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.

The configurations described in this guide take the Yealink SIP-T28P IP phone with firmware version 71 as an example.

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 only 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-MIB	1.3.6.1.2.1.37459.2.1.2.0	An administratively-assigned name for 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

MIB	OID	Description
		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]

Configuring SNMP Feature on Yealink IP Phones

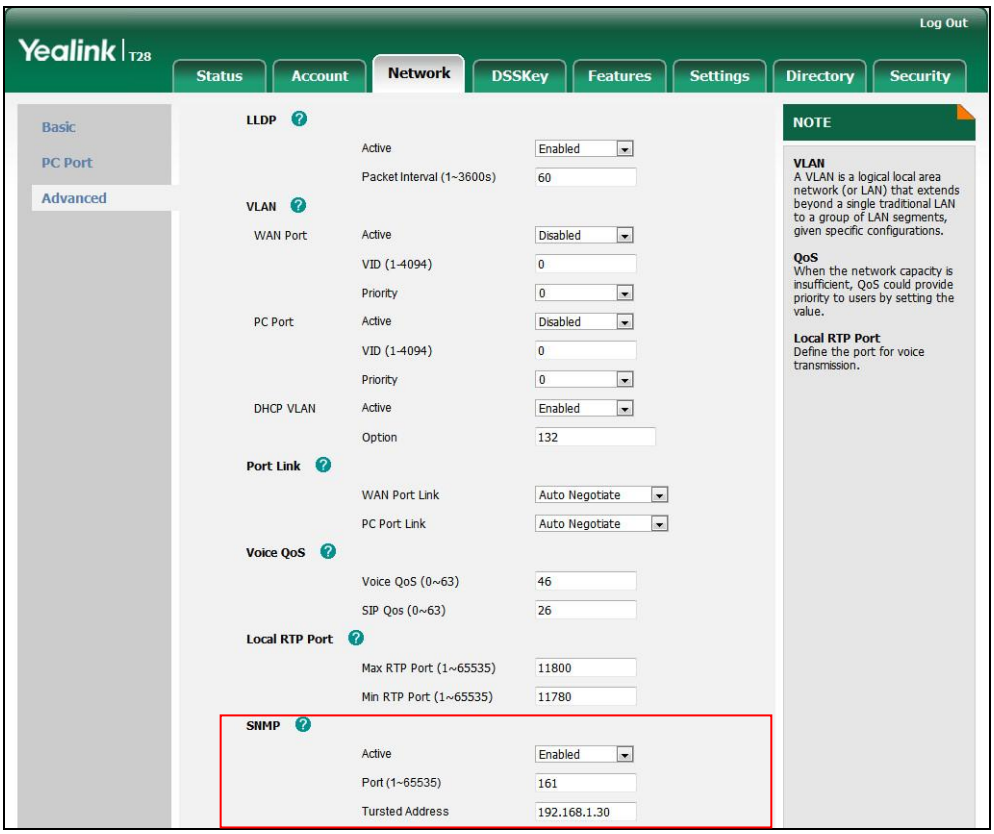
SNMP can be configured via web user interface or using the configuration files.

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 space.



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

   A dialog box pops up to prompt that settings will take effect after reboot.

6. Click **OK** to reboot the IP phone.

To configure SNMP using configuration files:

1. Add/Edit SNMP parameters in the configuration file.

   The following table lists the SNMP parameters:

Parameter	Description	Valid Value	Default Value
network.snmp.enable	Enables or disables SNMP feature. **0**-Disabled **1**-Enabled It takes effect after reboot.	Boolean	The default value is 0. For T4X IP phones, the default value is 1.
network.snmp.port	Configures the SNMP port. It takes effect after reboot.	Integer from 1 to 65535	The default port is blank. For T4X IP

Parameter	Description	Valid Value	Default Value
			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 space. If set to "0.0.0.0", the IP phone accepts and handles GET requests from any IP address. It takes effect after reboot.	IP address or domain name	The default value is blank. For T4X IP phones, the default value is 0.0.0.0

2. Upload the configuration file to the root directory on the provisioning server and perform auto provisioning to configure the Yealink IP phones.

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 commended that the firewall on the SNMP server is turned off before testing SNMP feature.

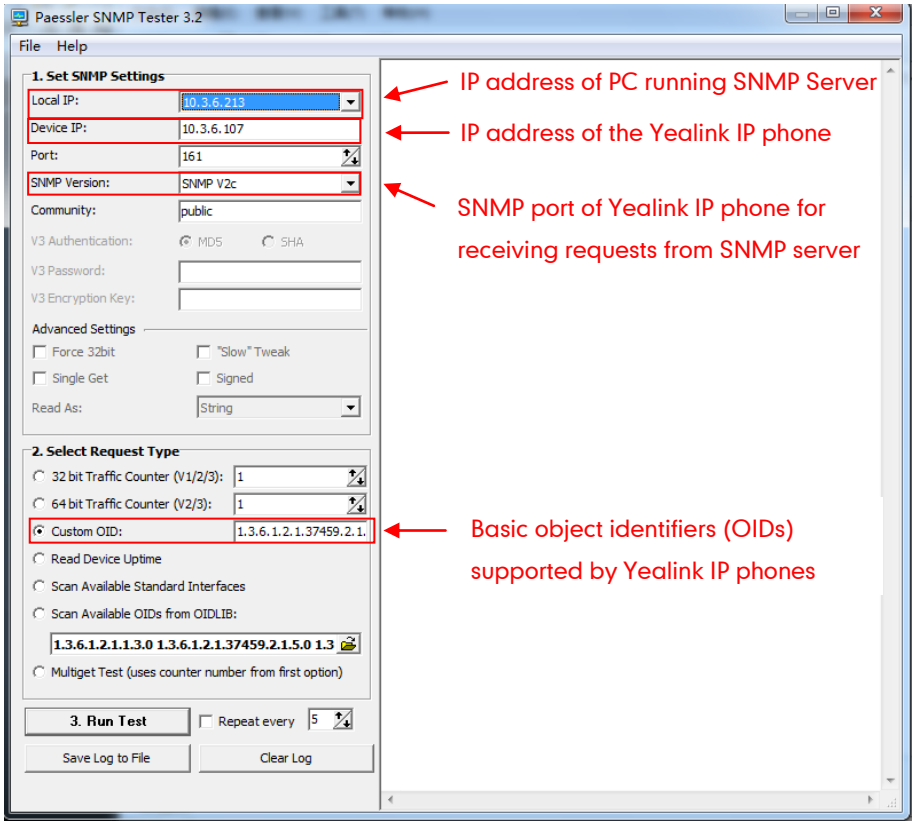
To Test SNMP (take Paessler SNMP Tester 3.2 as an example):

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. Enter the desired value in the **Custom OID** field.
7. Click **Run Test**.

For example, the values of the **Device IP** and **Custom OID** are configured as10.3.6.107 and 1.3.6.1.2.1.37459.2.1.8.0 respectively. During 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: