NMIS9 - Bulk Export and Import nodes from CLI and others Admin Options

This article's purpose of helping export/import bulk nodes and know how to show, create, delete, rename, dump, restore, make templates, and clean node events in a simple way to learn the CLI commands.

What this command can do:

```
sudo /usr/local/nmis9/admin/node admin.pl -h
```

```
admin]# sudo /usr/local/nmis9/admin/node_admin.pl -h
Invalid command argument "-h"
Jsage: node_admin.pl act=[action to take] [extras...]
                     node_admin.pl act={list|list_uuid} {node=nodeX|uuid=nodeUUID} [group=Y]
node_admin.pl act=show {node=nodeX|uuid=nodeUUID}
node_admin.pl act={create|update} file=someFile.json [server={server_name|cluster_id}]
node_admin.pl act=export [format=nodes] [file=path] {node=nodeX|uuid=nodeUUID|group=groupY} [keep_ids=0/1]
node_admin.pl act=import file=somefile.json
node_admin.pl act=import_bulk {node=rfilepath|nodeconf=dirpath} [nmis9_format=1]
node_admin.pl act=delete {node=nodeX|group=groupY|uuid=nodeUUID} [server={server_name|cluster_id}]
node_admin.pl act=dump {node=nodeX|uuid=nodeUUID} file=path [everything=0/1]
node_admin.pl act=restore file=path [localise_ids=0/1]
                     node_admin.pl act=set {node=nodeX|uuid=nodeUUID} entry.X=Y... [server={server_name|cluster_id}]
node_admin.pl act=mktemplate [placeholder=1/0]
node_admin.pl act=rename {old=nodeX|uuid=nodeUUID} new=nodeY [entry.A=B...]
node_admin.pl act=move-nmis8-rrd-files {node=nodeX|ALL|uuid=nodeUUID} [remove_old=1] [force=1]
node_admin.pl act=clean-node-events {node=nodeX|uuid=nodeUUID}
  ktemplate: prints blank template for node creation,
optionally with __REPLACE_XX__ placeholder
create: requires file=NewNodeDef.json
update: updates existing node from file=someFile.json
If no uuid is present, a new node will be created.
If a property is not set, it will be removed.
Use set to replace only one property.
 xport: exports to file=someFile (or STDOUT if no file given),
nmis9 format by default or legacy format (nmis8) if format=nodes is given
perl hash if format=nodes and file=*.nmis (nmis extension), otherwise json
uuid and cluster_id are NOT exported unless keep_ids is 1.
  mport-bulk: By default, will import nmis8 format nodes
 elete: only deletes if confirm=yes (in uppercase) is given,
if deletedata=true (default) then RRD files for a node are
 also deleted.
show: prints a node's properties in the same format as set
with option quoted=true, show adds double-quotes where needed
with option interfaces=true show interface basic information
with option inventory=true dumps all the inventory data
with option catchall=true dumps just the inventory catchall data
 set: adjust one or more node properties
 estore: restores a previously dumped node's data. if
localise_ids=true (default: false), then the cluster id is rewritten
to match the local nmis installation.
 xtras: debug={1..9,verbose} sets debugging verbosity
xtras: info=1 sets general verbosity
```

Show all nodes name on the NMIS:

sudo /usr/local/nmis9/admin/node_admin.pl act=list

[root@omk-vm9-centos7 [root@omk-vm9-centos7 [root@omk-vm9-centos7 Node Names:	admin]# admin]# admin]# sudo	/usr/local/nmis9/admin/node_admin.pl act=list
Amazon Gladston-R-MacPro2019 Levoit-Humidifier Printer RoadToMadness RokuStreamingStick global [root@omk-vm9-centos7	admin]# 📕	

Show all nodes name and Id on the NMIS:

sudo /usr/local/nmis9/admin/node_admin.pl act=list_uuid



Show the node headers on the NMIS: You can use this information to put on import node csv header.

sudo /usr/local/nmis9/admin/node_admin.pl act=show node=Printer

root@omk-vm9-centos7 admin]# sudo /usr/local/nmis9/admin/node_admin.pl act=show node=Printer entry.activated.NMIS=1 entry.activated.opConfig=0 entry.activated.opEvents=1 entry.cluster_id=7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f entry.configuration.active=1 entry.configuration.authkey= entry.configuration.authpassword= entry.configuration.authprotocol=md5 entry.configuration.businessService= entry.configuration.cbgos=none entry.configuration.collect=1 entry.configuration.community=nmisGig8 entry.configuration.context= entry.configuration.customer=Opmantek entry.configuration.display_name=Printer entry.configuration.group=NMIS9 entry.configuration.host=192.168.0.50 entry.configuration.host_backup= entry.configuration.ip_protocol=IPv4 entry.configuration.location=Default Location entry.configuration.max_msg_size=1472 entry.configuration.max_repetitions=0 entry.configuration.model=Cisco-Gladston-auto entry.configuration.netType=default entry.configuration.node_context_name=Node Context entry.configuration.node_context_url=https://somelink.com/map/thing/ entry.configuration.notes= entry.configuration.ping=1 entry.configuration.polling_policy=default entry.configuration.port=161 entry.configuration.privkey= entry.configuration.privpassword= entry.configuration.privprotocol=des entry.configuration.remote_connection_name=SSH to Node entry.configuration.remote_connection_url=ssh://\$host entry.configuration.roleType=default entry.configuration.serviceStatus=Development entry.configuration.sysDescr=Brother NC-8800w, Firmware Ver.U ,MID 8C5-K3JFID 2 entry.configuration.systemStatus= entry.configuration.threshold=1 entry.configuration.timezone=0 entry.configuration.username= entry.configuration.version=snmpv2c entry.configuration.webserver=0 entry.configuration.wmidomain= entry.configuration.wmipassword= entry.configuration.wmiusername= entry.configuration.wmiversion=Version 2 entry.name=Printer entry.uuid=3c173905-aae1-4c84-bc1e-b4cb41a23a9d root@omk-vm9-centos7 admin]#

Bulk Export all nodes on the NMIS to a file: add keep_ids=1 to export the uuid, cluster and poller.

sudo /usr/local/nmis9/admin/node_admin.pl act=export file="/tmp /Nodes_export_keep_id.nmis" keep_ids=1

[root@omk-vm9-centos7 tmp]# [root@omk-vm9-centos7 tmp]# [root@omk-vm9-centos7 tmp]# sudo /usr/local/nmis9/admin/node_admin.pl act=export file="/tmp/Nodes_export_keep_id.nmis" keep_ids=1 Successfully exported node configuration to file /tmp/Nodes_export_keep_id.nmis [root@omk-vm9-centos7 tmp]#

You can check cluster id, uuid, poller and node name:

grep -E "display_name|id|poller" Nodes_export_keep_id.nmis

```
root@omk-vm9-centos7 tmp]#
root@omk-vm9-centos7 tmp]# grep -E "display_name|id|poller"
    "cluster_id" : "7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "RoadToMadness",
    "wmidomain" : "",
    "overrides" : {
    "uuid" : "fdc8b08c-8dc4-4934-ade0-14778c804b9f"
    "cluster_id" : "7c1084fe_5f66_4b3b_8c2b_6c56c2b6f4f"
                                                                                                                                                                                                                                                                                                                 Nodes_export_keep_id.nmis
                          "cluster_id" : "7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f",
"display_name" : "Printer",
                         "display_name" : "Printer",
    "wmidomain" : "",
    "overrides" : {},
    "uuid" : "3c173905-aae1-4c84-bc1e-b4cb41a23a9d"
                          "cluster_id" : "7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f",
"display_name" : "global",
                         "cluster_id" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "Amazon",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "wmidomain" : "",
"overrides" : {},
"uuid" : "ae8d7ea0-a211-4841-9d99-dbc30f68359d"
"cluster_id" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "RokuStreamingStick",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "wmidomain" : "",
"overrides" : {},
"uuid" : "3c3fl5a5-aeea-4f94-b949-c7ee2626578b"
"cluster_id" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "Levoit-Humidifier",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "Levoit-Humidifier",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "wmidomain" : "",
"name" : "Levoit-Humidifier",
"overrides" : {},
"uuid" : "c3f59f20-760c-439e-8980-ac76120edcf2"
"cluster_id" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "Gladston-R-MacPro2019",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "Gladston-R-MacPro2019",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
    "display_name" : "Gladston-R-MacPro2019",
    "pollers" : "7c1084fe-Sf66-4b3b-8a3b-6e58cc8aff4f",
"display_name" : "Gladston-R-MacPro2019",
"pollers" : "7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f",
"wmidomain" : "",
"overrides" : {},
"uuid" : "0f12b311-38d9-4088-8207-5e57f9da90d6"
[root@omk-vm9-centos7 tmp]#
```

You can check the only nodes name:

```
grep -E "display_name" Nodes_export_keep_id.nmis
```



Bulk import all nodes on the NMIS from a file:

```
sudo /usr/local/nmis9/admin/node_admin.pl act=import_bulk nodes="/tmp
/Nodes_export_keep_id.nmis" nmis9_format=1
```

[omkadmin@omk-vm9-centos7 ~]\$ [omkadmin@omk-vm9-centos7 ~]\$ [omkadmin@omk-vm9-centos7 ~]\$ sudo /usr/local/nmis9/admin/node_admin.pl act=import_bulk nodes="/tmp/Nodes_export_keep_id.nmis" nmis9_format=1
OBSERVATION: If you are bulk import for a NMIS9, you will need to add the parameter nmis9_format=1. If you forgot it, it will through an error.
Error saving node Printer: node 'Printer' requires host property Error saving node Win2022: node 'Win2022' requires host property Error saving node Win2012: node 'Win2012' requires host property
Bulk import all nodes from the CSV file:

This way will enable activation on NMIS:

The best way to import from NMIS8 to NMIS9 is to create a CSV file and then copy it to NMIS9 Administration GUI ==> Add node

From your NMIS8

/usr/local/nmis8/admin

sudo ./export_nodes.pl nodes=/tmp/node_export_location2.csv



https://community.opmantek.com/display/opCommon/Importing+Nodes+with+Admin+GUI

sudo ./import_nodes.pl csv=/usr/local/nmis9/admin/node.csv verbose=1 simulate=f

[root@omk-vm9-centos7 admin]#		
[root@omk-vm9-centos7 admin]#		
[root@omk-vm9-centos7 admin]# sudo ./import_nodes.pl csv=/usr/local/nmis9/admin/nmis8_export3.csv verbose=1 simulate=f		
ERROR: ./import_nodes.p] in csv.pm: Invalid CSV data file /usr/local/nmis9/admin/nmis8_export3.csv; line 2; record "amazon"; 18 elements in header; 15 elements in data		
ERROR: ./import_nodes.pl in csv.pm: Invalid CSV data file /usr/local/nmis9/admin/nmis8_export3.csv; line 3; record "gladston-r-macpro2019"; 18 elements in header; 15 elements in data.		
ERROR: ./import_nodes.p] in csv.pm: Invalid CSV data file /usr/local/nmis9/admin/nmis8_export3.csv; line 4; record "levoit-humidifier"; 18 elements in header; 15 elements in data.		
ERROR: ./import_nodes.p] in csv.pm: Invalid CSV data file /usr/local/nmis9/admin/nmis8_export3.csv; line 6; record "rokustreamingstick"; 18 elements in header; 15 elements in data.		
ERROR: ./import_nodes.pl in csv.pm: Invalid CSV data file /usr/local/nmis9/admin/nmis8_export3.csv; line 8; record "omk-vm9-centos7"; 18 elements in header; 15 elements in data.		
ADDING: node=Levoit-Humiditier host=192.168.0.69 group=Branches		
=> Successfully created node levolt-humidifier.		
ADDING: HODE=KOKUSCHEAMINGSCHCK HOST=192.188.0.04 GPODE=Branches		
=> Successfully created node rokustreamingstick.		
ADDING: HOLE=ONK-VNIS-CERTOS/ HOST=122.108.0.05 group=6 arches		
-> succession by created houe bink-villa-centos.		
ADDING, HOUG-FITHEF HOST-152,100,0,50 group-branches		
ADDING: node-Gladston-P-MarPero2019 host-102 168 0 78 group=Rranches		
ADDING: node=imazon host=192.168.0.40 groun=Branches		
=> Successfully created node amazon.		
ADDING: node=localhost host=127.0.0.1 group=NMTS8		
=> Successfully created node localhost.		
7 nodes processed		
7 nodes added		
0 nodes updated		
0 nodes with error		
[root@omk-vm9-centos7 admin]#		

sudo ./import_nodes.pl csv=/usr/local/nmis9/admin/node.csv

```
admin@omk-vm9-centos7
[omkadmin@omk-vm9-centos7 admin]$
[omkadmin@omk-vm9-centos7 admin]$ ./import_nodes.pl
Usage: import_nodes.pl csv=[csv file path] [extras...]
import_nodes.pl will import nodes to NMIS.
ERROR: need some files to work with
usage: import_nodes.pl csv=csv file simulate=t/f
eg: import_nodes.pl csv=/usr/local/nmis9/admin/import_nodes_sample.csv
simulate=t [t by default] will show a report with the list of
verbose=1|0 [1 by default] 0 will suppress verbose output
nodes to update/create
The sample CSV looks like this:
--sample--
name,host,group,roleType,community,netType,activated.NMIS,activated.opConfig
import_test1,127.0.0.1,Branches,core,nmisGig8,1,1
import_test2,127.0.0.1,Sales,core,nmisGig8,lan,1,1
import_test3,127.0.0.1,DataCenter,core,nmisGig8,lan,1,1
 --sample--
 [omkadmin@omk-vm9-centos7 admin]$ ./import_nodes.pl csv=/usr/local/nmis9/admin/node.csv
  nodes processed
nodes added
0
  nodes updated
  nodes with error
0
 [omkadmin@omk-vm9-centos7 admin]$
```

<u>Copy a node info to a zip file:</u> This only works for a single node.

sudo /usr/local/nmis9/admin/node_admin.pl act=dump node="RokuStreamingStick" everything=1 file="/tmp/RokuStreamingStick-dump.zip"

vencenter terror t

See the node info from zip file:

```
unzip RokuStreamingStick-dump.zip
```



<u>Delete a node:</u> This only works for a single node.

sudo /usr/local/nmis9/admin/node_admin.pl act=delete node="RokuStreamingStick"
confirm=YES deletedata=1

root@onk-vm9-centos7 tmp]# sudo /usr/local/nmis9/admin/node_admin.pl act=delete node="RokuStreamingStick" confirm=YES deletedata=1 uccessFully deleted node RokuStreamingStick . root@omk-vm9-centos7 tmp]#

<u>Restore a node that was delete:</u> This only works for a single node.

sudo /usr/local/nmis9/admin/node_admin.pl act=restore file=RokuStreamingStickdump.zip localise_ids=1

[root@omk-vm9-centos7 tmp]#
[root@omk-vm9-centos7 tmp]#
[root@omk-vm9-centos7 tmp]# sudo /usr/local/nmis9/admin/node_admin.pl act=restore file=RokuStreamingStick-dump.zip localise_ids=1
Successfully restored node RokuStreamingStick (3c3f15a5-aeea-4f94-b949-c7ee2626578b)
[root@omk-vm9-centos7 tmp]#

This is an example of Delete a node and restore:



<u>Rename a node:</u> This only works for a single node.

sudo /usr/local/nmis9/admin/node_admin.pl act=rename old=RokuStreamingStick
new=Roku_stick



On this example you can see the new node Roku_stick:

sudo /usr/local/nmis9/admin/node_admin.pl act=list_uuid

<pre>[root@omk-vm9-centos7 tmp]# sudo /usr, Node UUID Node Name</pre>	<pre>/local/nmis9/admin/node_admin.pl act=list_uuid</pre>
ae8d7ea0-a211-4841-9d99-dbc30f68359d Of12b311-38d9-4088-8207-5e57f9da90d6 c3f59f20-760c-439e-8980-ac76120edcf2 3c173905-aae1-4c84-bc1e-b4cb41a23a9d fdc8b08c-8dc4-4934-ade0-14778c804b9f 3c3f15a5-aeea-4f94-b949-c7ee2626578b f5804482-46eb-4ae9-bc38-f7e23aef3ce5 [root@omk-vm9-centos7 tmp]#	Amazon Gladston-R-MacPro2019 Levoit-Humidifier Printer RoadToMadness Roku_stick global

<u>Create a template node:</u> This only works for a single node.

sudo /usr/local/nmis9/admin/node_admin.pl act=mktemplate placeholder=1 file="
/tmp/template.json"

[root@omk-vm9-centos7 tmp]# sudo /usr/local/nmis9/admin/node_admin.pl act=mktemplate placeholder=1 file="/tmp/template.json" Created minimal template in file /tmp/template.json. Please see https://community.opmantek.com/display/opCommon/Common+Node+Properties for detailed descriptions of the properties. [root@omk-vm9-centos7 tmp]#

You can see the template node:

cat template.json



```
Make a copy of the template to create a new node:
```

```
cp template.json my_new_paradise.json
```



Fill out the information replacing the template node (See example below):

vim my_new_paradise.json

```
"activated" :{
      "NMIS":1
},
"cluster_id" : "7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f",
"configuration" : {
    "authkey" : "",
    ""
      "authpassword" : "",
     "authprotocol" : "md5",
     "collect" : 1,
"community" : "nmisGig8",
"group" : "NMIS9",
"host" : "192.168.0.95",
      "location" : "Default Location",
"model" : "automatic",
     "netType" : "default",
"notes" : "",
"ping" : 1,
"port" : 161
     "port" : 161,
"privkey" : "",
"privpassword" :
      "privprotocol" : "des",
"roleType" : "default",
     "threshold" :1,
"username" : "",
"version" : "snmpv2c"
},
"name" : "My_new_paradise",
"uuid" : ""
```

~ ~ ~ ~ -- INSERT --

```
"activated" :{
       "NMIS":1
   },
    "cluster_id" : "7c1084fe-5f66-4b3b-8a3b-6e58cc8aff4f",
   "configuration" : {
       "authkey" : "",
       "authpassword" : "",
       "authprotocol" : "md5",
       "collect" : 1,
      "community" : "nmisGig8",
      "group" : "NMIS9",
"host" : "192.168.0.95",
       "location" : "Default Location",
"model" : "automatic",
       "netType" : "default",
"notes" : "",
      "ping" : 1,
"port" : 161,
      "privkey" : "",
       "privpassword" : "",
       "privprotocol" : "des",
       "roleType" : "default",
       "threshold" :1,
"username" : "",
       "version" : "snmpv2c"
   },
    "name" : "My_new_paradise",
   "uuid" : ""
}
```

{

<u>Create a new node based on the modified template: remember that the node name is inside the</u> <u>file</u>. In this example My_new_paradise

sudo /usr/local/nmis9/admin/node_admin.pl act=create file="/tmp/my_new_paradise. json"



You can see the new node created:

sudo /usr/local/nmis9/admin/node_admin.pl act=list_uuid



Clear the node events: This only works for a single node. You can clear by node name or by ID.

sudo /usr/local/nmis9/admin/node_admin.pl act=clean-node-events
node=My_new_paradise



sudo /usr/local/nmis9/admin/node_admin.pl act=clean-node-events uuid=95bc5b15afbb-4ea0-a899-5e7026a56d4d

