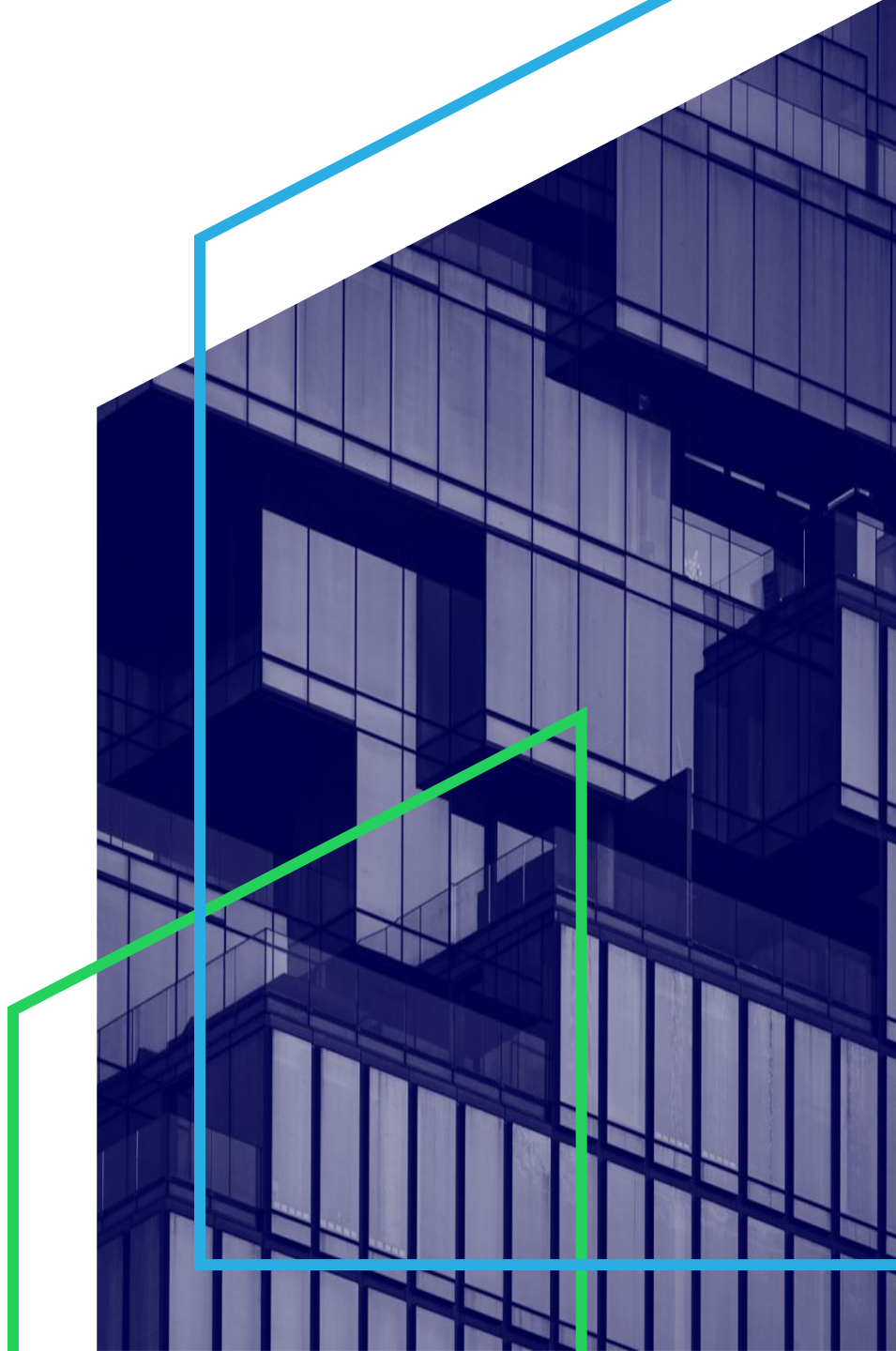
MHT Technologies

Commissioning of inspeXtor



Presented by:

Harshal Bharambe

Network Engineer, MHT Technologies

Outline of Commissioning Process

- Instance Activation- Activate your instance, Update customer info etc.
- Configuration of inspeXtor Ips
- Discovery of Node Drivers- Auto discovery, Update pull schedule & Enable cluster Mapping.
- Configuration Templates and its Mapping.
- Control Clusters/individual Nodes
- Apply hardware Policy settings
- Create/ edit Lighting Policy.

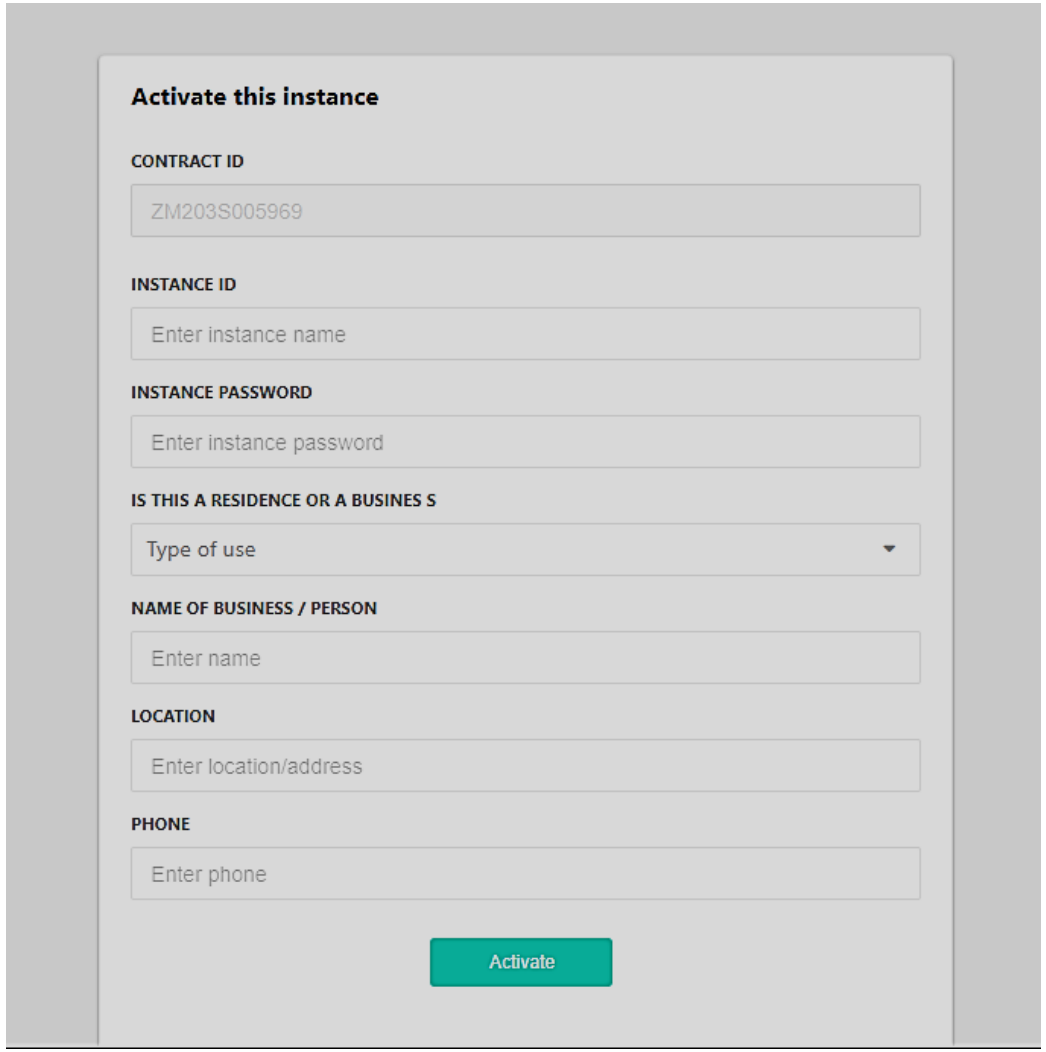
Find out Local IP of inspeXtor

InspeXtor Obtained its IP address from DHCP server once connected to network

Or

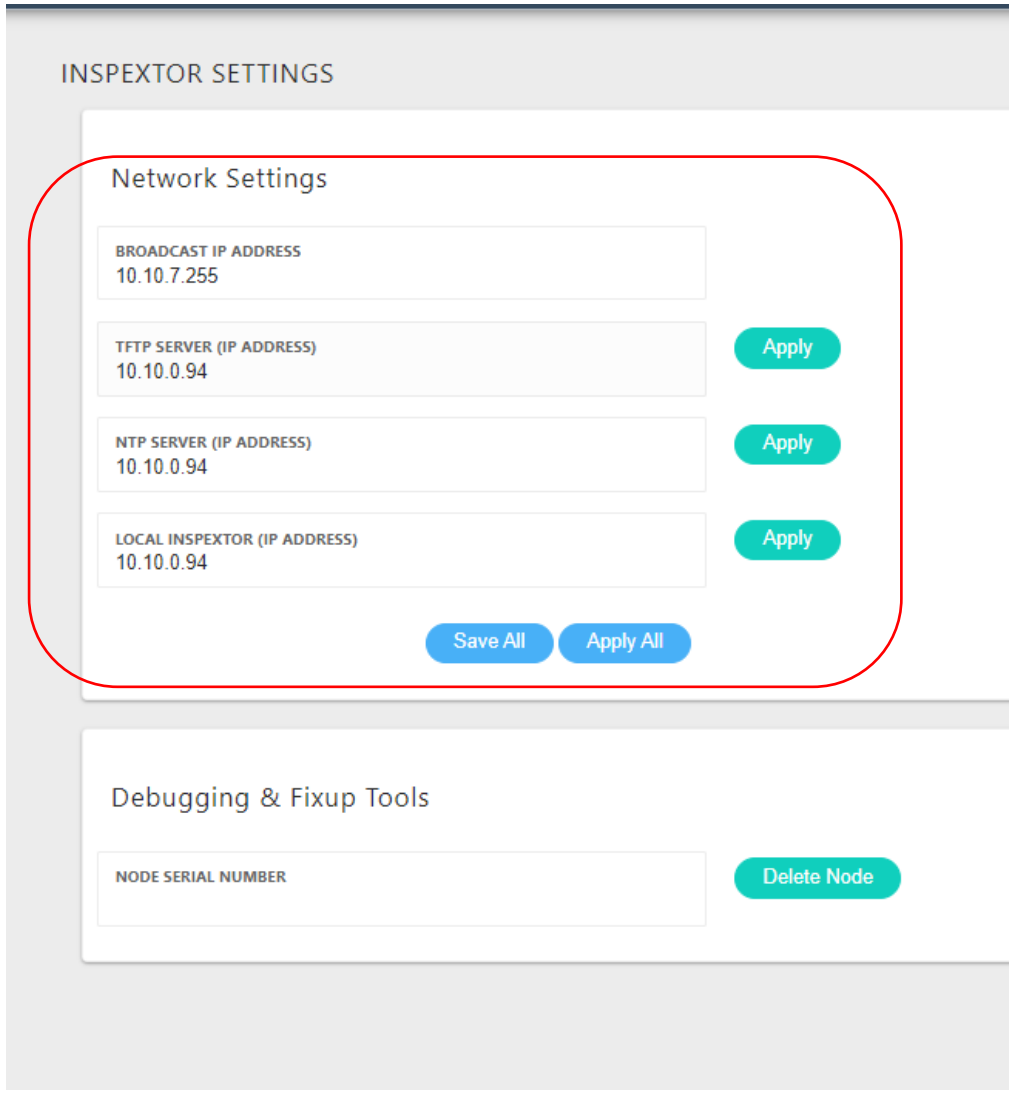
We can statically assign IP address to inspeXtor server as per clients network requirements

Instance Activation



- To activate the instance, collect Instance ID and Password from MHT engineers.
- Select your Type of Use
- Update your Name/Business Name
- Update your address
- Update Your phone number and activate your instance
- After Instance activation, verify that all data and settings has been erased.

InspeXtor Setting Page

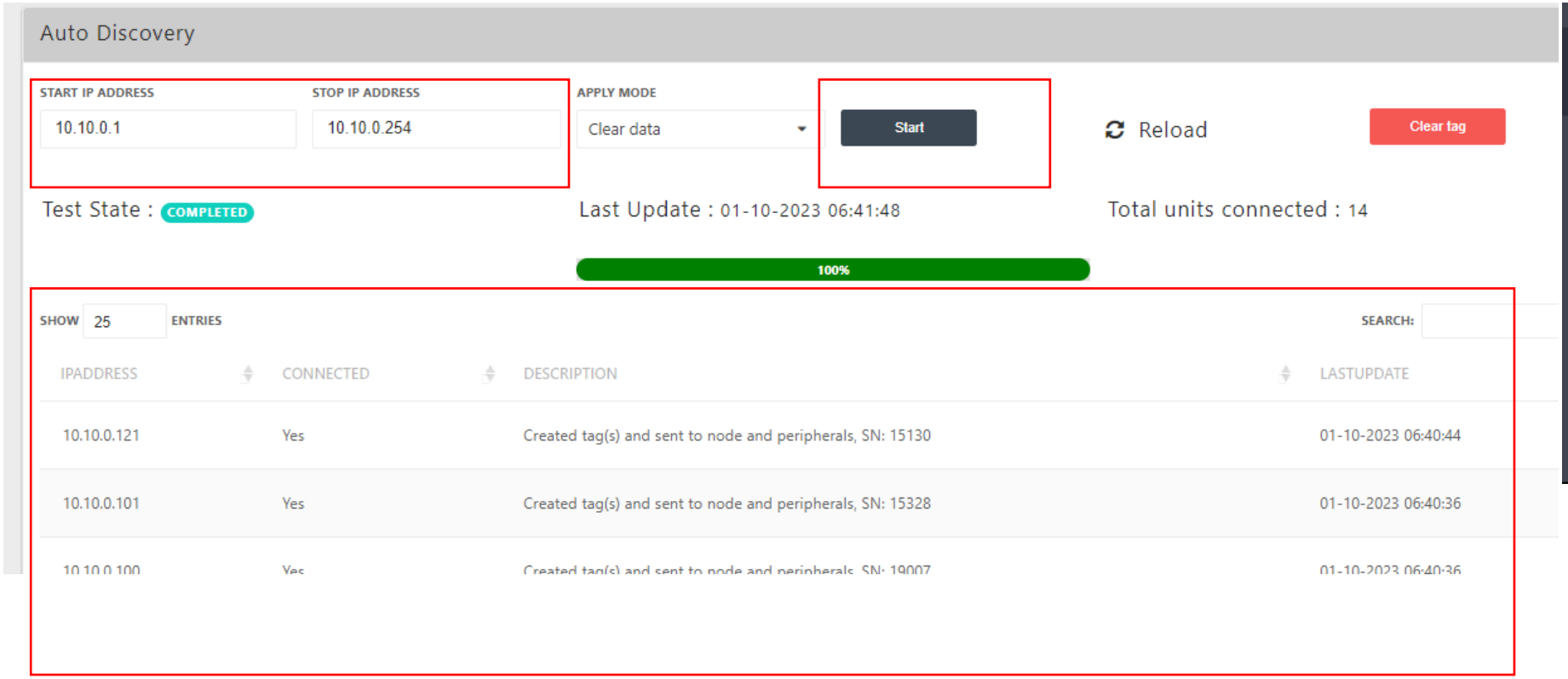


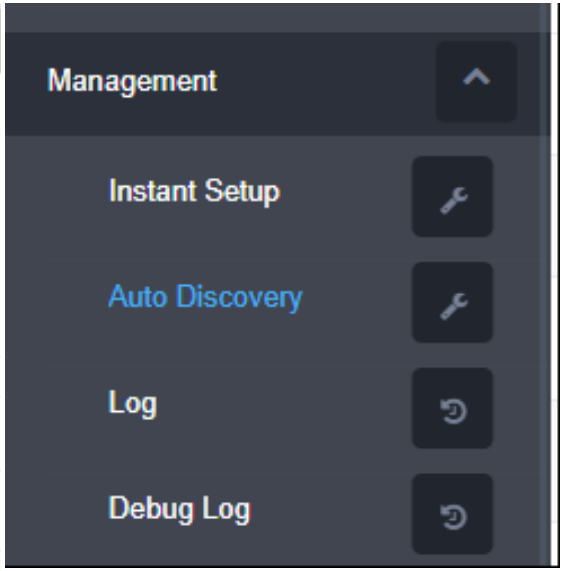
- Default Values will get displayed here.
- Enter your Broadcast/TFTP /NTP Ips according to your network
- Enter your local inspeXtor IP

Auto discovery

Go to Management →Auto discovery

Input IP Range for Node drivers connected in network and Perform Auto discovery





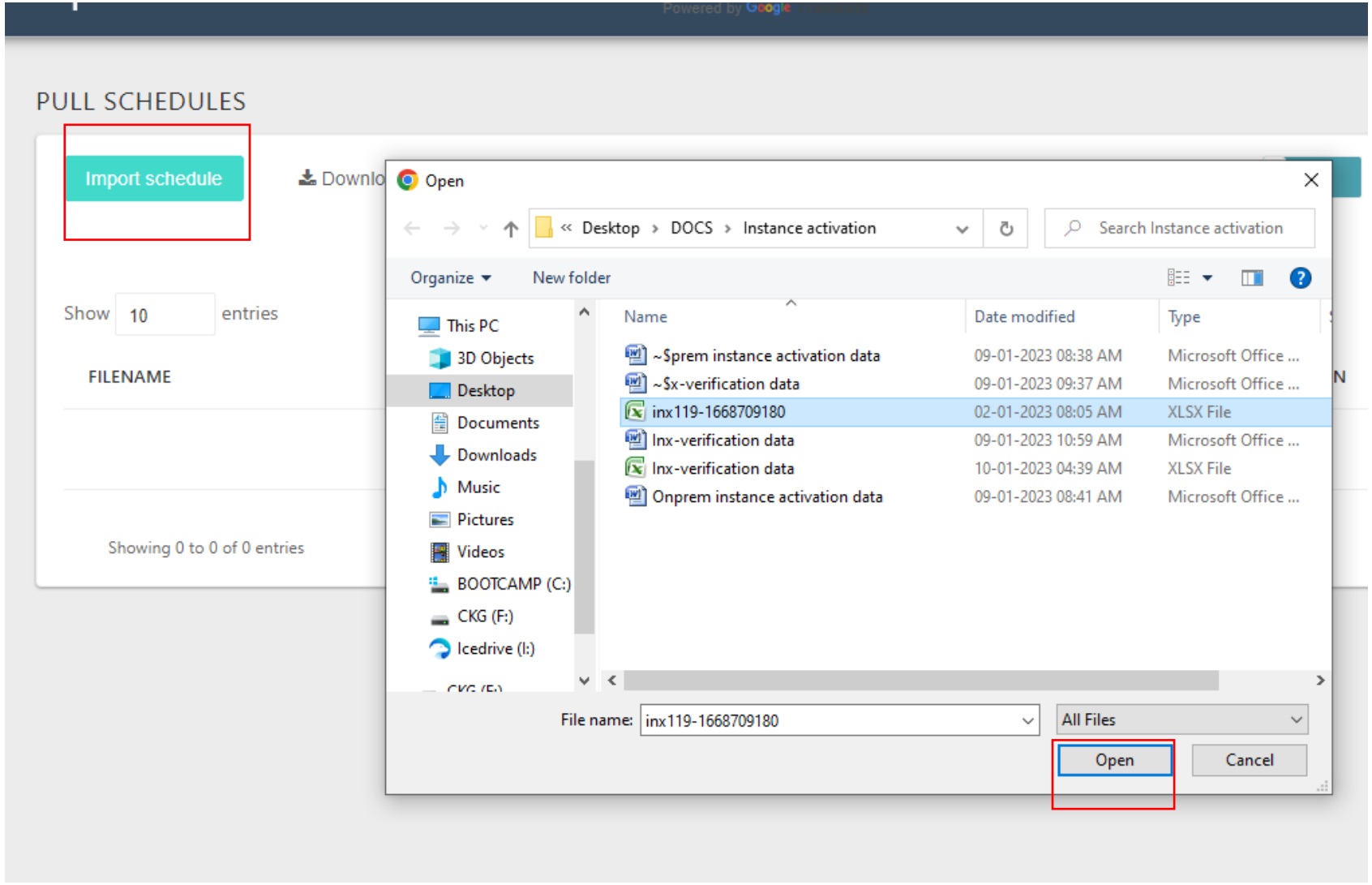
Pull Schedule

It is Map of all Node Drivers connected in POE network.

We can download Pull schedule Template from software

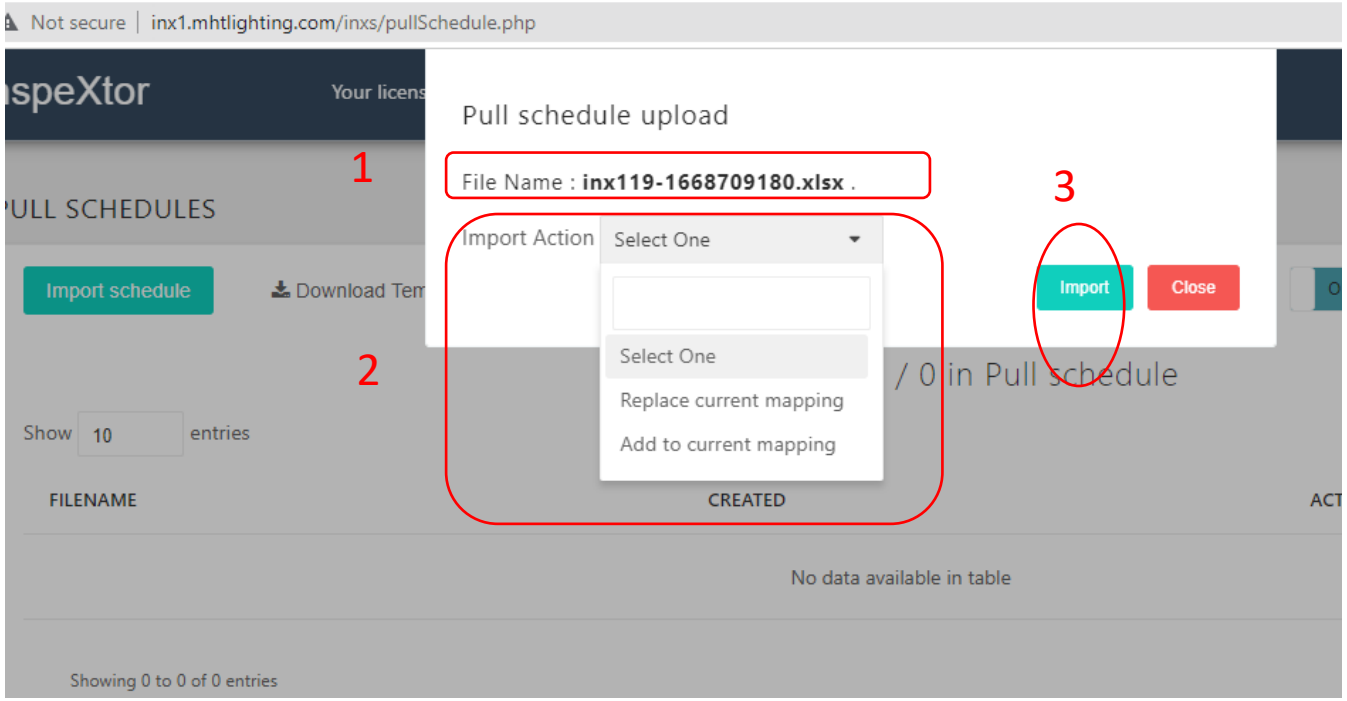
Wiki Link: Pull schedule · AK-Khalis/mht-inx-wiki Wiki

Pull Schedule



- Upload Pull schedule File using Import schedule button
- Select pull schedule file from your local computer and click on open as shown in diagram

Pull Schedule



1. **Pull schedule upload completed**

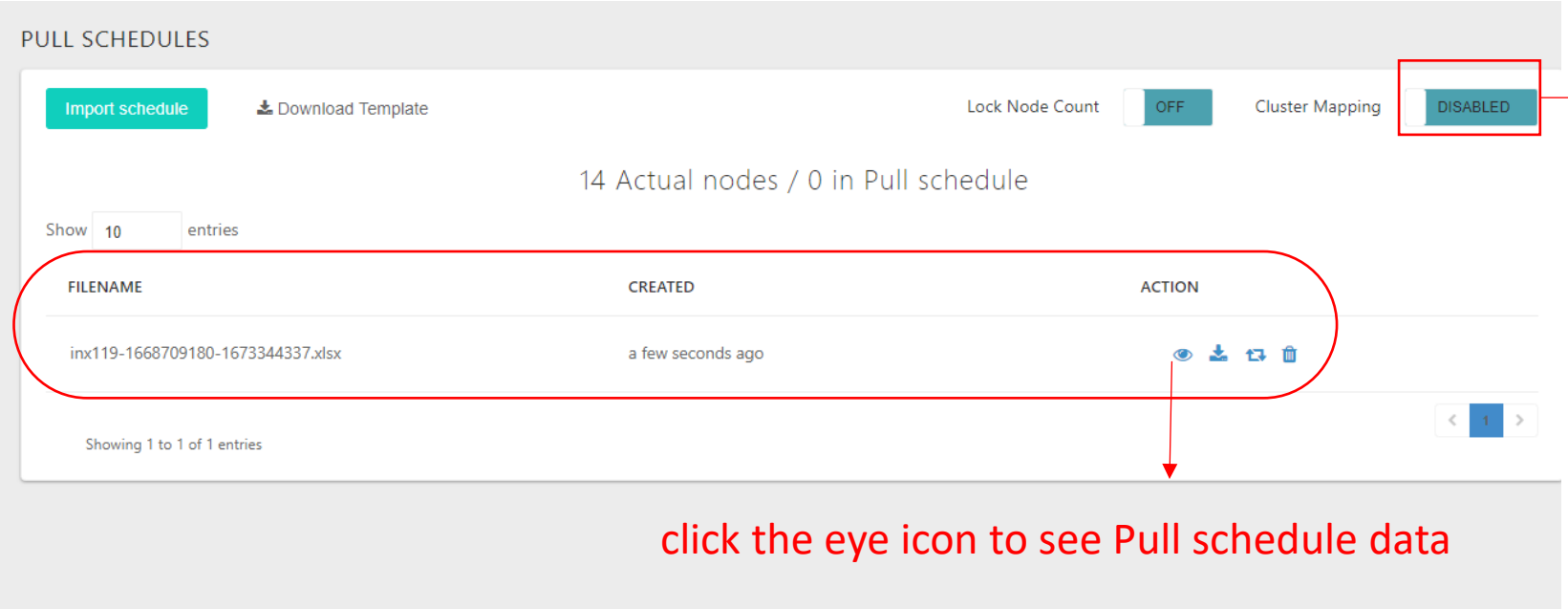
2. **Select from Import action dropdown: Replace/add**

->Replace current mapping: to clear any active cluster in the instance and load data from uploaded pull schedule file.

->Add to current mapping: keep existing cluster and load data from uploaded pull schedule file.

3. **Click import**

Pull Schedule

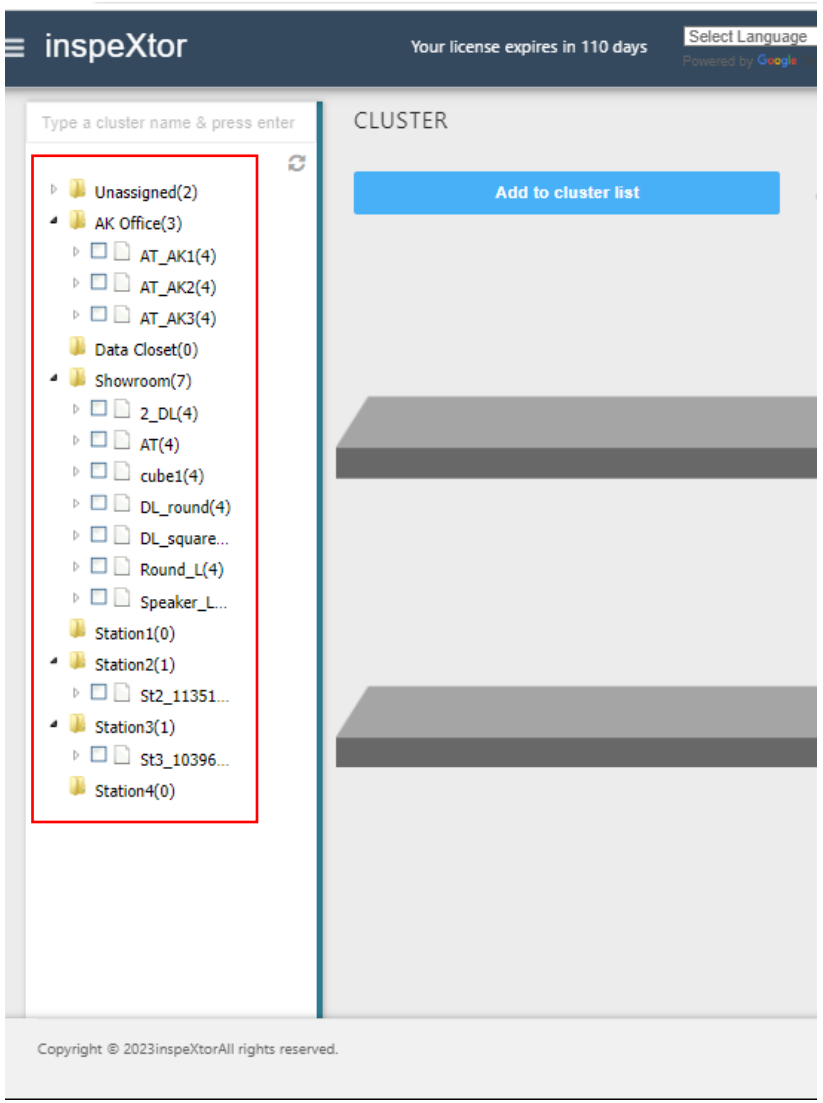


After Pull schedule upload, it is important to enable cluster mapping.

click the eye icon to see Pull schedule data

After successful import file will be listed as below.
Check file data is correct. (click the eye icon)

Verification of Clusters



1. Go to Cluster menu under commissioning.
2. Check all clusters are created and nodes are mapped under each cluster. (it takes 10 – 15 mts to show nodes in the cluster)
3. If nodes are not created properly, please contact support team

Configuration Templates and Its Mapping

- Create a configuration template to configure Node parameters correctly
- Once configuration templates are created, map it to its corresponding cluster
- Refer to wiki for more details:

Node Templates Configuration and Mapping · AK-Khalis/mht-inx-wiki Wiki

ITS VERY IMP TO APPLY ALL & SAVE ALL INSPEXTOR IPS THROUGH INSPEXTOR SETTING PAGE

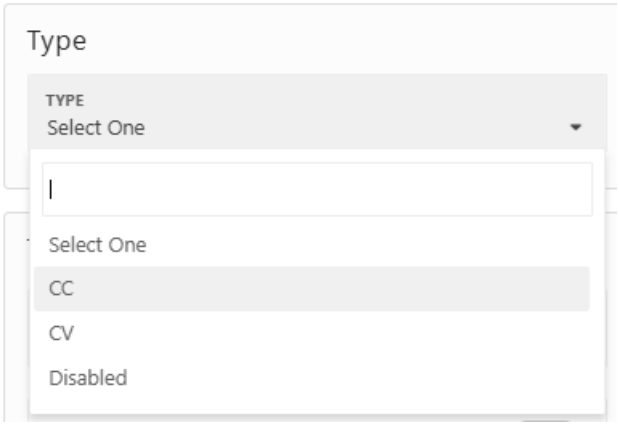
AFTER NODE CONFIGURATION MAPPING IS FINISHED.

2 Out Node Config Template And Its Mapping

Section1: Template Name

Input Template name as per your naming convention.

Section 2: Type



Depending on the type of 90W node you are using, select the appropriate option:

- **CC:** Choose this if you are using a CC Node.
- **CV:** Choose this if you are using a CV Node.
- **Disabled:** Select this to disable the node's output channels. No outputs will be available when this option is chosen.

Section3: Total Max Watts.

Channel 1: Enter the wattage you want to configure for Node CH1.
Channel 2: Enter the wattage you want to configure for Node CH2.

Desired Power:
When this feature is enabled, the node will negotiate the specified *Desired Power* with the Cisco switch port.

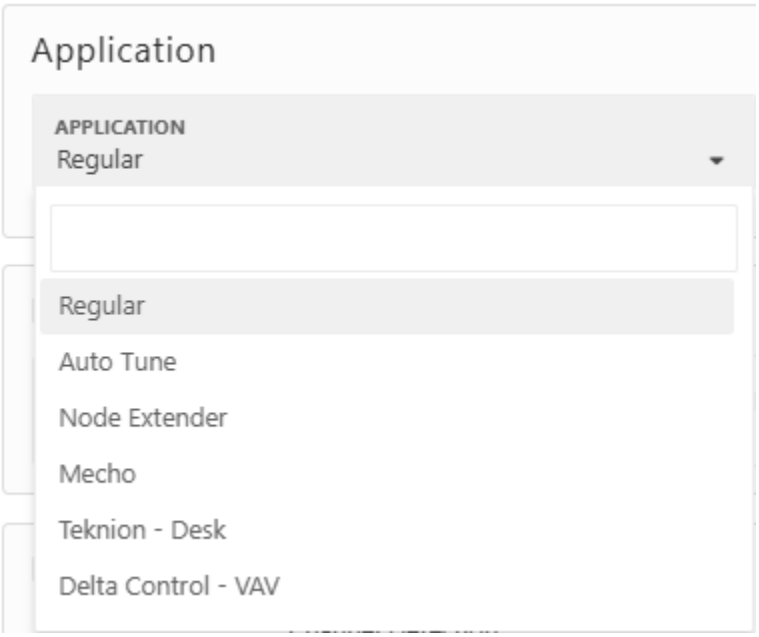
- **Example:** If a 40W fixture (Ch1-20W and Ch2-20W) is connected to the node and you set the Desired Power to 40W, the node will negotiate 40W with the Cisco switch port at startup.
- If the feature is **disabled**, the node will automatically negotiate the full 90W with the switch port.

Important:
Negotiation refers to **power allocation** from the Cisco port.

- If the feature is disabled, the Cisco port allocates 90W to the node.
- If the feature is enabled (e.g., 40W in the example), the Cisco port allocates only 40W to the node.
- LLDP must be enabled on cisco switch for this feature to work.

⚠️ **Warning:** Ensure the total configured wattage on the node does not exceed the Desired Power value. If the node attempts to draw more power than allocated, it will continuously power cycle because the Cisco port will limit power delivery.

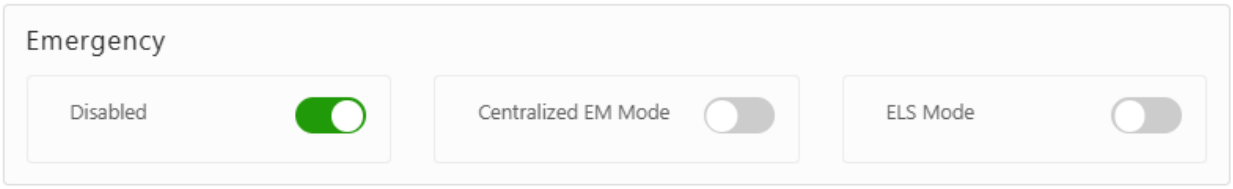
Section4: Application



Application Selection:
Choose the appropriate application based on how the node will be used:

- **Regular:** Select this option when using CC or CV fixtures.
- **Auto Tune:** Use this option for color-tunable fixtures. These fixtures have two pairs:
    - **Warm Pair (3000K)** – must be connected to **CH1**
    - **Cool Pair (5000K)** – must be connected to **CH2**
      Proper connection is required for correct operation.
- **Mecho:** Select this option when using the special 90W Mecho Node to power Mecho shades.
- **Teknion – Desk:** Choose this option when the node is used to control Teknion Desks.
- **Delta Control – VAV:** Select this option if the MHT node is being used to control a Delta Controls VAV device.

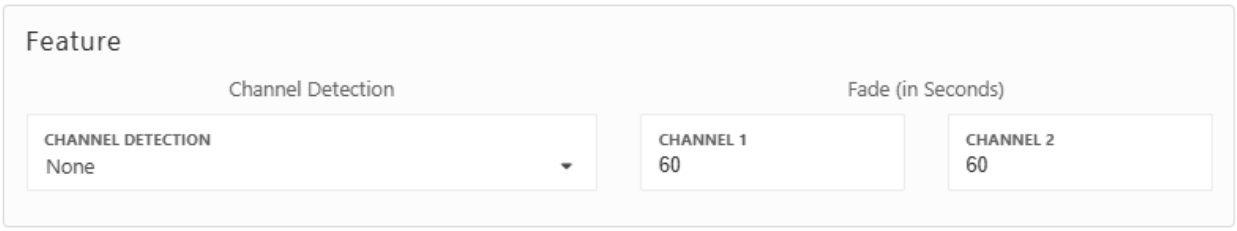
Section5: Emergency



- **Disabled:**
  - Disables the emergency feature.
  - Node functions as a regular node.
- **Centralized EM Mode:**
  Requirements:
  - Must be enabled on *all* emergency nodes.
  - All emergency nodes must be powered by UPS or generator via dedicated emergency switches.
  - InspeXtor server must remain on **regular power only** (not backup).

  Operation:
  - During a power outage, the InspeXtor server shuts down.
  - Within 10–20 seconds, emergency nodes detect the outage.
  - Emergency nodes disable control and switch to **100% brightness**.
  - When power is restored, the InspeXtor server comes back online, and nodes return to normal operation.
- **ELS Mode**
  - Enable this option if you are using an MHT ELS Node.
  - The ELS Node accepts both line voltage input and PoE input simultaneously.
  - Normal Operation: The node is powered through the PoE input.
  - Power Outage: When PoE power is lost, the node automatically switches to line voltage input (from the backup source) to keep the light ON.

Section6: Feature



- **Channel Detection:**

  When enabled, if someone unplugs a fixture from a channel, the node will send an event to InspeXtor.

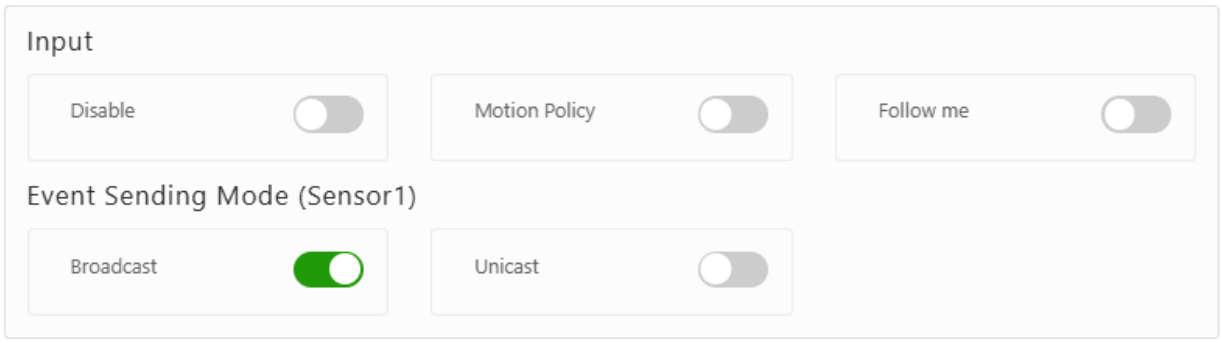
  This event will appear in red at the bottom of the dashboard, indicating that a fixture has been disconnected.

- **Fade (in seconds):**

  Defines how smoothly fixtures transition between states.

  Based on the value entered, the output fixtures will fade over the specified time instead of switching instantly.

Section7: Input



- **Disable:**

  - Select this option if no motion sensor is connected to the node.
- **Motion Policy:**
  - Enable this option if a motion sensor is connected to the node.
- **Logical Occupancy:**
  - Use this option when multiple nodes and multiple sensors are grouped together.
  - Ensures that if one sensor detects vacancy while another detects occupancy, the entire group remains in the occupied state.
  - This prevents lights from shutting off when a person is standing in a corner that only one sensor covers.
- **Occupied Delay (e.g., 0 sec):**
  - Defines how quickly the node changes to Occupied after the sensor is triggered.
  - Example: 0 sec → status changes immediately.
- **Vacant Delay (e.g., 60 sec):**
  - Defines how long the node waits before switching from Occupied to Vacant after the sensor reports vacancy.
  - Example: 60 sec → lights turn off 60 seconds after vacancy is detected.

Event Sending Mode (Sensor 1):

- **Broadcast:**
  - When triggered, the node connected to the sensor broadcasts an event across the network.
  - All nodes in the group will respond.
- **Unicast:**
  - When triggered, the node connected to the sensor sends a unicast message.
  - Only that specific node will respond, even if it belongs to a group.

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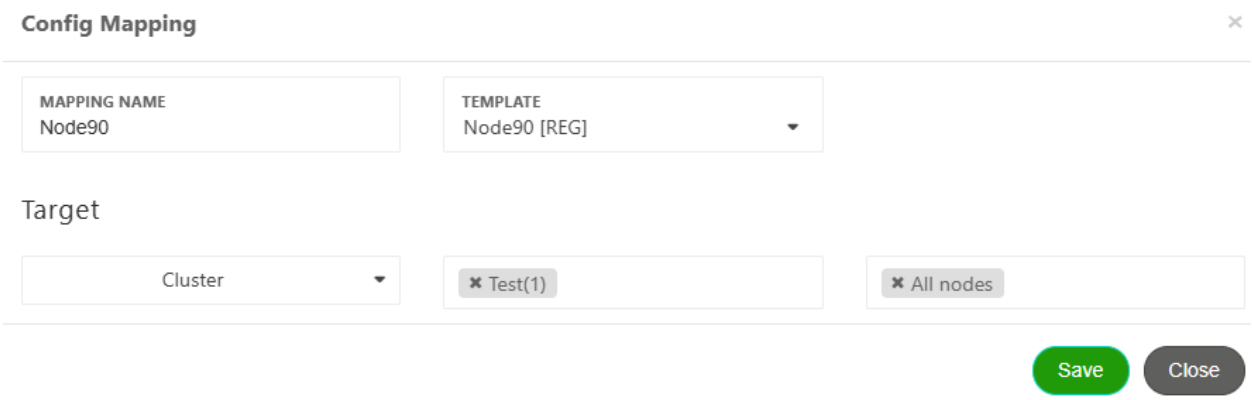
Node Mapping Template: Mapping Template to Cluster

Once a template is created, the next step is to map it to the corresponding cluster.

1. Go to the Configuration module and open the Node Mapping Template feature.
2. Click + Create New Config Mapping to begin mapping configuration templates.
3. Refer to the screenshot below for guidance.

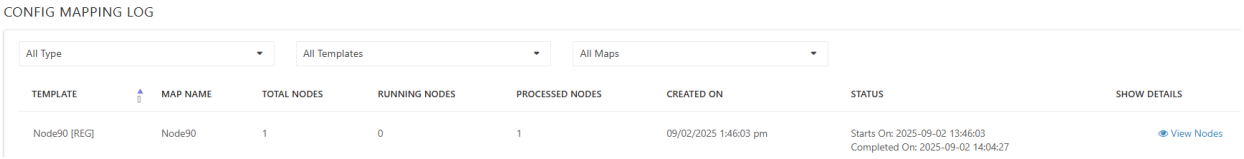


4. After you hit Save, AIDA will automatically start applying the configuration to all nodes associated with that cluster.

Node Apply Template Log

Once the mapping process begins, you can track its progress in the Config Mapping Log section.

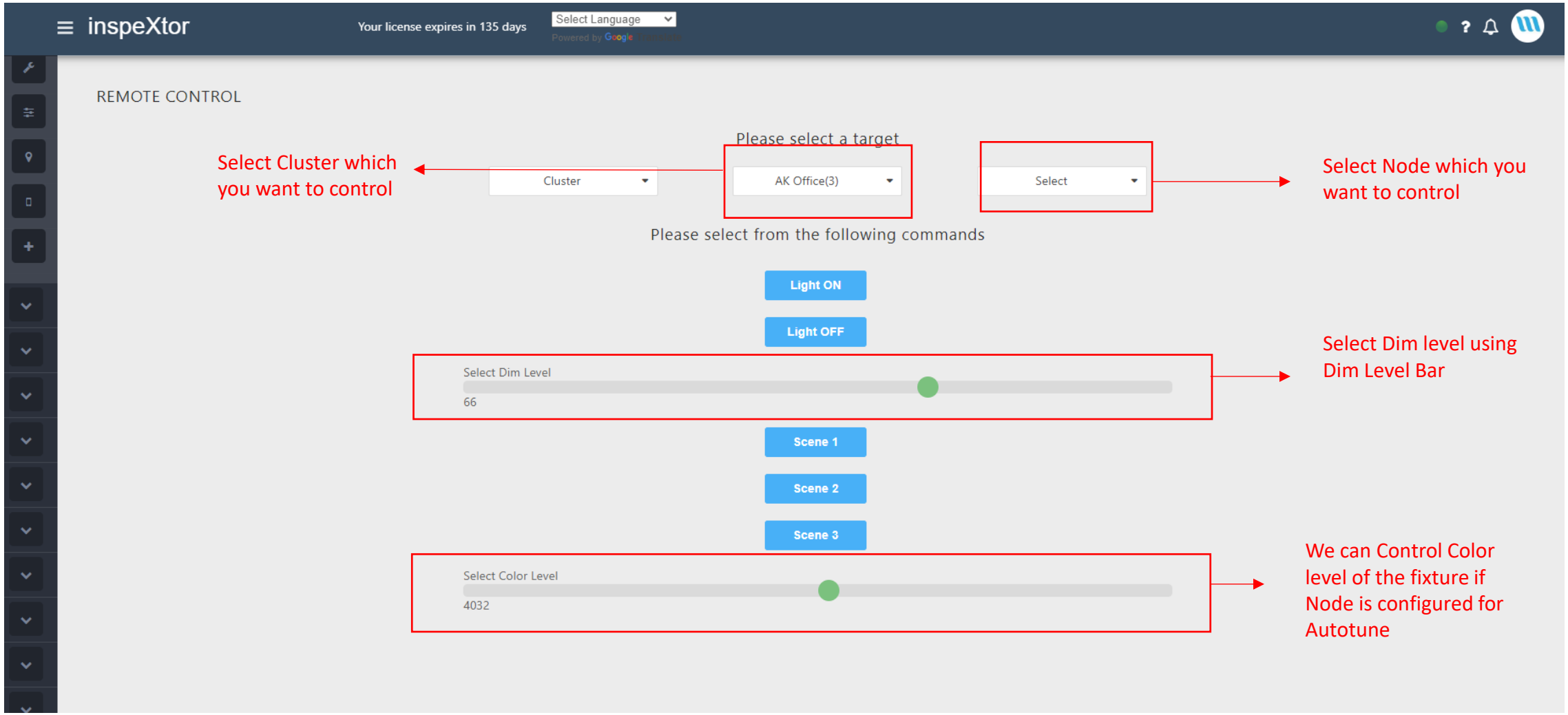
- Navigate to Configuration → Node Apply Template Log.
- Here you will see the processing status for each node.
- Refer to the screenshot below for more details.



Important Notes

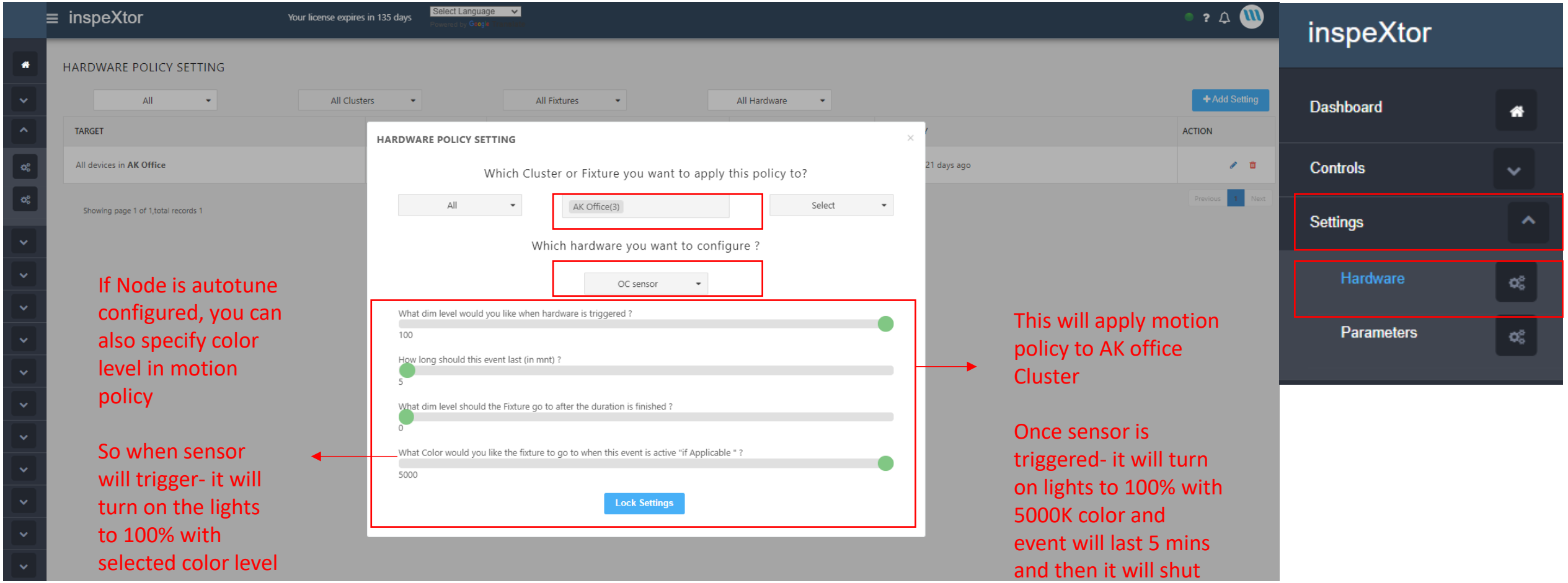
- It is very important to apply and save all Inspector IPs through the InspeXtor Settings page once node configuration mapping is complete.
- After all correct IPs are applied, press the Repopulate button in the Pull Schedule section.

Control cluster / individual Node



Hardware setting page

How to apply Motion policy to individual Node/ Node Cluster



If Node is autotune configured, you can also specify color level in motion policy

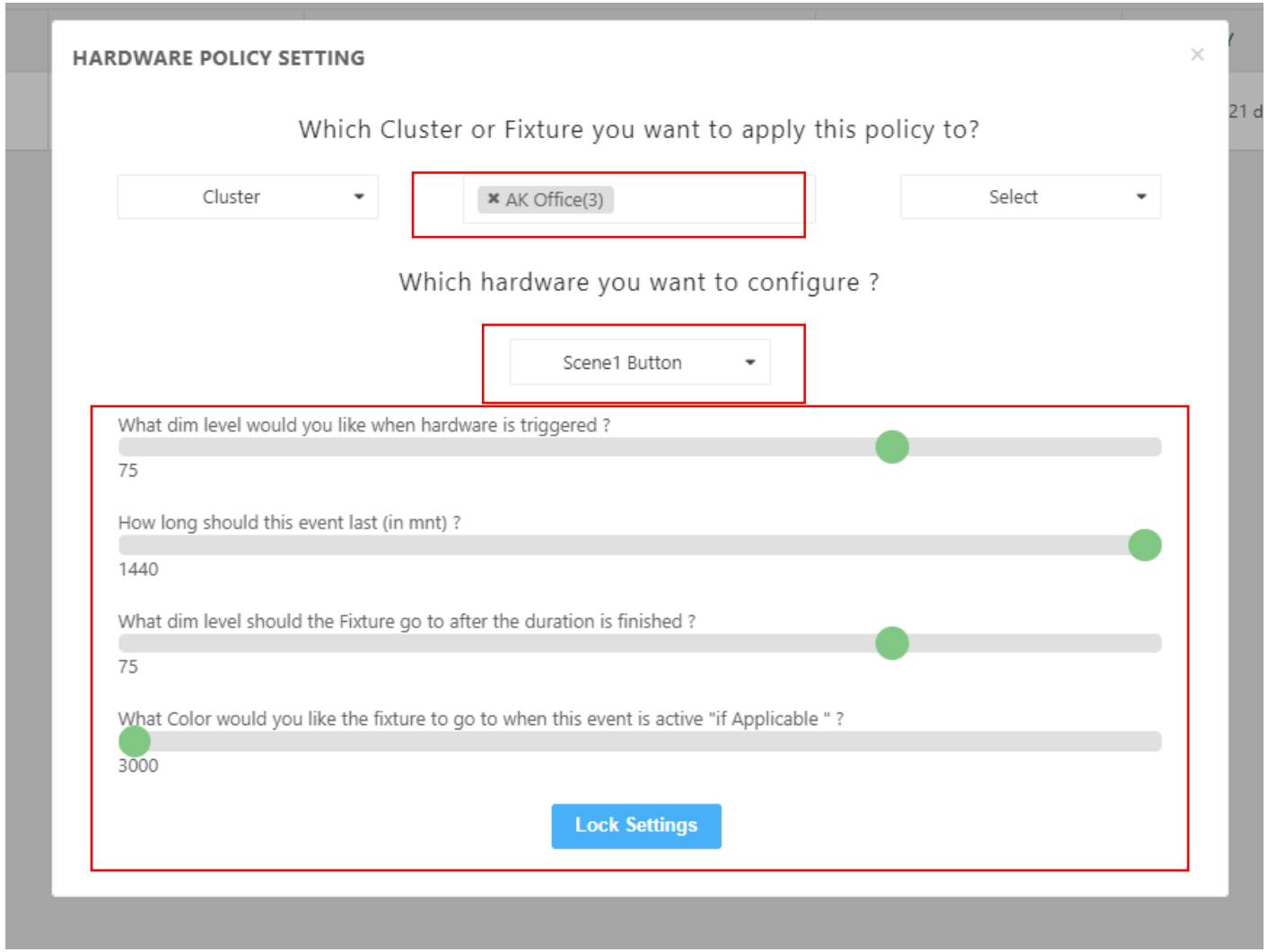
So when sensor will trigger- it will turn on the lights to 100% with selected color level

This will apply motion policy to AK office Cluster

Once sensor is triggered- it will turn on lights to 100% with 5000K color and event will last 5 mins and then it will shut down to 0%

Hardware setting page

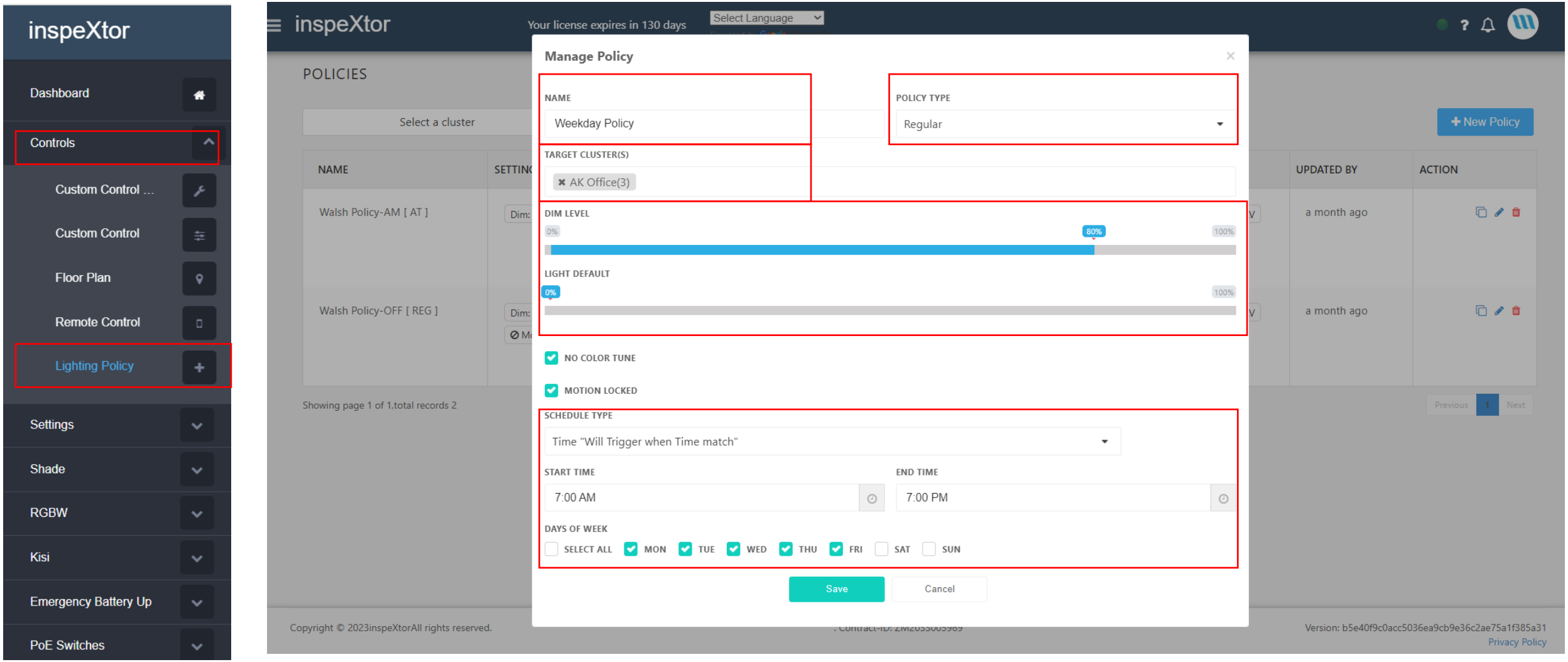
How to apply Scene buttons policies using hardware setting page



Lighting Policy

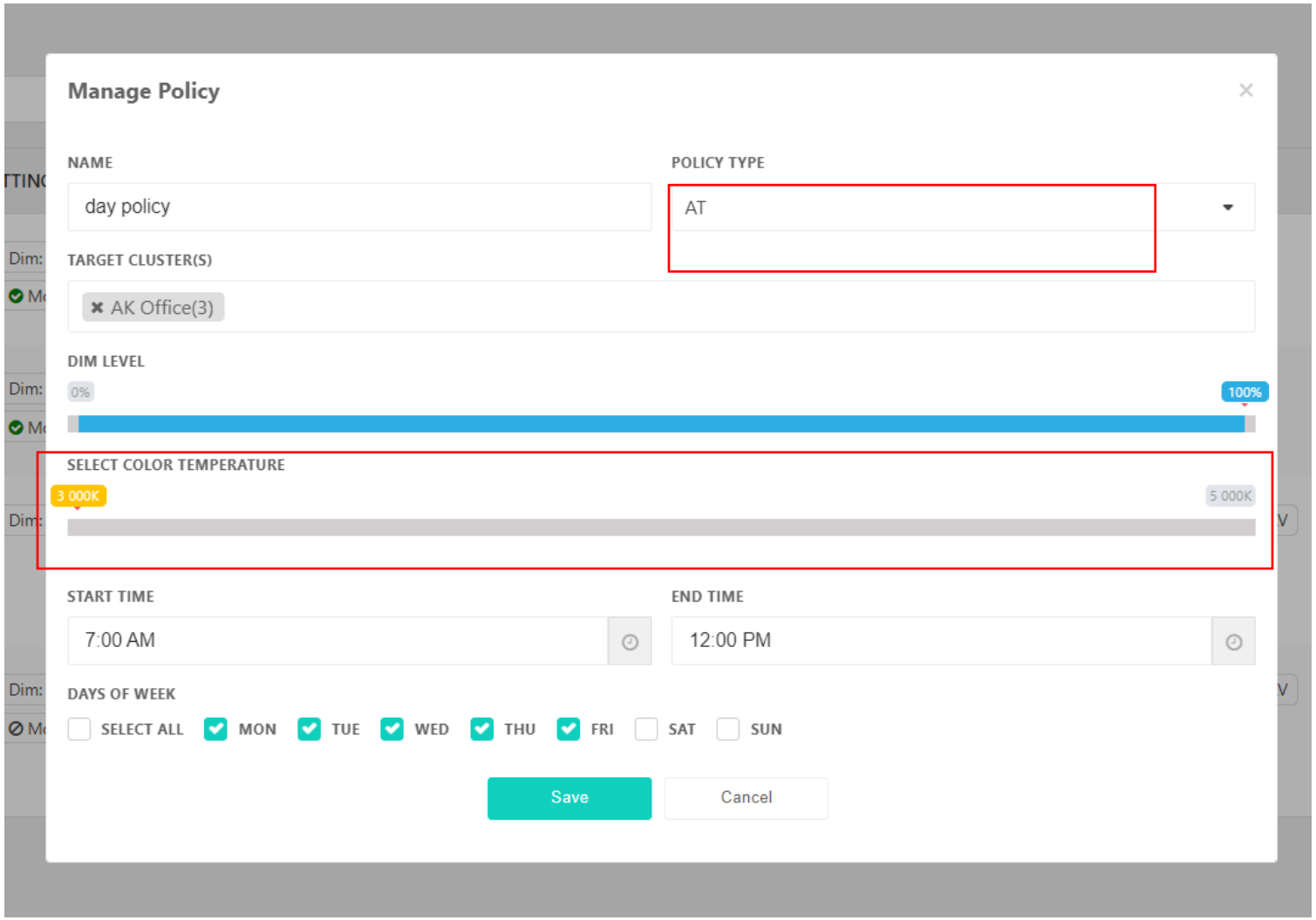
[Refer to Wiki Link for more details : Lighting Policy · AK-Khalis/mht-inx-wiki Wiki]

Regular lighting policy with Motion disabled/Autotune disabled.



Lighting Policy

How to setup Autotune lighting policy

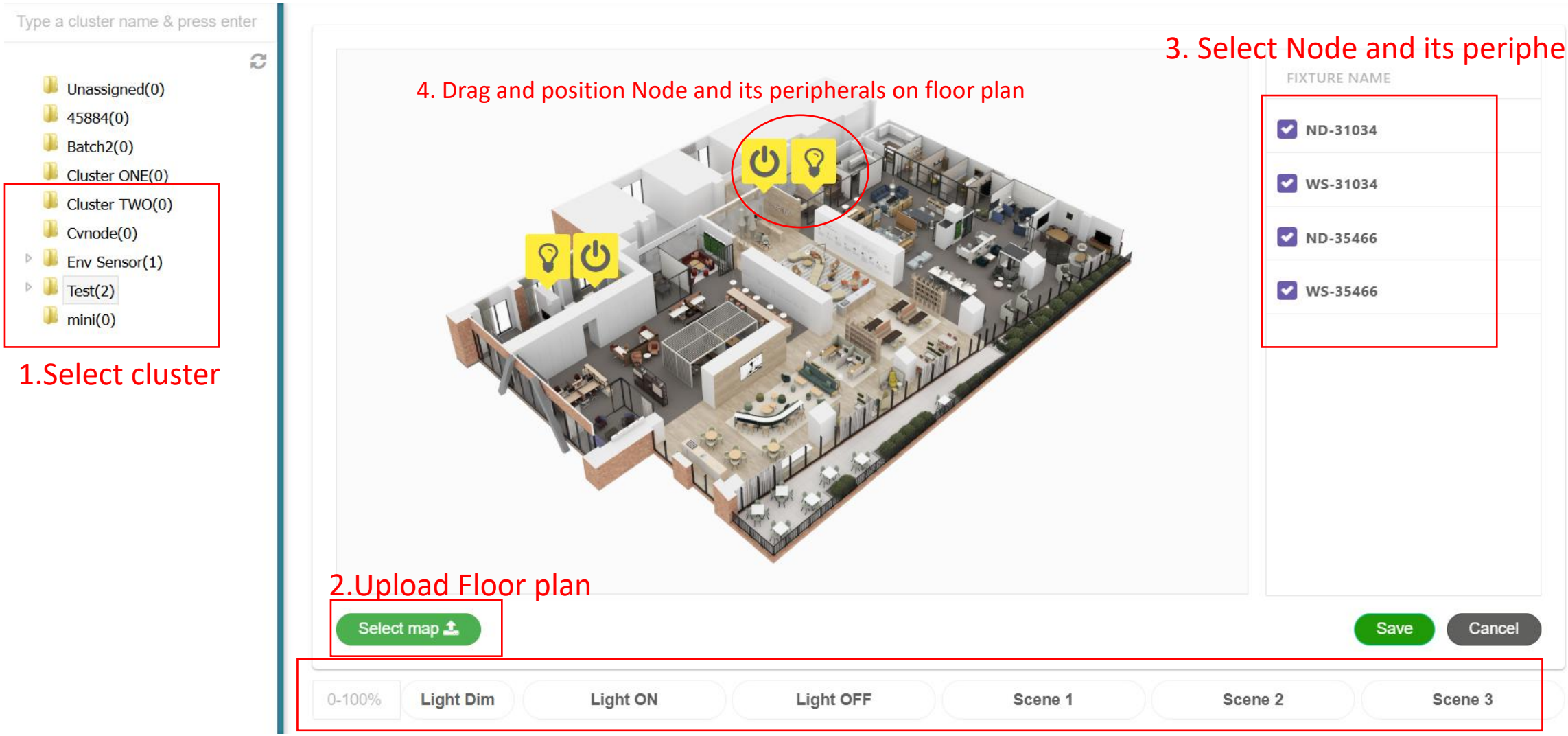


Floor Plan

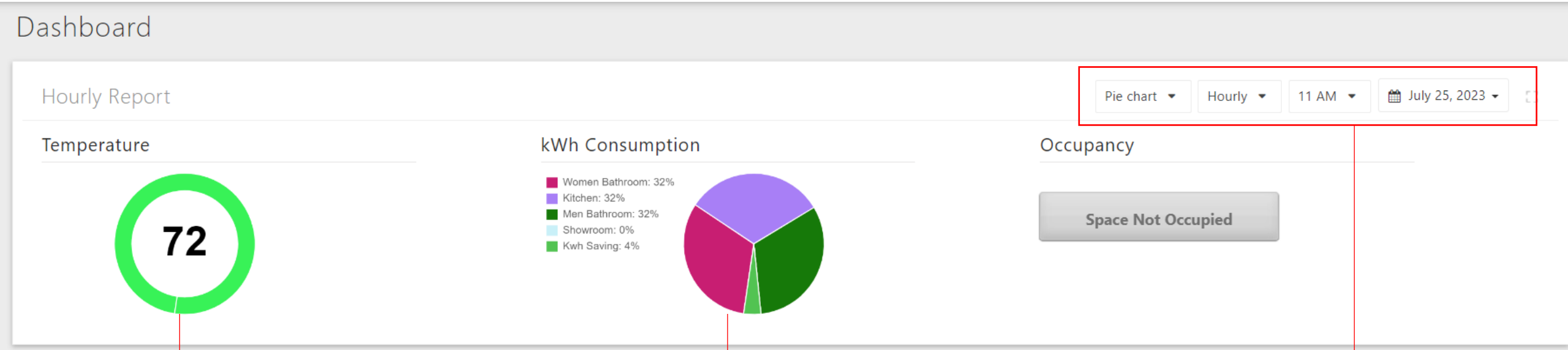
The **Floor Plan** feature allows you to add a floor plan image for each cluster.

To use this feature:

- Navigate to the **Control** module and select **Floor Plan**.
- On the left, you'll see the **cluster tree view**. In the center, you can upload your **floor plan image**. On the right, you'll find the **nodes and peripherals**.
- Select a cluster from the left tree, upload the floor plan image for that cluster, and then choose the nodes and peripherals associated with it.
- Once selected, yellow icons for the nodes and peripherals will appear on the floor plan. You can drag and position them anywhere on the image.
- Click **Save** to confirm.
- At the bottom of the page, you'll find control buttons—**Dim, On, Off, and Scenes**—which allow you to control the lights connected to the cluster.


Type a cluster name & press enter
Unassigned(0)
45884(0)
Batch2(0)
Cluster ONE(0)
Cluster TWO(0)
Cvnode(0)
Env Sensor(1)
Test(2)
mini(0)
1.Select cluster
4. Drag and position Node and its peripherals on floor plan
3. Select Node and its peripherals
FIXTURE NAME
ND-31034
WS-31034
ND-35466
WS-35466
2.Upload Floor plan
Select map
Save
Cancel
0-100%
Light Dim
Light ON
Light OFF
Scene 1
Scene 2
Scene 3
5. Control Lights using above control buttons

Interpretation of Dashboard data

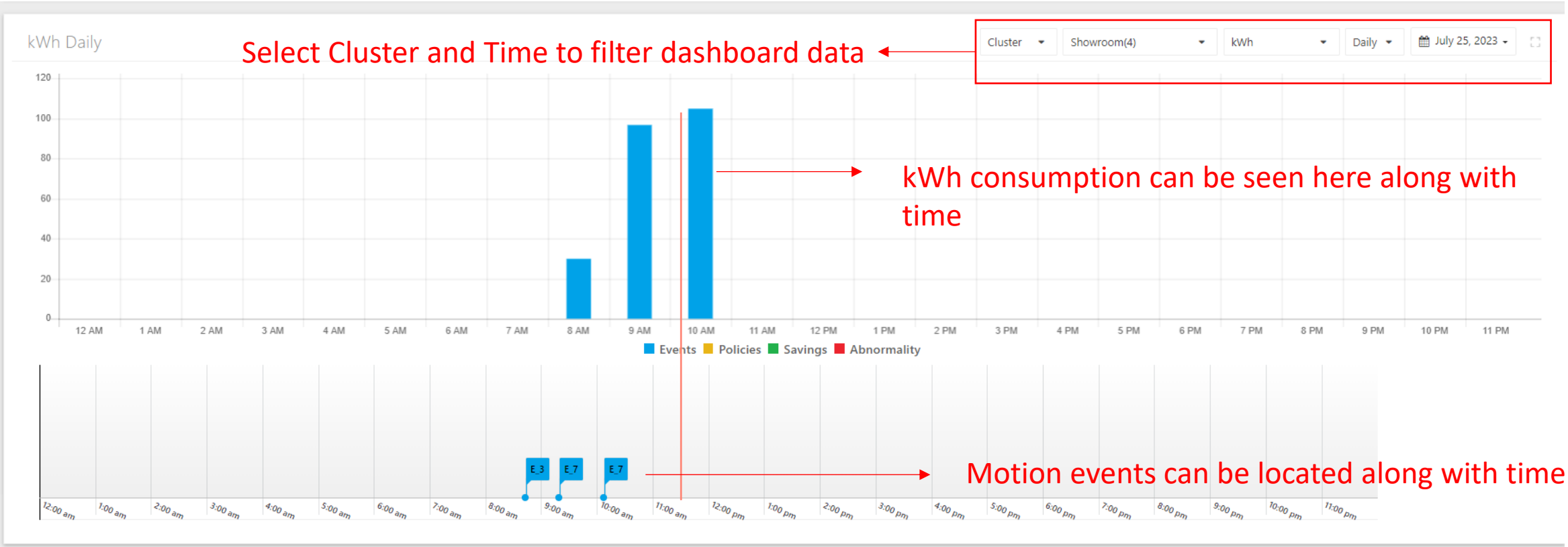


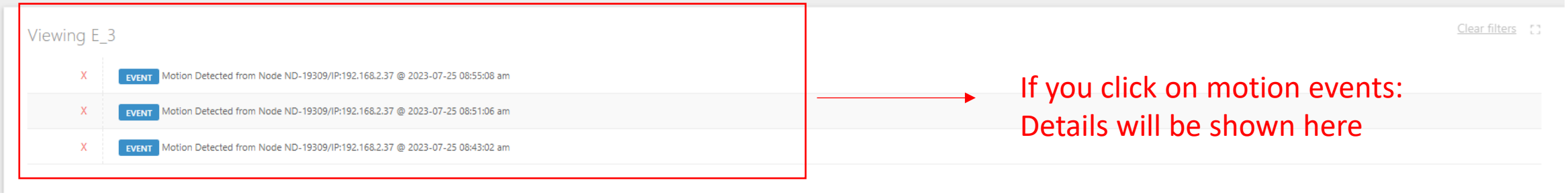
Default temperature of Node

This pie Chart represents kWh consumption per Cluster

Data can be filtered using selection of date and time.

Interpretation of Dashboard data





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Thank You

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