

# Scheduler

## Scheduler

**Scheduler**

Server Time: 2020-08-10 11:14:51 PDT  
Server Timezone: US/Pacific -07:00

Show:  Active  All

Filter tasks

Name	Repeat Start	Repeat Info	Last Run	Active
DNS Monitor ERROR Records Daily	2018-May-21	Every day at 00:00 PDT	2019-07-11 14:24:52 PDT	<input type="checkbox"/>
Cloud Backup	2019-Jun-19	Every day at 08:00 PDT	2019-07-08 15:17:52 PDT	<input checked="" type="checkbox"/>
Test Task 5 min	2019-Jul-01	Every 5 minutes	2019-09-11 14:27:54 PDT	<input type="checkbox"/>
Test Task hourly	2019-Jul-01	Every hour at :00	2019-07-01 16:21:17 PDT	<input type="checkbox"/>
Holding Tank	2019-Jun-27	Monday at 08:15 PDT Wednesday at 08:15 PDT Friday at 08:15 PDT	2019-07-08 15:18:20 PDT	<input checked="" type="checkbox"/>
DNS Push - Zones in Group	2019-Jun-27	Monday at 08:30 PDT Wednesday at 08:30 PDT Friday at 08:30 PDT Saturday at 08:30 PDT	2019-07-08 15:20:13 PDT	<input type="checkbox"/>
DNS Push - Single Zone	2019-Jun-27	Sunday at 08:00 PDT Tuesday at 08:00 PDT Friday at 08:00 PDT Saturday at 08:00 PDT	2019-07-02 09:50:07 PDT	<input type="checkbox"/>

Add Task

The Scheduler tab allows you to manage and schedule repeating tasks in ProVision.

- Scheduler
  - Available Task Types
    - Enter Task Details
    - Add Repeat Settings
    - Verify Repeat Settings and Save
  - Managing Tasks
    - Activate / Deactivate Tasks
    - Edit a Task
    - View Task Log
    - Delete a Task

## Available Task Types

Many predefined task types are available through the scheduler:

- **Approvals - Delete events older than 1 month:**

The "Approvals - Delete events older than 1 month" task deletes any Approvals history events older than 30 days. It is recommended to run this task monthly to clear out obsolete approvals items and reduce approvals page load time. For information on working with Approvals, see [DNS Tab](#) and [Approvals](#).

- **Approvals - Process Subscription Events:**

The "Approvals - Process Subscription" task processes approval request events and handles the sending of notification emails to subscribed Approvals Groups. If Approvals are in use with notifications, it is recommended to create this task with a run time of "every 5 minutes" and no end date. For information on working with Approvals, see [DNS Tab](#) and [Approvals](#).

- **Backup - Backup the database**

Performs a data backup to the 6connect cloud servers, or to a selected resource server existing in ProVision.

- **Backup - Delete old archived data and logs:**

The "Delete old archived data" task removes data older than 30 days from archived resources, logs, systems logs, and statistics from your ProVision instance. Be sure to use care with running this task to prevent accidental deletion of log data that may still be necessary for reference. It is typically recommended to run this task once every 1-3 months to reduce log data volumes.

- **DHCP Leases Monitor:**

Updates lease monitoring and checks for lease expiration for the DHCP module. See [DHCP Tab](#) for additional information on setting up DHCP Servers and Push options.

- **DHCP Server Push:**

Pushes configuration updates to the selected DHCP server(s). Select push to a single server, or all DHCP servers. See [DHCP Tab](#) for additional information on setting up DHCP Servers and Push options.

- **DNS Error Monitor:**

Checks the DNS records in theError state to determine if they have been fixed. Default setup is once a day, and you can set it to run more often if necessary. This task may replace or supplement the manual DNS Zone / Record "Check" button, depending on set frequency.

- **DNS Resource Monitor:**

Checks Records/Zones periodically to monitor DNS server response.

- **DNS Zone Transfer:**

Pushes zone updates to the DNS servers. Select pushes to apply to all zones in a [DNS Group](#), all zones on one server, or one particular zone. Requires the intended Group / Server / Zone to already exist in ProVision. See [DNS Tab](#) for additional information on setting up DNS Servers, Groups, Zones, and Push options.

- **DNS Zones Backup Removal:**

Removes DNS Zone backups that are older than the "Days to preserve" setting in the Scheduler Task. See [DNS Tab](#) for additional information on setting up DNS Servers, Groups, Zones, and Push options.

- **GEO IP Exporter:**

The Geo IP Exporter searches the ProVision instance for resources which have IP addresses and an address provided in the Contact Info Gadget, then saves the resulting .csv to the ProVision root directory.

- **IPAM Alerts:**

Set a time / frequency for IPAM aggregate alert emails to be sent to alert recipients. Alert recipient email and available space threshold percentage is set through the action menu for individual aggregates under the [IPAM Tab](#). For information on setting up an alert for an aggregate, see [Working with IP Aggregates](#). This task is created/enabled by default.

- **IPAM - Process Holding Tank:**

Removes IP Blocks from the Holding Tank and returns them to the available pool. See [Holding Tank Management](#).

- **IPAM - Rotate Dynamic IPs:**

The Scheduler task "Rotate Dynamic IPs" reassigns single IPv4 NAT addresses (/32s) after 'x' days post-config to an available address denoted by the Dynamic\_Available tags.

Prior to using this task, two blocks (one public, one private) must be NAT'ed in IPAM, the NAT Config pushed to a router, and appropriate blocks tagged with "Dynamic\_Base" and "Dynamic\_Available". For information on working with NAT'ed Blocks, see [Working with IP Blocks](#).

- **Rotate Logs:**

Removed Log items older than the "Delete Logs older than X days" setting in Admin Preferences.

- **Test Task:**

Tests the scheduler and notification system - it simply sends a notification email to the provided address at the specified run time.

## Add Task

To add a new scheduled task, hit the "Add Task" button below the Scheduler task list. You will then see the Task Detail Settings area.

**Scheduler**

Server Time: 2018-07-20 14:39:54 PDT  
Server Timezone: America/Los\_Angeles -07:00

Show:  Active  All

Filter tasks

Name	Repeat Start	Repeat Info	Last Run	Active				
IPAM Utilization	2015-Nov-03	Every day at 08:00 PDT	2016-03-30 08:00:05	<input type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
Daily Backup	2015-Sep-04	Friday at 05:30 PDT Thursday at 05:30 PDT Wednesday at 05:30 PDT Tuesday at 05:30 PDT Monday at 05:30 PDT Saturday at 05:30 PDT	2016-03-30 05:30:05	<input type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
DNS Monitor ERROR Records Daily	2018-May-21	Every day at 00:00 PDT	2018-07-20 00:00:03	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>

[Add Task](#)

## Enter Task Details

Under "Task Detail", fill in the following fields:

**Name:** Create a name for your task

**Task:** Select a pre-created task from the dropdown menu.

**Process Holding Tank Settings:** When selecting the Process Holding Tank task, you will have the following setting options:

**Email From / Email To:** Enter an email address to send task notifications from, and the desired recipient. This is an optional setting.

**DNS Zone Transfer Settings:** When selecting the DNS Zone Transfer task, you will have the following setting options:

**Select Action Type / Select Server:** When selecting the DNS zone transfer task, you can choose the action type to a) push all zones to all servers b) push all zones on a single server (then select server) or c) push one zone (then select zone).

**Backup the Database Settings:** When selecting the Backup task, you will have the following setting options:

**Email From / Email To:** Enter an email address to send task notifications from, and the desired recipient. This is an optional setting.

**Location:** Choose "Cloud" to save the backup to the 6connect cloud, or "Server" to save to a specified server resource already defined in ProVision. If "Server" is selected, choose the server resource from the dropdown list.

**Start:** The start date you wish the task to begin repeatedly occurring. By default, the current day is entered.

**End:** The date you wish repeat settings to end. For one-time tasks, enter the next calendar day after the start (run) date. To have a task run indefinitely, leave the end date blank

Task Detail - Holding Tank

Name:

Task:

Settings:

Email From:

Email To:

Start:

End:

(For a task to run only once, use the same date for repeat start and end)

Schedule/Repeat Settings

Repeat Settings For This Task:  
No repeat items set for this task

Add Repeat Setting

Repeat Type:  Hourly  Daily  Weekly  Monthly  None (one-time)

Every  5 min  10 min  15 min  20 min  30 min  60 min

[Add Repeat Setting](#)

[Cancel](#) [Save Task](#)

## Add Repeat Settings

Add repeat settings for your tasks. First, select your repeat type - hourly, daily, weekly, monthly, or none (one time). The type that you select will prompt different additional setting options.

Schedule/Repeat Settings

Repeat Settings For This Task:

No repeat items set for this task

Add Repeat Setting

Repeat Type:  Hourly  Daily  Weekly  Monthly  None (one-time)

Repeat Time: 08:00

Sun  Mon  Tue  Wed  Thu  Fri  Sat

Add Repeat Setting

Cancel Save Task

Repeat Type options and details:

**Hourly:** Selecting the hourly repeat type will then prompt for the number of repeat times per hour - every 5,10, 15, 20, 30, or 60 minutes. All minute selections start from the top of the hour. For example, if every 20 minutes is selected, the task will run at :00, :20, :40 during each hour.

**Daily:** Selecting the daily repeat type will prompt for the specific time to repeat the task, and which days you wish the task to occur. The Repeat Time is based on a 24 hour clock set at UTC time. To assist in any time zone conversions, the current UTC time is shown at the top of the scheduler page.

**Weekly:** Selecting the weekly repeat type prompts for the specific time to repeat the task as well as frequency by week. Weekly tasks occur on the day selected as the start date. Using the weekly option, you may choose from a range of weekly (every 1 week) to once every two months (every 8 weeks).

**Monthly:** Selecting the monthly repeat type prompts for a repeat time and a day. For the day option, you can either choose a specific day (ie, the 15th of each month) or a relative day (the 1st Friday of each month).



For Monthly repeat settings, verify that the calendar day you select the task to occur exists! For example, if you select the 5th Saturday of each month, the task will repeat only in months which have 5 Saturdays and skip all other months.

**None (one-time):** Select the time and day that you wish the single occurrence task to run. (Ensure that "End Date" in task details is set to the day after the desired run date).

After you have selected your Repeat Setting options, click the "Add Repeat Setting" button.

## Verify Repeat Settings and Save

When you add repeat settings, they will appear under the "Repeat Settings For This Task" area. Verify your settings, and if desired, you may delete individual repeat settings by hitting the "Delete" button.

When complete, hit the "Save Task" button to finalize your changes and add your new task to the task list.

Schedule/Repeat Settings

Repeat Settings For This Task:

Sunday at 08:00 UTC -07:00	Delete
Tuesday at 08:00 UTC -07:00	Delete
Thursday at 08:00 UTC -07:00	Delete
Saturday at 08:00 UTC -07:00	Delete

Add Repeat Setting

Repeat Type:  Hourly  Daily  Weekly  Monthly  None (one-time)

Repeat Time: 08:00

Sun  Mon  Tue  Wed  Thu  Fri  Sat

Add Repeat Setting

Cancel Save Task

## Managing Tasks

After tasks have been added, they will show in the task list along with their basic settings. The list may be filtered to show all tasks or active tasks only by selecting the radio buttons next to "Show:". Further filtering may be done by typing a Name or Repeat Info keyword into the "Filter Tasks" input box above the task list.

From the task list itself, you can enable/disable tasks, view details, view history, run tasks, and delete tasks.

### Scheduler

Server Time: 2015-11-17 12:29:24 PST  
 Server Timezone: America/Los\_Angeles -08:00

Show:  Active  All

Name	Repeat Start	Repeat Info	Last Run	Active				
IPAM Utilization Alerts	2015-Jun-26	Every day at 08:00 PST	2015-11-09 06:00:02 PST	<input type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
Backup Daily	2015-Nov-03	Every day at 20:00 PST	2015-11-14 18:00:02 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
QA 5.1.3 Holding - Daily	2015-Nov-03	Every day at 18:00 PST	2015-11-16 16:00:01 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
QA Test Daily	2015-Nov-16	Every day at 11:15 PST	2015-11-17 09:15:01 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>

[Add Task](#)

**Filters:**

**Show:** Select "Active" to show only active tasks (checkbox enabled under "Active" for the task), or "All" to show all tasks

**Filter Tasks (Text box):** To further filter the task list, type a Name or Repeat Info keyword (ie, "Backup" or "Every day") into the Filter Tasks text box.

**Task List:**

**Name:** The task name assigned during the "Add Task" creation process.

**Repeat Start:** The date selected for the repeat settings to start

**Repeat Info:** The repeat settings chosen for the task.

**Last Run:** The date and time the task was last run, if applicable.

**Active:** To activate tasks, simply click the check box under "Active" in the task list. To deactivate a task, uncheck it. By default, tasks are checked as active once created.

**Details:** This link will bring up the task details and repeat settings, which then may be edited and re-saved if needed.

**View History:** This link will show the log for task actions.

**Run Now:** The "Run Now" button will run the scheduled task when pressed, regardless of the scheduled repeat settings.

**Delete:** Deletes the task.

## Activate / Deactivate Tasks

Click on the check box under "Active" for the task

The screenshot shows the Scheduler interface with the 'Active' column highlighted. A red circle is drawn around the checked checkbox for the 'QA Test Daily' task, indicating the action to be taken.

## Edit a Task

Click on the "Details" link for the task, then edit the Task Detail and Repeat Settings that appear below as needed.

### Scheduler

Server Time: 2015-11-17 12:29:24 PST  
Server Timezone: America/Los\_Angeles -08:00

Show:  Active  All

Name	Repeat Start	Repeat Info	Last Run	Active				
IPAM Utilization Alerts	2015-Jun-26	Every day at 08:00 PST	2015-11-09 06:00:02 PST	<input type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
Backup Daily	2015-Nov-03	Every day at 20:00 PST	2015-11-14 18:00:02 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
QA 5.1.3 Holding - Daily	2015-Nov-03	Every day at 18:00 PST	2015-11-16 16:00:01 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
QA Test Daily	2015-Nov-16	Every day at 11:15 PST	2015-11-17 09:15:01 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>

[Add Task](#)

Hit "Save Task" when finished to save your changes, or select "Cancel" to close the view without saving.

### Schedule/Repeat Settings

Repeat Settings For This Task:

- Every day at 11:15 PST [Delete](#)

[Cancel](#)

Add Repeat Setting

Repeat Type  Hourly  Daily  Weekly  Monthly  None (one-time)

Every  5 min  10 min  15 min  20 min  30 min  60 min

[Add Repeat Setting](#)

[Save Task](#)

## View Task Log

Click on the "History" link for the task.

### Scheduler

Server Time: 2015-11-17 12:29:24 PST  
Server Timezone: America/Los\_Angeles -08:00

Show:  Active  All

Name	Repeat Start	Repeat Info	Last Run	Active				
IPAM Utilization Alerts	2015-Jun-26	Every day at 08:00 PST	2015-11-09 06:00:02 PST	<input type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
Backup Daily	2015-Nov-03	Every day at 20:00 PST	2015-11-14 18:00:02 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
QA 5.1.3 Holding - Daily	2015-Nov-03	Every day at 18:00 PST	2015-11-16 16:00:01 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>
QA Test Daily	2015-Nov-16	Every day at 11:15 PST	2015-11-17 09:15:01 PST	<input checked="" type="checkbox"/>	<a href="#">Details</a>	<a href="#">View History</a>	<a href="#">Run Now</a>	<a href="#">Delete</a>

[Add Task](#)

The log details for the task will be shown below. When done, click on the "Close" button to exit the view.

### Run history for QA Test Daily

Timestamp	Level	Message
2015-11-17 11:15:01 PST	INFO	task_id=98 task=QA Test Daily action=finished message=TestTask::execute()
2015-11-16 11:15:01 PST	INFO	task_id=98 task=QA Test Daily action=finished message=TestTask::execute()
2015-11-16 11:05:08 PST	INFO	Task "QA Test Daily" (98) added

[Close](#)

## Delete a Task

To delete a task, hit the "Delete" button at the end of the row in the Task List. You will be presented with message asking if you are sure you wish to delete the task. Click on the "Delete" button next to the message to verify the deletion, or hit "Cancel" to exit without deleting.

### Scheduler

Server Time: 2015-11-17 12:37:25 PST  
Server Timezone: America/Los\_Angeles -08:00

Show:  Active  All Every day

Name	Repeat Start	Repeat Info	Last Run	Active				
IPAM Utilization Alerts	2015-Jun-26	Every day at 08:00 PST	2015-11-09 06:00:02 PST	<input type="checkbox"/>	Details	View History	Run Now	Delete
Backup Daily	2015-Nov-03	Every day at 20:00 PST	2015-11-14 18:00:02 PST	<input checked="" type="checkbox"/>	Details	View History	Run Now	Delete
QA 5.1.3 Holding - Daily	2015-Nov-03	Every day at 18:00 PST	2015-11-16 16:00:01 PST	<input checked="" type="checkbox"/>	Details	View History	Run Now	Delete
QA Test Daily	2015-Nov-16	Every day at 11:15 PST	2015-11-17 09:15:01 PST	<input checked="" type="checkbox"/>	Details	View History	Run Now	Delete

Are you sure you want to delete this item?

#### Enabling the Scheduler

To enable the scheduler in a local instance, add the following to cron:  
\* \* \* \* \* /path/to/php /path/to/ProVision/scheduler/task-runner.php