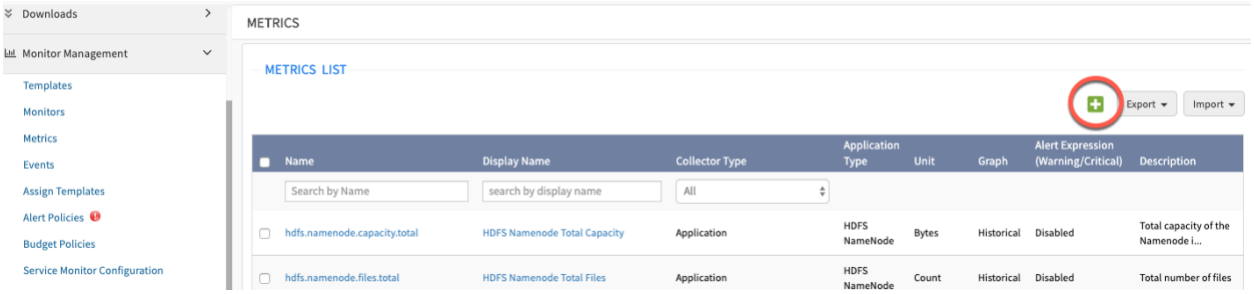
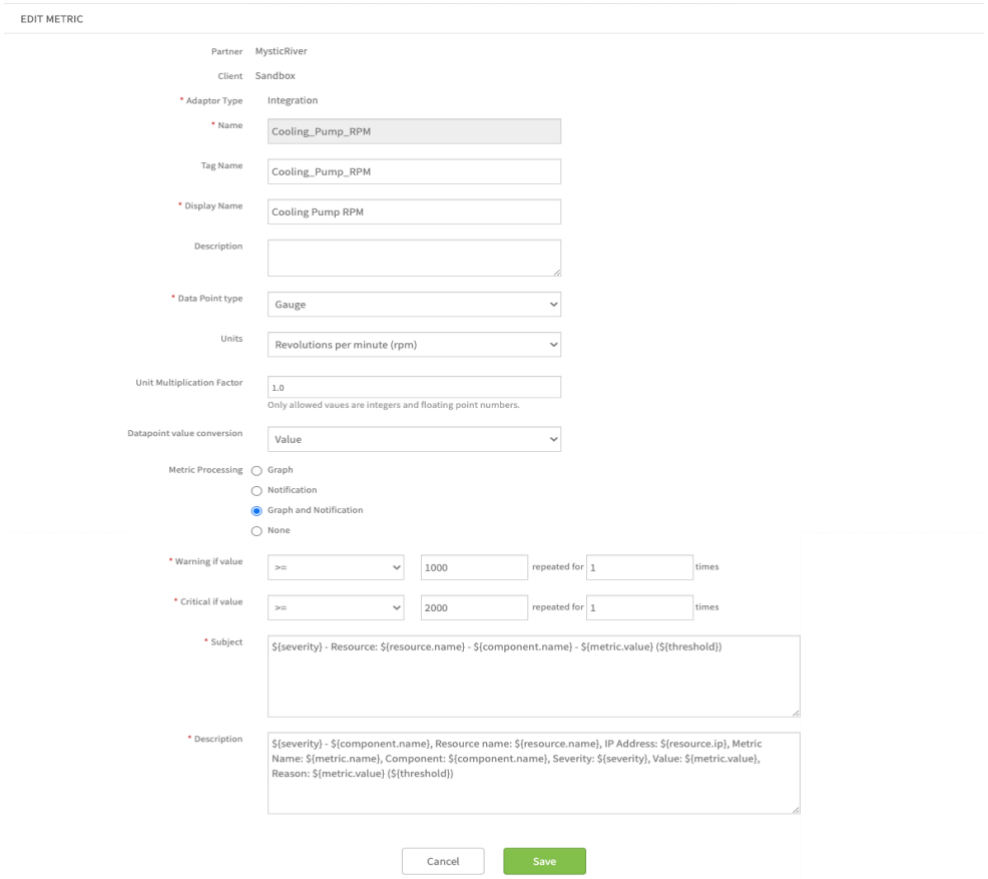
Configuring Custom Monitoring

Step 1: Creating a Custom Metric

1. Navigate to the metric administration interface: **Setup->Monitor Management->Metrics**
   If you have metric management rights, you will be able to create a new metric by clicking the green '+' in the upper right corner. If you do not see this, your login does not currently have those permissions and will need to have them added.

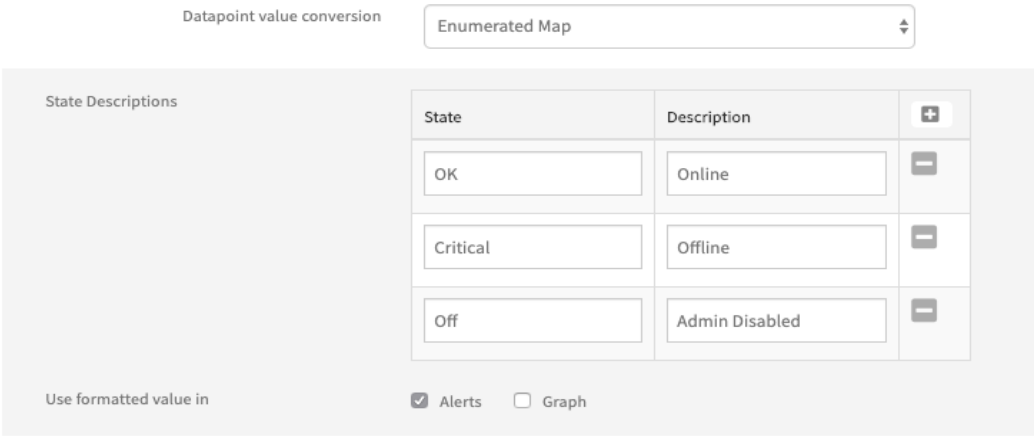


2. You will be presented with the 'Create Metric' form.



3. To create a new metric from scratch, the following fields and values will need to be set:
   - **Collector Type:** Integration *<Integration will be used for this, but many options are available>*
   - **Name:** *<Name of your metric, best to use a convention to keep consistency>*

- **Tag Name:** *<Automatically populated from name but editable>*
- **Display Name:** Friendly Name
- **Description:** Friendly Description
- **Data Point Type:** Dropdown selector for the type of data point. Gauge will probably be the most common.
- **Units:** Dropdown selector for the type of unit collected in the datapoint (i.e. percentage, MB, seconds, minutes, etc.)
- **Unit Multiplication Factor:** Any type of numeric multiplication you would like to apply to the collected value
- **Datapoint Value Conversion:** This option defines whether the datapoint collected will be used as a straight value, or if an enumerated lookup should be used. This allows for things like Boolean or status return code conversions:



- **Metric Processing:** Defines how this metric will be used.
  - **Graph:** Used in Metric graphs, only datapoints required
  - **Notification:** Just used for alerting, datapoints and tokens required
  - **Graph and Notification:** Used for both, both datapoints and tokes required
  - **None:** No idea what this means.

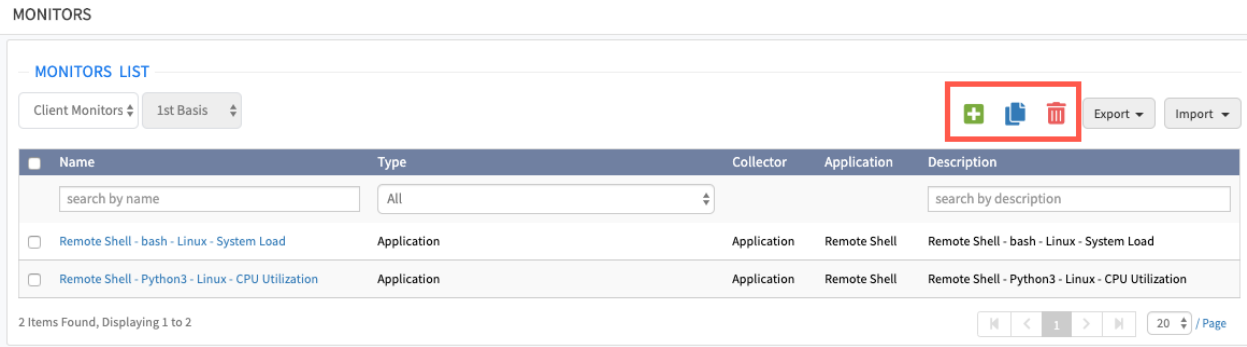
The following fields are only available when a metric is being used with notification

- **Warning if Value:** Set the default warning rules
- **Critical if Value:** Set the default critical rules
- **Subject:** Tokenized Alert Subject
- **Description:** Tokenized Alert Description

When all the required values are completed, click **Save**.

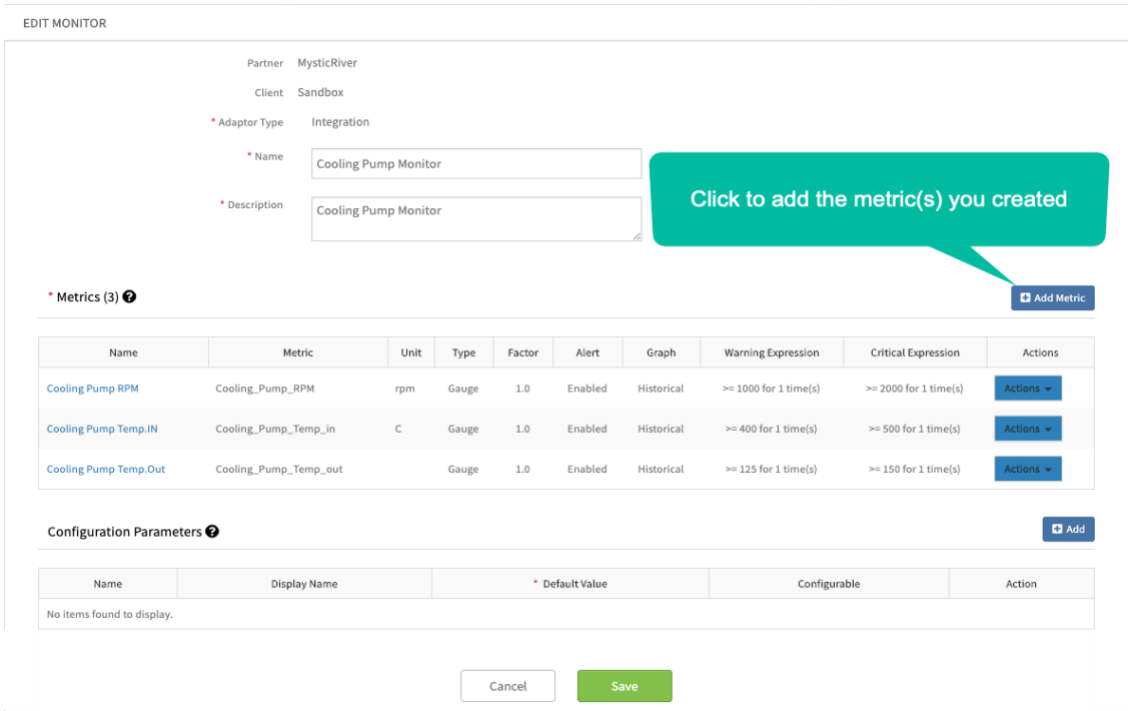
Step 2: Creating a Monitor

Once the metric has been created it must be mapped to a monitor for instantiation and use for collection. To create a monitor, navigate to **Setup->Monitor Management->Monitors**. This will bring up the monitors with options for both Global and Client scoping. Most times you will want Client-scoped monitors for a Proof-of-Value. You will also notice that on this screen the 'new', 'copy', and 'delete' icons are again available.



To create a new monitor, click the green '+'

1. The following fields will need to be set to create a remote shell monitor:
   - **Type:** Integration
   - **Name:** <Name of monitor>
   - **Description:** <Description of monitor>
   - **Metrics:** Click the blue **Add Metric** button to select the metric you created and want to add to this monitor. Monitors may have multiple metrics they collect.



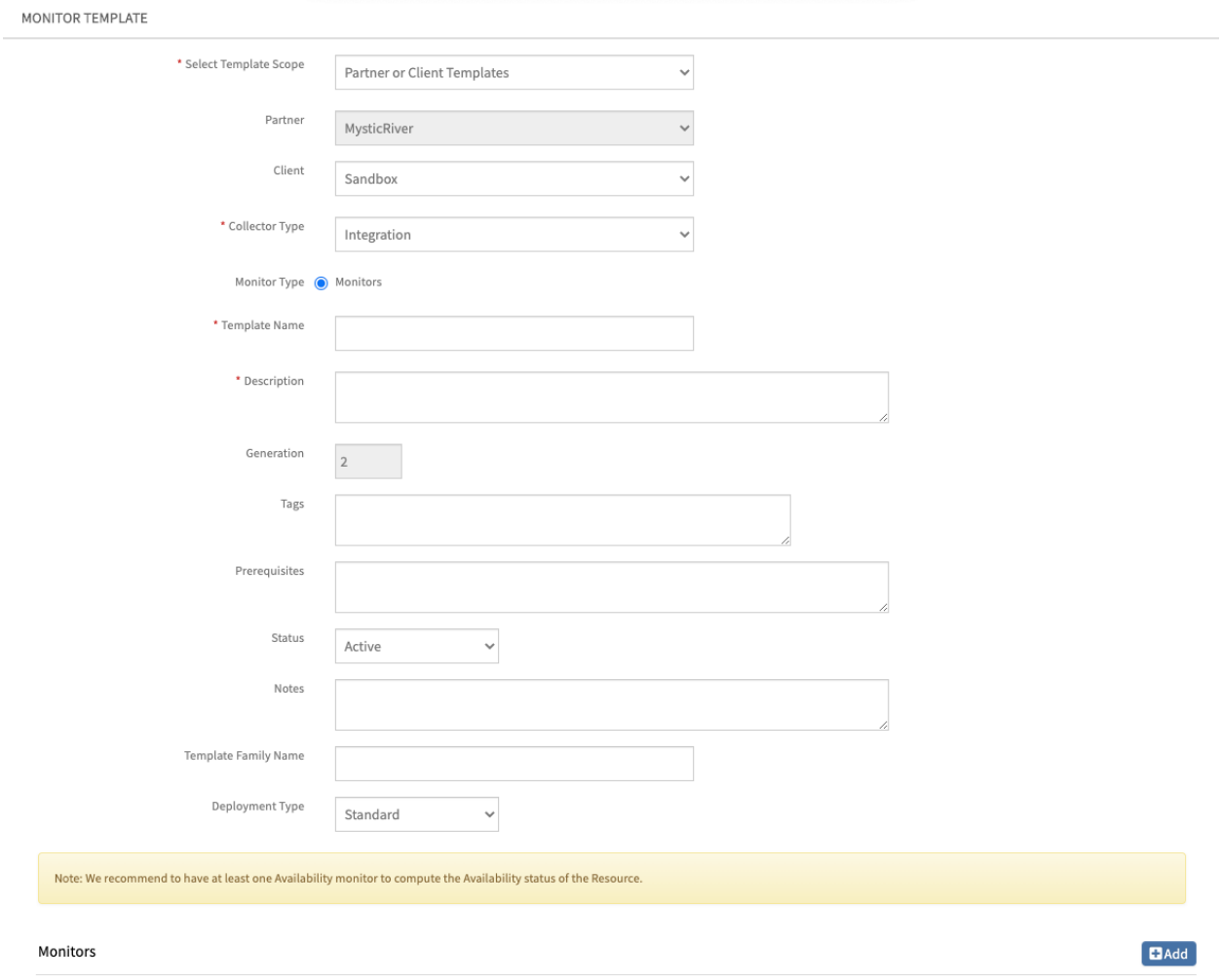
Click **Save** to create the monitor.

Step 3: Assigning Your Monitor to a Template

This step is the same as assigning any other monitor to a template with one point of note. For this document a new template will be created an a new monitor added.

1. Navigate to **Setup->Templates** and click the green '+' to create a new template.
2. The new **Monitor Template** form will be displayed with the following fields that need to be completed:

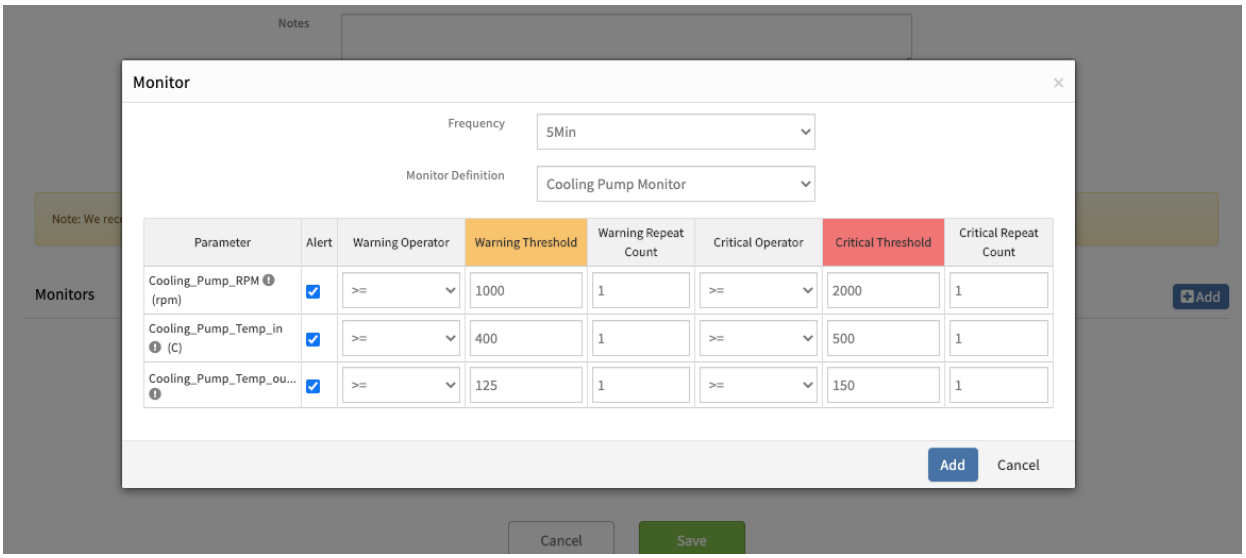
- **Template Scope**: <Choose scope of Partner or Client>
- **Client**: <Only displayed for Client Scoped Templates>
- **Collector Type:** Integration
- **Monitor Type:** Monitor
- **Applicable For:** Device
- **Template Name:** <Name of Template>
- **Description:** <Template Description>



The remaining fields may be left at the default values for a basic template.

Click the blue **+Add** button in the lower right to add your metric to the template. The Monitor options dialogue will be displayed. **Frequency** is the polling frequency the metric script will be executed and captured. Next, it is time to select the **Monitor Definition**. Select the monitor from the long list of definitions. You can start typing to skip to the matching letters in the list. The list can be confusing to find your monitor, but if it is defined correctly, it will be in there.

Next, select the **When to Alert** preference. Most commonly, this will be set to *Breach of a Threshold* for a simple warning/critical alert for exceeding. **Significant Change** also appears to work, but will be less commonly used. When the options are selected, click **Add** to complete adding the metric then **Save** to save the new metric



**This has three metrics because the monitor was defined with three metrics*

Step 4: Assigning Template to Resources

Manual Template Assignment:

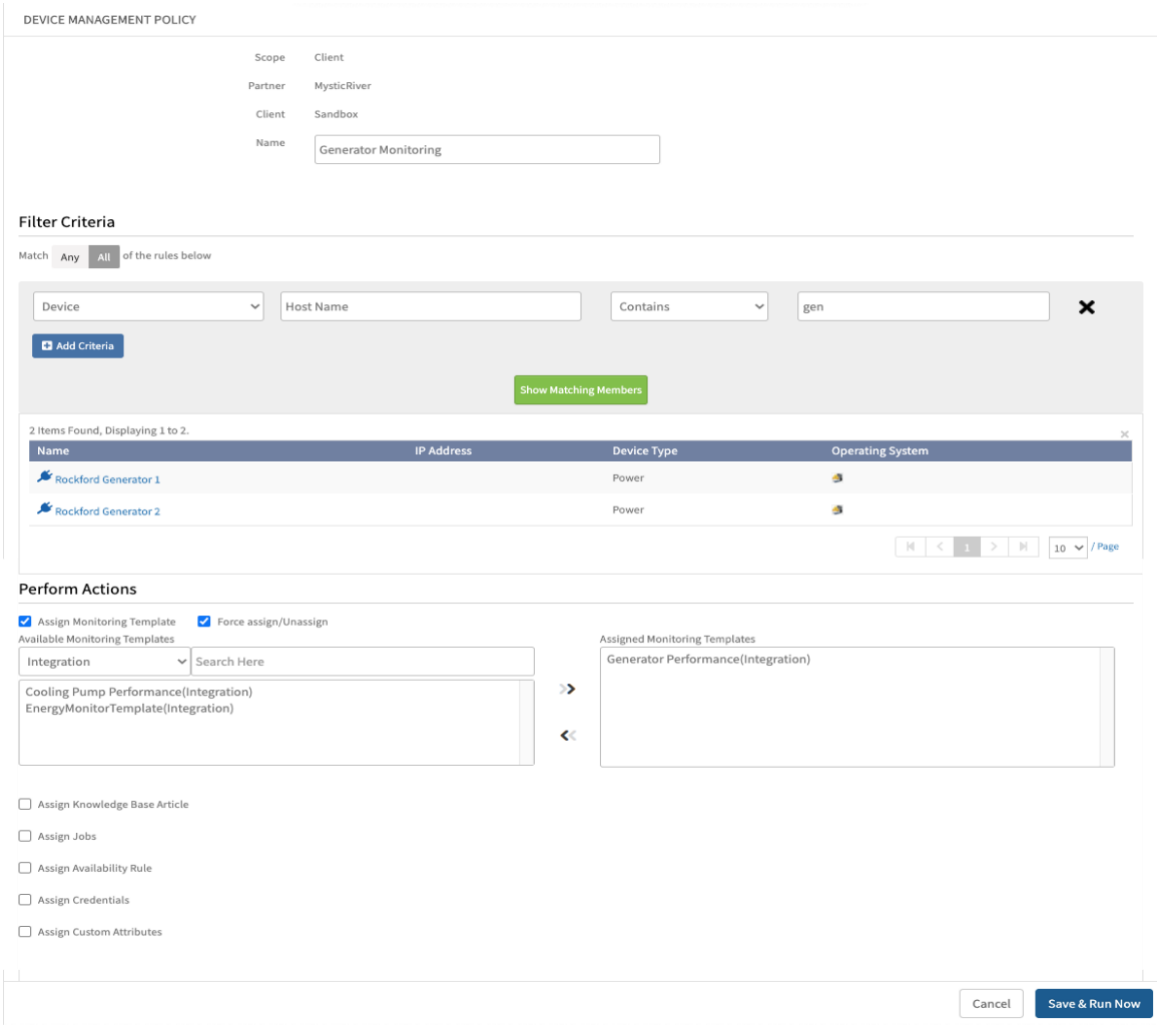
**Note: This option limits the configuration of parameters in the monitor to those that are defined as default. If different parameters are needed, like a different interpreter executable path, for example, using a Device Management Policy is a more flexible and scalable method.*

The new template can be assigned to a resource manually by viewing the resource in the **Infrastructure** interface then selecting the **Monitors** tab and clicking **+AssignTemplates**. Ensure the **Collector** Type is set to *Gateway* then select the new template and Assign it.

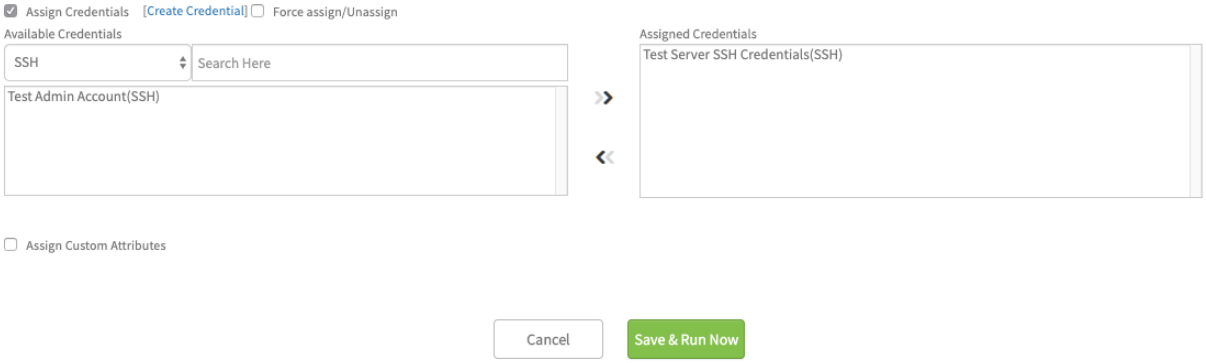
Device Management Policy Assignment:

This is by far the most flexible and scalable method to quickly assign templates and credentials to resources in bulk. This method also allows configuration of the monitor parameters that are applied using the policy.

To create a new policy, go to **Setup->Resource Management->Device Management Policies** and click the green **'+'**. Create the policy as you normally would, selecting the **Scope**, **Client(s), Name,** and set the **Filter Criteria** to target the devices you want to apply the template to.



Check the **Assign Monitoring Template** checkbox and add the new Monitoring Template that you created to this policy. The interface will update and reflect all the parameters defined for the Monitor used in the Template.



Click **Save & Run Now** to apply the template.

The Resource is ready to begin receiving metrics via API.