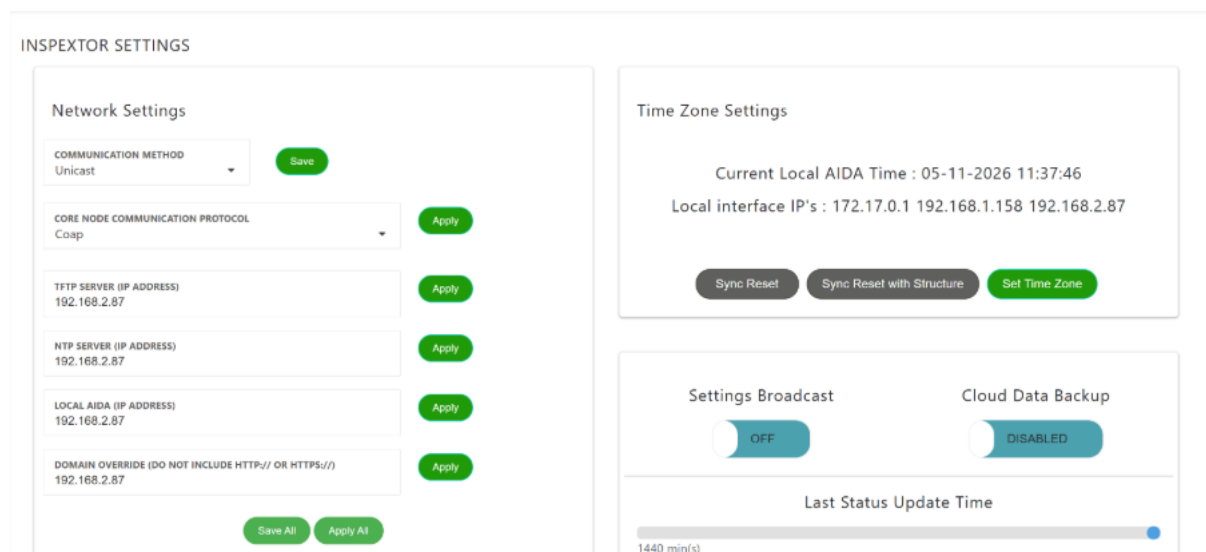


## Core Node Troubleshooting Guide & Use Cases

### Inxip

The **inxip** parameter specifies the IP address of **Aida**. This value must be set to the Aida IP address where the nodes are connected so that they can be properly monitored and controlled.

Inxip is typically configured using the **Inspextor Settings Page** in **Configure & Commission**, which is the standard and recommended approach.



The screenshot displays the 'INSPEXTOR SETTINGS' interface, divided into two main sections: 'Network Settings' and 'Time Zone Settings'.

**Network Settings:** This section includes several configuration fields, each with an 'Apply' button to its right:

- COMMUNICATION METHOD:** Set to 'Unicast', with a 'Save' button.
- CORE NODE COMMUNICATION PROTOCOL:** Set to 'Coap', with an 'Apply' button.
- TFTP SERVER (IP ADDRESS):** Set to '192.168.2.87', with an 'Apply' button.
- NTP SERVER (IP ADDRESS):** Set to '192.168.2.87', with an 'Apply' button.
- LOCAL AIDA (IP ADDRESS):** Set to '192.168.2.87', with an 'Apply' button.
- DOMAIN OVERRIDE (DO NOT INCLUDE HTTP:// OR HTTPS://):** Set to '192.168.2.87', with an 'Apply' button.

At the bottom of the Network Settings section are two buttons: 'Save All' and 'Apply All'.

**Time Zone Settings:** This section displays the current local AIDA time as '05-11-2026 11:37:46' and the local interface IP addresses as '172.17.0.1 192.168.1.158 192.168.2.87'. It includes three buttons: 'Sync Reset', 'Sync Reset with Structure', and 'Set Time Zone'.

**Settings Broadcast:** A toggle switch currently set to 'OFF'.

**Cloud Data Backup:** A toggle switch currently set to 'DISABLED'.

**Last Status Update Time:** A progress bar showing a duration of '1440 min(s)'.

After adding the addresses, click **APPLY ALL** and **SAVE ALL** to ensure the nodes recognize and apply the configured destination settings.

Check the **Coap Log**:

## COAP LOG

Filters

Date

COMMMETHOD	TARGETTYPE	TARGETID	IPADDRESS	RESOURCE	CONTEXT	QUERY	DTYPE	CDATA	COMPONENT	MODE	OUTPUTSTATUS	CREATEDON
Unicast	NODE	1	192.168.2.47	inx dfd	tsrv	N/A	S	192.168.2.87	RProcessor::FW_ SET_PARAM	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	2	192.168.2.50	inx dfd	tsrv	N/A	S	192.168.2.87	RProcessor::FW_ SET_PARAM	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	6	192.168.2.54	inx dfd	tsrv	N/A	S	192.168.2.87	RProcessor::FW_ SET_PARAM	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	2	192.168.2.50	inx network	ntp	N/A	S	192.168.2.87	RProcessor::FW_ SET_PARAM	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	7	192.168.2.77	inx dfd	tsrv	N/A	S	192.168.2.87	RProcessor::FW_ SET_PARAM	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	1	192.168.2.47	inx network	ntp	N/A	S	192.168.2.87	RProcessor::FW_ SET_PARAM	PUT	<a href="#">View status</a>	0 mins ago

### USE CASE:

If the change doesn't apply and no CoAP logs are generated, then it indicates a software-side issue, and you can push the update manually through the terminal.

### To configure inxip using the Terminal:

1. Navigate to **Nodes**.
2. Select the required **Node Name/Serial**.
3. Set the **Request Type** to **PUT**.
4. Enter the Aida IP address in the **Data** field.

After sending the command to the node, change the **Request Type** to **Get** to verify the updated value.

Path Assembly

REQUEST TYPE PUT	NODES ND-163	OR IP Enter IP here	PAGE network
CONTEXT inxip	QUERY Enter query here	DATA TYPE String	DATA 192.168.2.87

[Send Command To Node](#)

Results:

```
{
  "e": {
    "tag": "4",
    "serial number": "00163",
    "serialnum": "00163",
    "mac": "40:4c:ca:43:38:ef",
    "ip": "192.168.2.46",
    "mask": "255.255.255.0",
    "gateway": "192.168.2.1",
    "broadcast_ip": "192.168.2.255",
    "inx_ip": "192.168.2.87",
    "inxip": "192.168.2.87",
    "mqtt_broker": "disable",
    "mqtt_pub_mode": "broadcast",
    "mqtt_connected": "false",
    "config_server": "disable",
    "config_period": 300,
    "ntp_server": "disable",
    "time_zone": "ESTSEDT,M3.2.0/2,M11.1.0",
    "time": "Jan 24 16:45:48 1970",
    "802.1x enable": "false",
    "eap_method": "eap-md5",
    "eap_username": "testing",
    "eap_password": "*****",
    "event_ack_enable": "false",
    "cmd": ""
  }
}
```

## CC, CV, CP Configuration

CC, CV & CP values are typically configured using the **Node Templates Page** in **Configure & Commission**, which is the standard and recommended approach.

Refer below image for configuration guidance:

### Core Node Config Template



#### Template Name ?

T1 Motion

#### Fixture Type and Rating ?

TYPE  
CC

POWER (W)  
10

CURRENT (A)  
0.25

VOLTAGE (V)  
40

#### Application ?

APPLICATION  
Regular

#### Emergency

Disabled



Centralized EM Mode



#### Actuator Settings

Fadetime (s)

CHANNEL 1  
2

Motion Enable



#### Input Connected ?

Disable



Motion Sensor



Logical Occupancy



Wall Switch



Light Harvesting



Save

Close

### **Current (cc):**

The **cc** value represents the fixture current in milliamps.

- Example: If the fixture current is **0.25 A**, enter **250 cc**.

### **Voltage (cv):**

The **cv** value represents the fixture voltage in millivolts.

- Example: If the fixture voltage is **40 V**, enter **40000 cv**.

### **Wattage (cp):**

The wattage value is entered as the required power multiplied by 10.

- Example: For a **10 W** fixture, enter **100** in the data field.

### **USE CASE:**

If the Node template doesn't process and there's some issue in processing, then it indicates a software-side issue, and you can push the update manually through the terminal.

### **To configure cc, cv, or cp values from the Terminal:**

1. Set the **Request Type** to **PUT**.
2. Enter the desired value in the **Data** field and select **Integer** as the data type.
3. Under **Actuators**, choose **Subpage – Actuator 1** as shown below.

After sending the command, change the **Request Type** to **Get** to confirm the update.

## Path Assembly

REQUEST TYPE PUT	NODES ND-163	OR IP Enter IP here	PAGE actuators	SUBPAGE actuator1	PROPERTY Select
CONTEXT cc	QUERY Enter query here	DATA TYPE Integer	DATA 250		

[Send Command To Node](#)

Results:

```
{
  "e": {
    "prphtag": "3",
    "channel": 1,
    "cluster": "17",
    "fadetime": 2000,
    "pwm_mode": "ALL_ON",
    "motion_enable": "true",
    "motdsbl": "33",
    "open_circuit_detect_enable": "false",
    "short_circuit_detect_enable": "false",
    "dim": 0,
    "pp": 0,
    "dim_min": 2,
    "cc": 250,
    "cv": 40000,
    "cp": 100,
    "rgbw": 4294967295,
    "at": 4000,
    "current": 0,
    "voltage": 907,
    "power": 0,
    "em_mode": "false",
    "em_time": 10,
    "battery_enable": "false",
    "010V_enable": "false"
  }
}
```

## Motion Enable / Disable

Motion can be enabled on a node when it is paired with a motion or occupancy sensor.

Motion sensor policies are typically configured using the **Node Template in Configure & Commission**, which is the standard and recommended approach.

Refer to the diagram below for configuration guidance.

---

### Actuator Settings

Fadetime (s)

CHANNEL 1  
2

Motion Enable

### Input Connected ?

Disable

Motion Sensor

Logical Occupancy

Wall Switch

Light Harvesting

- When a **motion sensor** is selected, the input type automatically defaults to **input\_lh**.
- When both a **motion sensor** and **logical occupancy** are selected, the input type is set to **occupancy\_lh**

#### USE CASE:

If the Node template doesn't process and there's some issue in processing, then it indicates a software-side issue, and you can push the update manually through the terminal.

The **motion\_enable** parameter supports the following values:

- **true** – Motion enabled (automatically sets **motdsbl** to **33**)
- **false** – Motion disabled (automatically sets **motdsbl** to **3**)

## Path Assembly

REQUEST TYPE PUT	NODES ND-163	OR IP Enter IP here	PAGE actuators	SUBPAGE actuator1	PROPERTY Select
CONTEXT motion_enable	QUERY Enter query here	DATA TYPE String	DATA true		

[Send Command To Node](#)

Results:

```
{
  "e": {
    "prphtag": "3",
    "channel": 1,
    "cluster": "17",
    "fadetime": 2000,
    "pwm_mode": "All_ON",
    "motion_enable": "true",
    "motdsbl": "33",
    "open_circuit_detect_enable": "false",
    "short_circuit_detect_enable": "false",
    "dim": 0,
    "pp": 0,
    "dim_min": 2,
    "cc": 250,
    "cv": 40000,
    "cp": 100,
    "ngbw": 4294967295,
    "at": 4000,
    "current": 0,
    "voltage": 907,
    "power": 0,
    "em_mode": "false",
    "em_time": 10,
    "battery_enable": "false",
    "o10v_enable": "false"
  }
}
```

After sending the command, select **Get** under **Request Type** to verify the change.

---

## Motion Policies

To configure motion sensor behavior for **Automatic ON** and **Automatic OFF**, navigate to **Policy** → **Hardware Policy**:

- Select the **cluster** where the policy will be applied.
- Choose **OC Sensor**.
- Enable **Auto ON** and **Auto OFF**.
- Adjust the required values as needed.

### HARDWARE POLICY ✕

Which Cluster or Fixture you want to apply this policy to?

All Resting (3)

---

Which hardware you want to configure ?      Configure auto ON / OFF      Autotune

OC sensor      Auto ON and Auto OFF     

---

What dim level would you like when hardware is triggered ?

85

Time out (in minutes)

5

What dim level should the Fixture go to after the duration is finished ?

0

**Lock Settings**

This configuration results in the lights turning on to **85% brightness** when motion is detected. When the area becomes vacant and a vacancy event is logged in the software, a **5-minute timer** begins. Once the timer expires, the fixture gradually dims down to **0%**.

These same settings may also be configured manually using the **Terminal** if required as written below.

#### Automatic ON / Automatic OFF:

- **eventlh = mot**
- **eventhl = vac**

#### Manual ON / Automatic OFF:

- **eventlh = manual**
- **eventhl = vac**

### Path Assembly

REQUEST TYPE PUT	NODES ND-115	OR IP Enter IP here	PAGE sensors	SUBPAGE sensor1	PROPERTY Select
CONTEXT eventlh	QUERY Enter query here	DATA TYPE String	DATA mot		

[Send Command To Node](#)

Results:

```
{
  "e": {
    "enable": "true",
    "prphtag": "29",
    "channel": 1,
    "cluster": "17",
    "type": "OCCUPANCY_LH",
    "eventlh": "mot",
    "eventh1": "vac",
    "occupiedtimeout": 0,
    "vacanttimeout": 60,
    "holdtime": 0,
    "high_threshold": 2500,
    "low_threshold": 2000,
    "daylight": "disable",
    "voltage": 0,
    "input_state": "false",
    "logical_state": "false"
  }
}
```

## USE CASE:

### Motion & Vacancy Policy Operation

A space requires lights to automatically turn ON when motion is detected and turn OFF after a defined period of inactivity.

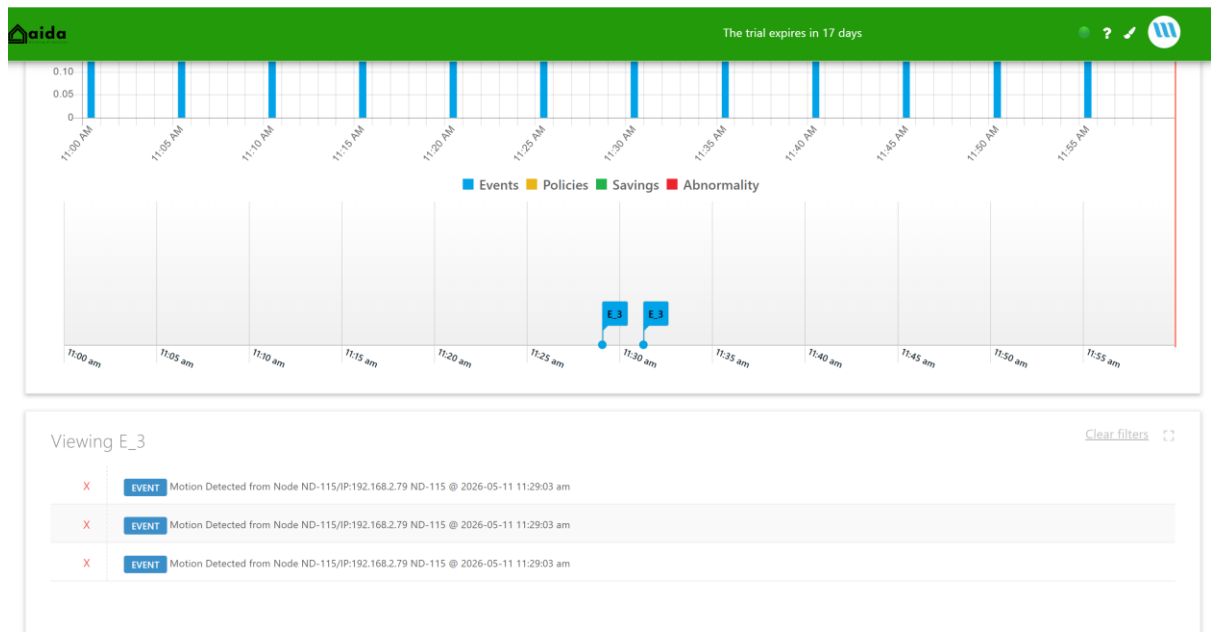
#### Description:

The motion and vacancy policy is configured using the **Hardware Policy** page. When motion is detected, the node responds by turning the lights ON to the brightness level defined in the policy. Once the area becomes vacant and the vacancy event is registered in the software, a vacancy timer begins counting based on the configured **VacantTimeout** value.

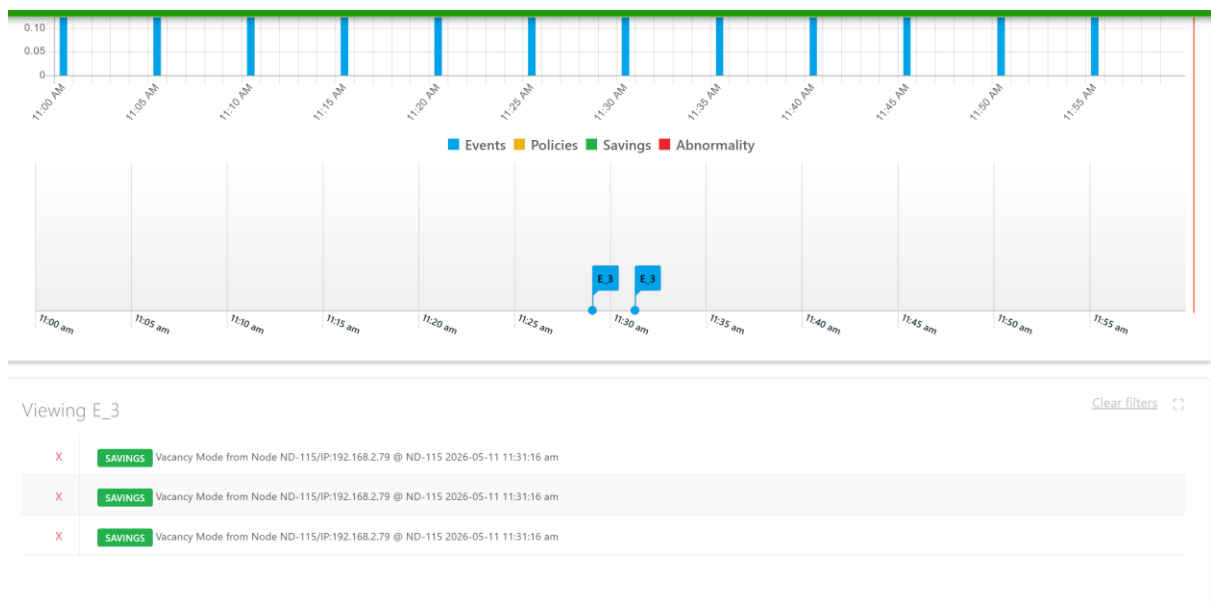
If no motion is detected during this period, the lights follow the assigned policy behavior and dim down to the configured level (typically OFF).

#### Verification:

- When motion occurs, the corresponding event can be observed in the system activity.



- When vacancy is detected, the vacancy timer starts as configured.



- The applied brightness or dim value can be verified in the **Terminal** by selecting **Request Type: Get** and confirming the policy and dim values for the associated node or cluster.

## Path Assembly

REQUEST TYPE GET	NODES ND-115	OR IP Enter IP here	PAGE policy
---------------------	-----------------	------------------------	----------------

[Send Command To Node](#)

Results:

```
{
  "e": {
    "on": "F0,0,100;",
    "onpol": "F0,0,100;",
    "off": "F0,0,0;",
    "offpol": "F0,0,0;",
    "up": "F2,0,10;",
    "uppol": "F2,0,10;",
    "down": "F3,0,10;",
    "downpol": "F3,0,10;"
  },
  "mot": "F0,0,85",
  "motion": "F0,0,85",
  "vac": "F1,0,101,5,0",
  "vacancy": "F1,0,101,5,0",
}
```

In the above configuration, while applying the policy from the **Hardware Policy** page (way above in the document), the dim value was set to **85%** when motion is detected, and a **5-minute timer** was configured to start once a vacancy event is registered. The applied settings can be verified by checking the corresponding **motion** and **vacancy** variables, which reflect the configured brightness level and vacancy timeout behavior on the node.

---

## Scene Policies

Scene policies can be assigned to **Scene 1**, **Scene 2**, and **Scene 3** to control parameters such as brightness.

Example:

- Scene 1 → Brightness = 75
- Scene 2 → Brightness = 50
- Scene 3 → Brightness = 25

Scenes are configured through the **Hardware Policy** page. Refer to the diagram below for setup instructions.

## HARDWARE POLICY ✕

Which Cluster or Fixture you want to apply this policy to?

Which hardware you want to configure ?

Autotune

RGBW

What dim level would you like when hardware is triggered ?

75

Check COAP Log if the settings are applied.

## COAP LOG

Date: 10 May 2026 01:26 PM - 11 May 20:

Filters:

COMMMETHOD	TARGETTYPE	TARGETID	IPADDRESS	RESOURCE	CONTEXT	QUERY	DTYPE	CDATA	COMPONENT	MODE	OUTPUTSTATUS	CREATEDON
Unicast	NODE	1	192.168.2.47	inx policy	s1	N/A	S	F0,0,75	RProcessor:HARDWARE_POLICY_PROCESS	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	7	192.168.2.77	inx policy	s1	N/A	S	F0,0,75	RProcessor:HARDWARE_POLICY_PROCESS	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	4	192.168.2.44	inx policy	s1	N/A	S	F0,0,75	RProcessor:HARDWARE_POLICY_PROCESS	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	8	192.168.2.76	inx policy	s1	N/A	S	F0,0,75	RProcessor:HARDWARE_POLICY_PROCESS	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	5	192.168.2.53	inx policy	s1	N/A	S	F0,0,75	RProcessor:HARDWARE_POLICY_PROCESS	PUT	<a href="#">View status</a>	0 mins ago

After applying the configuration, open the **Terminal**, set the **Request Type** to **Get**, and select the **policy** page to verify the settings.

Path Assembly

REQUEST TYPE

GET

NODES

ND-47

OR IP

Enter IP here

PAGE

policy

Send Command To Node

Results:

```

{
  "e": {
    "on": "F0,0,100;",
    "onpol": "F0,0,100;",
    "off": "F0,0,0;",
    "offpol": "F0,0,0;",
    "up": "F2,0,10;",
    "uppol": "F2,0,10;",
    "down": "F3,0,10;",
    "downpol": "F3,0,10;",
    "mot": "F0,0,100",
    "motion": "F0,0,100",
    "vac": "F1,0,101,1,0;",
    "vacancy": "F1,0,101,1,0;",
    "s1": "F0,0,75",
    "s2": "F0,0,50",
    "s3": "F0,0,25"
  }
}

```

### Use Case: Verifying Scenes (s1) Activation

When **Scene 1** is triggered, using software **remote control**, the system pushes the **Scene 1 (S1) configuration** to the nodes in the associated cluster.

This action can be verified by checking the **CoAP log**, where the Scene 1 command should be visible. The values shown in the log should match the configuration that was previously defined in the **Hardware Policy** page for Scene 1.

COAP LOG

Date: 10 May 2026 11:33 AM - 11 May 2026

Filters: 10 May 2026 11:33 AM - 11 May 2026

Search:

COMMMETHOD	TARGETTYPE	TARGETID	IPADDRESS	RESOURCE	CONTEXT	QUERY	DTYPE	CDATA	COMPONENT	MODE	OUTPUTSTATUS	CREATEDON
Unicast	NODE	4	192.168.2.44	inx event	s1	N/A	S	16	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	5	192.168.2.53	inx event	s1	N/A	S	16	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	6	192.168.2.54	inx event	s1	N/A	S	16	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	7	192.168.2.77	inx event	s1	N/A	S	16	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	8	192.168.2.76	inx event	s1	N/A	S	16	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	10	192.168.2.80	inx event	s1	N/A	S	16	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago

To complete the verification, open the **Terminal** and confirm that the applied settings (such as brightness or dim values) reflect the Scene 1 configuration for the nodes in that cluster, also under policy – check your scenes configuration.

### Path Assembly

REQUEST TYPE GET	NODES ND-32	OR IP Enter IP here	PAGE actuators	SUBPAGE actuator1	PROPERTY Select
---------------------	----------------	------------------------	-------------------	----------------------	--------------------

[Send Command To Node](#)

Results:

```
{
  "e": {
    "prphtag": "4",
    "channel": 1,
    "cluster": "16",
    "fadetime": 2000,
    "pwm_mode": "ALL_ON",
    "motion_enable": "true",
    "motdsbl": "33",
    "open_circuit_detect_enable": "true",
    "short_circuit_detect_enable": "true",
    "dim": 75,
    "pp": 75,
    "dim_min": 2,
    "cc": 250,
    "cv": 40000,
    "cp": 100,
    "rgbw": 1677721600,
    "at": 4000,
    "current": 0,
    "voltage": 19743,
    "power": 0,
    "em_mode": "false",
    "em_time": 10,
    "battery_enable": "false",
    "010V_enable": "false"
  }
}
```

### Path Assembly

REQUEST TYPE GET	NODES ND-32	OR IP Enter IP here	PAGE policy
---------------------	----------------	------------------------	----------------

[Send Command To Node](#)

Results:

```
{
  "e": {
    "on": "F0,0,100;",
    "onpol": "F0,0,100;",
    "off": "F0,0,0;",
    "offpol": "F0,0,0;",
    "up": "F2,0,10;",
    "uppol": "F2,0,10;",
    "down": "F3,0,10;",
    "downpol": "F3,0,10;",
    "mot": "F0,0,100",
    "motion": "F0,0,100",
    "vac": "F1,0,101,5,0",
    "vacancy": "F1,0,101,5,0",
    "s1": "F0,0,75",
    "s2": "F0,0,50",
    "s3": "F0,0,25"
  }
}
```

Repeat the same steps for **Scene 2** and **Scene 3**, then verify the configuration in the Terminal.

---

## Dim / Brightness Control

The **dim** value controls the brightness level of the node:

- **100** – Maximum brightness
- **0** – Lights off

### To configure dim value:

1. Select the required **actuator**.
2. Enter the desired **dim** value in the **Data** field.

### USE CASE:

#### Verifying Remote ON/OFF Control

If a **remote control** is used to turn lights ON or OFF, the action can be verified by checking the **CoAP log**.

For example, if a **brightness value of 85%** is sent via remote control to an **entire cluster**, the CoAP log should display a **flash command** reflecting the same value. This confirms that the command was successfully issued to the cluster.

#### COAP LOG

Date												
Filters 10 May 2026 11:28 AM - 11 May 2026												
Search: <input type="text"/>												
COMMETHOD	TARGETTYPE	TARGETID	IPADDRESS	RESOURCE	CONTEXT	QUERY	DTYPE	CDATA	COMPONENT	MODE	OUTPUTSTATUS	CREATEDON
Unicast	NODE	1	192.168.2.47	inx event	fl	N/A	S	16,0,85	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	5	192.168.2.53	inx event	fl	N/A	S	16,0,85	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	4	192.168.2.44	inx event	fl	N/A	S	16,0,85	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	10	192.168.2.80	inx event	fl	N/A	S	16,0,85	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	7	192.168.2.77	inx event	fl	N/A	S	16,0,85	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago
Unicast	NODE	6	192.168.2.54	inx event	fl	N/A	S	16,0,85	LSC.sendControl	PUT	<a href="#">View status</a>	0 mins ago

To further validate the operation, open the **Terminal** and verify the **dim value** for the nodes belonging to that specific cluster. The dim value shown in the Terminal should match the value sent through the remote control.

## Path Assembly

REQUEST TYPE GET	NODES ND-47	OR IP Enter IP here	PAGE actuators	SUBPAGE actuator1	PROPERTY Select
---------------------	----------------	------------------------	-------------------	----------------------	--------------------

[Send Command To Node](#)

Results:

```
{
  "e": {
    "prphtag": "14",
    "channel": 1,
    "cluster": "16",
    "fadetime": 2000,
    "pwm_mode": "ALL_ON",
    "motion_enable": "true",
    "moidsbl": "33",
    "open_circuit_detect_enable": "true",
    "short_circuit_detect_enable": "true",
    "dim": 85,
    "pp": 85,
    "dim_min": 2,
    "cc": 250,
    "cv": 40000,
    "cp": 100,
    "rgbw": 4294967295,
    "at": 4000,
    "current": 3247,
    "voltage": 6079,
    "power": 0,
    "em_mode": "false",
    "em_time": 10,
    "battery_enable": "false",
    "010V_enable": "false"
  }
}
```