SNMP Feature on Yealink IP Phones

This guide provides instructions on how to configure SNMP feature on Yealink IP phones and test SNMP feature using a free SNMP test tool.

This guide applies to the following IP phones:

- SIP-T28P, SIP-T26P, SIP-T22P and SIP-T20P IP phones running firmware version 70 or later.
- SIP-T21P and SIP-T19P IP phones running firmware version 71 or later
- SIP-T38G and SIP-T32G IP phones running firmware version 70 or later
- SIP-T46G IP phones running firmware version 71 or later
- W52P IP DECT phones running firmware version 30 or later

Overview

SNMP (Simple Network Management Protocol) is an Internet-standard protocol for managing devices on IP networks. It is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention. SNMP exposes management data in the form of variables on the managed systems, which describe the system configuration. These variables can then be queried (and sometimes set) by managing applications. The variables accessible via SNMP are organized in hierarchies, which are described by Management Information Bases (MIBs).

IP phones support SNMPv1 and SNMPv2. They act as SNMP clients, receiving requests from the SNMP server. The SNMP server may send requests from any available source port to the configured port on the client, while the client responds to the source port on the SNMP server. IP phones only support the GET request from the SNMP server.

The following table lists the basic object identifiers (OIDs) supported by IP phones.

MIB	OID	Description
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.1.0	The textual identification of the contact person for the IP phone, together with the contact information. For example, Sysadmin (root@localhost)
YEALINK-MI	1.3.6.1.2.1.37459.2.1.	An administratively-assigned name for

MIB	OID	Description
B	2.0	the IP phone. If the name is unknown, the value is a zero-length string. For example, IPPHONE
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.3.0	The physical location of the IP phone. For example, Server Room
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.4.0	The time (in milliseconds) since the network management portion of the system was last re-initialized.
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.5.0	The firmware version of the IP phone.
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.6.0	The hardware version of the IP phone.
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.7.0	The IP phone's model.
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.8.0	The MAC address of the IP phone.
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.9.0	The IP address of the IP phone.
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.10.0	The target version to which the current version is automatically updated. Format: MacVersion[*]ComVersion[*] For example, MacVersion[0.0.0.1]ComVersion[0.0.0.1]
YEALINK-MIB	1.3.6.1.2.1.37459.2.1.11.0	The command of the phone reboot. Format: snmpset -v 2c XXXX public 37459.2.1.11.0 s reboot XXXX refers to the IP address of the IP phone. **Note**: The MIB applies to Yealink SIP-T28P, SIP-T26P, SIP-T22P and SIP-T20P IP phones running firmware version 70 or later, Yealink SIP-T21P, SIP-T19P and SIP-T46G IP phones running firmware version 71 or

MIB	OID	Description
		later, and Yealink W52P IP DECT phones running firmware version 30 or later.

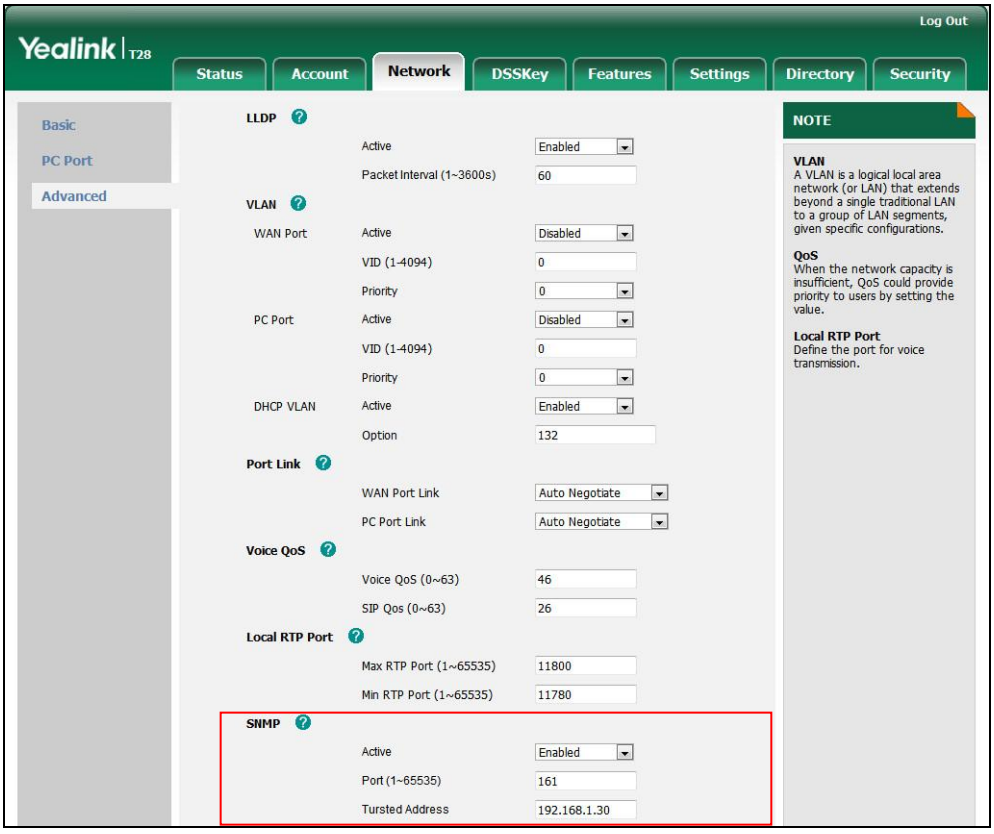
Configuring SNMP Feature on Yealink IP Phones

SNMP can be configured via web user interface or using configuration files. The followings take configurations of a SIP-T28P IP phone running firmware version 71 as examples.

To configure SNMP via web user interface:

1. Click on **Network->Advanced**.
2. In the **SNMP** block, select **Enabled** from the pull-down list of **Active**.
3. Enter the SNMP port in the **Port (1~65535)** field.
4. Enter the IP address or domain name of the SNMP server in the **Trusted Address** field.

   Multiple IP addresses should be separated by spaces.



5. Click **Confirm** to accept the change.

   A dialog box pops up to prompt that settings will take effect after a reboot.
6. Click **OK** to reboot the IP phone.

To configure SNMP using configuration files:

1. Add/Edit SNMP parameters in configuration files.

   The following table shows the information of parameters:

Parameter	Description	Valid	Default Value
network.snmp.enable	Enables or disables SNMP feature. **0**-Disabled **1**-Enabled It takes effect after a reboot.	Boolean	0
network.snmp.port	Configures the SNMP port. It takes effect after a reboot.	Integer from 1 to 65535	The default value is blank. For SIP-T4X, SIP-T21P and SIP-T19P IP phones, the default value is 161.
network.snmp.trust_ip	Configures IP address(es) or domain name of the trusted SNMP server. Multiple IP addresses should be separated by spaces. If it is set to "0.0.0.0", the IP phone accepts and handles GET requests from any IP address. It takes effect after a reboot.	IP address or domain name	Blank

2. Upload configuration files to the root directory of the provisioning server and trigger IP phones to perform an auto provisioning for configuration update.

   For more information on auto provisioning, refer to Yealink IP Phones Auto Provisioning Guide.

Testing SNMP Feature

An SNMP server may send requests from any available source port to the IP phone which acts as an SNMP client. The IP phone will then send response to the source port.

After configuring SNMP feature on Yealink IP phones, you can test SNMP feature using your enterprise management system or a free SNMP test tool. Free SNMP test tools available from website include SNMPUTI, Paessler SNMP Tester, net SNMP, etc.

The following table shows download links for some free SNMP test tools:

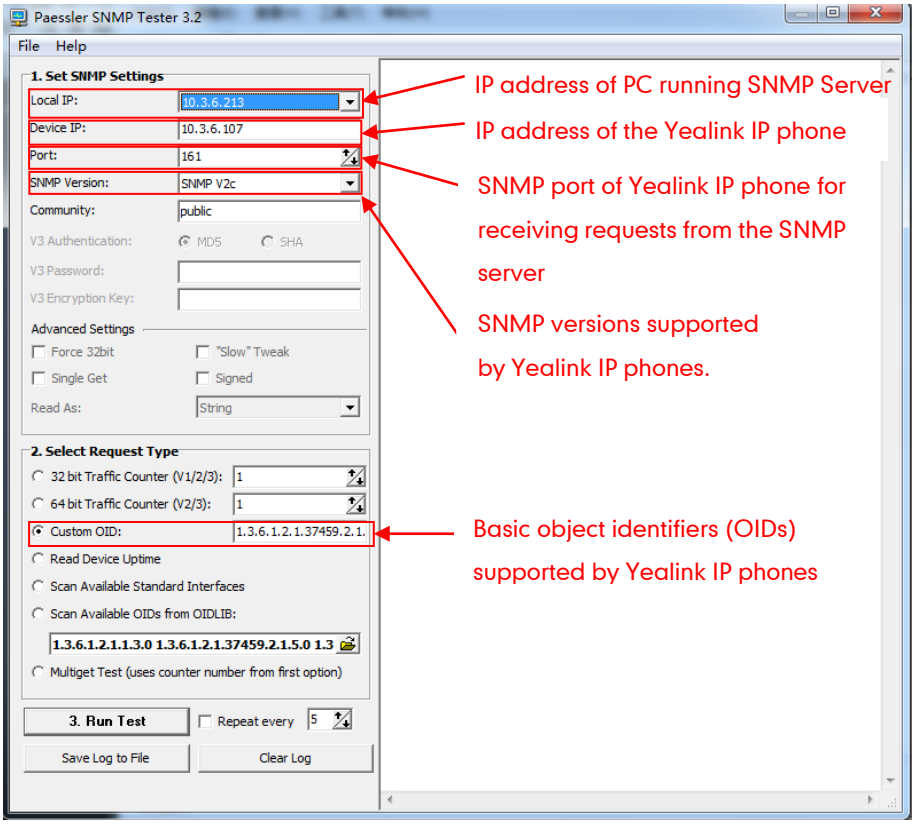
Tool Name	Links for Downloading
SNMPUTIL	http://ishare.iask.sina.com.cn/f/24546863.html
Paessler SNMP Tester	http://www.onlinedown.net/softdown/78224_2.htm
Net Snmp	http://net-snmp.sourceforge.net/download.html

Note It is recommended that the firewall on the SNMP server is turned off before testing SNMP feature.

To Test SNMP (take Paessler SNMP Tester 3.2 as an example):

1. Download the Paessler SNMP Tester 3.2 from the website. The source file is a compressed package.
2. Unpack the compressed package.
3. Double click "snmptest.exe" to start the tool.

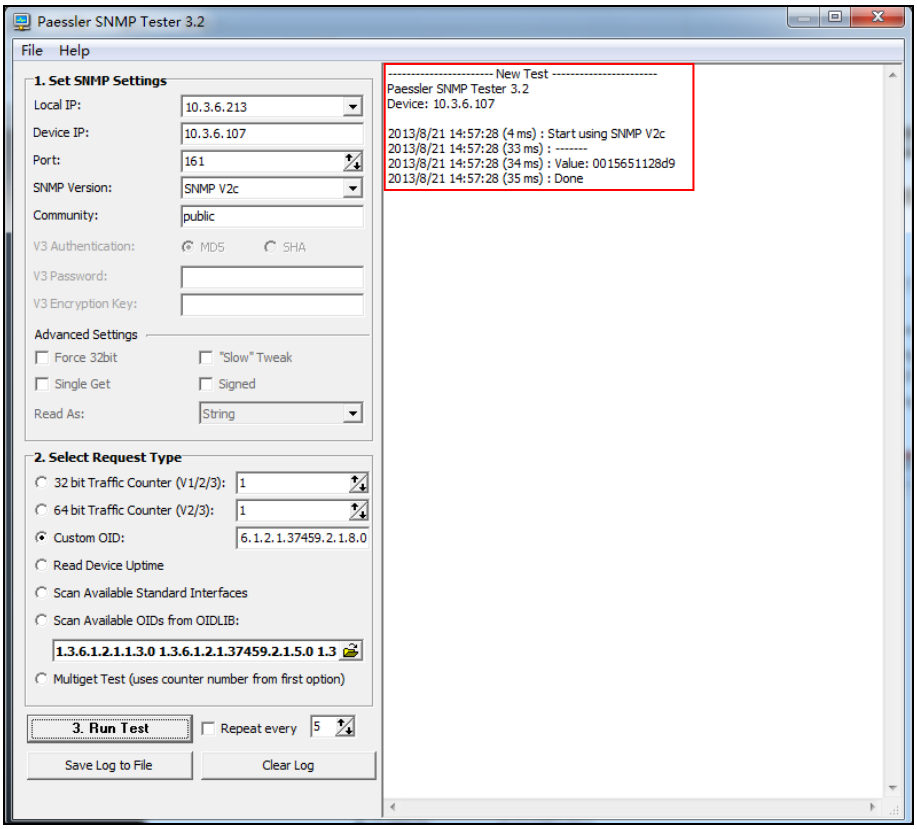
A screenshot of the main page is shown as below:



4. Enter IP address of the PC in the **Local IP** field.
5. Enter IP address and SNMP port of the IP phone in the **Device IP** field and **Port** field respectively.
6. Select the desired value from the pull-down list of **SNMP Version**.
7. Enter the desired value in the **Custom OID** field.
8. Click **Run Test**.

For example, the values of the **Device IP** and **Custom OID** are configured as 10.3.6.107 and 1.3.6.1.2.1.37459.2.1.8.0 respectively. During the test, the SNMP server will send requests carrying OID 1.3.6.1.2.1.37459.2.1.8.0 to the IP phone whose IP address is 10.3.6.107. The specified IP phone will send response with its own MAC address to the SNMP server.

A screenshot of the main page is shown as below:



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