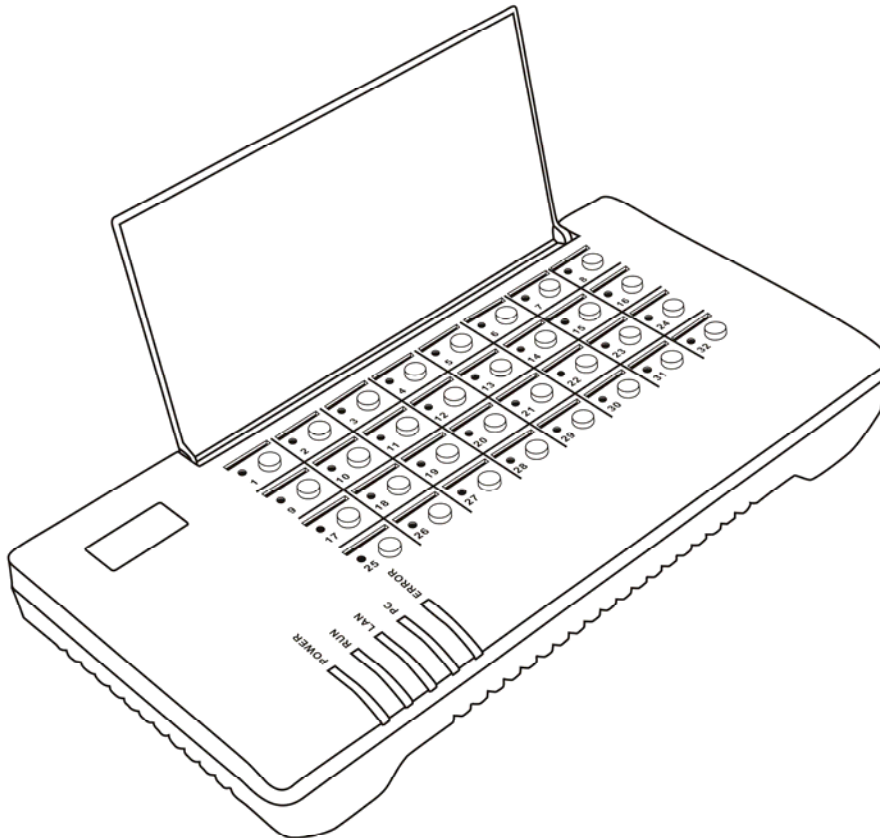# User Manual for SMB32 Remote SIM Card Controller

SMB32

Version: 1.0

2011-8-30

To protect the environment, please use electronic file to print

the pages you need.

Contents

1. Important notice

1. This product and its accessories have realized the separation of the SIM card and the SIM related device, which will make the physical address of the identity represented by the SIM unidentifiable. Please check carefully if the use of this product is permitted by the local laws.

2. Because this product launches communication through network, it cannot be fully guaranteed that the identity information of the SIM can be completely transferred.

3. This product involves dynamic DNS (domain name – IP address resolution). This dynamic DNS service is now provided by Hong Kong DBLTEK for free. If you want to use this function, please keep in mind that permanent fault-free operation of this function cannot be ensured. If you want to establish an IP address resolution server by yourself, please acquire the free DDNS resolution server software from your supplier.

Your use of this series of products indicates that you have read, understood and accepted this important notice.

2. Unpacking list

Please check if the following products or accessories are available when you receive the shipment.

12V 2A transformer ×1

Host ×1

CAT5 network cable ×1

3. Basic function introduction

SMB32 is an integrated controller for 32-way remote SIM card. It can convert the communication between the SIM card and the SIM connecting device to realize the remote separation of card and equipment.

SMB32 can control 32 SIM cards at the same time and offers such functions as hot plugging, quick online SIM exchange and timed exchange planning. The use of SMB32 and the corresponding device can realize the comprehensive management of the unattended devices and reduce the workload for SIM operation, such as SIM card replacement and account recharge.

In addition to the independent use, SMB32 can also be registered on the SIM Server of DBLTEK to manage over 10000 SIM cards and the corresponding devices at the same time.

SMB32 can work normally in the harsh network environment with the average packet loss rate <5% and the maximum time delay of 300ms.

SMB32 supports the dynamic DNS service of DBLTEK. Therefore, it can provide dynamic domain name resolution for the user with dynamic IP and reduce their expenses for leasing
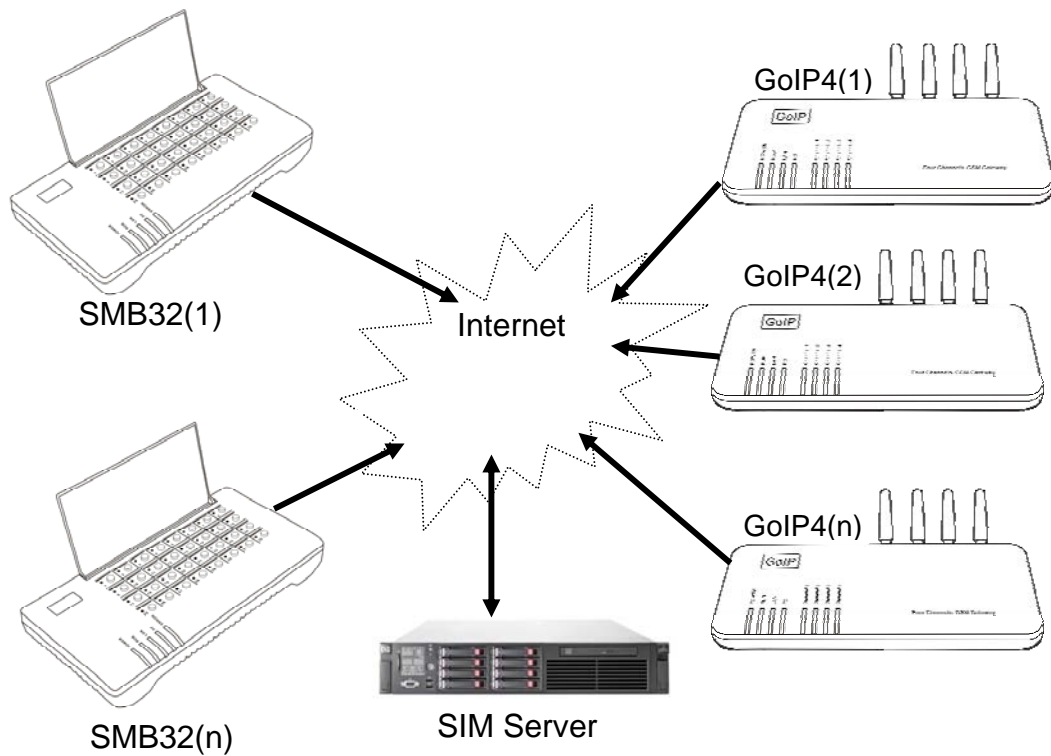
private line.

1. System architecture (independent SIM Bank)
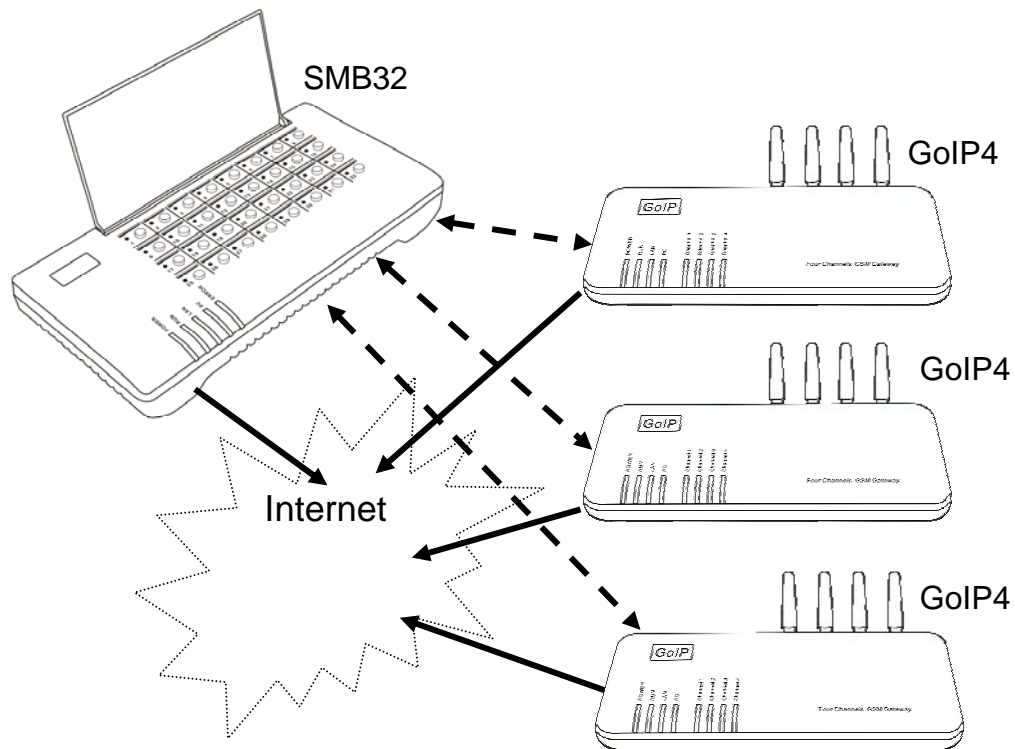
As shown in the above figure, several GoIP devices (up to 32 ways) can be connected to the SMB32 through Internet. The SIM cards installed with the devices are all integrated to the SMB32 to be controlled and scheduled by the latter. (SIM Bank mode: server mode)

2. System architecture (through SIM Server)

More than 10,000 SIM cards can be collectively scheduled and managed via the SIM Server. The planned tasks are allocated by the SIM Server (SIM Bank mode: client mode)

3. Exchange logic (independent SIM Bank)

Slots 1-4 → GoIP4(1)

Slots 5-8 → GoIP4(2)

Slots 29-32 → GoIP4(8)

SMB32
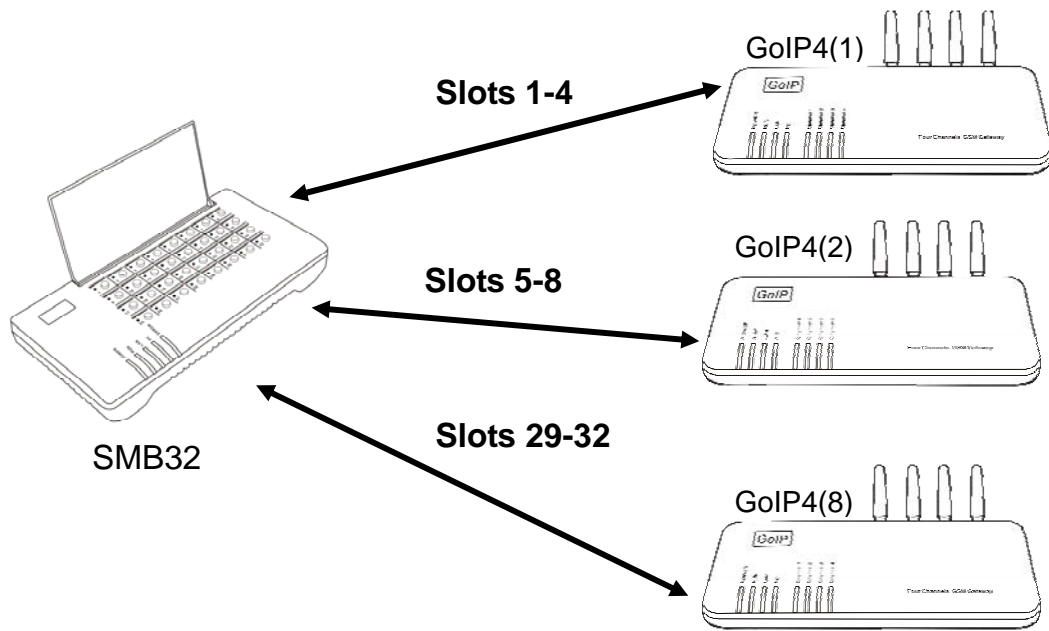
The card numbers of the remote-end devices corresponding to the cards on the "schedule mode = fixed mode" slots

Zone 1

Zone 2

SMB32
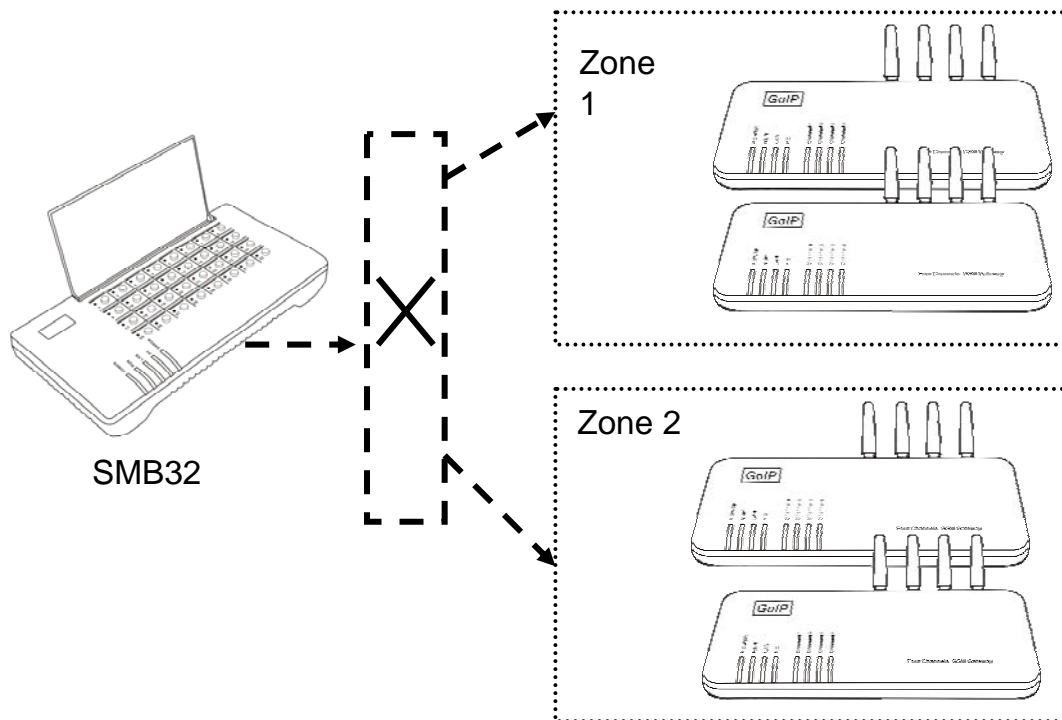
When schedule mode is used (schedule mode = schedule), devices of different zones will automatically exchange their SIM cards when it is time for schedule, so as to realize the automatic roaming of SIM cards. When this configuration is used, chaos mode is adopted for the relationship between the SIM cards and the remote-end devices.

4. Connection and installation
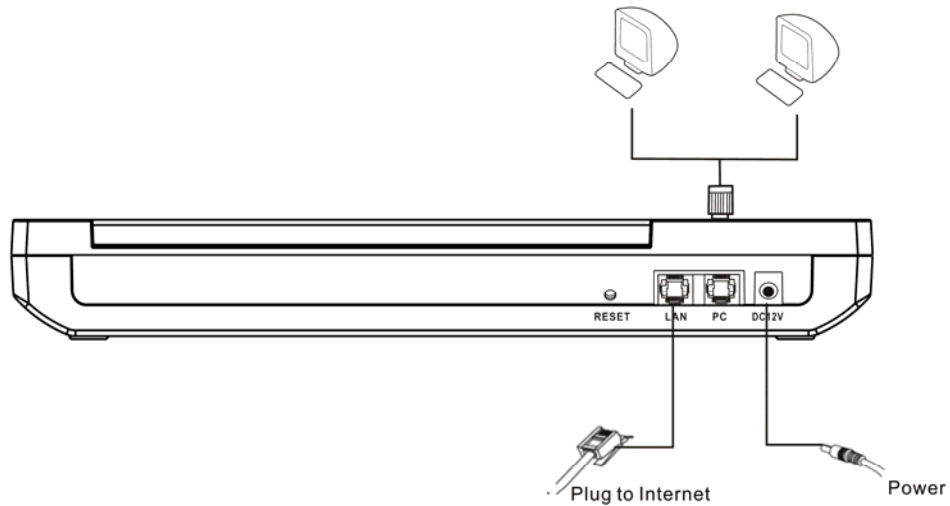
Connect the network cable linking the network to the LAN port,
and the configuration PC or other shared PC in the network to
the PC port. The LAN port can be connected to the ADSL
Modem, Switch or Ethernet private lines. The SMB32 supports
fixed IP and IP acquisition through DHCP and PPPoE.

LED:

LED	Function	Description
Power	Power indicator	It turns on when the power is on
RUN	Run status indicator	When it flashes at 4 times per second, it indicates that the device has not been connected.

		When it flashes at twice per second, it indicates normal operation.
LAN	LAN port status	Network connection status of LAN port When it flashes, it indicates there is data transfer.
PC	PC port status	Network connection status of PC port When it flashes, it indicates there is data transfer.
ERROR	Error indication	When it flashes, it indicates device error.
Card status LED (32 LEDs)	SIM card	When there is SIM card error, the red LED flashes. When you press the switch to replace the SIM card, the red LED will be on, indicating that the replacement can be conducted. When you press the button for confirmation after replacement, the red LED will be off.

Reset button: The reset button is used to restart the system quickly.If you want to clear the system configuration, press and hold the Reset button for 15 seconds, and all the configurations will reset to the leave-factory settings.

5. Leave-factory configuration table

Item	Leave-factory configuration	Configuration range
Login user name	admin	

Login password	admin	You can change the password by yourself (all the characters and digits are permitted, no longer than 16 characters)
LAN port status	DHCP	
PC port status	192.168.8.1	Only the IP of C section can be configured
SIM Bank mode	Local mode	
Local port	56011	Less than 65533
Schedule mode	schedule	
Operation duration	600 minutes	Less than 65533

6. Starting configuration

1) Logging on SMB32

Method 1: Set the IP of the PC connecting to the PC port as 192.168.8.x (x=2-254). Type 192.168.8.1 into the browser address card, and the following login box will appear.
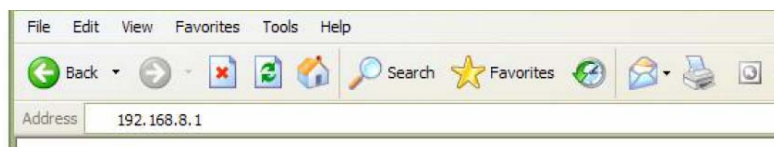
Enter the user name and password to log on the configuration interface (the initial user name and password are both "admin").

* If you change the setting, remember to press "save the change" to save the configuration.

2) Setting network:

Network setting is important for ensuring the normal and stable operation of SMB32. The best environment for network connection is the private line with static IP, second to which is the dynamic public IP (e.g., ADSL, broadcast and television network). The intranet IP under the shared router is relatively unstable. If the intranet shared line must be used, it is strongly recommended to set the router as DMZ to the IP used by SMB32.

You need to check and confirm the network status when setting the network. You are suggested to use the fixed IP.To select the fixed IP, select "fixed IP" from the LAN port drop-down menu of the network setting interface, and correctly fill in the network setting fields according to the IP, subnet mask, default routing (gateway) and DNS server provided by the network administrator,as shown in the following figure:

When you use the lines in need of dial-up, such as ADSL, configure the LAN port as PPPoE, and then fill in the user name and password correspondingly, as shown in the following figure:

3) Setting DDNS:

When the dynamic IP is used and the exchange is conducted independent of the server, you can use the DDNS service. The DDNS service is the dynamic IP address resolution service provided by DBLTEK for free. When this function is used, any SMB32 device can use the IMEI number as the domain name and acquire the callee's IP through the DNNS server (both

parties use DDNS). The setting method is as shown in the following figure. First, select the DDNS, and then fill in the relevant fields according to the address of the current service provider: DDNS server address: voipddns.com, port: 39980, update time: 120 (second), and the IMEI number of the device (refer to the SN on the barcode strip at the bottom of the device).

When DDNS is used, the connected address will be www.IMEInumber.com.

DDNS	⊙ Enable ○ Disable
DDNS Address	voipddns.net
DDNS Port	39800
Update Interval	120

4) Setting operation mode:

SMB32 has two operation modes: server mode and client mode. Under server mode, the SMB32 works as the server of the remote-end device, which logs on the SMB32 to realize the SIM connection. Under client mode, the SMB32 logs on the SIM server, and all the SIM connections are scheduled and managed by the server.

Server mode:

Select server mode from the SIM Bank mode drop-down menu, and set the local port, which will be used as the login port of the remote-end device. Under the server mode, the best working environment of the SMB32 is to use the fixed public network IP. If the intranet IP is used, the router DMZ shall be set, or it shall be forwarded by the port (forward from the local port to the external network), and the DDNS service shall be adopted. When several SMB32 devices are used for an IP, different devices use different ports.

Schedule mode:

The schedule mode determines whether the SMB32 will conduct automatic schedule on the SIM card and remote-end device to realize automatic roaming.

When the fixed mode is used, select the "fixed" mode, and fill in the unit code (i.e., the login user name, only English letters can be filled in), zone code (only Arabic digits can be filled in) and login password of the remote-end device. Select the number of lines of the device. During the operation, the remote-end device will automatically acquire the information of the SIM cards on the corresponding slots according to the relevant orders and number of lines on the SMB 32.

To use the schedule mode, select the "schedule mode", and the remote-end device will obtain the information of the corresponding number of SIM cards according to the number of lines randomly, and replace the SIM cards of other zones in use automatically according to the relevant "operation duration". It will stop operation before the replacement, and the stop time length is the "sleep time". 1-8 operation zones can be set. When several devices are in the same physical zone, they can share the same zone code. The number of lines shall be kept identical for different zones to prevent long-time hang-up or unbalanced distribution.

7. Precautions
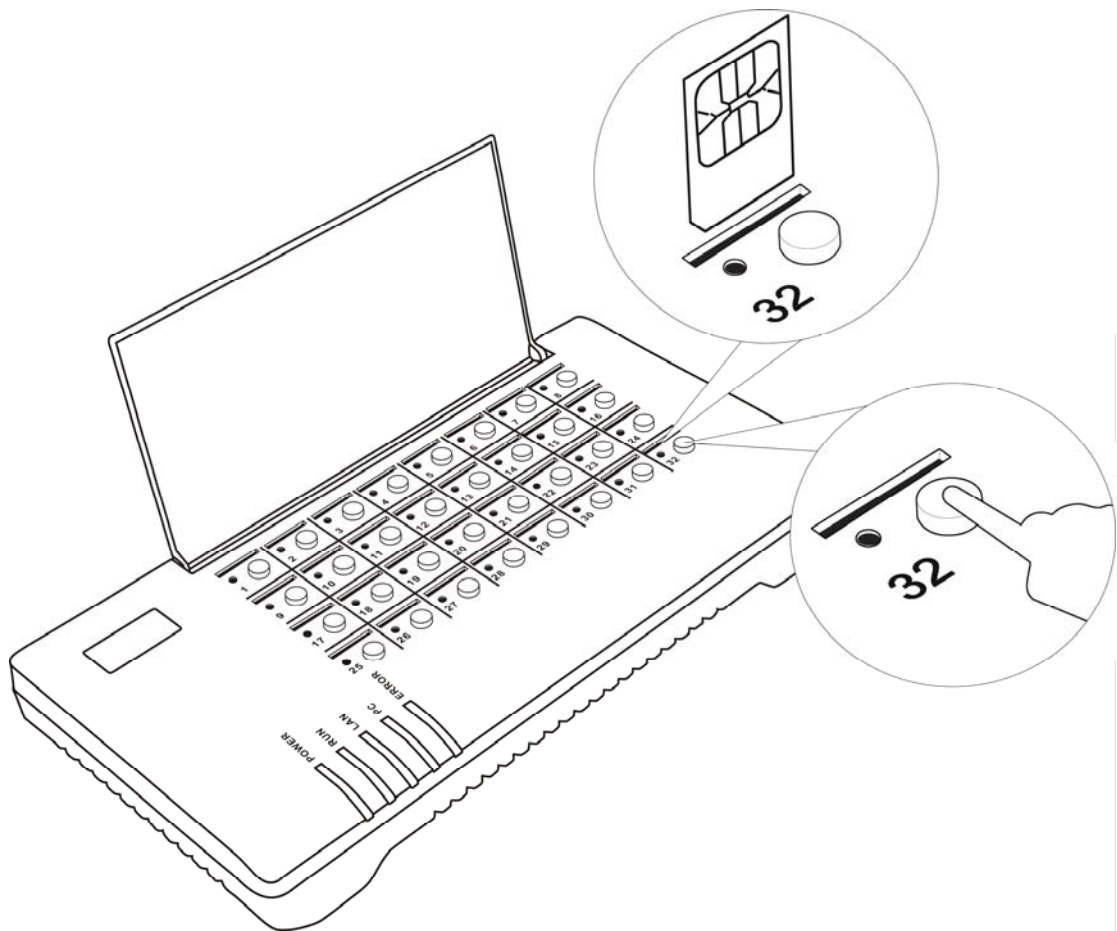
1) SIM card replacement

When replacing the SIM card in live condition, press the button under the slot. When the red LED is on, it indicates that the replacement can be conducted (when the red LED is on, the SIM will be disconnected, no matter the card is in use or not). After the replacement, press the button again, the SIM card will automatically connect the corresponding remote-end device.

2) SIM card direction

The SIM card socket is the suppressing type socket. When you press it, the SIM card will be ejected out; press it again, it will be locked. The insertion direction of the SIM card is as shown in the above figure, with the contact points pointing forward, and the notch facing downward. Otherwise it cannot be inserted.

3) Dust-proof

Because the opening of the SIM card slot is facing upward, please remember to replace the dust-proof cover after the SIM card replacement to prevent the entry of the dust into the slot, which will affect the use life of the device.

4) Water-proof

Because the SIM card slot is facing upward and in open state, be sure to prevent the spray of liquid onto the SMB32.

5) Software upgrade

To upgrade software, please contact your supplier to obtain the latest software upgrade connection, enter the connection into the upgrade address field of the SMB32, and then press the "start" button. Please note that the

power supply cannot be disconnected during the upgrade.

8. Hardware and software characteristics

1. Mechanical characteristics and operating environments

Outline dimensions: 285×142×42mm

Host net weight: 680g

Storage environment temperature: -40℃ - 80℃

Operating environment temperature: 0℃-40℃

Operating environment humidity: <90%, no condensing

Maximum power consumption: 10 W

2. Network port parameters

Number of network ports: 2

Network standard: 10/100Base-T

Execution standard: IEEE802.1p

IP standard: IPV4

4. System Parameters

Item	Description	Remarks
Operating system	Linux	Version: 2.6
SIM card standard	GSM11.11	3.3V
Network protocol	IP, TCP, UDP, HTTP, ICMP, DHCP CL & SRV, NTP, TFTP, ToS, telnet	
Worst network environment	Packet loss rate <5%, network time delay <300ms	
One-way SIM peak traffic	11KBPS	
Configuration page	Html XML2.0 JAVA	