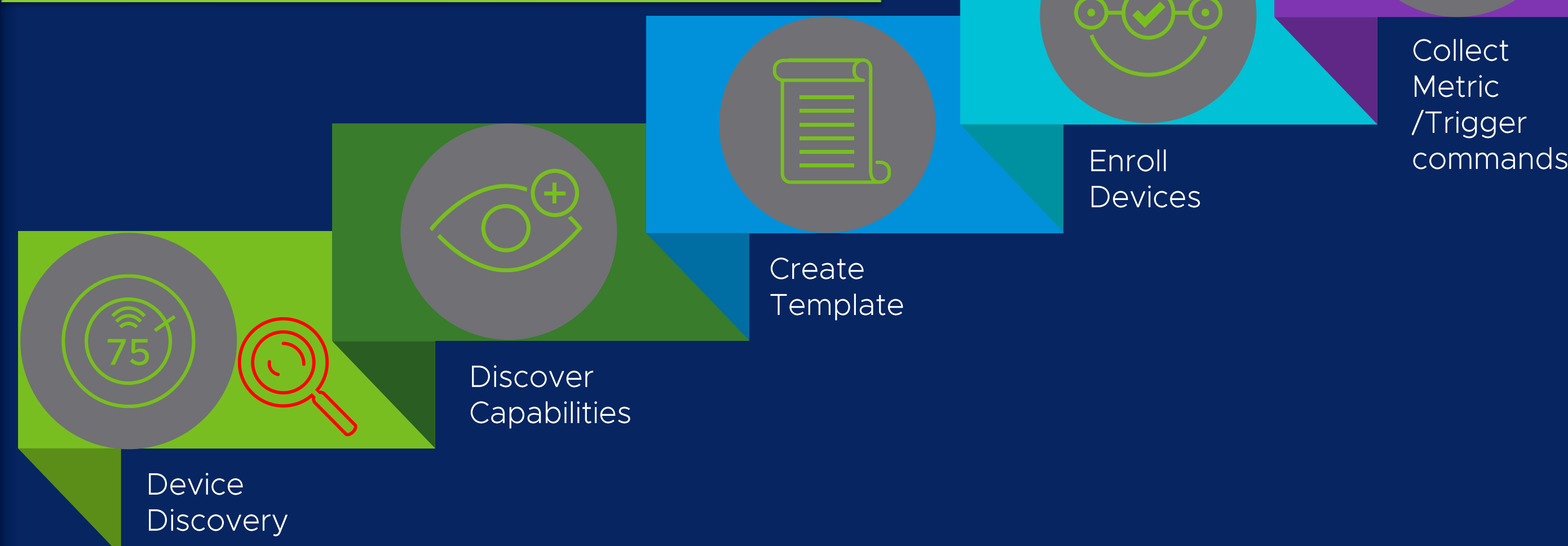


Problem Statement

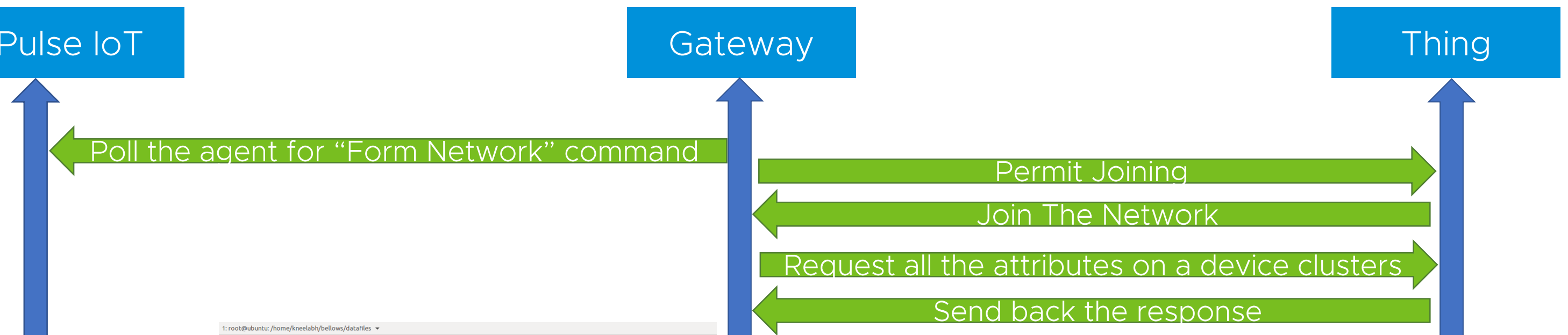
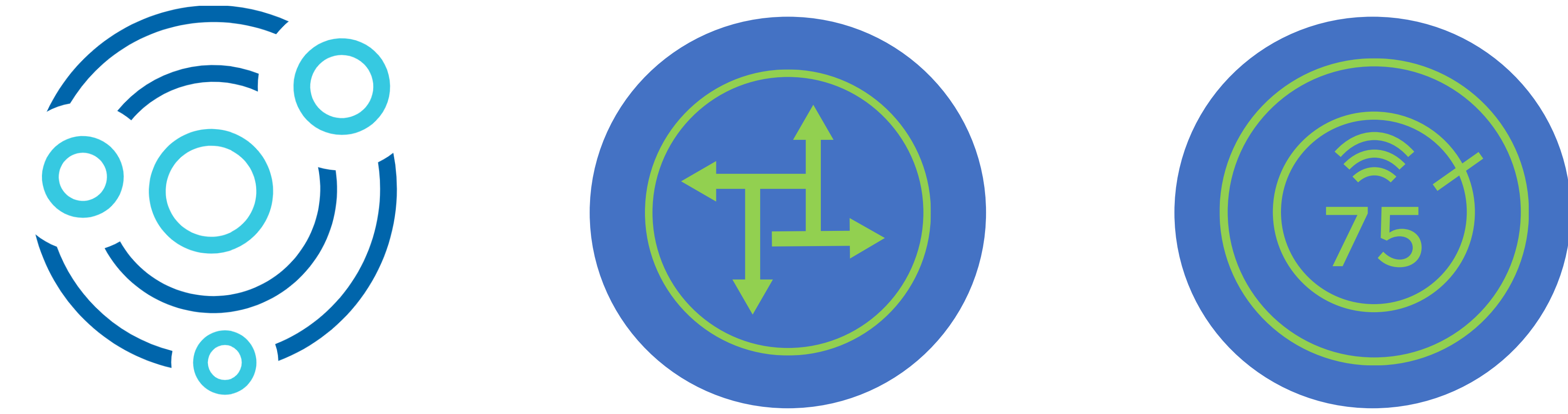
Problem
Discover all the Zigbee Devices and their capabilities to create templates and enroll devices without any manual intervention. Discovering capabilities from IoT pulse point of view means discovering all the types of metrics a device can sense/record, all command-based actions a device supports and all the device properties



1. Device Discovery: Discover all the available ZigBee devices in pairing mode
2. Discover Capabilities: Discover all the commands and attributes supported by all the clusters on the device. Clusters are a group of commands and attributes that define what a device can do. For example, a water and temperature sensor on a single device will be supported by two separate clusters.
3. Create Template: Pulse will use these properties to create Device Specific templates
4. Enroll Device: Enroll the devices to the pulse IoT Center.
5. Collect Metric/rigger Commands: Collect the supported metric values from the devices and enable command-based actions on the devices

Approach

Implementation



```

{
  "attribute_id": "0x0000",
  "attribute_name": "measured_value",
  "value_type": [
    "Integer",
    "Analog"
  ],
  "access": "READ_REPORT",
  "attribute_value": 2378
},
{
  "attribute_id": "0x0001",
  "attribute_name": "min_measured_value",
  "value_type": [
    "Integer",
    "Analog"
  ],
  "access": "READ_REPORT",
  "attribute_value": 0
},
{
  "attribute_id": "0x0002",
  "attribute_name": "max_measured_value",
  "value_type": [
    "Integer",
    "Analog"
  ],
  "access": "READ_REPORT",
  "attribute_value": 0
},
{
  "attribute_id": "0xffff",
  "attribute_name": "65533",
  "value_type": [
    "Integer",
    "Analog"
  ],
  "access": "READ_REPORT",
  "attribute_value": 1
}

```

Save the response in json format



Save the response in json format

Send the attribute json via pulse API

Send the Command json via pulse API

Device enrollment using iotia or default client

Save the response in json format

Send the devices properties to pulse

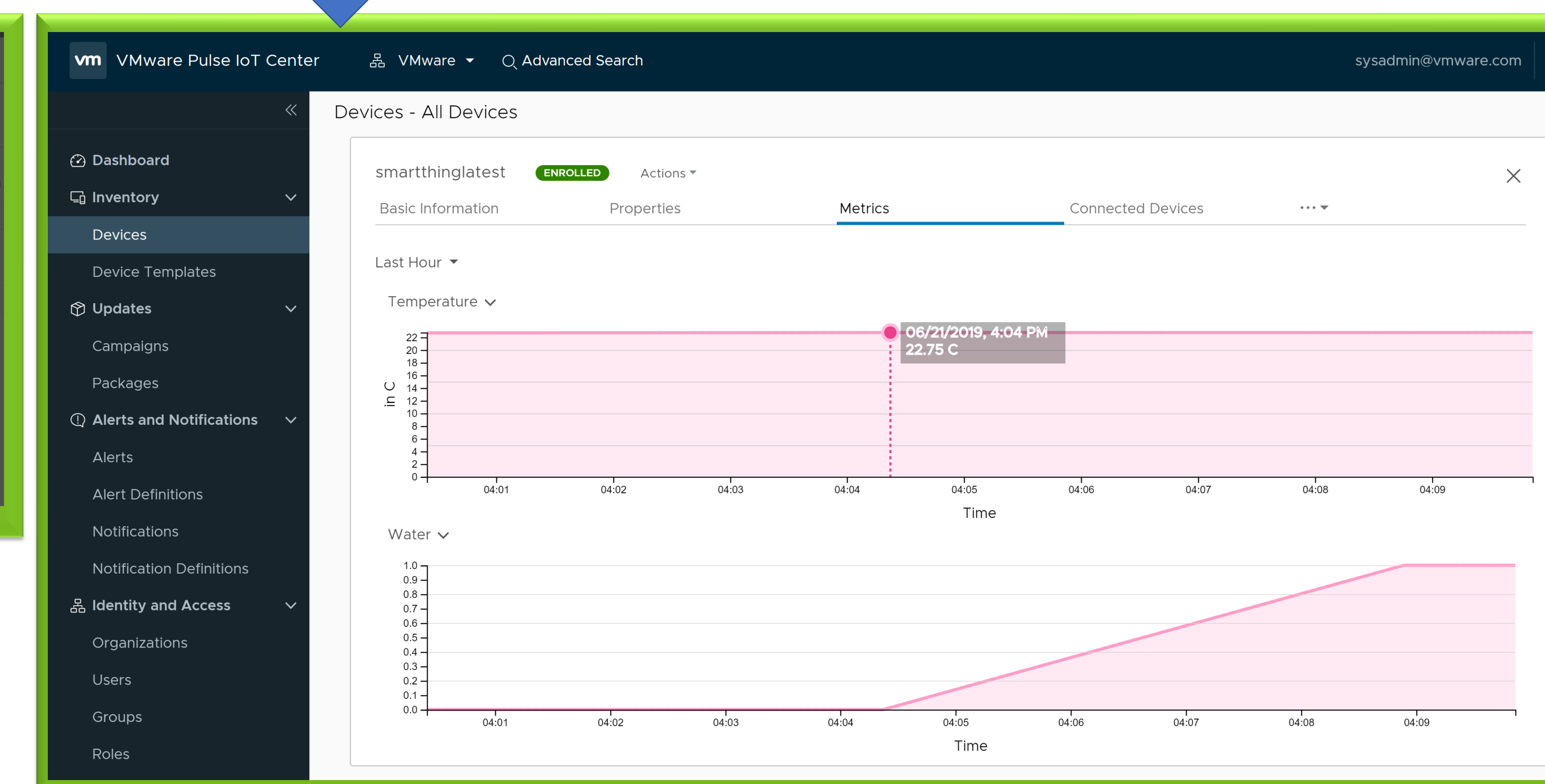
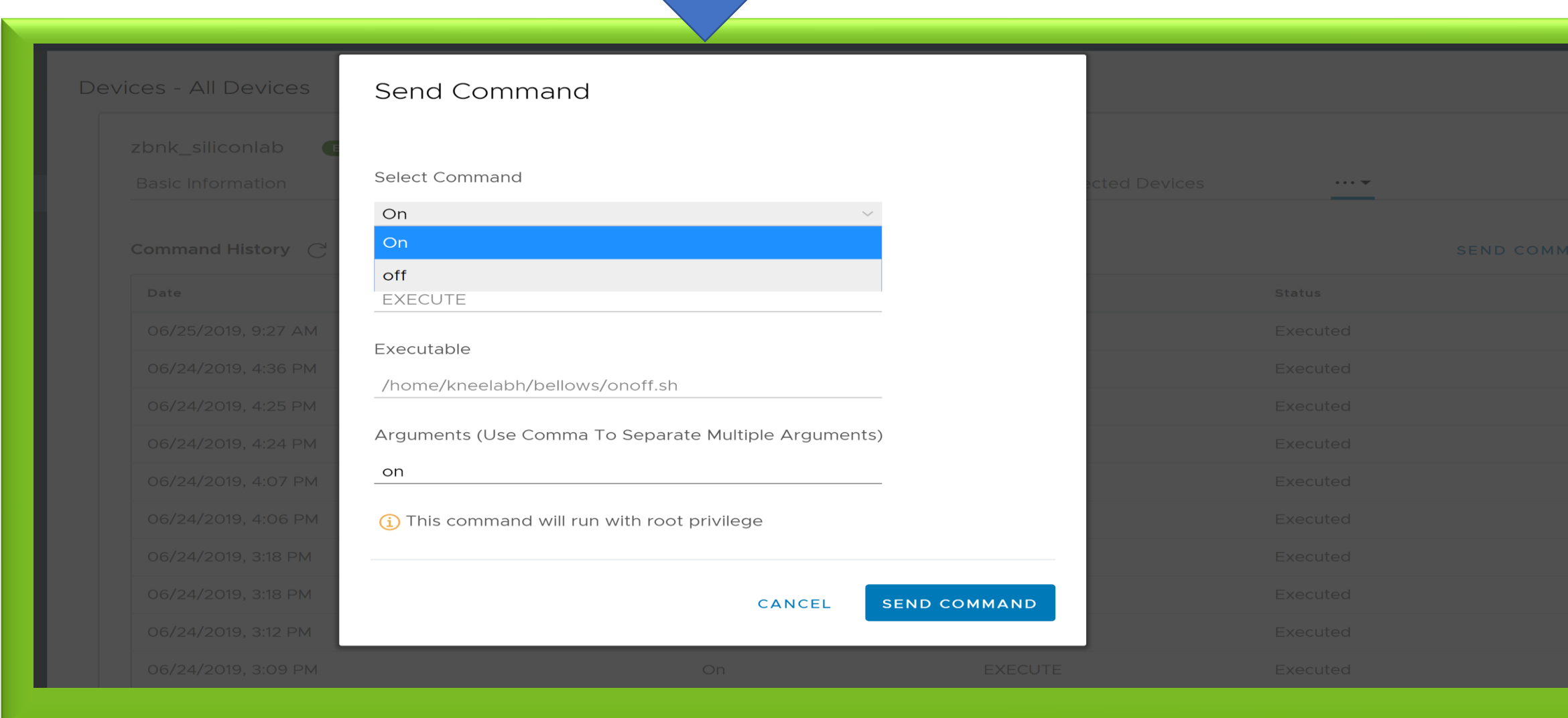
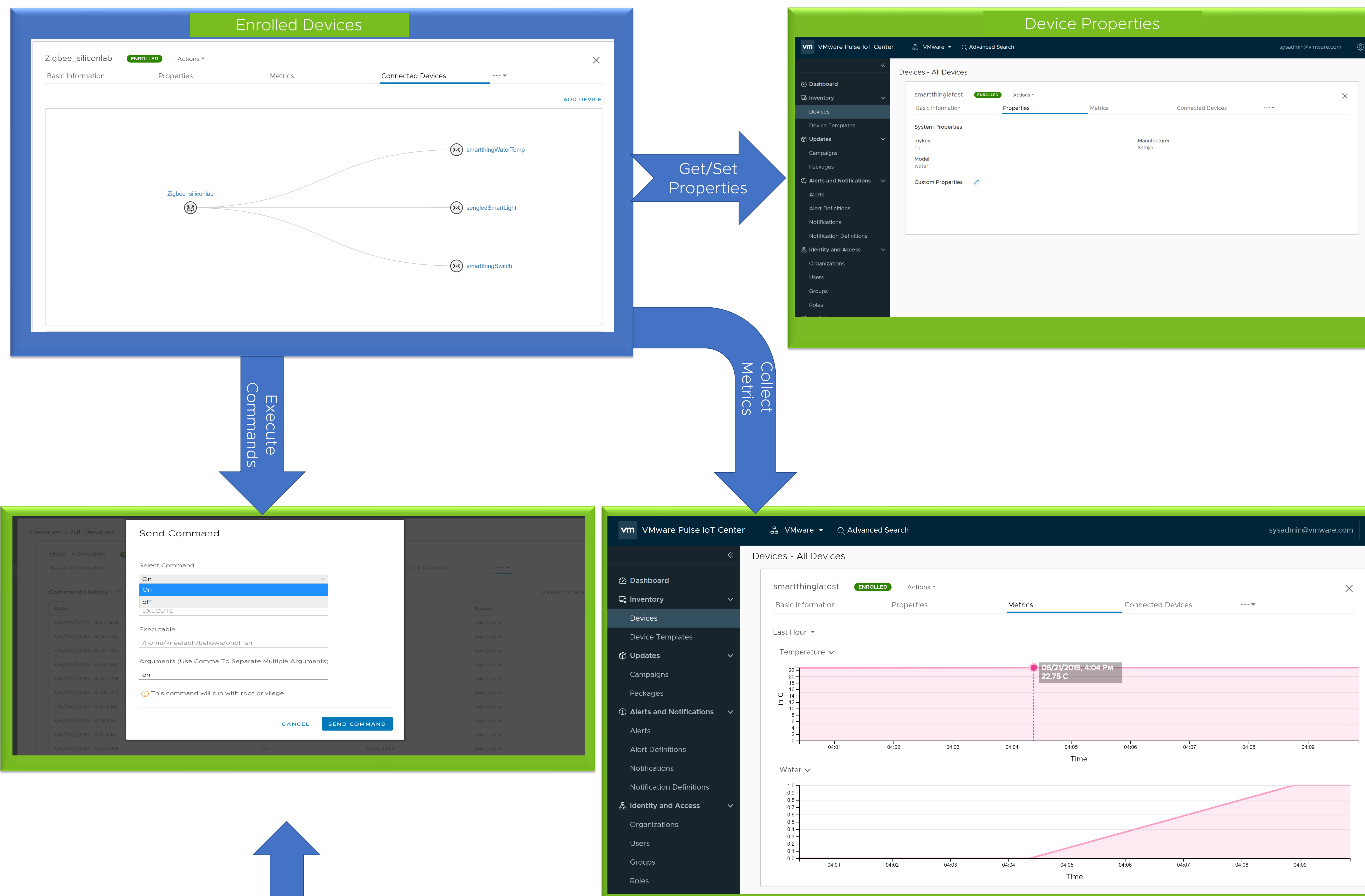
Create device template based on the attribute json file

Add commands to device template based on Command json file

Devices successfully enrolled

Set the device properties

Pulse IoT in Action



Desired Outcome