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# Add CMDB Nodes

This user guide explains how to set-up a quick method for adding CMDB nodes in bulk using the CSV API.

A separate guide on the [CSV API](#) tool is also available.

The CSV API can be used to cut-and-paste rows of separated values to execute tasks on NetYCE objects. Adding and removing CMDB nodes are simple examples on two of these tasks for CMDB nodes.

A couple of items need to be setup initially make these tasks available to any NetYCE user and tailor them to your needs or design.

## Setup

### Permissions

As a first, access permissions to the CMDB client-type is required. Without CMDB access the setup or use of the created tasks will be denied.

Go to “Admin - Users & Groups - User-groups” and verify the appropriate groups have at least 'Engineer' level permissions for the CMDB Client type.

### Service Types

Two short service types need to be created or can be imported using the files in the download section at the bottom. They can be tailored to your needs afterwards if needed.

Download these files and go to “Design - Service types” and import each. The **addCmdbNode** will create six lines to create a CMDB node with a hostname, its fqdn, vendor-type and management domain. The **delCmdbNode** consists of a single line that just drops a node by hostname.

```
Sty - CMDB - generic - api - addcmdbnode.xml  
Sty - CMDB - generic - api - delcmdbnode.xml
```

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### Service types

Client type	Service class	Service type	Service task	Records
cmdb x				
CMDB	generic	api	addcmdbnode	6
CMDB	generic	api	delcmdbnode	1

New Duplicate Delete Import Export

Seq	Exec	Class	Scope	Match	Value	Alias
1	LOCATE	CLIENT	CURRENT	CLIENT_CODE	CMDB	<client>
2	LOCATE	SITE	<client>	SITE_CODE	CMDB	<site>
3	LOCATE	DOMAIN	GLOBAL	DOMAIN_NAME	(domain)	<dom>
4	ADD	CMDB	<dom>	NODE	(node)	<node>
5	ASSIGN	CMDB	<node>	FQDN	(fqdn)	
6	ASSIGN	CMDB	<node>	VENDOR	(vendor)	

New Duplicate Delete Up Down Search

## CSV API definitions

With the service types in place that are suitable for the regular NetYCE XCH API calls, an additional step can be taken to allow these to be used in the CSV API. The CSV API is essentially a wrapper around the XCH API that simplifies common API tasks for bulk processing where the relevant data is already available in table format - like Excel.

The added servicetypes to add and delete CMDB nodes obviously fall into this category. To make these suitable for the CSV API, a mapping of the variables needed for the service-type to a CSV format needs to be created. This is done in the `etc/csv_api.ini` configuration file which can be edited in the NetYCE GUI using the tool "Admin - Setup - Edit sys configs". The **YCE CSV API** configuration entry edits this file.

Add the entries below in this file and save it. This definition is all that is needed to use the CSV API.

The `csv_api.ini` entries:

```
[addCmdbNode]
brief = Add cmdb node to service - addcmdbnode | CMDB | generic | api |
addcmdbnode
order = 1
node          # the node short hostname
vendor        # the node vendor_type. Use NetYCE vendor names
fqdn         # the node full-qualified-name or ipv4 address
domain       # the management domain

[delCmdbNode]
brief = Add cmdb node to service - delcmdbnode | CMDB | generic | api |
delcmdbnode
order = 2
node
```

## Using the CSV API

To add or remove a batch of nodes from the CMDB, go to the “Operate - API's - CSV API” tool. The large text-box already shows the available definitions as comments to clarify their use, mostly the fields required and their order.

You type or just can just paste in the CSV lines with the desired actions. Often an Excel sheet is used as the basis for these lines.

The tool auto-detects the field separator used (tab, comma, semicolon or vertical-bar. For readability spaces around the separator are ignored.

The sample below could be pasted in to add four and remove two nodes:

```
# Preamble is included with ALL api-types
# <PRE> = client_type | service_class | service_type | service_task
# example: 'newClient | YCE | api | api | newclient | ESXi'

# addCmdbNode
# Add cmdb node to service - addcmdbnode | CMDB | generic | api |
addcmdbnode
# addCmdbNode | <PRE> | node | vendor | fqdn | domain

addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC01-XC01 | Junos |
ams-dc01-xc01.acme.com | ams-xc
addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC01-XC02 | Junos |
ams-dc01-xc02.acme.com | ams-xc
addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC03-AC01 |
Cisco_nexus | ams-dc03-ac01.acme.com | ams-ac
addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC03-AC02 |
Cisco_nexus | ams-dc03-ac02.acme.com | ams-ac

# delCmdbNode
# Add cmdb node to service - delcmdbnode | CMDB | generic | api |
delcmdbnode

delCmdbNode | CMDB | generic | api | delCmdbNode | UTR-DC02-AC03
delCmdbNode | CMDB | generic | api | delCmdbNode | UTR-DC02-AC04
```

When submitting these records a summary is shown before actual execution. Errors are flagged and corrections can be made.

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CSV API

line #10: 'addCmdbNode'

service\_type = CMDB - generic - api - addCmdbNode

node = AMS-DC01-XC01

vendor = Junos

fqdn = ams-dc01-xc01.acme.com

domain = ams-xc

line #11: 'addCmdbNode'

service\_type = CMDB - generic - api - addCmdbNode

node = AMS-DC01-XC02

vendor = Junos

fqdn = ams-dc01-xc02.acme.com

domain = ams-xc

line #12: 'addCmdbNode'

service\_type = CMDB - generic - api - addCmdbNode

node = AMS-DC03-AC01

vendor = Cisco\_nexus

fqdn = ams-dc03-ac01.acme.com

domain = ams-ac

line #13: 'addCmdbNode'

service\_type = CMDB - generic - api - addCmdbNode

node = AMS-DC03-AC02

vendor = Cisco\_nexus

fqdn = ams-dc03-ac02.acme.com

domain = ams-ac

line #20: 'delCmdbNode'

service\_type = CMDB - generic - api - delCmdbNode

node = UTR-DC02-AC03

line #21: 'delCmdbNode'

service\_type = CMDB - generic - api - delCmdbNode

node = UTR-DC02-AC04

Execute

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Each line is executed in succesion. Any failures due to incorrect service-type or unknown references halt the execution to allow corrections. The example below shows such a failure as the referenced Domain does not exist.

CSV API

2022-02-20 12:33:39 Line #10: Start

2022-02-20 12:33:39 Line #10: addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC01-XC01 | Junos | ams-dc01-xc01 | ams-xc

2022-02-20 12:33:40 Line #10: status 'Failed Service task at line '3': ERROR Failed LOCATE - DOMAIN - NAME: Cannot find the Domain 'ams-xc' (3000)

2022-02-20 12:33:40 Line #10: xml response

log : Pass1: syntax check completed

log : Pass2: execution

log : execution line 1

log : 1 parsed: LOCATE - CLIENT - CURRENT - CUEENT\_CODE - CMDB - <client>

log : 1 exec: LOCATE - CLIENT - CURRENT - CUEENT\_CODE - CMDB - <client>

log : set alias '<client>' to 'CMDB' as 'clnt'

log : execution line 2

log : 2 parsed: LOCATE - SITE - <client> - SITE\_CODE - CMDB - <site>

log : 2 alias resolve: '<client>' as 'CMDB'

log : 2 exec: LOCATE - SITE - CMDB - SITE\_CODE - CMDB - <site>

log : set alias '<site>' to 'CMDB|CMDB' as 'sit'

log : execution line 3

log : 3 parsed: LOCATE - DOMAIN - GLOBAL - DOMAIN\_NAME - (domain) - <dom>

log : 3 custom resolve: 'domain\_name/(domain)' as 'ams-xc'

log : 3 exec: LOCATE - DOMAIN - GLOBAL - DOMAIN\_NAME - ams-xc - <dom>

log : Failed LOCATE - DOMAIN - NAME: Cannot find the Domain 'ams-xc'

log : Stopped at 3/6

log : 3: ERROR Failed LOCATE - DOMAIN - NAME: Cannot find the Domain 'ams-xc'

custom: domain = ams-xc

custom: fqdn = ams-dc01-xc01

custom: node = AMS-DC01-XC01

custom: vendor = Junos

alias : <client> = CMDB

alias : <dom> =

alias : <node> =

alias : <site> = CMDB|CMDB

2022-02-20 12:33:40 Line #10: FAILED. Further execution aborted

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After correcting the error, the execution is restarted (skipping previously successful), resulting in the

regular progress report.

### CSV API

```

2022-02-20 12:47:54 Line #10: Start
2022-02-20 12:47:54 Line #10: addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC01-XC01 | Junos | ams-dc01-xc01.acme.com | ams-xc
2022-02-20 12:47:55 Line #10: status 'completed' (0)
2022-02-20 12:47:55 Line #10: Ok.
2022-02-20 12:47:55 Line #11: Start
2022-02-20 12:47:55 Line #11: addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC01-XC02 | Junos | ams-dc01-xc02.acme.com | ams-xc
2022-02-20 12:47:55 Line #11: status 'completed' (0)
2022-02-20 12:47:55 Line #11: Ok.
2022-02-20 12:47:55 Line #12: Start
2022-02-20 12:47:55 Line #12: addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC03-AC01 | Cisco_nexus | ams-dc03-ac01.acme.com | ams-ac
2022-02-20 12:47:56 Line #12: status 'completed' (0)
2022-02-20 12:47:56 Line #12: Ok.
2022-02-20 12:47:56 Line #13: Start
2022-02-20 12:47:56 Line #13: addCmdbNode | CMDB | generic | api | addCmdbNode | AMS-DC03-AC02 | Cisco_nexus | ams-dc03-ac02.acme.com | ams-ac
2022-02-20 12:47:57 Line #13: status 'completed' (0)
2022-02-20 12:47:57 Line #13: Ok.
2022-02-20 12:47:57 Line #20: Start
2022-02-20 12:47:57 Line #20: delCmdbNode | CMDB | generic | api | delCmdbNode | UTR-DC02-AC03
2022-02-20 12:47:57 Line #20: status 'completed' (0)
2022-02-20 12:47:57 Line #20: Ok.
2022-02-20 12:47:57 Line #21: Start
2022-02-20 12:47:57 Line #21: delCmdbNode | CMDB | generic | api | delCmdbNode | UTR-DC02-AC04
2022-02-20 12:47:57 Line #21: status 'completed' (0)
2022-02-20 12:47:57 Line #21: Ok.

```

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## Download

Sty - CMDB - generic - api - addcmdbnode.xml

```

<export>
  <Client_types name="CMDB"
    Client_type="CMDB"
    Client_type_name="CMDB nodes"
    Plan_id="-1"
    Plan_id_description=""
    Plan_prefix="0"
    Timestamp="2020-01-08 11:06:40" />
  <Export Client_type="CMDB"
    Service_class="generic"
    Service_task="addcmdbnode"
    Service_type="api"
    Type="Service_type" />
  <Origin Customer=""
    Database_patch="22020901"
    Database_version="8.0.0"
    Date="Fri Feb 18 17:54:15 CET 2022"
    Exporter_version="2"
    Operator="yce"
    Server="devel7a" />
  <Service_class name="CMDB"
    Client_type="CMDB"
    Hierarchy_id="100"
    Image_name="CMDB_CMDB_CMDB"
    Image_position=""

```

```
Service_caption="CMDB"
Service_class="generic"
Service_class_limit="0"
Site_type="CMDB"
Timestamp="2020-01-08 11:06:40" />
<Service_types name="0001"
Client_type="CMDB"
Service_class="generic"
Service_task="addcmdbnode"
Service_type="api"
Timestamp="2020-01-08 11:06:40"
Type_alias="&lt;client&gt;"
Type_class="CLIENT"
Type_description=""
Type_exec="LOCATE"
Type_match="CLIENT_CODE"
Type_scope="CURRENT"
Type_seq="1"
Type_value="CMDB"
Type_value2=""
Type_value3="" />
<Service_types name="0002"
Client_type="CMDB"
Service_class="generic"
Service_task="addcmdbnode"
Service_type="api"
Timestamp="2020-01-08 11:06:40"
Type_alias="&lt;site&gt;"
Type_class="SITE"
Type_description=""
Type_exec="LOCATE"
Type_match="SITE_CODE"
Type_scope="&lt;client&gt;"
Type_seq="2"
Type_value="CMDB"
Type_value2=""
Type_value3="" />
<Service_types name="0003"
Client_type="CMDB"
Service_class="generic"
Service_task="addcmdbnode"
Service_type="api"
Timestamp="2022-02-18 17:43:31"
Type_alias="&lt;dom&gt;"
Type_class="DOMAIN"
Type_description=""
Type_exec="LOCATE"
Type_match="DOMAIN_NAME"
Type_scope="GLOBAL"
Type_seq="3"
Type_value="(domain)"
```



```
        Type_value2=""
        Type_value3="" />
<Service_types name="0004"
    Client_type="CMDB"
    Service_class="generic"
    Service_task="addcmdbnode"
    Service_type="api"
    Timestamp="2020-01-08 11:06:40"
    Type_alias="&lt;node&gt;"
    Type_class="CMDB"
    Type_description=""
    Type_exec="ADD"
    Type_match="NODE"
    Type_scope="&lt;dom&gt;"
    Type_seq="4"
    Type_value="(node)"
    Type_value2=""
    Type_value3="" />
<Service_types name="0005"
    Client_type="CMDB"
    Service_class="generic"
    Service_task="addcmdbnode"
    Service_type="api"
    Timestamp="2020-01-08 11:06:40"
    Type_alias=""
    Type_class="CMDB"
    Type_description=""
    Type_exec="ASSIGN"
    Type_match="FQDN"
    Type_scope="&lt;node&gt;"
    Type_seq="5"
    Type_value="(fqdn)"
    Type_value2=""
    Type_value3="" />
<Service_types name="0006"
    Client_type="CMDB"
    Service_class="generic"
    Service_task="addcmdbnode"
    Service_type="api"
    Timestamp="2020-01-08 11:06:40"
    Type_alias=""
    Type_class="CMDB"
    Type_description=""
    Type_exec="ASSIGN"
    Type_match="VENDOR"
    Type_scope="&lt;node&gt;"
    Type_seq="6"
    Type_value="(vendor)"
    Type_value2=""
    Type_value3="" />
<Site_types name="CMDB"
```

```
Client_type="CMDB"
Client_type_limit="0"
Image_name="CMDB_CMDB_topo"
Image_position=""
SiteType="1500"
Site_caption="CMDB"
Site_class="CMDB A"
Site_class_limit="0"
Site_name_format=""
Site_type="CMDB"
Timestamp="2020-01-08 11:06:40" />
</export>
```

Sty - CMDB - generic - api - delcmdbnode.xml

```
<export>
  <Client_types name="CMDB"
    Client_type="CMDB"
    Client_type_name="CMDB nodes"
    Plan_id="-1"
    Plan_id_description=""
    Plan_prefix="0"
    Timestamp="2020-01-08 11:06:40" />
  <Export Client_type="CMDB"
    Service_class="generic"
    Service_task="delcmdbnode"
    Service_type="api"
    Type="Service_type" />
  <Origin Customer=""
    Database_patch="22020901"
    Database_version="8.0.0"
    Date="Fri Feb 18 17:54:19 CET 2022"
    Exporter_version="2"
    Operator="yce"
    Server="devel7a" />
  <Service_class name="CMDB"
    Client_type="CMDB"
    Hierarchy_id="100"
    Image_name="CMDB_CMDB_CMDB"
    Image_position=""
    Service_caption="CMDB"
    Service_class="generic"
    Service_class_limit="0"
    Site_type="CMDB"
    Timestamp="2020-01-08 11:06:40" />
  <Service_types name="0001"
    Client_type="CMDB"
    Service_class="generic"
    Service_task="delcmdbnode"
    Service_type="api"
```

```
Timestamp="2022-02-18 17:51:33"
Type_alias="&lt;site&gt;"
Type_class="CMDB"
Type_description=""
Type_exec="DELETE"
Type_match="NODE"
Type_scope="CMDB"
Type_seq="1"
Type_value="&lt;node&gt;"
Type_value2=""
Type_value3="" />
<Site_types name="CMDB"
Client_type="CMDB"
Client_type_limit="0"
Image_name="CMDB_CMDB_topo"
Image_position=""
SiteType="1500"
Site_caption="CMDB"
Site_class="CMDB A"
Site_class_limit="0"
Site_name_format=""
Site_type="CMDB"
Timestamp="2020-01-08 11:06:40" />
</export>
```

From:

<https://labs-wiki.netyce.com/> - **Technical documentation**

Permanent link:

[https://labs-wiki.netyce.com/doku.php/guides:user:add\\_cmdb\\_nodes](https://labs-wiki.netyce.com/doku.php/guides:user:add_cmdb_nodes)

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