

API Connect Management Server Monitoring Agent

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Version 8.1.4

Description:

This package includes a monitoring agent to monitor the API Connect Management Server. It was developed to monitor the 5.x version of the Management Server. Compatibility with version 6.x and above is unknown at this time.

The agent provides monitoring via SNMP of the API Connect Management Server. Key metrics include CPU, Network, Disk, and Memory utilization. It provides you with the ability to monitor for the performance and health of the API Connect Management Server.

The API Connect Management Server is a closed appliance. Performance monitoring KPIs are only available remotely via SNMP. Install the Agent on a remote Windows or Linux system. Then, when configuring agent, specify the SNMP information to access the API Connect Management Server. A single Agent can be configured to monitor multiple API Connect Management Servers.

This solution is unsupported. However, if you need assistance, send an e-mail to Ben Stern at bstern@us.ibm.com

Prerequisites:

- This Agent requires IBM Cloud Application Performance Management version 8.1.4 or higher
- This Agent was designed to monitor the API Connect Management Server version 5.0.0 or above.
- Prior to install the API Connect Management Server Agent, you must install another APM v8 monitoring Agent. For example, you can install the Operating System Agent for Windows or Linux.
- The Agent is designed to run on the following platforms:
 - 64-bit Linux (x86_64)
 - 64-bit Windows
 - The specific versions of Linux and Windows that are supported will mirror the versions that are supported by the Operating System Agent.
 - The Agent Builder Workspace definition has been provided in case you want to build the agent for other platforms. Import the Agent definition into the Workspace folder within the Agent Builder if you

wish to enhance the agent. The workspace folder is zipped up into the file named APIConnect.zip.

Installation Instructions:

Prior to installing the Agent Builder monitoring agent for the API Connect Management Server, install another APM v8 monitoring agent. For example, install the operating system for Windows or Linux. The Agent Builder agents will use the communications configuration information and ssl keys from the previously installed agent.

Linux Installation Instructions:

- Copy the smai-apiconnect-08.14.00.00.tgz file to the system where you have an APM 8.1.4 agent installed.
- Extract the contents of the *.tgz file
 - `tar -xhvf smai-apiconnect-08.14.00.00.tgz`
- From within the extracted files, type “./installraAgent.sh <APM agent installation home directory>
 - Example: `./installraAgent.sh /opt/ibm/apm/agent`
- Configure the Agent using the steps below

Linux Agent Configuration Instructions:

- Change directory to the <APM Agent installation home>/bin directory
 - `cd /opt/ibm/apm/agent/bin`
- Configure the agent using the following command:
 - `./apiconnect-agent.sh config`
- Follow the prompts as seen below.
- The first part of the configuration is asking for the default settings. You will specify the SNMP version, port, etc.
- In the 2nd part of the configuration, you will specify the server(s) that you wish to monitoring. As you define the monitored servers, you will be able to override the default settings specified in the first part of the agent configuration.
- Note: In the prompts below, if you wish to specify the default value, you can simply press enter. Or, you can type in the desired value.
- Edit 'Monitoring Agent for APIConnect' settings? [1=Yes, 2=No] (default is: 1): **1**
- The port number of the SNMP server. SNMP port number (default is: 161): **161**
- The SNMP version to use to make the connection. SNMP version [1=SNMP Version 1, 2=SNMP Version 2c, 3=SNMP Version 3] (default is:): **2**

- Note: The default SNMP version for the API Connect Management Server is 2c
- The next prompt is the example for SNMP v2c. If you specified SNMP v3, the prompts will be different.
- The SNMP server community name. Enter SNMP community name (default is:): **public**
- Re-type : SNMP community name (default is:): **public**
- Now, you will be prompted to specify the information for 1 or more API Connect Management Servers to monitor.
- Edit 'APIC Mgmt Server' settings, [1=Add, 2=Edit, 3=Del, 4=Next, 5=Exit] (default is: 5): **1**
- APIC Mgmt Server (default is:): **apiconnect1**
 - This name is a label that will appear in the APM user interface. This should be a short name. I recommend the short hostname of the API Connect Management Server.
- The host or IP address of the SNMP server. SNMP host (default is:): **apiconnect1.tivlab.raleigh.ibm.com**
 - This is the fully qualified hostname or IP address of the API Connect Management Server.
- Select a section to override values [1=SNMP Connection, 2=SNMP Version, 3=SNMP Version 2c] (default is:):
 - If you want to use the SNMP default values set earlier, just type enter. If you want to override the defaults for this monitored API Connect Management Server, type either 1 or 2 and you'll be able to change the SNMP settings.
- You will now be prompted to "Edit" the settings. If you want to make changes to the settings or to add another monitored API Connect Management Server, specify the appropriate option. Otherwise, press enter or type 5.
- Edit 'APIC Mgmt Server' settings, [1=Add, 2=Edit, 3=Del, 4=Next, 5=Exit] (default is: 5): **5**
- The Agent configuration is now complete.
- Start the agent by typing:
 - `/opt/ibm/apm/agent/bin/apiconnect-agent.sh start`

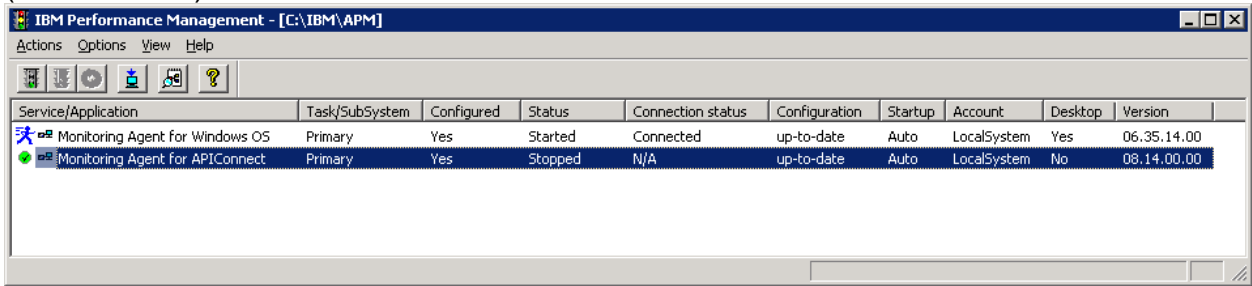
Windows Installation Instructions:

- Copy the smai-apiconnect-08.14.00.00.zip file to the system where you have an APM 8.1.4 agent installed.
- Extract the contents of the zip file
 - `unzip smai-apiconnect-08.14.00.00.zip`
- From within the extracted files, type "installIraAgent.bat <APM agent installation home directory>"
 - Example: `./installIraAgent.bat C:\IBM\APM`

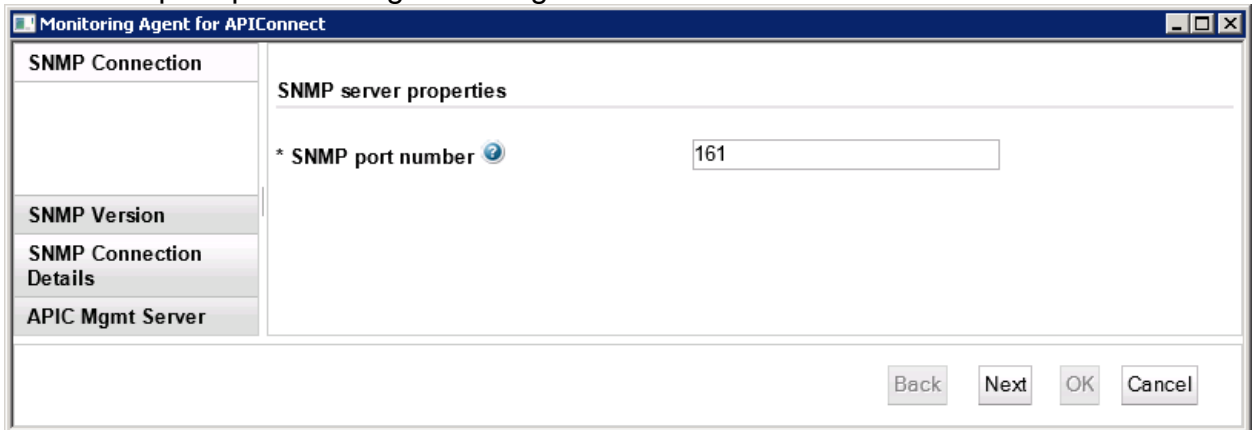
- Configure the Agent using the steps below

Windows Agent Configuration Instructions:

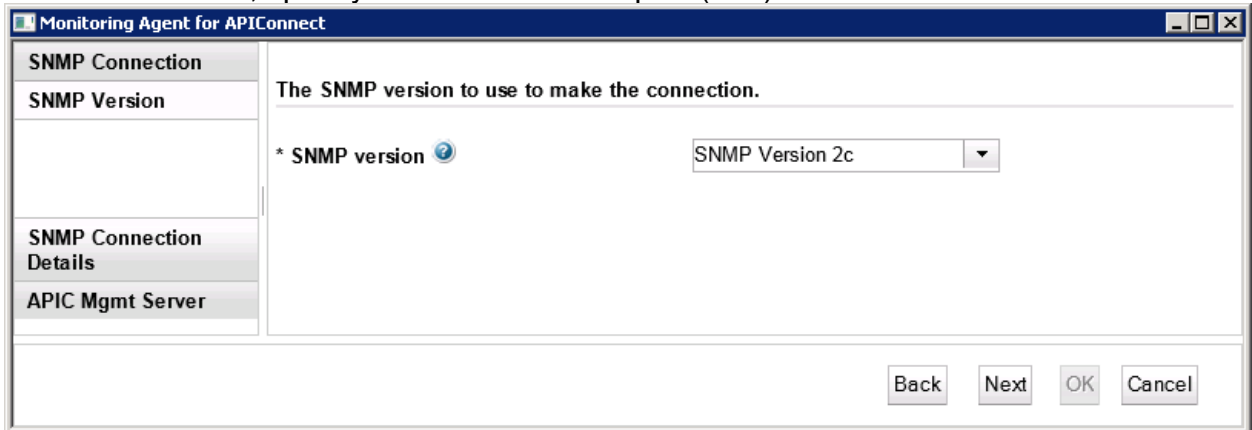
- Open the IBM Performance Management user interface by selecting “Start->IBM Monitoring agents ->IBM Performance Management (INSTANCE1)”



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- In the dialog that opens, right click on the Monitoring Agent for APICConnect and choose “reconfigure”
- Follow the prompts to configure the agent

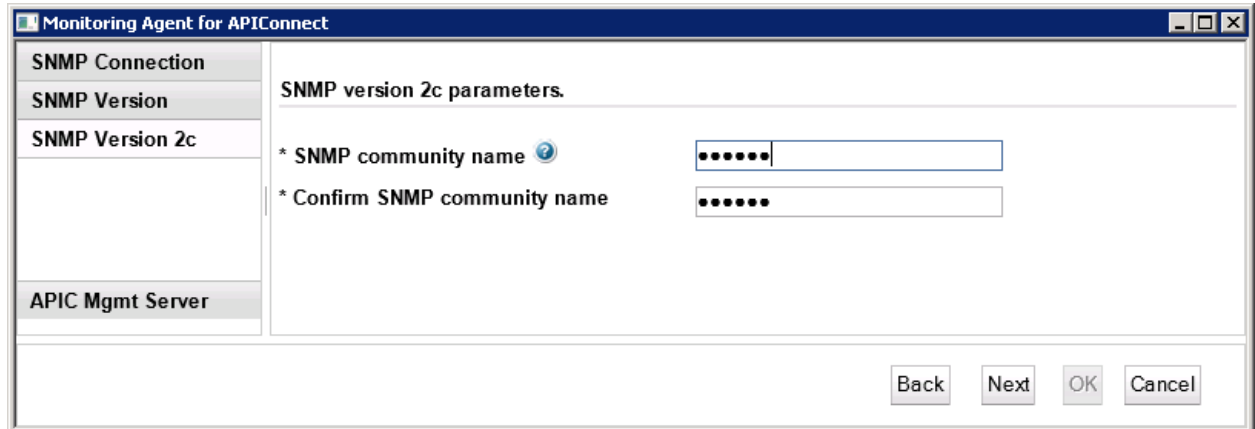


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- In the first screen, specify the default SNMP port (**161**) and click **Next**.



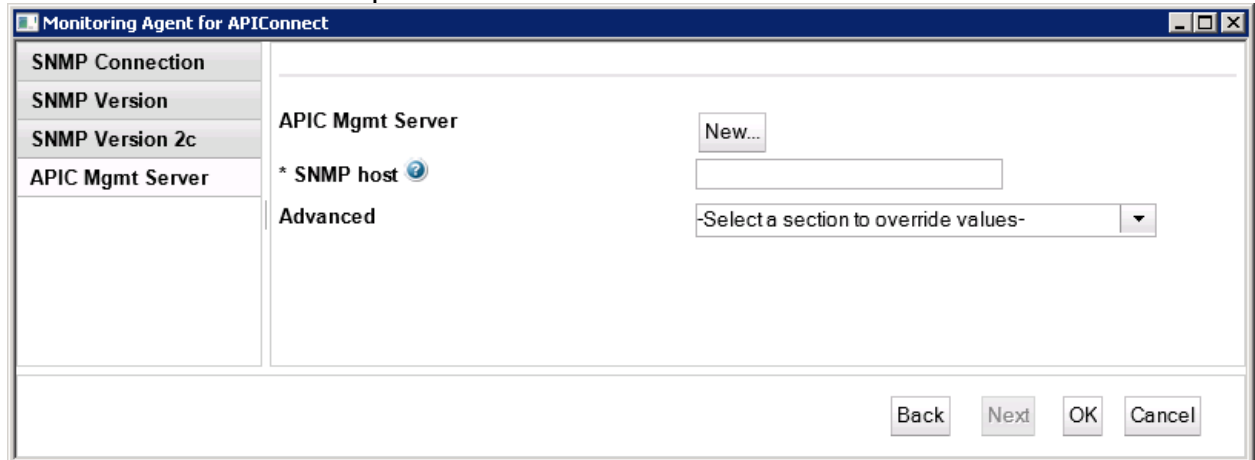
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- Specify the default SNMP version. API Connect uses SNMP version 2c, by default. So, select “**SNMP version 2c**” in the dropdown list and click **Next**.



The screenshot shows the 'Monitoring Agent for APIConnect' window. On the left is a sidebar with a tree view containing 'SNMP Connection', 'SNMP Version', 'SNMP Version 2c', and 'APIC Mgmt Server'. The main area is titled 'SNMP version 2c parameters.' and contains two required fields: '* SNMP community name' and '* Confirm SNMP community name'. Both fields have masked input boxes (dots). At the bottom right are buttons for 'Back', 'Next', 'OK', and 'Cancel'.

- Enter the default SNMP community string to use for API Connect and click **Next**. You will have the option to override the default value later on.



The screenshot shows the 'Monitoring Agent for APIConnect' window. The sidebar tree view now has 'APIC Mgmt Server' selected. The main area is titled 'APIC Mgmt Server' and contains a 'New...' button, a text input field for '* SNMP host', and an 'Advanced' section with a dropdown menu labeled '-Select a section to override values-'. At the bottom right are buttons for 'Back', 'Next', 'OK', and 'Cancel'.

- Enter a value for “SNMP host”. It can be any value.

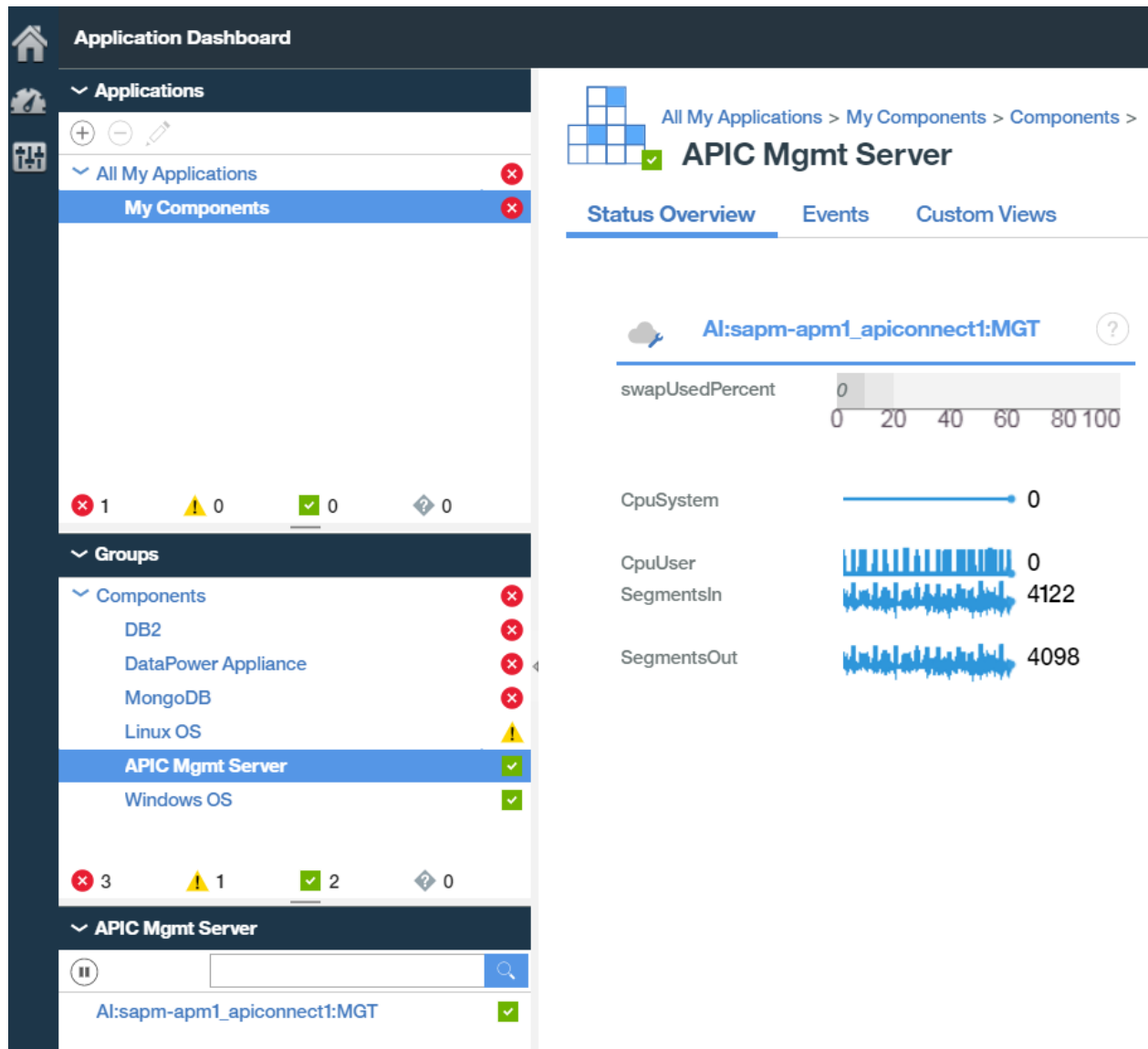
- Now, press “New” to add a new API Connect Management Server to monitor. A new section will be added to the dialog as seen below.

The screenshot shows the 'Monitoring Agent for APICConnect' dialog box. The left sidebar contains a tree view with the following items: 'SNMP Connection', 'SNMP Version', 'SNMP Version 2c', and 'APIC Mgmt Server'. The 'APIC Mgmt Server' item is selected. The main area of the dialog is divided into two sections. The top section is for the selected server and contains a 'New...' button, a text field for '* SNMP host' with the value 'apiconnect1', and an 'Advanced' section with a dropdown menu labeled '-Select a section to override values-'. The bottom section is a shaded area containing a 'Delete' button, a text field for '* APIC Mgmt Server' with the value 'apiconnect1', a text field for '* SNMP host' with the value 'apiconnect1.tivlab.raleigh.ibm.com', and another 'Advanced' section with a dropdown menu labeled '-Select a section to override values-'. At the bottom right of the dialog are four buttons: 'Back', 'Next', 'OK', and 'Cancel'.

- In the dialog, enter the following values:
 - Enter a name for the APIC Mgmt Server. This should be a short name and will show up in the APM user interface. I typically use the shortname of the server.
 - For the SNMP host, enter the IP address or fully qualified hostname of the API Connect Management Server.
 - For Advanced, you do not need to do anything unless you want to override one of the default SNMP values. For example, if you want to choose a different SNMP community string, select the dropdown and choose “SNMP Version 2c” and you will see an option to specify the community string.
- If desired, you can click the **New** button and add more API Connect Management Servers to monitor.
- Or, if you are finished, click the **OK** button.
- The Agent is now configured.
- Within the “IBM Performance Management” dialog, right click on the “**Monitoring Agent for APICConnect**” and select “**Start**”
- Within a few minutes, the Agent will connect to the APM server and you will be able to visualize the metrics and set thresholds.

Using the API Connect Management Server monitoring Agent:

Within the APM user interface, you'll initially see your Agent show up under "My Components". You can also add the agent to a business application using the application composer.



Click on the summary group widget or the Agent in the left hand navigation to drill down for more details.



You will see a dashboard with summary information for CPU, Memory, Disk Space, and Networking data. You can select different areas of the screen to drill down into more details. If you click on any of the networking related graphs/tables, you will drill down into a Networking page. If you select other graphs such as Memory or Load Averages, you will drill down into a “System Stats” page with additional information on CPU, Memory, and Load Averages data.