

# Applications for Setting Up Secure Phone Function

ZRTP, supporting to create SRTP parameters, is a protocol which can generate encryption communication in real-time. It can prevent from Signaling Channel and exchange the encryption protocol through Media Path of RTP. In addition, it can calculate Shared Secret Key with special algorithm to avoid the trouble of PKI certificate problem. It can reach good effect in the security of network telephone.

To enable the secure phone function, we have to set dial plans for both sides (represented with Vigor2820V(1) and Vigor2820V(2)). Below is an example to setup secure phone function in Vigor2820V.

Register 2820V(1) and 2820V(2) to IPTEL respectively:

For 2820V(1), the account is [benson.123@iptel.org](mailto:benson.123@iptel.org),

For 2820V(2), the account is [benson.321@iptel.org](mailto:benson.321@iptel.org).

**Note:** At present, only Vigor2820V, Vigor2820Vn and Vigor2820VSn support this function.

## Setting for Vigor2820V (1)

1. Open **VoIP >> Dial Plan>> Phone Book**.
2. Set a dial plan for [benson.321@iptel.org](mailto:benson.321@iptel.org), and select **ZRTP+SRTP** in the Secure Phone.

**Phone Book Index No. 1**

Enable

Phone Number: 321

Display Name: 321

SIP URL: benson.321@iptel.org

Dial Out Account: Default

Loop through: None

Backup Phone Number:

Secure Phone: ZRTP+SRTP

OK Clear Cancel

## Setting for Vigor2820V (2)

1. Open **VoIP >> Dial Plan>> Phone Book**.
2. Setup a dial plan for [benson.123@iptel.org](mailto:benson.123@iptel.org) and select ZRTP+SRTP in the Secure Phone.

**VoIP >> DialPlan Setup**

**Phone Book Index No. 1**

Enable

Phone Number:

Display Name:

SIP URL:

Dial Out Account:

Loop through:

Backup Phone Number:

Secure Phone:

OK Clear Cancel

Then, both Vigor2820V can talk to each other with secure phone.

## Checking the Status

When Vigor2820V(1) dials to Vigor2820V(2), the router will handle encryption process at the first 5 to 10 seconds. Therefore, the RTP is insecure at that time. After the encryption is done, both sites will hear the security code with 4 digits. It means RTP is secure with ZRTP protocol.

If the call is safe, it will be displayed in green words with security code in **VoIP >> Status**.

**VoIP >> Status**

**Status** Refresh Seconds:  Refresh

Port	Status	Codec	PeerID	Elapse (hh:mm:ss)	Tx Pkts	Rx Pkts	Rx Losts	Rx Jitter (ms)	In Calls	Out Calls	Miss Calls	Speaker Gain
Phone1	ACTIVE	729A/B	benson.123@iptel.org	00:00:19	647	1657	0	0	0	1	0	5
Phone2	IDLE			00:00:00	0	0	0	0	0	0	0	5

**Log**

Date (mm-dd-yyyy)	Time (hh:mm:ss)	Duration (hh:mm:ss)	In/Out/Miss	Account ID	Peer ID
05-05-2009	06:50:51	00:00:00	OUT	1	<9wgm>benson.123@iptel.or
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-
00-00-0	00:00:00	00:00:00	-	-	-

↑ security code (9wgm)