



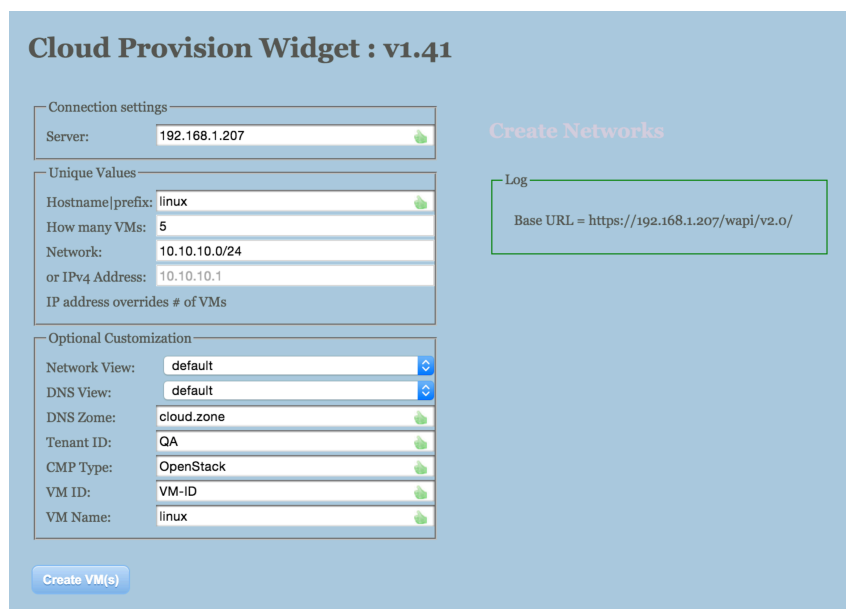
Cloud Provision Widget is a simple web-based widget for demonstrating the Infoblox Cloud Automation plug-ins' functionality as well as WAPI functionality. The widget has been designed for service delivery via HTTP File Distribution from the Grid you wish to leverage to demonstrate the concept.

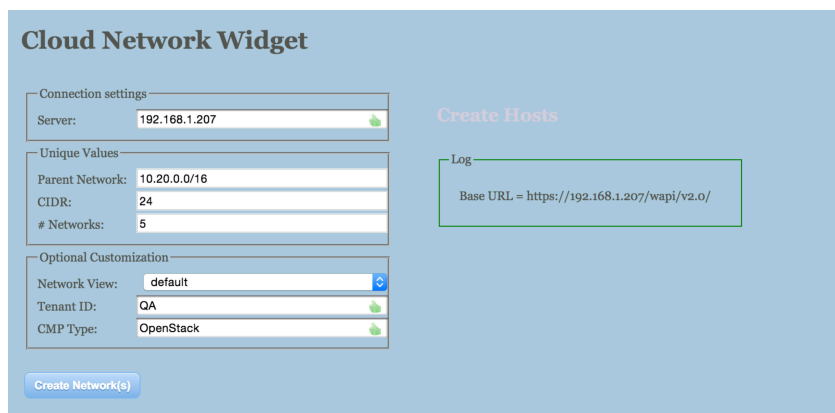
Version 1.41 of the Cloud Provision Widget contains the following new features:

- Create multiple “pseudo VM” host records in a single operation with an incrementing suffix
- Retrieve and select a Network View and DNS View from the Grid database
- Create Cloud associated Networks or multiple Networks in a single operation leveraging the next available network from a specified Network Container

The Cloud Provision Widget also contains the following features:

- Ability to specify the Grid Master or Cloud Platform Member IP address to run the WAPI calls against
- Ability to specify a hostname, IP address, and the following Cloud Specific Extensible Attributes: (*Network View, DNS Zone, Tenant ID, CMP Type, VM ID, VM Name*)
- Sample Attribute values and hostname are pre-filled
- Ability to leverage the ‘next available IP’ function from a specified network
- Create a “pseudo VM” host record and associated Cloud Tenant and VM attributes which become visible in the GM GUI
- Delete any of the “pseudo VMs” created in the same widget session





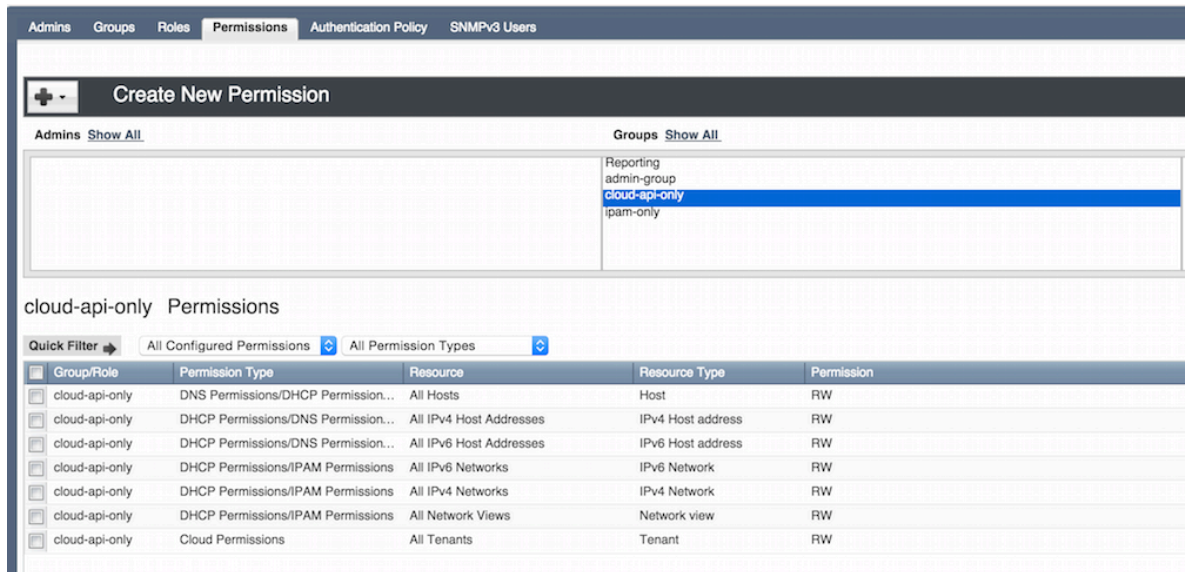
Setup

NIOS Requirements:

- NIOS 7.0.2 or later
- CNA license enabled on Grid Master

A Network View, Network Container, Network and DNS Zone must all be available in the NIOS database for the provisioning to align. The widget inputs can be deviated from so long as the corresponding Network View, Network Container, and Zone have been created. The Cloud associated Network(s) can and should be created from the widget. The default inputs are listed in the setup steps below:

- Enable the CNA license on the Grid Master or verify already enabled
- Create a new Network View for the Cloud environment (default name: cpview)
 - The Default Network View can also be leveraged – creating a new Network View allows for complete separation from any existing data in the Grid
- Create a new Network Container in the above created or default Network View (default: 10.20.0.0/16)
- Create an Authoritative Zone in the above created or default Network View (default: cloud.zone)
- Create a new user/admin account and associate it with the cloud-api-only Group. This specific Group is created after the CNA license is enabled and is required to update the cloud associated extensible attributes via the API or any of the plug-ins - IMPORTANT – this user/admin account must be leveraged to authenticate with the widget
- Add at a minimal the permissions shown below to the cloud-api-only Group:



- Enable HTTP File Distribution on the Grid Master appliance
- Upload cp_v1.41.tar.gz to file distribution with the 'extract files after upload' option enabled
 - This will create a /snapins/cp/ path and load the cp.html page along with corresponding files into the cp directory
- **ONLY REQUIRED IF** you do not leverage the widget to create a network. See the 'Create Networks' steps under 'Demonstrate' below for the easy network creation method. In order for a network to correlate with the Cloud tab it must have Cloud attributes associated. These must be added via the WAPI if not created via the widget. **SKIP THIS STEP** if you leverage the widget to create the network(s). The following curl command examples can be leveraged to accomplish this manually:
 1. Get the object reference for the network:


```
curl -k -u cloudapiuser:password -X GET https://gmip/wapi/v2.0/network
{
  "_ref": "network/ZG5zLm5ldHdvcm5kMTAuMTAuMTAuMC8yNC8x:10.10.10.0/24/cpview",
  "network": "10.10.10.0/24",
  "network_view": "cpview"
}
```
 2. Update the network with the extensible attributes that match the Tenant ID:


```
curl -H "Content-Type: application/json" -k1 -u cloudaiuser:password -X PUT
https://gmip/wapi/v2.0/network/ZG5zLm5ldHdvcm5kMTAuMTAuMTAuMC8yNC8x -d '{"extattrs":
{"Tenant ID":{"value": "QA"}, "CMP Type":{"value": "OpenStack"}, "Cloud API
Owned":{"value": "True"}}}'
```

Demonstrate

To demonstrate with the Cloud Provision Widget leverage the following actions:

- Open a browser tab to <https://gmip/cp.html>
- Authenticate using your cloud-api-only Group associated admin account



- Click 'Create Networks' to navigate to the Create Network page from the Create Hosts page
- Specify a Parent Network Container (default 10.20.0.0/16) and the number of networks you would like to create (default 5).
- Click 'Create Network(s)' to create the Cloud associated networks

Cloud Network Widget

Connection settings
Server: 192.168.1.207

Unique Values
Parent Network: 10.20.0.0/16
CIDR: 24
Networks: 5

Optional Customization
Network View: default
Tenant ID: QA
CMP Type: OpenStack

Create Hosts
Log
Base URL = https://192.168.1.207/wapi/v2.0/

Create Network(s)

#	Ref	View	Network	Tenant ID	CMP Type
<input type="checkbox"/>	1 network/ZG5zLm5ldHdvcmskMTAuMjAuMC4wLzI0LzA:10.20.0.0/24/default	default	10.20.0.0/24	QA	OpenStack
<input type="checkbox"/>	2 network/ZG5zLm5ldHdvcmskMTAuMjAuMS4wLzI0LzA:10.20.1.0/24/default	default	10.20.1.0/24	QA	OpenStack
<input type="checkbox"/>	3 network/ZG5zLm5ldHdvcmskMTAuMjAuMI4wLzI0LzA:10.20.2.0/24/default	default	10.20.2.0/24	QA	OpenStack
<input type="checkbox"/>	4 network/ZG5zLm5ldHdvcmskMTAuMjAuMy4wLzI0LzA:10.20.3.0/24/default	default	10.20.3.0/24	QA	OpenStack
<input type="checkbox"/>	5 network/ZG5zLm5ldHdvcmskMTAuMjAuNC4wLzI0LzA:10.20.4.0/24/default	default	10.20.4.0/24	QA	OpenStack

Delete Network

- Click 'Create Hosts' to return to the default Host provisioning page
- Accept the default GM IP or specify a Cloud Platform Member IP to run the widget's WAPI calls against
- Leverage the default values or enter new appropriate values for the "pseudo VM"
- Specify one of the networks created in a previous step and the number of hosts (pseudo VMs) to create
- Click the 'Create VM' button to create the "pseudo VM(s)" and associated Host/attribute data
 - Multiple sets of "pseudo VMs" can be created by changing the Hostname and attributes
 - All created Hosts in the session are then displayed in the lower panel
- Select all or a single created "pseudo VM" and click 'Delete VM' to delete the Host and associated data



Cloud Provision Widget : v1.41

Connection settings

Server:

Unique Values

Hostname/prefix:

How many VMs:

Network:

or IPv4 Address:

IP address overrides # of VMs

Optional Customization

Network View:

DNS View:

DNS Zone:

Tenant ID:

CMP Type:

VM ID:

VM Name:

Create Networks

Log

```
Base URL = https://192.168.1.207/wapi/v2.0/
Added record: 10.20.0.1
Added record: 10.20.0.2
Added record: 10.20.0.4
Added record: 10.20.0.5
Added record: 10.20.0.3
```

#	Ref	View	Zone	Host	IP	Tenant ID	CMP Type	VM ID	VM Name
<input type="checkbox"/>	record:host/ZG5zLmhvc3QkLl9kZWZhdWx0LnpvbmUuZGVmYXVsdC5saW51eC0x:linux-1.default.zone/default	default	default.zone	linux-1	10.20.0.1	QA	OpenStack	VM-ID-1	linux-1
<input type="checkbox"/>	record:host/ZG5zLmhvc3QkLl9kZWZhdWx0LnpvbmUuZGVmYXVsdC5saW51eC0y:linux-2.default.zone/default	default	default.zone	linux-2	10.20.0.2	QA	OpenStack	VM-ID-2	linux-2
<input type="checkbox"/>	record:host/ZG5zLmhvc3QkLl9kZWZhdWx0LnpvbmUuZGVmYXVsdC5saW51eC0z:linux-3.default.zone/default	default	default.zone	linux-3	10.20.0.3	QA	OpenStack	VM-ID-3	linux-3
<input type="checkbox"/>	record:host/ZG5zLmhvc3QkLl9kZWZhdWx0LnpvbmUuZGVmYXVsdC5saW51eC00:linux-4.default.zone/default	default	default.zone	linux-4	10.20.0.4	QA	OpenStack	VM-ID-4	linux-4
<input type="checkbox"/>	record:host/ZG5zLmhvc3QkLl9kZWZhdWx0LnpvbmUuZGVmYXVsdC5saW51eC01:linux-5.default.zone/default	default	default.zone	linux-5	10.20.0.5	QA	OpenStack	VM-ID-5	linux-5

Sample Demo Workflow

- Describe the functionality of the Cloud plug-ins
- Show the Infoblox IPAM GUI with Cloud tab details and associated network and DNS zone
- From another browser tab or window click the “Create Network(s) button from the widget’s “Create Networks” page to show network creation
- Click the “Create VM’ button from the widget’s “Create Hosts” page
- Show the created host, network and associated Cloud details in the Infoblox IPAM GUI
- Show the ‘Cloud Statistics” GUI Dashboard content
- Click the ”Delete VM” from the widget hosts page after selecting a single or multiple “pseudo VMs’
- Show the cleanup that had occurred in the Infoblox IPAM GUI
- Optionally show ‘VM Address History” report if Reporting is part of the Grid