



Query Zigbee Module Status Information with Digi Remote Manager®

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Overview

Within Digi Remote Manager[®], you can interact with Zigbee nodes, IP gateways, and routers. Interacting with Zigbee nodes is supported natively with Digi gateways and Zigbee devices.

For other Zigbee devices, you can gain limited information based on common Zigbee parameters. However, you can use a Python program on the IP gateway. This helps you to achieve a similar level of functionality on a Zigbee device that you have on an XBee node, as long as the Python program understands the proprietary communications protocols for non-Digi nodes.

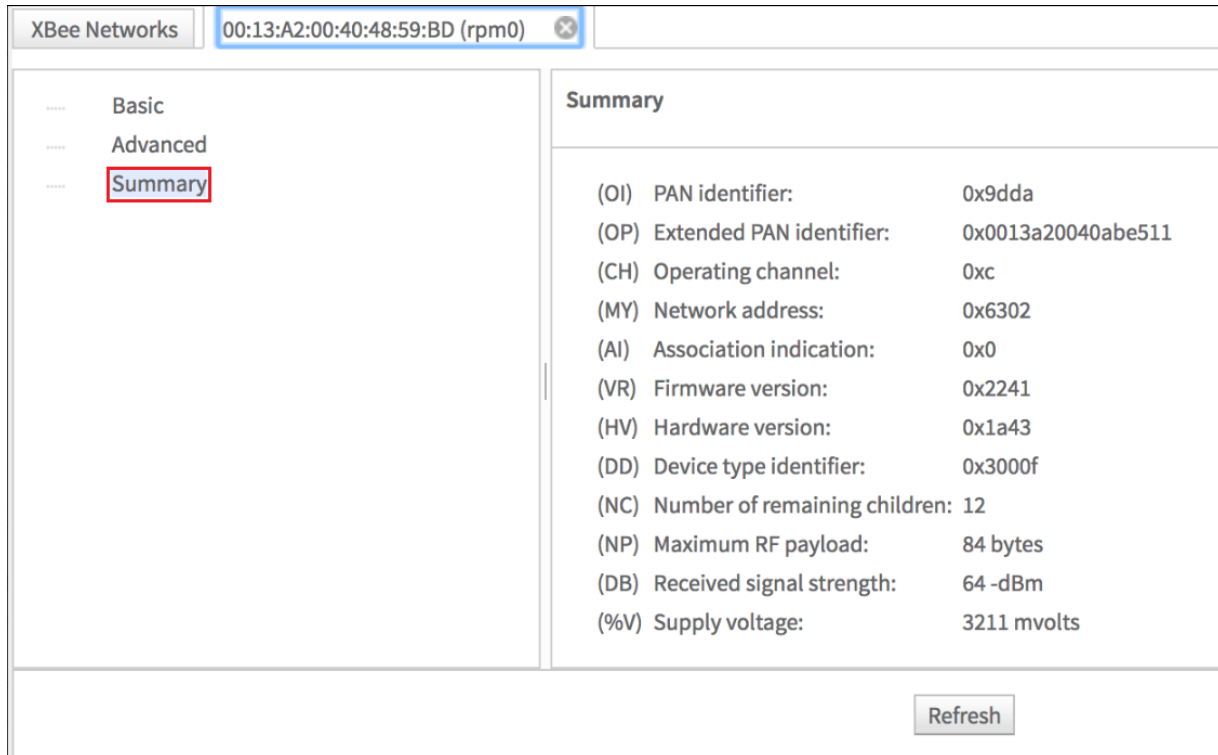
NOTE: Information about the proprietary communications protocols for non-Digi nodes is outside the scope of this document.

In this topic, you will learn how to get status information about Digi Zigbee modules using Remote Manager.

Query Zigbee module node status using Remote Manager

You can query and view the Zigbee module node status information in Remote Manager.

1. Log into [Remote Manager](#).
2. Click **Device Management > XBee Networks**.
3. Search for the desired device. You can filter your search by entering a Zigbee node ID or address in the search field.
4. Double-click the desired device. The **Properties** page appears.
5. Click the **Summary** menu item to display the most recent cached status information in the right-hand pane.
6. Click **Refresh** to update the settings. This action sends a request to the gateway to read the current settings and the state of the node, and then sends a response back to Remote Manager. See the following graphic.



Summary	
(OI) PAN identifier:	0x9dda
(OP) Extended PAN identifier:	0x0013a20040abe511
(CH) Operating channel:	0xc
(MY) Network address:	0x6302
(AI) Association indication:	0x0
(VR) Firmware version:	0x2241
(HV) Hardware version:	0x1a43
(DD) Device type identifier:	0x3000f
(NC) Number of remaining children:	12
(NP) Maximum RF payload:	84 bytes
(DB) Received signal strength:	64 -dBm
(%V) Supply voltage:	3211 mvolts

Query Zigbee node state programatically

Querying the Zigbee node state follows the standard process for querying any device settings in Remote Manager. However, when you query the Zigbee node state, you instruct the gateway to send requests out to the gateway's local PAN (Personal Area Network).

Example: Send the request

This example uses a specific RCI command within the SCI interface. You will send an HTTP POST to <https://remotemanager.digi.com/ws/sci> and include the code shown below as the data content of the request.

```
<sci_request version="1.0">
  <send_message cache="false">
    <targets>
      <device id="00000000-00000000-00409DFF-FF5C525A"/>
    </targets>
    <rci_request version="1.1">
      <do_command target="zigbee">
        <query_state addr="00:13:A2:00:40:48:59:BD!"/>
      </do_command>
    </rci_request>
  </send_message>
</sci_request>
```

Note the following:

1. The **cache="false"** parameter is part of the `send_message` operator. This instructs Remote Manager to send the request to the gateway and bypass any server-side cache that may exist for this node.
2. The **targets** group contains the device ID of the gateway that has the node of interest associated with its PAN.
3. The **query_state** command under the RCI `do_command` specifies the specific EUI-64 address of the node that is being queried.

Example: Response to the request

In this example, the response contains the same information that is available in Remote Manager.

```
<sci_reply version="1.0">
  <send_message>
    <device id="00000000-00000000-00409DFF-FF5C525A">
      <rci_reply version="1.1">
        <do_command target="zigbee">
          <query_state addr="00:13:A2:00:40:48:59:BD!">
            <radio>
              <pan_id>0x9dda</pan_id>
              <ext_pan_id>0x0013a20040abe511</ext_pan_id>
              <channel>0xc</channel>
              <net_addr>0x6302</net_addr>
              <association>0x0</association>
              <firmware_version>0x2241</firmware_version>
              <hardware_version>0x1a43</hardware_version>
              <device_type>0x3000f</device_type>
              <children>12</children>
              <max_payload>84</max_payload>
              <rssi>60</rssi>
              <supply_voltage>3211</supply_voltage>
            </radio>
          </query_state>
        </do_command>
      </rci_reply>
    </device>
  </send_message>
</sci_reply>
```

Where to find more examples

You can view more examples and experiment with the web services APIs in Remote Manager. To access this information, you can log in to Remote Manager and click **Documentation > API Explorer > Examples > SCI > RCI > XBee > Query node state**, as shown in the following graphic.

The screenshot displays the DIGI Remote Manager interface, specifically the API Explorer section. The top navigation bar includes the DIGI logo, 'REMOTE MANAGER', and links for 'Dashboard' and 'Device Mana'. Below this, the 'API Explorer' tab is active, showing a tree view of resources. The 'Xbee' resource is expanded, and the 'Query node state' option is highlighted with a blue box. The interface also shows a 'Path' field with '/ws/sci', an 'HTTP Method' dropdown, and a list of XML request snippets. On the right, a 'Web Services Responses' table lists several POST requests to '/ws/sci' with a 200 status code, and a 'Documentation' section with a link to the 'Programming Guide'.