**PPTP (Point-to-Point-Tunneling Protocol)**

**Function Description**

Point to Point Tunneling Protocol (PPTP) is a network protocol that enables the secure transfer of data from a remote client to a private enterprise server by creating a PPP tunnel across TCP/IP-based data networks.

The PPTP is used at NAT/PAT environment as shown following figure. At this model, the NAT/PAT router has public IP address at WAN side and private IP address at local side. The VoIP gateway has not a public IP address but a private IP address. The VoIP gateway communicates with PPP/PPTP server via NAT/PAT router and can get a public IP address using PPP over PPTP tunnel. At this time, the public IP address of gateway is not same address as NAT/PAT router. The PPTP connection is terminated at remote PPTP server, across public networks.

The PPTP is also used at ADSL modem. For example, Alcatel ADSL modem support PPTP model at network configuration. The ADSL modem has an only private IP address. The VoIP gateway has a private IP address and gets public IP address across the tunnel. The PPTP connection is terminated at ADSL modem.

The fixed or dynamic private address of VoIP gateway is assigned when DHCP protocol is used.
Basic Model Configuration

Alcatel ADSL Modem model

NAT/PAT router model
Basic Configuration

EndUserIpManagement Configuration

Setup type 3 (PPP/PPTP)

Please enter the following values:

- **Hostname**: ap200
- **Remote IP address**: 212.1.3.4
- **Local IP address**: Automatic using DHCP
  - Fixed
    - IP address
    - Subnet mask
    - Gateway
- **Username**: addpac
- **Password**: **********

**Confirmation**

Please enter username and password again.

- **Username**: addpac
- **Password**: **********

**Authentication**

- PAP
- CHAP

**PPP Compression**

- Protocol field
- Address and Control fields
Command Line configuration

interface ether0.0
no ip address
encapsulation ppp-pptp
mtu 1400
pptp mode dhcp
pptp ip remote 212.1.3.4
ppp authentication pap callin
ppp pap sent-username addpac password ********
ppp echo interval 20
ppp ipcp ms-dns
ppp ipcp default-route

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