

# Admin Nodes API

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## Related Documentation

- We can also manage this information using the [Admin GUI](#).
- opCharts API for reading node data [opCore API V2](#)

## Nodes API

We can also manage nodes using the API.

Operation	Method	URL	Response	Example
Get Nodes	GET	<a href="http://host/en/omk/admin/api/v2/nodes.json">http://host/en/omk/admin/api/v2/nodes.json</a>		<a href="http://athena.opmantek.net/en/omk/admin/api/v2/nodes.json?page=1&amp;per_page=5&amp;sort_by=name&amp;order=asc">http://athena.opmantek.net/en/omk/admin/api/v2/nodes.json?page=1&amp;per_page=5&amp;sort_by=name&amp;order=asc</a>  See Query Parameters
Get Node	GET	<a href="http://host/en/omk/admin/api/v2/nodes/{node_uuid}.json">http://host/en/omk/admin/api/v2/nodes/{node_uuid}.json</a>		<a href="http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes/86a82b4c-6ef6-4691-8c8c-1fc8da334d6f.json">http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes/86a82b4c-6ef6-4691-8c8c-1fc8da334d6f.json</a>
Create Node	POST	<a href="http://host/en/omk/admin/api/v2/nodes.json">http://host/en/omk/admin/api/v2/nodes.json</a>  To create a remote node in an opHA cluster see below.	The node in json from the recently created node, including the UUID	<a href="http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes.json">http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes.json</a> <pre>{   "activated":   {     "NMIS": "1",     "opConfig": "0",     "opEvents": "1"   },   "configuration":   {     "active": null, "authkey": "", "authpassword": "",     "authprotocol": null, "businessService": null,     "collect": 1, "community": "", "context": "", "customer":     null, "group": "NMIS9",     "host": "asgard.opmantek.net", "host_backup": "",     "location": null,     "netType": "default", "nettype": null,     "node_context_name": "", "node_context_url": "", "notes":     "",     "ping": 1, "polling_policy": "default", "port": "161",     "privkey": "", "privpassword": "",     "privprotocol": null, "remote_connection_name": "",     "remote_connection_url": "", "roleType": "default",     "roletype": null, "serviceStatus": null, "threshold": 1,     "username": "", "wmipassword": "", "wmiusername": ""   },   "current_user_privileges":   {     "delete": true,     "update": true   },   "friendly_addresses": "",   "friendly_aliases": "",   "name": "test",   "uuid": null }</pre>

Update Node	PUT	<a href="http://host/en/omk/admin/api/v2/nodes/{node_uuid}.json">http://host/en/omk/admin/api/v2/nodes/{node_uuid}.json</a>  To update a remote node in an opHA cluster see below.	<a href="http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes/b56ba595-69e7-4702-9fe5-49512e1340b0.json">http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes/b56ba595-69e7-4702-9fe5-49512e1340b0.json</a> <pre> {   "activated":   {     "NMIS": "1",     "opConfig": "0",     "opEvents": "1"   },   "addresses":   [],   "aliases":   [],   "cluster_id": "a515c63a-0d11-4bcb-a402-39a4600aebb9",   "configuration":   {     "active": 1, "addresses": [ "192.168.88.13" ],     "aliases": [],     "authkey": "", "authpassword": "", "authprotocol":     "md5", "businessService": null, "cbqos": "none",     "collect": 1, "community": "OMKRead", "context":     "", "customer": "Opmantek", "depend": [],     "display_name": "", "group": "EXSI", "host":     "castor.opmantek.net", "host_backup": "", "ip_protocol":     "IPv4",     "location": "Cloud", "max_msg_size": 1472,     "max_repetitions": 0, "model": "automatic",     "netType": "default", "nettype": null,     "node_context_name": "Node Context",     "node_context_url": "https://somelink.com/map/thing     /", "notes": "", "ping": 1,     "polling_policy": "1_minute", "port": "161",     "privkey": "", "privpassword": "",     "privprotocol": "des", "remote_connection_name":     "SSH to Node", "remote_connection_url": "ssh://\$host",     "roleType": "access", "roletype": null,     "serviceStatus": "Testing", "services": [],     "sysDescr": "VMware ESXi 6.7.0 build-17167734     VMware, Inc. x86_64", "threshold": 1, "timezone": 0,     "username": "", "version": "snmpv2c", "webserver":     0, "wmipassword": "", "wmiusername": ""   },   "current_user_privileges":   {     "delete": 0,     "update": 0   },   "friendly_addresses": "192.168.88.13",   "friendly_aliases": "",   "name": "Castor",   "node_local": "Remote",   "overrides":   {},   "server_name": "fulla",   "unknown":   {},   "uuid": "b56ba595-69e7-4702-9fe5-49512e1340b0" } </pre>
Delete Node	DELETE	<a href="http://host/en/omk/admin/api/v2/nodes/{node_uuid}.json">http://host/en/omk/admin/api/v2/nodes/{node_uuid}.json</a>	<a href="http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes/b56ba595-69e7-4702-9fe5-49512e1340b0.json">http://uburnto.opmantek.net/en/omk/admin/api/v2/nodes/b56ba595-69e7-4702-9fe5-49512e1340b0.json</a>

## Request Modifiers (query parameters)

Not all requests will use all request modifiers.

Query Parameter	Possible Values
fields_hash	Array of property names. If provided only the properties specified will be returned (instead of the whole document). eg: <b>fields_hash</b> ={ "name":1, "uuid":1 } returns only the node name and the node uuid. By default <b>all</b> properties if no fields_hash is specified.
page	Which page of the requested document to be returned, from 1 .. n, defaults to no pagination.
per_page	How many results are returned per page, defaults to 25
search	List of key=value pairs. Search filter applied to the list of results. eg: <b>search</b> ={ "name": "athena", "configuration.group": "SydneyDC" } (which is "Name"="athena" AND "Group"="SydneyDC")  For a string, if it starts with regex: or iregex: then a case-sensitive or case-insensitive regular expression match is used. eg: <b>filter</b> ={ "name": "iregex:Switch" } to find all the nodes with switch or SWITCH in their name.
sort_by	Property to sort by. eg: sort_by=name to sort by node name
order	Sort order. asc   desc : sort the response by <i>sort_by</i> ascending or descending.

By example, the queries will look something like this:

[http://athena.opmantek.net/omk/admin/api/v2/nodes.json?fields\\_hash={ "name":1, "uuid":1 }&search={ "name": "Switch-1" }](http://athena.opmantek.net/omk/admin/api/v2/nodes.json?fields_hash={\)

## Authentication

Important: All these methods are authenticated.

Operation	Method	URL	Response	Example
Authenticate	POST	<a href="http://host/en/omk/admin/login">http://host/en/omk/admin/login</a>		<a href="http://uburnto.opmantek.net/en/omk/admin/login">http://uburnto.opmantek.net/en/omk/admin/login</a>  <pre>{ "username": "username",   "password": "password" }</pre>

We should receive a 200 response and a cookie, that we can reuse for next API calls.

## Create a remote Node

If we want to create a node in a remote cluster, we should indicate the remote cluster id in configuration.pollers: *cluster\_id*.

*cluster\_id* is the uuid of which opHA server the node belongs to.

E.x.

Create Remote	POST	<a href="http://host/en/omk/admin/api/v2/nodes.json">http://host/en/omk/admin/api/v2/nodes.json</a>	It will return the json node, the same structure that the CREATE.	<a href="http://ubumto.opmantek.net/en/omk/admin/api/v2/nodes.json">http://ubumto.opmantek.net/en/omk/admin/api/v2/nodes.json</a> It will return the same output as for a local node: <pre> {   "activated": {     "NMIS": 1,     "opConfig": "0",     "opEvents": "1"   },   "cluster_id": "a515c63a-0d11-4bcb-a402-39a4600aebb9",   "configuration": {     "active": 1,     "aliases": [],     "authkey": "",     "authpassword": "",     "authprotocol": null,     "businessService": null,     "collect": 1,     "community": "",     "context": "",     "customer": null,     "group": "NMIS9",     "host": "asgard.opmantek.net",     "host_backup": "",     "location": null,     "max_msg_size": 65535,     "max_repetitions": 0,     "netType": "default",     "nettype": null,     "node_context_name": "",     "node_context_url": "",     "notes": "",     "ping": 1,     "pollers": "a515c63a-0d11-4bcb-a402-39a4600aebb9",     "polling_policy": "default",     "port": "161",     "privkey": "",     "privpassword": "",     "privprotocol": null,     "remote_connection_name": "",     "remote_connection_url": "",     "roleType": "default",     "roletype": null,     "serviceStatus": null,     "threshold": 1,     "username": "",     "wmipassword": "",     "wmiusername": ""   },   "friendly_addresses": "",   "friendly_aliases": "",   "name": "test",   "uuid": "6ce5fd5c-d703-4d03-b36c-b8e01439a9f2" } </pre>
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## Update a remote Node

If we want to update a node in a remote cluster, we should indicate the remote cluster id in configuration.pollers: cluster\_id.

cluster\_id is the uuid of which opHA server the node belongs to.

E.x.

Update Remote	P UT	<a href="http://host/en/omk/admin/api/v2/nodes/node_uuid.json">http://host/en/omk/admin/api/v2/nodes/node_uuid.json</a>	It will return the json node, the same structure that the CREATE.	<a href="http://volla.opmantek.net:6042/en/omk/admin/api/v2/nodes/6ce5fd5c-d703-4d03-b36c-b8e01439a9f2.json">http://volla.opmantek.net:6042/en/omk/admin/api/v2/nodes/6ce5fd5c-d703-4d03-b36c-b8e01439a9f2.json</a> <pre> {   "cluster_id": "a515c63a-0d11-4bcb-a402-39a4600aebb9",   "configuration": {     "netType": "default",     "polling_policy": "default",     "port": "161",     "collect": 1,     "threshold": 1,     "roleType": "default",     "ping": 1,     "group": "NMIS9",     "host": "asgard.opmantek.net",     "location": null,     "customer": null,     "businessService": null,     "notes": "",     "host_backup": "",     "active": null,     "community": "",     "wmiusername": "",     "wmipassword": "",     "username": "",     "context": "",     "authpassword": "",     "authkey": "",     "authprotocol": null,     "privpassword": "",     "privkey": "",     "privprotocol": null,     "serviceStatus": null,     "nettype": null,     "roletype": null,     "node_context_name": "",     "node_context_url": "",     "remote_connection_name": "",     "remote_connection_url": ""   },   "activated": {     "opEvents": "1",     "opConfig": "0",     "NMIS": "1"   },   "uuid": null,   "current_user_privileges": {     "update": true,     "delete": true   },   "name": "test",   "friendly_addresses": "",   "friendly_aliases": "" } </pre>
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## Remote Nodes Error

If any operation has a remote cluster id, the API will try to edit in the remote server. If this operation is not possible, it will fail.

In order to succeed:

- opHA needs to be pulling that peer. This is because the peer sends the API url to update the remote in the registry data. And this information should be updated at least once a day.
- The peer has to be online.

If we should want to edit the remote node locally for some reason, we should use node\_admin cli tool.

