



Grandstream Networks, Inc.

GWN76XX

Wi-Fi Access Points

SNMP Guide



Table of Contents

SUPPORTED MODELS.....	4
SUPPORTED SNMP VERSIONS	5
SUPPORTED SNMP MESSAGES	6
INTRODUCTION.....	7
ENABLING SNMP FEATURE.....	8
Enable SNMPv1/SNMPv2c	8
Enable SNMPv3.....	8
TESTING SNMP FEATURE.....	10
GWN76XX MIB REFERENCE.....	13

Table of Figures

Table 1: Supported models	4
Table 2: Supported SNMP versions	5
Table 3: Supported SNMP messages	6
Figure 1 : Enabling SNMPv1, SNMPv2c.....	8
Table 4: SNMPv1,SNMPv2 parameters description	8
Figure 2: Enabling SNMPv3.....	9
Table 5: SNMPv3 parameters description.....	9
Figure 3 : Load GWN76xx MIB	10
Figure 4: MIB Browser settings SNMPv1/SNMPv2c	11
Figure 5: MIB Browser SNMPv3 settings.....	11
Figure 6: SNMP GET responses.....	12



Table of tables

Table 1: Supported models	4
Table 2: Supported SNMP versions	5
Table 3: Supported SNMP messages	6
Table 4: SNMPv1,SNMPv2 parameters description	8
Table 5: SNMPv3 parameters description.....	9

SUPPORTED MODELS

Table 1: Supported models

Model	Supported	Firmware
GWN7600 / GWN7600LR	Yes	1.0.19.4 or higher
GWN7610		
GWN7605 / GWN7605LR		
GWN7615		
GWN7602		
GWN7630 / GWN7630LR		

SUPPORTED SNMP VERSIONS

Table 2: Supported SNMP versions

SNMP Version	Version 1	Version 2C	Version 3
GWN7600 / GWN7600LR	Yes	Yes	Yes
GWN7610	Yes	Yes	Yes
GWN7605 / GWN7605LR	Yes	Yes	Yes
GWN7615	Yes	Yes	Yes
GWN7602	Yes	Yes	Yes
GWN7630 / GWN7630	Yes	Yes	Yes

SUPPORTED SNMP MESSAGES

Table 3: Supported SNMP messages

Traps	Get	GetNext	GetBulk	Set	Response
No	Yes	Yes	Yes	No	Yes

INTRODUCTION

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 IP network 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).

Three significant versions of SNMP have been developed and deployed. SNMPv1 is the original version of the protocol. More recent versions, SNMPv2c and SNMPv3, feature improvements in performance, flexibility, and security.

This guide will cover the configuration steps to enable and test the SNMP feature on GWN76xx Wi-Fi access points.

ENABLING SNMP FEATURE

Enable SNMPv1/SNMPv2c

Please refer to below steps to enable SNMPv1, SNMPv2c in GWN76xx access points:

1. Access GWN76xx web GUI under **Service → SNMP**.
2. Under **SNMPv1, SNMPv2c**, press on “**Enable**” icon.
3. Enter the “**Community String**” (Should be the same as set in the NMS or SNMP testing tool). The default is “public”, but you can change it to any string you want.

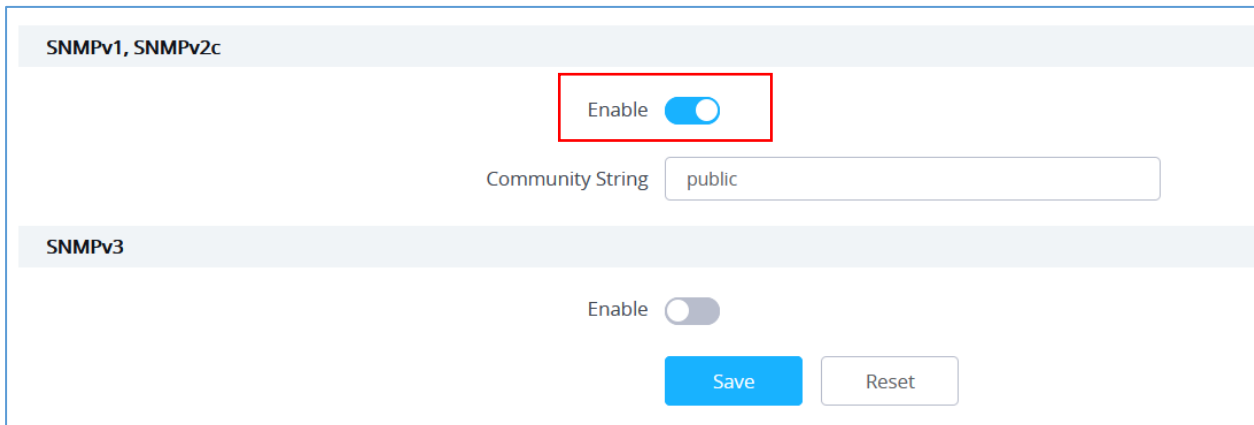


Figure 1 : Enabling SNMPv1, SNMPv2c

Table 4: SNMPv1,SNMPv2 parameters description

SNMPv1, SNMPv2c	
Enable	Enable SNMPv1, SNMPv2c
Community String	SNMP community

Enable SNMPv3

Please refer to below steps to enable SNMPv3 in GWN76xx access points:

1. Access GWN76xx web GUI under **Service → SNMP**.
2. Under **SNMPv3**, press on the “**Enable**” icon.
3. Fill in the SNMPv3 **Username**, in our example “test”
4. Set the other parameters for Authentication and Privacy. Please refer to the table in the next page for the parameters description.



SNMPv3

Enable

Username

Authentication mode

Authentication password

Privacy mode

Privacy password

Figure 2: Enabling SNMPv3

Table 5: SNMPv3 parameters description

SNMPv3	
Enable	Enable SNMPv3
Username	Username for SNMPv3
Authentication Mode	Select the Authentication Protocol: <ul style="list-style-type: none"> • MD5 • SHA The default setting is “MD5”.
Authentication password	Enter the Authentication password (Must be at least 8 characters).
Privacy Mode	Select the Privacy Protocol: <ul style="list-style-type: none"> • DES • AES The default setting is “DES”.
Privacy password	Enter the Privacy password. (Must be at least 8 characters).



TESTING SNMP FEATURE

After configuring SNMP on the GWN76xx access point, you can test SNMP using your enterprise monitoring system or a free SNMP test tool.

In this document we will be using “**iReasoning MIB browser**” which is an easy to use SNMP tester that has a Free and Professional paid version for SNMPv3.

You can follow the steps below in order to test SNMP using iReasoning MIB Browser

1. Download **MIB Browser Personal Edition** from this link: <http://ireasoning.com/download.shtml>
2. Double click “setup.exe” to start the installation
3. Once the installation is done, the tool will be launched.
4. Click on “File” then “Load MIBs” in order to import the GWN76xx MIB.

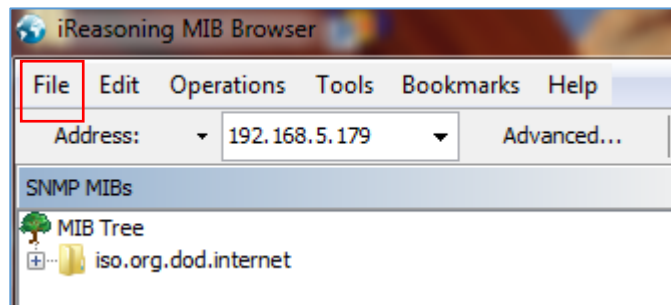


Figure 3 : Load GWN76xx MIB

5. Then enter the IP address of the GWN76xx access point in the **Address** tab as shown in above screenshot, for our example we are using a GWN76xx with the IP 192.168.5.179
6. Click on “**Advanced...**”
 - If SNMPv1 or SNMPv2c is selected, enter the **Read Community** (It should be the same as the “Community String” set on the GWN76xx)



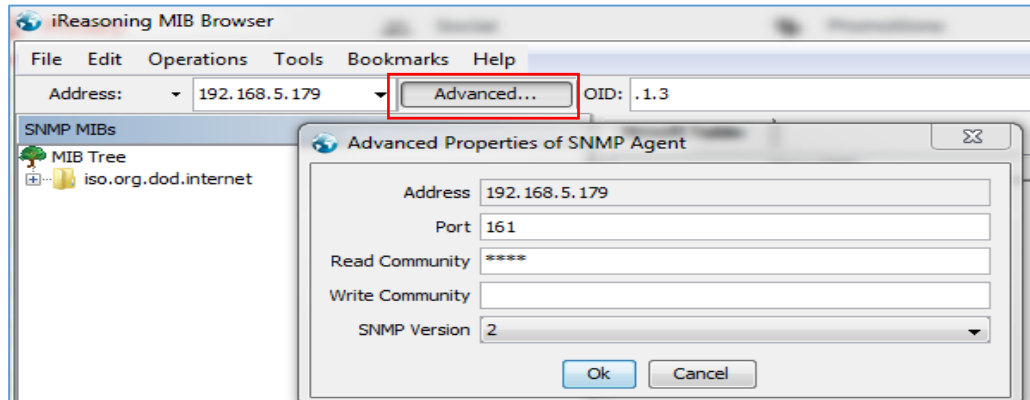


Figure 4: MIB Browser settings SNMPv1/SNMPv2c

- If SNMP version 3 is selected, fill in the Username, and the Authentication, Privacy settings (These settings should be the same as set on the GWN76xx)

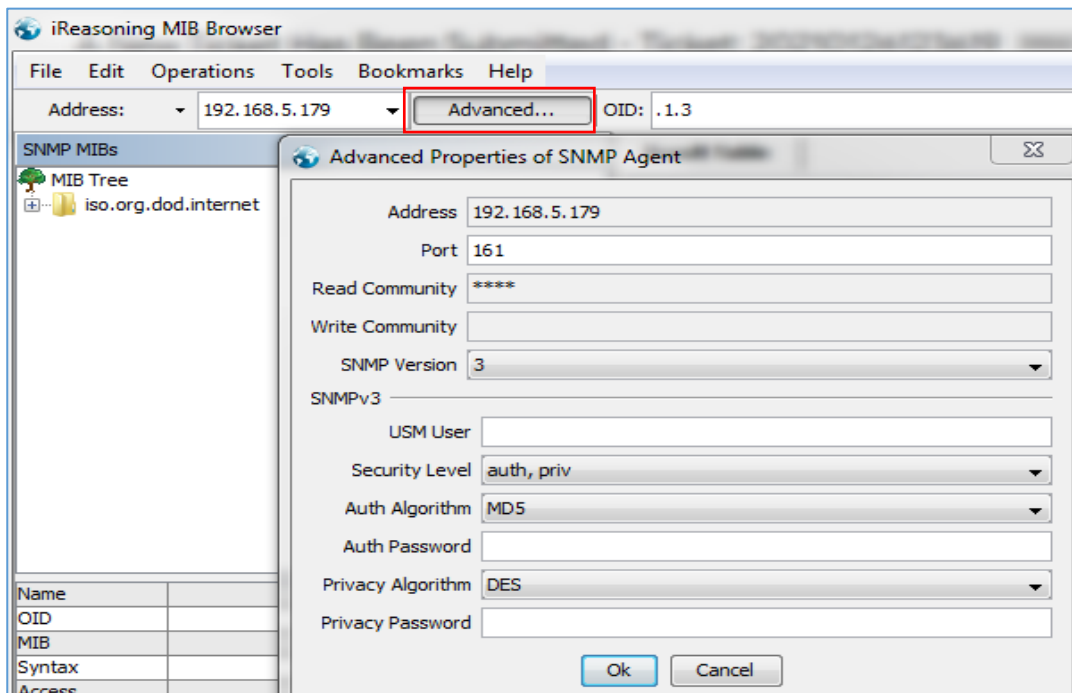
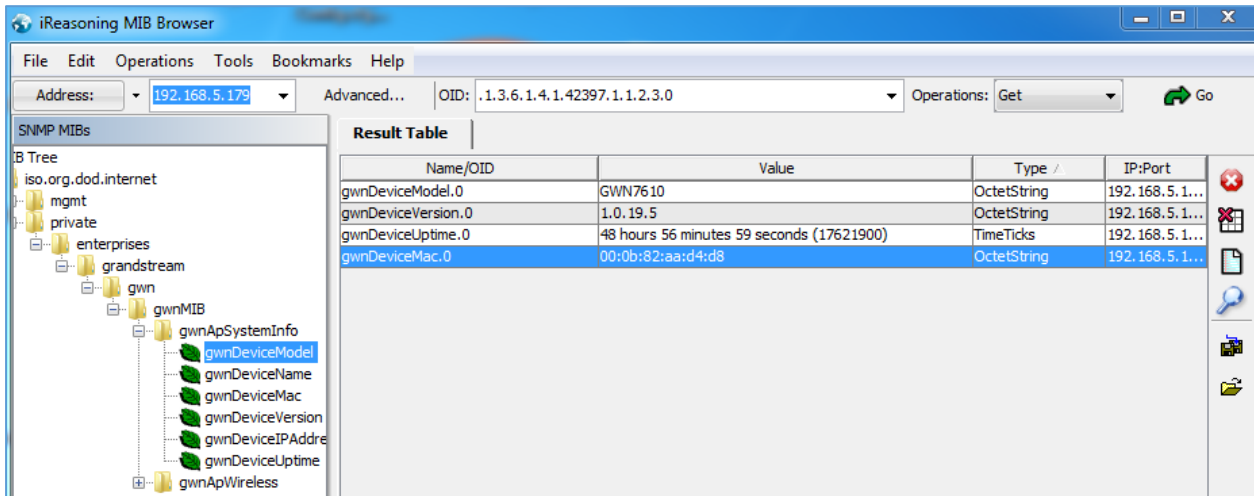


Figure 5: MIB Browser SNMPv3 settings

After configuring the parameters as shown in above steps you can then start sending SNMP GET messages to the GWN76xx access point to retrieve information such as: Device uptime, Firmware version, Model, etc..

Below screenshot is an example of SNMP responses received from the GWN76xx.





The screenshot shows the iReasoning MIB Browser interface. The address bar is set to 192.168.5.179 and the OID is .1.3.6.1.4.1.42397.1.1.2.3.0. The operations dropdown is set to 'Get'. The left pane shows a tree view of MIBs, with 'gwnDeviceMac.0' selected under 'gwnMIB'. The right pane displays a 'Result Table' with the following data:

Name/OID	Value	Type	IP:Port
gwnDeviceModel.0	GWN7610	OctetString	192.168.5.1...
gwnDeviceVersion.0	1.0.19.5	OctetString	192.168.5.1...
gwnDeviceUptime.0	48 hours 56 minutes 59 seconds (17621900)	TimeTicks	192.168.5.1...
gwnDeviceMac.0	00:0b:82:aa:d:4:d8	OctetString	192.168.5.1...

Figure 6: SNMP GET responses



GWN76XX MIB REFERENCE

You can download the MIB for GWN76xx Wi-Fi access points from below link:

<http://firmware.grandstream.com/GRANDSTREAM-GWN-MIB.my>

