Disabled Off       Up     Disabled
front-port 1/2      copper   Full     100 Mbps Enabled  Off       Up     Disabled
```

```
front-port 1/3      N/A      N/A      N/A      N/A      N/A      Down      N/A
SMG2016-[CONFIG]-[SWITCH]>
```

## show interfaces counters

:

show interfaces counters <interface> <number>

:

<interface> - :

- cpu-port;
- front-port - uplink-;
- host-channel;
- host-port;
- port-channel - LAG uplink-;
- sm-port.

<range> - /, :

- cpu-port: <1/0>, :
- front-port: <unit/port>, :
  - unit - , [1];
  - port - , [0 .. 3].
- host-channel: [1];
- host-port:
  - unit - , , [1];
  - port - , [0 .. 2].
- port-channel: [0 .. 4];
- sm-port:
  - unit - , [1];
  - port - , [0 .. 5].

:

```
SMG2016-[CONFIG]-[SWITCH]> show interfaces counters front-port all
```

### MAC MIB counters receive

~~~~~

| Port           | UC recv | MC recv | BC recv | Octets recv |
|----------------|---------|---------|---------|-------------|
| front-port 1/0 | 0       | 0       | 0       | 0           |
| front-port 1/1 | 436940  | 6297    | 9289    | 65685375    |
| front-port 1/2 | 1422764 | 6077    | 41999   | 210652881   |
| front-port 1/3 | 0       | 0       | 0       | 0           |

### MAC MIB counters sent

~~~~~

Port	UC sent	MC sent	BC sent	Octets sent
front-port 1/0	0	0	0	0
front-port 1/1	455819	6087	42006	96955149
front-port 1/2	148842	6280	9296	17450454
front-port 1/3	0	0	0	0

## channel-group

FRONT-PORT .

(no) FRONT-PORT .

:

channel-group <id> [force]

no channel-group

:

<id> – , , [1 .. 4];

- [force] – , :
- force – .

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> channel-group 1
```

uplink 1.

## lacp mode

:

Passive – , LACP;

Active – .

, LACP active passive.

(no) .

:

lacp mode <name>

no lacp mode

:

<name> – :

- active;
- passive.

:

active

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> lacp mode active
```

«active».

## mode

:

- LACP;
- .

:

mode <act>

:

<act> – :

- lacp – LACP;
- static – .

:

```
SMG2016-[CONFIG]-[SWITCH]> interface port-channel 1
SMG2016-[CONFIG]-[SWITCH]-[if]> mode lacp
```

**lacp port-priority**

          [1 .. 65535]. 1 . (no) .

:

lacp port-priority <priority>

no lacp port-priority

:

<priority> – [0 .. 65535].

:

32768

:

INTERFACE FRONT-PORT

:

SMG2016-[CONFIG]-[SWITCH]-[if]> lacp port-priority 256

256.

**lacp rate**

          LACPDU. (no) LACPDU .

:

lacp rate <rate>

no lacp rate

:

<rate> – :

- fast – 1 ;
- slow – 30 .

:

1 (fast)

:

INTERFACE FRONT-PORT

:

SMG2016-[CONFIG]-[SWITCH]-[if]> lacp rate slow

LACPDU 30 .

**VLAN SMG-2016**

**pvid**

VID , .

VID VLAN-, 0, VID, PVID.

:

pvid <num>

:

<num> – VLAN [1 .. 4094].

:

PVID = 1

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> pvid 5
```

PVID 5.

## STP/RSTP

### spanning-tree enable

STP .

(no) STP .

:

[no] spanning-tree enable

:

.

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> spanning-tree enable
```

STP front-port.

### spanning-tree pathcost

STP.

(no) .

0.

:

spanning-tree pathcost <pathcost>

no spanning-tree pathcost

:

<pathcost> – , [0..200000000].

:

= 0

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> spanning-tree pathcost 1
```

1.

### **spanning-tree priority**

STP.

(no) STP . 128.

:

spanning-tree priority <priority>

no spanning-tree priority

:

<priority> -, 16 [0, 16, 32, 48, 64, 80, 96, 112, 128, 144, 160, 176, 192, 208, 224, 240].

:

128

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> spanning-tree priority 144
```

144.

### **spanning-tree admin-edge**

edge- . .

(no) .

:

[no] spanning-tree admin-edge

:

.

:

off

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> spanning-tree admin-edge
```

edge-.

### **spanning-tree admin-p2p**

p2p.

(no) p2p .

:  
spanning-tree admin-p2p <type>  
no spanning-tree admin-p2p

:  
<type> – :  
• auto – BPDU;  
• force-false – p2p;  
• force-true – p2p.

:  
p2p BPDU

:  
INTERFACE FRONT-PORT  
INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> spanning-tree admin-p2p auto
```

p2p BPDU.

### spanning-tree auto-edge

.  
(no) .

.  
:  
[no] spanning-tree auto-edge

:  
.  
:  
INTERFACE FRONT-PORT  
INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> spanning-tree auto-edge
```

« » .

-

### mac-address-table aging-time

MAC- .  
(no) MAC- .

:  
[no] mac-address-table aging time <aging time>  
no mac-address-table aging time

:  
<aging time> – , [10 .. 630] .



:  
300  
:

CONFIG-SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> mac-address-table aging-time 100
```

## show mac address-table count

- front-port , port-channel , slot-channel .

:

show mac address-table count

:

.

:

CONFIG-SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show mac address-table count
17 valid mac entries
```

## show mac address-table include/exclude interface

- .

:

show mac address-table include/exclude interface <interface> <number>

:

<interface> - :

- front-port - uplink-;
- host-channel;
- port-channel - LAG uplink-;

<number> - :

- all - ;
- front port: <unit/port> , :
  - unit - , [1],
  - port - , [0 .. 3];
- host-channel: [1];
- port-channel: [0 .. 4].

:

CONFIG-SWITCH

## mirror <rx|tx> interface

/ .

, , .

(no) .

:

[no] mirror <rx|tx> interface <port> <num>

:

<rx|tx> – :

- rx – ;
- tx – .

<port> – :

- front-port – uplink-;
- host-channel – ;
- host-port;
- port-channel – uplink-;
- sm-port.

<num> – ( «,» «-»):

- «all» – ;

<interface> – :

- front-port – uplink-;
- host-channel;
- host-port;
- port-channel – LAG uplink-;
- sm-port.

<number> – :

- all – ;
- front port: <unit/port>, :
  - unit – , [1];
  - port – , [0 .. 3].
- host-channel: [1];
- host-port:
  - unit – , [1];
  - port – , [0 .. 2].
- port-channel: [0 .. 4];
- sm-port:
  - unit – , [1];
  - port – , [0 .. 5].

:

CONFIG-SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> mirror rx interface front-port 1/3
```

, front-port 1/3, « ». slot-port -, «mirror rx analyzer».

## mirror <rx|tx> analyzer

, / , mirror rx port/ mirror tx port.

(no) / .

:

[no] mirror <rx|tx> analyzer <interface> <port>

:

<rx|tx> – :

- rx – ;
- tx – .

<interface> – . - front-port, port-channel;

<port> – front-port <unit/port>, :

- front port: <unit/port>, :
  - unit – , [1],
  - port – , [0 .. 3];

- port-channel: [0 .. 4].

:

CONFIG-SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> mirror rx analyzer front-port 1/2
```

front-port 1/2 /, / « ».

### mirror add-tag

802.1q . () **mirror <rx/tx> added-tag-config.**

(no) .

:

[no] mirror add-tag

:

.

:

CONFIG-SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> mirror add-tag
```

### mirror <rx|tx> added-tag-config

, /.

:

mirror <rx|tx> added-tag-config vlan <vid> [user-prio <user-prio>]

:

<vid> – VLAN, [1 .. 4094];

<user-prio> – COS, [0 .. 7].

:

CONFIG-SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> mirror rx added-tag-config vlan 77 user-prio 5
```

### mirror <rx|tx> vlan

VLAN ID, /.

:

[no] mirror <rx|tx> vlan <vid>

:

<rx|tx> – :

- rx – ;
- tx – .

<vid> – VLAN, [1..4094].

:  
CONFIG-SWITCH  
:

```
SMG2016-[CONFIG]-[SWITCH]> mirror rx vlan 56
```

## SELECTIVE Q-IN-Q

Selective Q-in-Q **SELECTIVE Q-IN-Q COMMON.** Selective Q-in-Q **SELECTIVE Q-IN-Q LIST.**

SELECTIVE Q-IN-Q VLAN (Customer VLAN) SPVLAN (Service Provider's VLAN), Customer VLAN, .

### add-tag

.  
(no) .  
:  
[no] add-tag svlan <s-vlan> cvlan <c-vlan>  
:  
<s-vlan> – , [1..4095];  
<c-vlan> – / , 1-4094. C-VLAN «,».  
:  
SELECTIVE Q-IN-Q

### overwrite-tag

VLAN .  
(no) .  
:  
[no] overwrite-tag new-vlan <new-vlan> old-vlan <old-vlan> <rule\_direction>  
:  
<new-vlan> – VLAN, [1 ..4095];  
<old-vlan> – VLAN, , [1 .. 4094];  
<rule\_direction> – :

- Ingress – ;
- Egress – .

  
:  
SELECTIVE Q-IN-Q

### remove

Selective Q-in-Q .  
:  
remove <rule\_index>  
:  
<rule\_index> – , [0 .. 511].  
:  
SELECTIVE Q-IN-Q

### clear

Selective Q-in-Q.

:

clear

:

.

:

SELECTIVE Q-IN-Q

### **selective-qinq enable**

SMG-2016 “Selective Q-in-Q”. (no) “Selective Q-in-Q” .

:

[no] selective-qinq enable

:

.

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

### **selective-qinq list**

SMG-2016 Selective Q-in-Q.

(no) .

:

selective-qinq list <name>

no selective-qinq list

:

<name> – Selective Q-in-Q

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

### **show interfaces selective-qinq lists**

“Selective Q-in-Q” .

:

show interfaces selective-qinq lists

## **DUAL HOMING**

### **backup interface**

, . , SPANNING TREE.

(no) .

:

[no] backup interface <INTERFACE> <INDEX> vlan <VLAN\_ID\_RANGE>

:

<INTERFACE> – :

- front-port – ;
- port-channel – LAG uplink-.

<INDEX> – :

- front port: <unit/port>, :
  - unit – SMG-2016, [1];
  - port – , [0 .. 3].
- port-channel: [1 .. 4].

<VLAN\_ID\_RANGE> – :

- [1..4094] – VLAN (VLAN), ;
- ignore – VLAN .

:

INTERFACE FRONT-PORT

INTERFACE PORT-CHANNEL

:

```
SMG2016-[CONFIG]-[SWITCH]-[if]> no backup interface vlan ignore
SMG2016-[CONFIG]-[SWITCH]-[if]> backup interface front-port 1/1 vlan ignore
```

VLAN

```
SMG2016-[CONFIG]-[SWITCH]-[if]> no backup interface vlan 10
SMG2016-[CONFIG]-[SWITCH]-[if]> backup interface port-channel 1 vlan 10
```

## backup-interface mac-per-second

, .

(no) (400 ).

:

[no] backup-interface mac-per-second <COUNT>

:

<COUNT> – MAC- , [50..400].

:

400

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> backup-interface mac-per-second 200
```

## backup-interface mac-duplicate

MAC-, .

(no) (1 ).

:

[no] backup-interface mac-duplicate <COUNT>

:

<COUNT> – , [1..4].

:

1

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> backup-interface mac-duplicate 4
```

**backup-interface preemption**

, . , , . (no) .

:

[no] backup-interface preemption

:

.

:

.

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> backup-interface preemption
```

**show interfaces backup**

.

:

show interfaces backup

:

.

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show interfaces backup
Backup Interface Options:
  Preemption is disabled.
  MAC recovery packets rate 400 pps.
  Recovery packets repeats count 1.

Backup Interface Pairs
~~~~~
VID      Master Interface      Backup Interface      State
-----
30       front-port 1/0             front-port 2/0        Master Up/Backup Standby
-----
150      front-port 1/0             front-port 2/0        Master Up/Backup Standby
```

**LLDP**

## lldp enable

LLDP.

(no) LLDP.

:

[no] lldp enable

:

.

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> lldp enable
```

## lldp hold-multiplier

, LLDP .

LLDP update ( ), LLDP (lldp timer). , LLDP  $TTL = \min(65535, LLDP-Timer * LLDP-HoldMultiplier)$ .

(no) .

:

lldp hold-multiplier <hold>

no lldp hold-multiplier

:

<hold> -, [2 .. 10] .

:

- 4 .

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> lldp hold-multiplier 5
```

## lldp reinit

, LLDP- LLDP.

(no) .

:

lldp reinit <reinit>

no lldp reinit

:

<reinit> -, [1 .. 10] .

:

- 2 .

:

CONFIG SWITCH



:

```
SMG2016-[CONFIG]-[SWITCH]> lldp reinit 3
```

### **lldp timer**

, LLDP.

(no) .

:

lldp timer <timer>

no lldp timer

:

<timer> -, [5..32768] .

:

- 30 .

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> lldp timer 60
```

### **lldp tx-delay**

LLDP, MIB LLDP.

, , 0.25\* LLDP-Timer.

(no) .

:

lldp tx-delay <txdelay>

no lldp tx-delay

:

<txdelay> -, [1..8192] .

:

- 2 .

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> lldp tx-delay 3
```

### **lldp lldpdu**

LLDP, LLDP .

(no) (filtering).

:

lldp lldpdu [mode]

no lldp lldpdu

:

[mode]— LLDP:

- filtering—, LLDP-, LLDP ;
- flooding—, LLDP-, LLDP .

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> lldp lldpdu flooding
```

show lldp configuration

LLDP .

:

show lldp configuration [<interface>< number >]

:

, , .

[interface]— :

- front-port— uplink-;
- port-channel— LAG uplink-.

[number]— ( «,» «-»):

- front port: <unit/port>, :
  - unit— , [1];
  - port— [0 .. 3].
- port-channel: [0 .. 4].

:

.

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show lldp configuration
```

LLDP configuration

~~~~~

| Interface      | Status           | Timer (sec) | Hold multiplier | Reinit delay (sec) | Tx delay (sec) |   |
|----------------|------------------|-------------|-----------------|--------------------|----------------|---|
| front-port 1/0 | transmit-receive | 30          | 4               |                    | 2              | 2 |
| front-port 1/1 | transmit-receive | 30          | 4               |                    | 2              | 2 |
| front-port 1/2 | transmit-receive | 30          | 4               |                    | 2              |   |
| 2              |                  |             |                 |                    |                |   |
| front-port 1/3 | transmit-receive | 30          | 4               |                    |                |   |
| 2              | 2                |             |                 |                    |                |   |

show lldp neighbor

, LLDP.

:

show lldp neighbor [<interface>< number >]

:  
.  
[interface] – :  
• front-port – uplink-;  
• port-channel – LAG uplink-.

[number] – ( «,» «-»):  
• front port: <unit/port>, :  
• unit – , [1];  
• port – , [0 .. 3].  
• port-channel: [0 .. 4].

:  
.  
:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show lldp neighbor

LLDP neighbors
~~~~~
Interface          Device ID          Port ID          TTL
-----
front-port 1/1      02:00:2a:00:07:15  g15              115/120
front-port 1/2      02:00:04:88:7e:    front-port 1/3    105/120
SMG2016-[CONFIG]-[SWITCH]>
```

show lldp local

LLDP-, .

:  
show lldp local [<interface>< number >]

:  
.

[interface] – :  
• front-port – uplink-;  
• port-channel – LAG uplink-.

[number] – ( «,» «-»):  
• front port: <unit/port>, :  
• unit – , [1];  
• port – [0 .. 3].  
• port-channel: [0 .. 4].

:  
.  
:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show lldp local

LLDP local TLVs
~~~~~
Interface          Device ID          Port ID          TTL
-----
```

|                |                   |                |     |
|----------------|-------------------|----------------|-----|
| front-port 1/1 | 02:00:04:88:7c:0a | front-port 1/1 | 120 |
| front-port 1/2 | 02:00:04:88:7c:0a | front-port 1/2 | 120 |

## show lldp statistics

LLDP front-port, port-channel.

:

show lldp statistics [<interface>< number >]

:

, , .

[interface] – :

- front-port – uplink-;
- port-channel – LAG uplink-.

[number] – ( «,» «-»):

- front port: <unit/port>, :
  - unit – , [1],
  - port – [0 .. 3];
- port-channel: [0 .. 4];
  - slot-channel: [0 .. 15].

:

.

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show lldp statistics
```

```
Tables Last Change Time: 0:0:4:28
```

```
Tables Inserts: 3
```

```
Tables Deletes: 1
```

```
Tables Dropped: 0
```

```
Tables Ageouts: 0
```

```
LLDP statistics
```

```
~~~~~
```

| Interface      | Tx total | Rx total | Rx errors | Rx discarded | TLVs discarded | TLVs unrecognized | Agouts total |
|----------------|----------|----------|-----------|--------------|----------------|-------------------|--------------|
| front-port 1/0 | 0        | 0        | 0         | 0            | 0              | 0                 | 0            |
| front-port 1/1 | 6134     | 6159     | 0         | 0            | 0              | 0                 | 0            |
| front-port 1/2 | 6141     | 6136     | 0         | 0            | 0              | 0                 | 0            |
| front-port 1/3 | 0        | 0        | 0         | 0            | 0              | 0                 | 0            |

## show lldp lldpdu

LLDPDU- , LLDP .

:

show lldp lldpdu

:

.

:

CONFIG SWITCH

:

```
SMG2016-[CONFIG]-[SWITCH]> show lldp lldpdu
Global: flooding
```

## QOS

### qos default

```
, , 7 .
:
qos default <queue>
:
< queue > - , [0 .. 7].
:
0.
```

CONFIG SWITCH

```
:
```

```
qos default 6
```

```
, , 6.
```

### qos type

```
, .
, (IEEE 802.1p/DSCP).
:
• ;
• IEEE 802.1p;
• IP ToS ( ) 3 - Differentiated Services Codepoint (DSCP);
• 802.1p, DSCP/TOS;
:
qos type <type>
:
<type> - :
• 0 - ;
• 1 - 802.1p ( Priority 802.1Q );
• 2 - DSCP/TOS ( Differentiated Services IP-, 6 );
• 3 - 802.1p, DSCP/TOS.
```

CONFIG SWITCH

```
:
```

```
qos type 2
```

DSCP/TOS.

### qos map

- :
- Differentiated Services IP, 6,
  - Priority 802.1Q.

, qos type,

(no)

:

[no] qos map <type> <field values> to <queue>

:

<type> – :

- 0 – 802.1p ( 2 );
- 1 – DSCP/TOS ( 3 ).

<field values> – , < 1> ( , «-»):

- <type> = 0, Priority 802.1Q : [0 .. 7];
- <type> = 1, Differentiated Services IP-, 6 . 10- : [0 .. 63].

<queue> – , [0 .. 7].

:

CONFIG SWITCH

:

```
qos map 0 7 7
```

7- priority = 7 802.1Q .

## cntrset

.

:

cntrset <PORT> <UNIT> <SET> <VLAN> <QUEUE> <DROP PRECEDENCE>

:

< PORT > – :

- all – ;
- cpu – CPU-;
- front-port – counting front-port;
- host-port;
- sm-port.

< UNIT > – :

- cpu: [1];
- front port: <unit/port>, :
  - unit – , [1];
  - port – , [0 .. 3].
- host-port: <unit/port>, :
  - unit – , [1];
  - port – , [0 .. 2].
- sm-port: <unit/port>, :
  - unit – , [1];
  - port – , [0 .. 5].
- < SET > – , [0 .. 1];
- < VLAN > – VLAN, [1 .. 4094] all;
- < QUEUE > – , [0 .. 7] all;
- < DROP PRECEDENCE > – drop precedence [0 .. 1] all.

:

CONFIG – SWITCH

:

```
cntreset sm-port 1/2 1 22 2 1
```

## show cntreset

```
.  
:  
show cntreset <SET>
```

```
:  
<SET> - [0 .. 1].
```

```
:  
CONFIG - SWITCH
```

## show qos

```
. 0. [0 .. 7], 7 .
```

```
:  
show qos
```

```
:  
.  
:  
CONFIG - SWITCH
```

SMG-2016 2 :

- running-config - , ;
- candidate-config - , - , running-config apply.

## running-config

```
:  
show running-config
```

```
:  
.  
:  
CONFIG - SWITCH
```

## candidate-config

```
:  
show candidate-config
```

```
:  
.  
:  
CONFIG - SWITCH
```

SMG-2016 (apply), , (confirm) , . 60 . , running-config.

```
:
apply
:
.
:
CONFIG – SWITCH
```

```
:
confirm
:
.
:
CONFIG – SWITCH
```

**config**  
Configuration.

```
:
config
:
.
:
CONFIG – SWITCH
```

**exit**

```
.
:
exit
:
.
:
CONFIG – SWITCH
```

**history**

```
.
:
history
:
.
:
CONFIG – SWITCH
```