How to Monitor an AKCP SensorProbe2 using SNMP



Purpose

This document describes how to monitor an AKCP sensorProbe2 device with Nagios XI in order to be alerted when temperature, humidity, or other environmental variables exceed specific thresholds.

This document outlines how to monitor the Dual Temperature/Humidity sensor connected to the sensorProbe2, however various AKCP intelligent sensors can be connected via the RJ45 connectors to the sensorProbe devices and then monitored in Nagios XI in a similar manor. This document will demonstrate how to monitor the device using Active or Passive monitoring.

The sensorProbe2, sensorProbe4, sensorProbe8 and Probe8-X20 are intelligent devices for monitoring environmental variables and notifies you through SNMP alerts to prevent any issues when environmental variables change.

Target Audience

This document is intended for use by Nagios XI Administrators who want to monitor an AKCP sensorProbe2 Dual Temperature/Humidity Sensor device via SNMP.

Prerequisites For Monitoring A Device Passively Via SNMP Traps

It is possible to monitor your AKCP sensorProbe2 actively or passively within your Nagios XI system. Active checks do not require any prerequisites for your Nagios XI system. Passive checks require you to set up your Nagios XI system to receive SNMP traps. This document assumes you have already set your Nagios XI system to receive SNMP traps. If you have not already done this, please refer to the following documentation: Integrating SNMP Traps With Nagios XI

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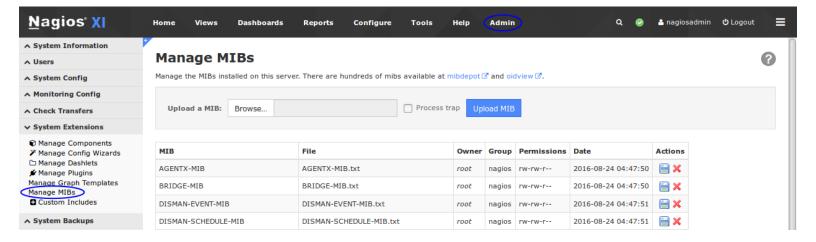
Download The AKCP MIB Into Nagios XI

Monitoring via SNMP requires the AKCP MIB definition. The first step is to download and install the correct MIB file. You can download the MIB for a AKCP device from the link below:

http://www.akcp.com/wp-content/uploads/2010/04/akcp_mib211210.zip

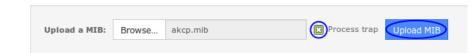
Once the MIB is downloaded, you need to unzip the akcp_mib211210.zip file which will provide you with the akcp.mib file that will be used in the next step.

Next, you will install the akcp.mib from the Nagios XI Web interface by navigating to **Admin > System Extensions > Manage MIBs**.



Click the Browse button and locate the akcp.mib file.

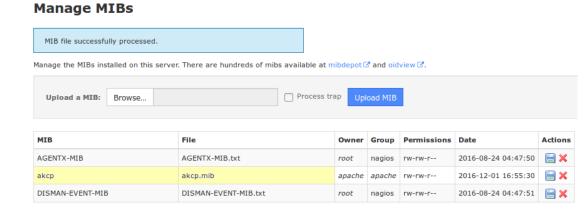
Check the **Process trap** check box.



Click the **Upload MIB** button.

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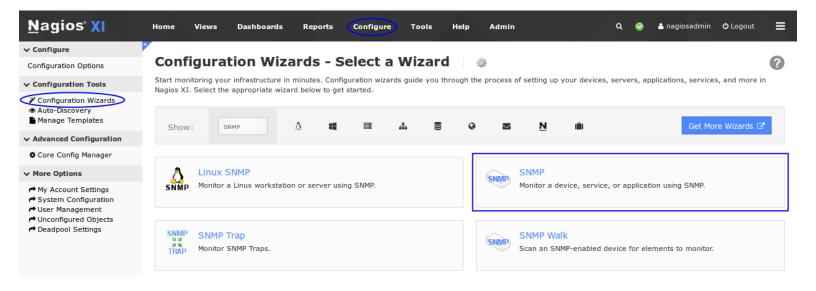
You will receive a message to say the MIB file was successfully processed.



You can also verify that your MIB was processed by Nagios XI, on your Nagios server check to see that the akcp.mib file is located in the /usr/share/snmp/mibs/ directory. In addition to this an extensive amount of SNMP Trap EVENTs will be put into the /etc/snmp/snmptt.conf file (these are for passive monitoring).

Run The SNMP Wizard To Set Up Active Checks

To begin using the SNMP wizard navigate via the top menu bar to **Configure > Run a configuring wizard** and select the **SNMP** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.



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In Step 1 enter the address for the AKCP sensor in the **Device Address** box and click Next.

SNMP Conf	figuration Wizard: SNMP - Step 1	
SNMP Informati	ion	
Device Address:	192.168.5.199	
	The IP address or fully qualified DNS name of the server or device you'd like to n	nonitor.
∢ Back Next	t >	

In Step 2 you are required to enter a **SNMP Community** string (it is not suggested to use the default of "public") and also the **SNMP Version**. For this example we used version 2.

evice Address:	192.168.5.199								
st Name:	192.168.5.199)							
	The name you'd li	ike to have associated with this	s server or device.						
MP Settings									
ecify the setting	s used to monitor	the server or device via S	NMP.						
NMP Communit	ty: public								
	The SNMP com	munity string required used to	to query the device.						
NMP Version:	2c ▼								
NMP Version:		ocol version used to commicate	e with the device.						
IMP Version:		ocol version used to commicate	e with the device.						
		ocol version used to commicate	e with the device.						
IMP Services	The SNMP prot	ocol version used to commicate		ed as examples.					
MP Services	The SNMP prot			ed as examples. Data Units	Match Type	Warning Range	Critical Range	String To Match	MIB To Use
MP Services ecify any OIDs y	The SNMP prot	itor via SNMP. Sample entrie	es have been provide		Match Type Numeric	_		_	MIB To Use
OID L.4.1.3854.1	The SNMP prot	itor via SNMP. Sample entrie Display Name	es have been provide Data Label	Data Units		Range	Range	_	MIB To Use akcp.mib

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Finally, you will need to enter information in to the SNMP Service section. Create a row for each sensor. For example the SNMP OID for the temperature sensor on RJ45#1 is:

The SNMP OID for the humidity sensor on RJ45#1 is:

If you added an additional sensor in the second port (#2) their OID would be very similar to the temperature and humidity sensors. You will have to change the 0 (zero) at the end of the OID to 1 (one). These sensors would be added to the SNMP service section as:

```
1.3.6.1.4.1.3854.1.2.2.1.16.1.3.1 and 1.3.6.1.4.1.3854.1.2.2.1.17.1.3.1
```

Continue to fill in the remaining fields in the SNMP Service section. It is important to note the warning and critical values in this example are set up as ranges. A critical alert occurs when the temperature is outside of the range 60-85 degrees. Finally, select the check boxes next to the temperature sensor and humidity sensor OIDs and click Next.

Click Next and then complete the wizard by choosing the required options in Step 3 - Step 5. To finish up, click on **Finish** in the final step of the wizard. This will create the new host and services and begin monitoring.

Once the wizard applies the configuration, click the **View status details for** *your AKCP sensor* link to see the new service that was created.

Host	1	Service \$		Status	1	Duration	1	Attempt 1	t	Last Check ‡	Status Information \$\$\\$\$	
192.168.5.199	See D 🖋	Humidity Sensor 1	×2°	Warning		2m 54s		4/5		2015-09-08 15:44:48	SNMP WARNING - Humidity *49* %	
		Temp Sensor 1		Critical		2m 31s		3/5		2015-09-08 15:44:17	SNMP CRITICAL - Temp *78* °F	

This completes configuring Nagios XI to monitor the AKCP sensorProbe2 using Active monitoring.

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Configuring The Sensor To Send Passive Checks Via SNMP To Nagios XI

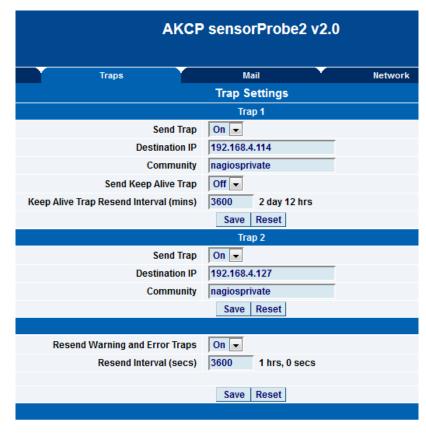
Sending Passive Checks to Nagios requires some set up on the AKCP sensorProbe2. To do this we need to log into the AKCP Web interface by entering the IP address in to your browser. The web interface will require you to enter your user account and password.

First you will want to set up your check thresholds on each sensor, and for this example we will set up the Temperature sensor on Port 1. Click on the **Sensor** tab, then under **Environmental** select **Temperature**, and finally select the Temperature sensor on port 1. From this screen enter your threshold information for critical events.

Next click on the **Traps** tab to enter pertinent information for sending SNMP traps to Nagios XI. Enter the IP of your Nagios server for the Destination IP.

Next enter a community string. It is always a good idea to change the default community string from "public" to something else.

Click on the **Save** button and you are done with the set up required for the AKCP sensor.



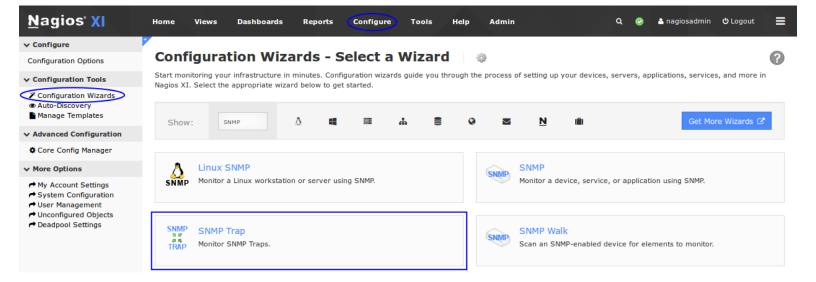
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Configuring Nagios XI To Receive Passive Checks

Once you have your Nagios server set up to receive SNMP Traps as outlined in the prerequisite section, you will be able to set up Nagios XI to receive passive checks from the AKCP sensorProbe2.

To begin using the SNMP Trap wizard navigate via the top menu bar to **Configure > Run a configuring** wizard and select the **SNMP Trap** wizard. In the following screenshot you can see how the search field allows you to quickly find a wizard.



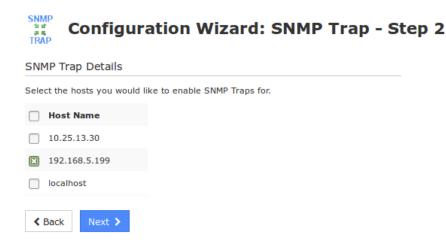
In Step 1 there are no options, click Next.



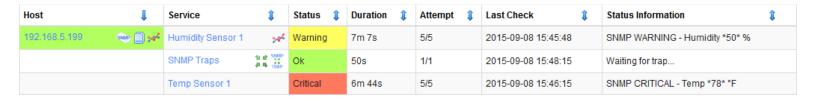
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In Step 2 select the host you wish to enable SNMP traps for and click Next.

Click Next and then complete the wizard by choosing the required options in Step 3 - Step 5. To finish up, click on Finish in the final step of the wizard. This will create the new host and services and begin monitoring.



Once the wizard applies the configuration, click the **View status details for** *your AKCP sensor* link to see the new service that was created.



This completes configuring Nagios XI to monitor the AKCP sensorProbe2 using Passive monitoring.

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Troubleshooting

If for some reason you don't see SNMP traps changing the status of your service check in Nagios XI, check your **Unconfigured Objects** page (accessed via **Admin > Monitoring Config > Unconfigured Objects**).

Also, reviewing the logs created by SNMPTT can help you troubleshoot the issue as well.

```
tail /var/log/snmptt/snmptt.log
tail /var/log/snmptt/snmpttunknown.log
tail /var/log/messages
```

Finishing Up

This completes the documentation on configuring Nagios XI for monitoring the Dual Temperature/Humidity Sensor on AKCP sensorProbe2 device via SNMP (active monitoring) and SNMP Traps (passive monitoring). If you have additional questions or other support related questions, please visit us at our Nagios Support Forums:

https://support.nagios.com/forum

The Nagios Support Knowledgebase is also a great support resource:

https://support.nagios.com/kb