

# Working with DHCP Groups

## DHCP Groups

DHCP

DHCP Groups DHCP Servers DHCP Pools DHCP Classes DHCP Logging Add Group

### DHCP Groups List

DHCP Groups help you to organize all of your Groups and Servers together into a single place. With Groups, you are able to push whole group configurations.

✕ Default Group ID: 4130

✕ Test Group ID: 15717

#### DHCP Pools

Add Pool Push Group Schedule Push

Subnet Pools Host Pools

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
smartsub2	11/15/2023 09:04:07	2600:450::/127	2600:450::	2600:450::1	Delete Push
smartsub3	12/11/2023 08:59:16	14.0.0.0/27	0.0.0.0	0.0.0.0	Delete Push
smartsub4	12/11/2023 09:05:45	2600:450::4/126	2600:450::4	2600:450::7	Delete Push
smartsub5	11/15/2023 09:33:29	172.16.3.0/24	172.16.3.0	172.16.3.255	Delete Push

The **DHCP** tab **DHCP Groups List** allows you to create, view, and manage groups of DHCP servers and pools. Using groups, you can configure and push selected combinations of zones at one time.

- DHCP Groups List Interface

### Working with DHCP Groups

- Add a Group
- Edit a Group
  - Edit a Group Name:
  - Edit a Group's Settings:
    - Edit Parent Resource
    - Edit Failover Name
- Add Pools to a Group
  - Add a Subnet Pool
    - Smart Assign
    - Direct Assign
  - Add a Host Pool
    - Smart Assign
    - Direct Assign
- Pushing a DHCP Group
  - Manual Group Push
  - Scheduled Group Push
- Delete a Group
- Additional Information

## DHCP Groups List Interface

**Navigation:** Move between the DHCP Groups, DHCP Servers, DHCP Pools, DHCP Classes, and DHCP Logging pages via the subtab buttons below the main navigation bar.

1) **Add Group Button:** Opens a dialog for creating a DHCP group

2) **Group Container:** The group container header shows the group name. Expand or close the group container by clicking on the expansion arrow ( > ) on the far right of the header. Clicking on the X will delete the group and all zones included in the group. Rename the group by clicking on the name, then typing the desired changes and clicking outside of the name.

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
Pool 1	06/22/2018 19:12:46	192.168.80.0/20	192.168.80.1	192.168.95.254	Delete Push
Pool 2	06/22/2018 19:13:30	16.5.0.12/30	16.5.0.13	16.5.0.14	Delete Push

**Group Pool Actions:**

3) **Add Pool Button:** Opens a dialog for creating a DHCP pool under that group.

4) **Push Group Button:** Pushes all pools in the group to the associated DHCP server.

5) **Schedule Push Button:** Schedules a push of all pools in the group to the selected day and time. Requires the scheduler tab / cron tasks to be enabled.

6) **Pool List:** Subnet and host pools included in the group.

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
Pool 1	06/22/2018 19:12:46	192.168.80.0/20	192.168.80.1	192.168.95.254	Delete Push
Pool 2	06/22/2018 19:13:30	16.5.0.12/30	16.5.0.13	16.5.0.14	Delete Push

7) **Subnet / Host Pools Tabs:** Shows zone list containing only forward or reverse zones, respectively.

8) **Pool Name (Sortable):** The name of the pool. Clicking on the pool name will open the pool details page. Clicking on the "Pool Name" header will sort the zone list by ascending or descending by name.

9) **Last Modified (Sortable):** The date and time the pool was last modified. Clicking on the "Last Modified" header will sort the list by most / least recent modification date.

10) **Subnet (or IP):** The subnet or IP of the subnet/host pool, respectively.

**11) Range Min (or MAC):** The starting range address for subnet pools, or the MAC for host pools.

**12) Range Max:** For the subnet list, the ending range address for the pool.

**13) Actions:** Clicking on the "Actions" header will reveal sortable filters for selected fields. Buttons under the Actions column indicate actions that may be performed on each pool:

**14) Delete:** Deletes the pool from ProVision.

**15) Push:** Pushes the pool to the associated server.

**16) Attached Servers:** Click on the header title or > to expand or collapse. View, attach, or detach a DHCP server from the group.

Attached Servers				
Server Name	Server Backend	Server Host	Parent Resource	Actions
QA DHCP VM	ISC	test-tools.com	QA Test Resource 7	<a href="#">Detach</a> <a href="#">Perms</a>

Attach server :  [Attach](#)

**17) Group Settings:** Click on the header title or > to expand or collapse. Edit default group settings including the Parent Resource and Failover name.

Group Settings	
The following settings are having direct impact on the group.	
<b>Parent Resource:</b>	<input type="text" value="TLR"/>
	The group resource will be a child of the Parent Resource.
<b>Failover name:</b>	<input type="text"/>
	(ISC BIND only) If Failover name is not empty, the pools will be exported in Failover mode.
<a href="#">Save Settings</a>	

**18) Save Settings Button:** Saves any changes made to the DHCP Group Settings options.

**22) Scheduled Tasks:** If a scheduled push has been set up for the group, the task information will show in a "Scheduled Tasks" module. Click on the header title or > to expand or collapse.

Scheduled Tasks			
Task Name	Last Run	Repeat Time	Actions
Scheduled Push: Default Group		One time on 2018-06-22 at 18:15 PDT	<a href="#">Delete</a>

From here, you may review or delete scheduled group pushes.

## Working with DHCP Groups

DHCP groups allow for organizing multiple pools together and linking those pools with one or more servers. Pools may be pushed individually, as a group, or at the server level.

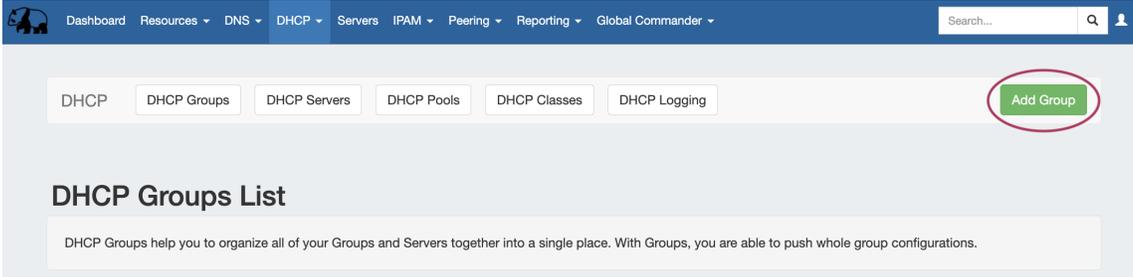
A Default Group for pools to be imported or added into is automatically designated. Creating additional groups is completely optional.

## Add a Group

Create DHCP groups by clicking the "Add Group" Button, then add subnet or host pools under the group by clicking "Add Pool" for the desired group.

Pools may be pushed individually, as a part of a DHCP group, or through pushing an entire DHCP server.

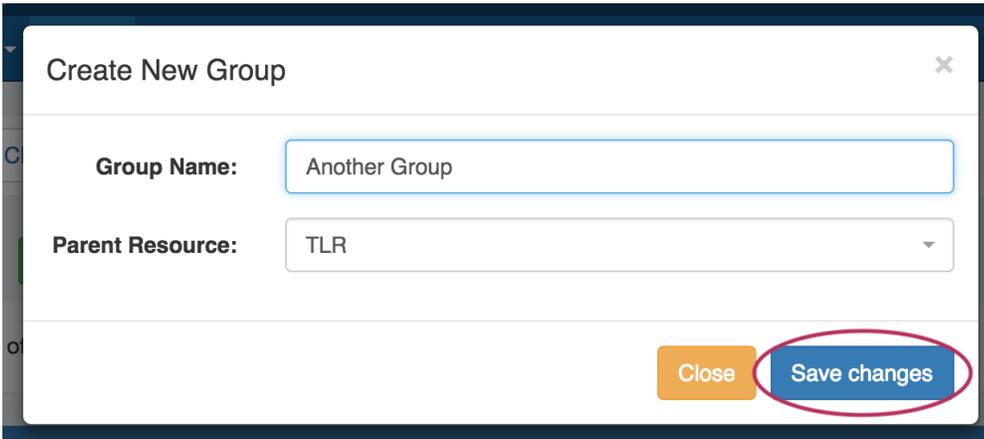
To create a new group, from the DHCP Tab, select the DHCP Groups sub menu. Then, click the "Add Group" button at the top right of the page.



This will open the "Create New Group" dialog.

Enter the desired group name and select a parent resource.

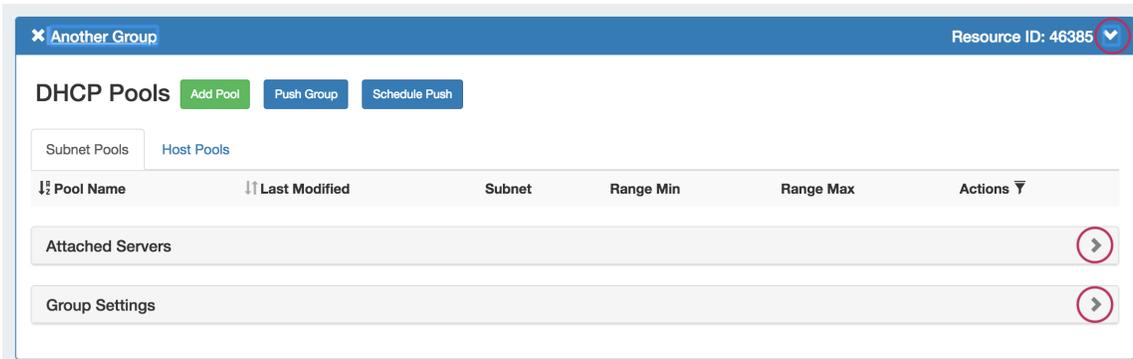
Click the "Save Changes" button when complete.



The new group will be added to the DHCP Groups List.

Open the group container for the new group by clicking on the expansion arrow at the top right corner of the header.

Information for Attached Servers and Group Settings may also be viewed and edited by clicking on the expansion arrows for each section.



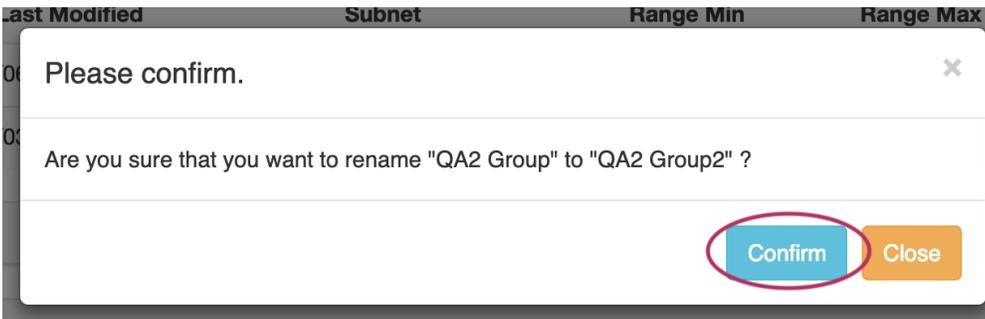
## Edit a Group

## Edit a Group Name:

Edit the name for a group by clicking inside the group's name. A highlight box will appear around the name, and a cursor inside the box.



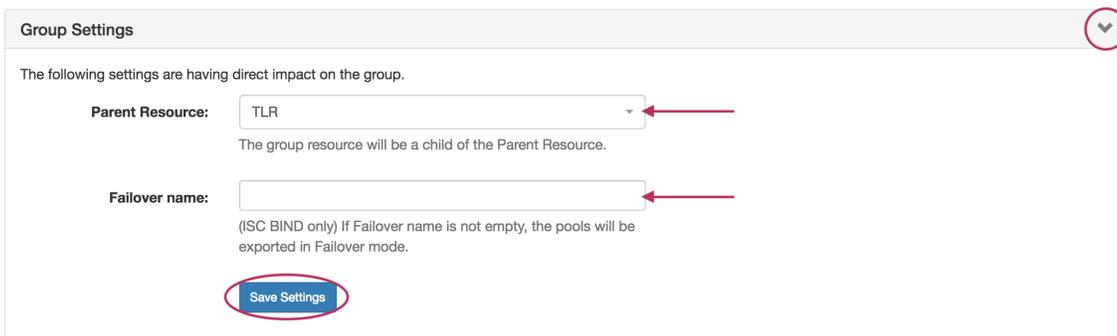
Edit the text as desired using your mouse or arrow keys to navigate through the text. When complete, click anywhere outside of the name box, and a confirmation dialog will appear.



Click "Confirm" to save your changes, or "Close" to exit without saving.

## Edit a Group's Settings:

Under the desired group, expand the "Group Settings" module by clicking on the expansion arrow in the upper right corner of the header.



## Edit Parent Resource

Change the parent resource for the DHCP group by searching and selecting the desired resource from the dropdown box.

## Edit Failover Name

Edit the Failover name by typing the name directly in the Failover Name input. If the Failover name is not empty, the pools will be exported in Failover mode. NOTE: This is for ISC BIND only.

When done with your edits, be sure to click the "Save Settings" button.

## Add Pools to a Group

To add a new pool to a DHCP group, click the "Add Pool" button inside the desired group.

× Default Group Resource ID: 46363

**DHCP Pools** Add Pool Push Group Schedule Push

Subnet Pools Host Pools

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
Pool 1	06/22/2018 19:12:46	192.168.80.0/20	192.168.80.1	192.168.95.254	<span>Delete</span> <span>Push</span>
Pool 2	06/22/2018 19:13:30	16.5.0.12/30	16.5.0.13	16.5.0.14	<span>Delete</span> <span>Push</span>

Attached Servers >

Group Settings >

## Add a Subnet Pool

To add a new subnet pool to a DHCP group, select "Subnet" as the Pool Type. Select the parent resource and type in a subnet name.

Create New Pool ×

Pool Type:

Parent Resource:

Subnet Name:

New IP Assignment Settings

Assignment Type:

IP Type:

Netmask:

Resource:

Region:

IPAM Rule:

Select a VLAN:

Assign default gateway:  OFF

Close Save changes

Next, choose an assignment type - you may either have ProVision smart assign a block for the pool that matches your provided criteria, or directly assign a specific block.

## Smart Assign

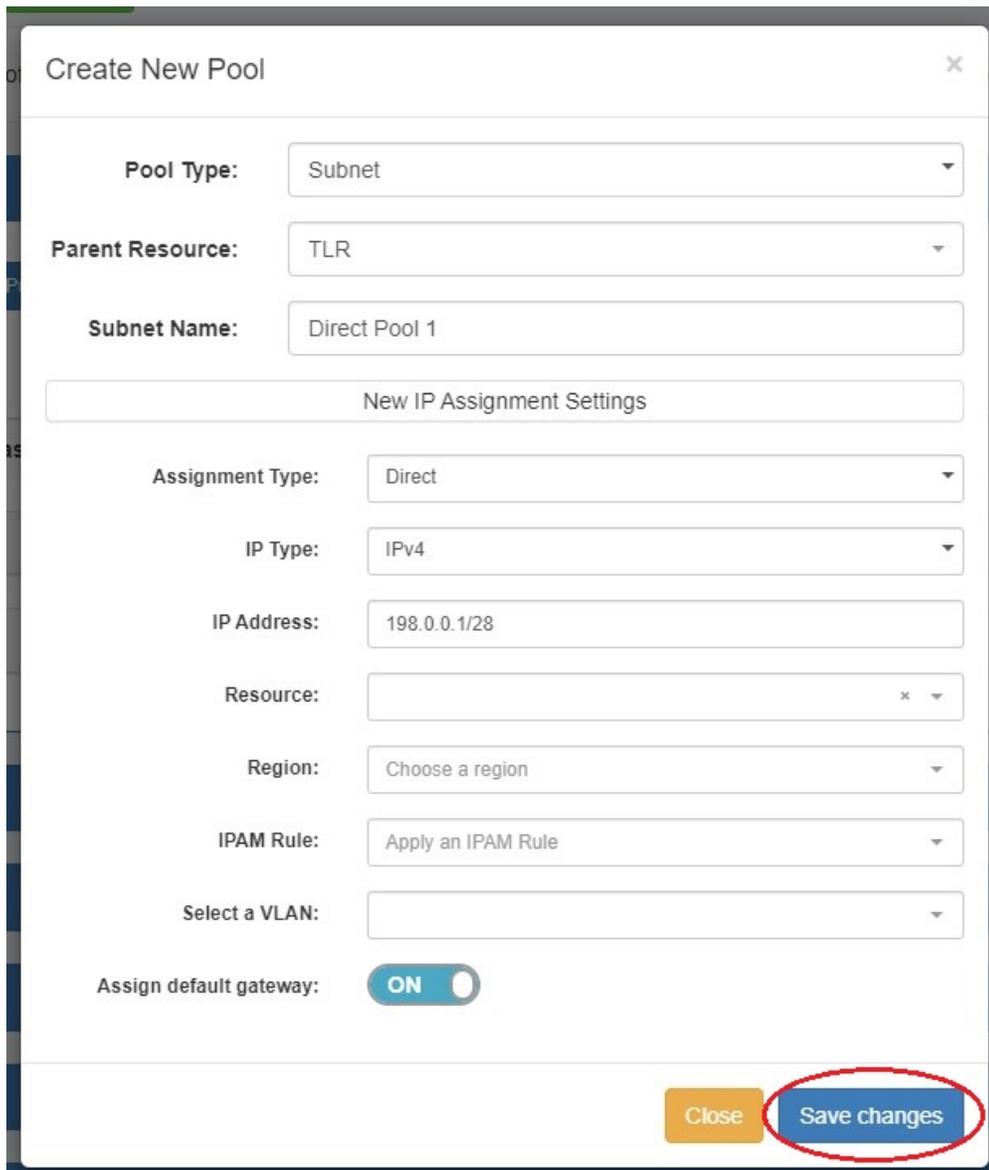
To Smart Assign a DHCP pool, select "Smart" for the Assignment type, choose IPv4 or IPv6 for the IP type, then select a netmask.

All other fields are optional - Resource, Region, IPAM Rules, and VLAN may be selected to further narrow the block criteria. If desired, toggle "Assign Default Gateway" on.

When done, click "Save Changes". ProVision will choose the first block matching all criteria to assign to the pool.

If no block matches the given criteria, a message will state so. Try either removing some criteria, or ensure that blocks exist in IPAM (with subassignments enabled!) with the given attributes.

## Direct Assign



The image shows a 'Create New Pool' dialog box with the following fields and settings:

- Pool Type:** Subnet
- Parent Resource:** TLR
- Subnet Name:** Direct Pool 1
- New IP Assignment Settings:**
  - Assignment Type:** Direct
  - IP Type:** IPv4
  - IP Address:** 198.0.0.1/28
  - Resource:** (empty)
  - Region:** Choose a region
  - IPAM Rule:** Apply an IPAM Rule
  - Select a VLAN:** (empty)
  - Assign default gateway:** ON

At the bottom right, there are two buttons: 'Close' and 'Save changes'. The 'Save changes' button is circled in red.

To Direct Assign a DHCP pool, select "Direct" for the assignment type, choose IPv4 or IPv6 for the IP type, then type in the desired IP address.

All other fields are optional - Resource, Region, IPAM Rules, and VLAN may be selected to further narrow the block criteria, if duplicate blocks exist. If desired, toggle "Assign Default Gateway" on.

When done, click "Save Changes". If the typed block exists, with subassignments enabled, and meets any additional criteria, that block will be assigned to the pool.

## Add a Host Pool

To add a new host pool to a DHCP group, select "Host" as the pool type. Select the parent resource, and add a hostname and MAC address.

The screenshot shows a 'Create New Pool' dialog box with the following fields and values:

- Pool Type:** Host
- Parent Resource:** TLR
- Hostname:** HostPoolSmart
- MAC Address:** 00:11:22:33:44:55

Below these fields is a section titled 'New IP Assignment Settings' with the following fields and values:

- Assignment Type:** Smart
- IP Type:** IPv4
- Resource:** (empty)
- Region:** Choose a region
- Select a VLAN:** (empty)

At the bottom right of the dialog, there are two buttons: 'Close' and 'Save changes'. The 'Save changes' button is circled in red.

Next, choose an assignment type - you may either have ProVision smart assign a block for the pool that matches your provided criteria, or directly assign a specific block.

## Smart Assign

To Smart Assign a DHCP pool, select "Smart" for the assignment type and choose IPv4 or IPv6 for the IP type.

All other fields are optional - Resource, Region, IPAM Rules, and VLAN may be selected to further narrow the block criteria.

When done, click "Save Changes". ProVision will choose the first block matching all criteria to assign to the pool.

If no block matches the given criteria, a message will state so. Try either removing some criteria, or ensure that blocks exist in IPAM (with subassignments enabled!) with the given attributes.

## Direct Assign

### Create New Pool ✕

**Pool Type:** Host

**Parent Resource:** TLR

**Hostname:** HostPoolSmart

**MAC Address:** 00:11:22:33:44:55

New IP Assignment Settings

**Assignment Type:** Direct

**IP Type:** IPv4

**IP Address:** 10.4.0.0/24

**Resource:** ✕

**Region:** Choose a region

**Select a VLAN:**

Close Save changes

To Direct Assign a DHCP pool, select "Direct" for the assignment type, choose IPv4 or IPv6 for the IP type, then type in the desired IP address.

All other fields are optional - Resource, Region, IPAM Rules, and VLAN may be selected to further narrow the block criteria, if duplicate blocks exist.

When done, click "Save Changes". If the typed block exists, with subassignments enabled, and meets any additional criteria, that block will be assigned to the pool.

## Pushing a DHCP Group

Before pushing a group, expand the "Attached Servers" section and verify that the correct server is attached to the DHCP group.

Default Group Resource ID: 46363

**DHCP Pools** Add Pool Push Group Schedule Push

Subnet Pools Host Pools

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
Pool 1	06/22/2018 17:12:46	192.168.80.0/20	192.168.80.1	192.168.95.254	Delete Push
Pool 2	06/22/2018 17:31:36	10.140.93.80/30	10.140.93.81	10.140.93.82	Delete Push
Pool 3	06/22/2018 17:56:09	10.10.16.0/20	10.10.16.1	10.10.31.254	Delete Push

**Attached Servers**

Server Name	Server Backend	Server Host	Parent Resource	Actions
DHCP - DHCP Test Server - QA test	ISC	dhcp1-sfo.6.com	Entry 2	Detach

Attach server: Select Server Attach

Group Settings

Scheduled Tasks

## Manual Group Push

After verifying the attached server, manually push the group by clicking the "Push Group" button under the desired DHCP group.

Default Group Resource ID: 46363

**DHCP Pools** Add Pool Push Group Schedule Push

Subnet Pools Host Pools

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
Pool 1	06/22/2018 17:12:46	192.168.80.0/20	192.168.80.1	192.168.95.254	Delete Push
Pool 2	06/22/2018 17:31:36	10.140.93.80/30	10.140.93.81	10.140.93.82	Delete Push
Pool 3	06/22/2018 17:56:09	10.10.16.0/20	10.10.16.1	10.10.31.254	Delete Push

Attached Servers

A DHCP Push Status window appears. If successful, a green "Finished DHCP Pushing Request" will appear as the final message.

If errors occur, an error message will show with details on the issue. When complete, hit the "Close" button.

of your Groups and Servers together into a single place. With Groups, you are able to push whole gro

**DHCP Push Status**

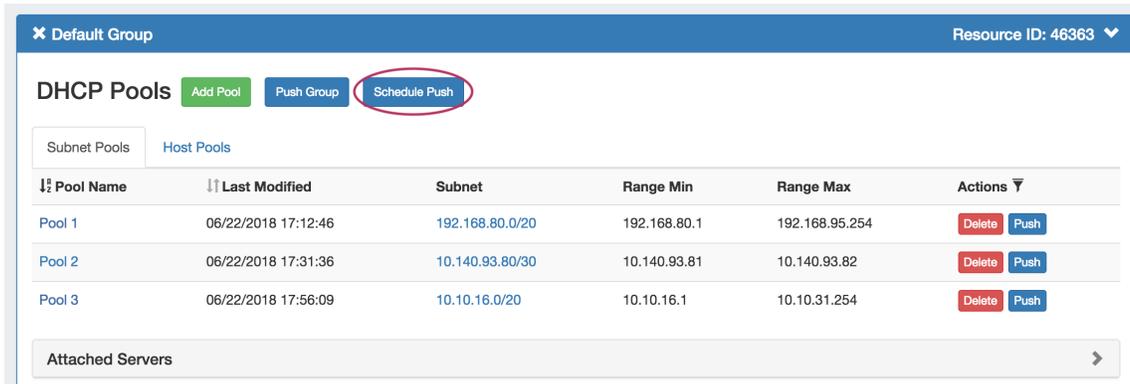
Last status messages :

DHCP Pushing started... id: 46363

Close

## Scheduled Group Push

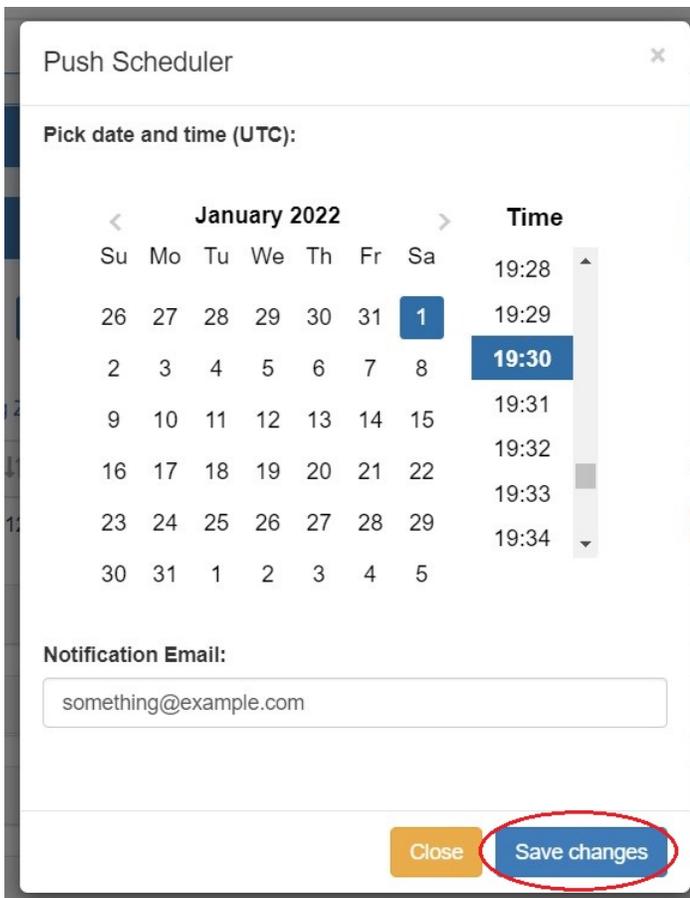
Scheduled pushes may be set up through the "Schedule Push" button for the group.



The screenshot shows the 'Default Group' interface for DHCP Pools. At the top right, the 'Resource ID' is 46363. Below the title, there are three buttons: 'Add Pool' (green), 'Push Group' (blue), and 'Schedule Push' (blue), with the 'Schedule Push' button circled in red. Below these buttons are tabs for 'Subnet Pools' and 'Host Pools'. A table lists three DHCP pools with columns for Pool Name, Last Modified, Subnet, Range Min, Range Max, and Actions. Each pool has 'Delete' and 'Push' buttons. At the bottom, there is a section for 'Attached Servers' with a right-pointing arrow.

Pool Name	Last Modified	Subnet	Range Min	Range Max	Actions
Pool 1	06/22/2018 17:12:46	192.168.80.0/20	192.168.80.1	192.168.95.254	Delete Push
Pool 2	06/22/2018 17:31:36	10.140.93.80/30	10.140.93.81	10.140.93.82	Delete Push
Pool 3	06/22/2018 17:56:09	10.10.16.0/20	10.10.16.1	10.10.31.254	Delete Push

Click "Schedule Push" for the group, then select a date, time (24 hour), add a notification email address, and click "Save changes".



The 'Push Scheduler' dialog box is shown. It has a title bar with a close button. Below the title, it says 'Pick date and time (UTC):'. There is a calendar for 'January 2022' and a 'Time' picker. The date '1' is selected, and the time '19:30' is selected. Below the calendar and time picker is a 'Notification Email:' field with the value 'something@example.com'. At the bottom, there are two buttons: 'Close' (orange) and 'Save changes' (blue), with the 'Save changes' button circled in red.

The scheduled task will be shown in both the group details (under "Scheduled Tasks") and the Admin Scheduler task list.

Scheduled Tasks			
Task Name	Last Run	Repeat Time	Actions
Scheduled Push: Default Group		One time on 2017-05-31 at 14:00 PDT	<a href="#">Delete</a>

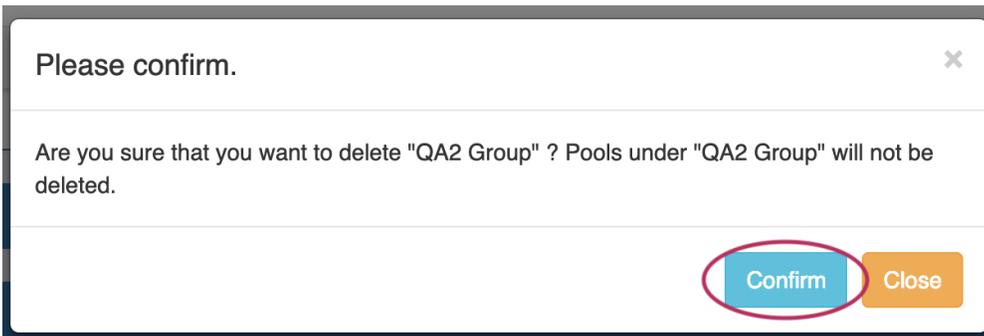
The task may be deleted prior to running by clicking the "delete" button, but will automatically be removed once completed.

## Delete a Group

Delete a non-Default Group by clicking on the "X" to the left of the group's name in the DHCP Groups List. When you delete a DHCP group, pools under the group will not be deleted. They will no longer be associated with a DHCP group, and can be managed from the DHCP Pools List.



A confirmation message will appear, click "Confirm" to save your changes, or "Close" to exit without saving.



The Default Group may not be deleted.

## Additional Information

For more information on DHCP tasks, see:

- [DHCP Tab](#)
- [Working with DHCP Pools](#)
- [Working with DHCP Gadgets](#)

Administrative Tasks:

- [DHCP Administration](#)
- [Working with DHCP Servers](#)