



**LIMITED ENERGY
TESTING LAB**

Somfy Sonesse 30 RS485 Core Node Test

Ecosystem Integration Test (EIT)

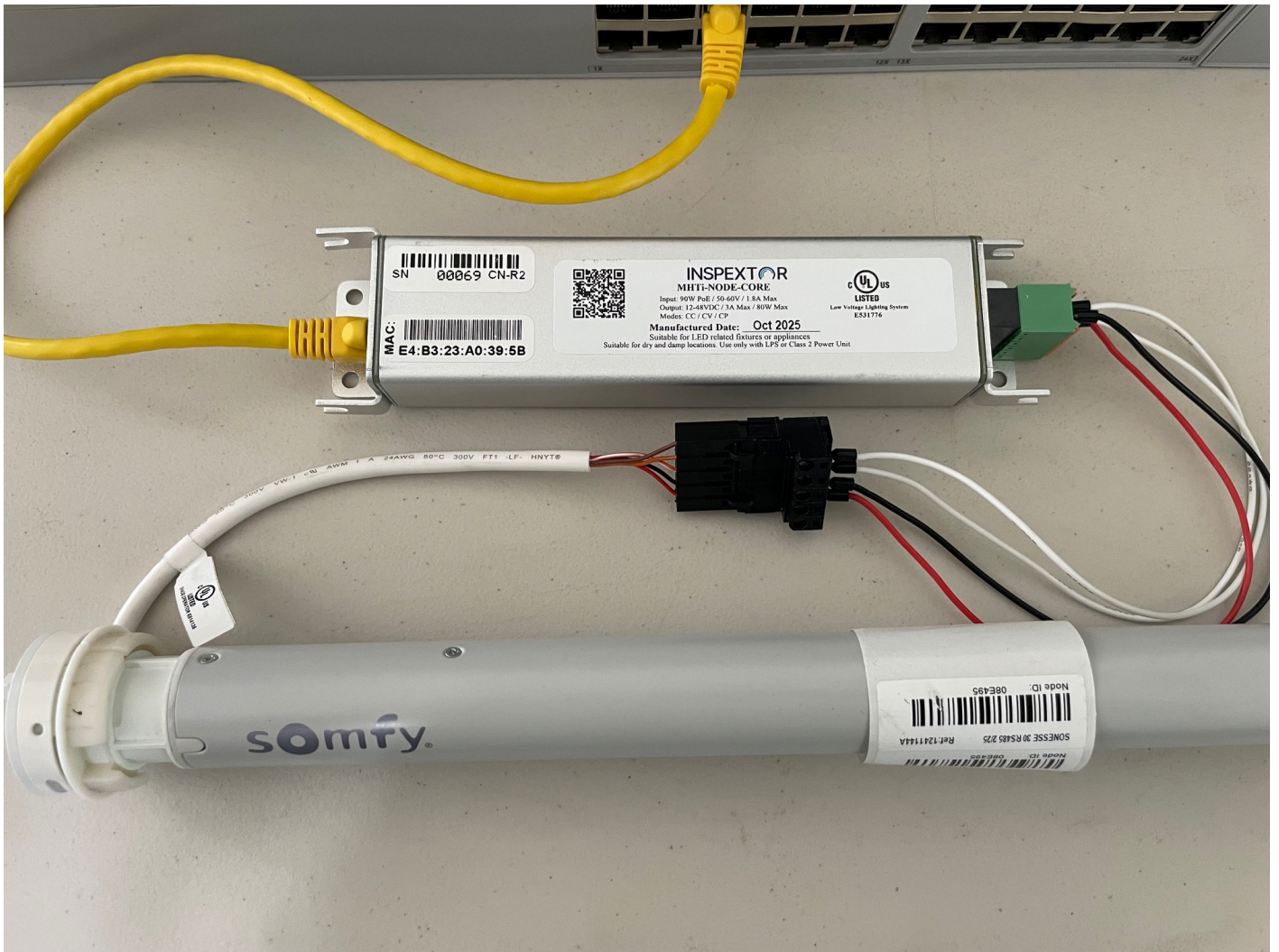
- Date: 2026-03-20
- Objective: Demonstrate compatibility between Cisco 9300, MHT Core Node, and Somfy Sonesse 30 RS485 shade motor

Device Under Test

- Model: Sonesse 30 RS485
- Voltage: 24V
- Current: 0.67A
- Power: 16W
- Id: 0x08E495 (582805)

Supporting Equipment

- PoE Node: MHT Inspextor Core Node
- Hostname: inx-a0395b
- Firmware: 2.29.1 (Gateway) 2.18.0 (Driver)
- PoE Switch: Cisco Catalyst 9300 24H



Node Configuration

- Use the shade resource to configure a Somfy RS-485 shade
- Use the actuator to power the shade 24V 1A
- Configure the actuator pwm_mode ALWAYS_ON so that dimming is disabled
- Note that the shade should be disconnected from the node during actuator configuration to avoid accidental overvoltage.

Wiring

- Connect
 - Somfy V+ to Out on Node
 - Somfy V- to Gnd on Node
 - Somfy + to A+ on Node

- Somfy - to B- on Node

Results

- [x] Verify Firmware Version: "version":"2.29.1" gateway, "version":"2.18.0" driver

```
curl -k -X GET \  
https://inx-a0395b.local/inx/version
```

```
{  
  "name": "mini_node_gateway",  
  "hw_rev": "4",  
  "version": "2.29.1",  
  "date": "Mar 16 2026",  
  "time": "12:28:52",  
  "idf_version": "v5.2.5-dirty",  
  "chip_model": "ESP32-C6",  
  "chip_features": "/802.11bgn/BLE/802.15.4/External-Flash:4 MB\r\n",  
  "chip_revision_number": "1"  
}
```

```
curl -k -X GET \  
https://inx-a0395b.local/inx/drivers/0/version
```

```
{  
  "name": "mini_node_driver_48V",  
  "version": "2.18.0",  
  "date": "Mar_16_2026",  
  "time": "12:07:19",  
  "idf": "v5.2.5-dirty",  
  "chip": "ESP32-C6",  
  "features": "/802.11bgn/BLE/802.15.4/External-Flash:4MB",  
  "rev": "0"  
}
```

- [x] Configure node actuator - shade disconnected

Make sure the shade is not connected to the node until it is properly configured. Since the node actuator output is programmable it might be initially set to a higher voltage like 40V. This could damage the shade motor. So, verify the voltage output before connecting the shade.

```
curl -k -X POST \  
  -H "Content-Type: application/json" \  
  -d '{"cv": 24000, "cc": 1000, "cp": 250, "pwm_mode": "ALWAYS_ON"}' \  
  https://inx-a0395b.local/inx/actuators/actuator1
```

- [x] Verify node actuator configuration: "pwm_mode": "ALWAYS_ON", "voltage": 23661

A 0.5V voltage is typical. Increase the cv value if this is critical.

```
curl -k -X GET \  
  https://inx-a0395b.local/inx/actuators/actuator1
```

```
{  
  "prphtag": "0",  
  "cluster": "group1",  
  "fadetime": 2000,  
  "pwm_mode": "ALWAYS_ON",  
  "motion_enable": "false",  
  "motdsbl": "3",  
  "open_circuit_detect_enable": "false",  
  "short_circuit_detect_enable": "false",  
  "dim": 100,  
  "pp": 100,  
  "dim_min": 2,  
  "cc": 1000,  
  "cv": 24000,  
  "cp": 250,  
  "rgbw": 4294967295,  
  "at": 3000,  
  "em_mode": "false",  
  "em_time": 10,  
  "battery_enable": "false",  
  "010V_enable": "false",  
  "current": 0,
```

```
"voltage": 23661,  
"power": 0  
}
```

- [x] Configure shade resource: "type": "somfy_rs485"

Simply set the shade type to "somfy_rs485".

```
curl -k -X POST \  
-H "Content-Type: application/json" \  
-d '{"type": "somfy_rs485"}' \  
https://inx-a0395b.local/inx/shades/0
```

- [x] Verify node actuator configuration: "type": "somfy_rs485"

```
curl -k -X GET \  
https://inx-a0395b.local/inx/shades/0
```

```
{  
  "name": "shade0",  
  "channel": 1,  
  "type": "somfy_rs485",  
  "cluster": "group1",  
  "position": 50,  
  "position_duration_minutes": -1,  
  "position_duration_seconds": 0,  
  "position_final": 0,  
  "somfy_hostname": "none",  
  "somfy_pin_code": "none",  
  "somfy_cookie": "none",  
  "somfy_id": 1,  
  "somfy_position": 0,  
  "somfy_found": "false",  
  "mecho_coaphost": "",  
  "mecho_uid": 0,  
  "mecho_position": 0,  
  "mecho_found": "false",  
  "somfy_rs485_id": 0,  
}
```

```
"somfy_rs485_position": 0,  
"somfy_rs485_found": "false"  
}
```

- [x] Verify Somfy Shade Discovery - "somfy_rs485_id": 582805, "somfy_rs485_found": "true"

Be sure to power off, connect shade, then power on. Do not hot plug or unplug the shade motor to avoid damage.

```
curl -k -X GET \  
https://inx-a0395b.local/inx/shades/0
```

```
{  
  "name": "shade0",  
  "channel": 1,  
  "type": "somfy_rs485",  
  "cluster": "group1",  
  "position": 50,  
  "position_duration_minutes": -1,  
  "position_duration_seconds": 0,  
  "position_final": 0,  
  "somfy_hostname": "none",  
  "somfy_pin_code": "none",  
  "somfy_cookie": "none",  
  "somfy_id": 1,  
  "somfy_position": 0,  
  "somfy_found": "false",  
  "mecho_coaphost": "",  
  "mecho_uid": 0,  
  "mecho_position": 0,  
  "mecho_found": "false",  
  "somfy_rs485_id": 582805,  
  "somfy_rs485_position": 0,  
  "somfy_rs485_found": "true"  
}
```

- [x] Move shade position: "position": 50

The set point shade position is a value between 0-100%. For demonstration set it at half travel at 50%.

```
curl -k -X POST \  
  -H "Content-Type: application/json" \  
  -d '{"position": 50}' \  
  https://inx-a0395b.local/inx/shades/0
```

- [x] Verify shade position: "somfy_rs485_position": 50

```
curl -k -X GET \  
  https://inx-a0395b.local/inx/shades/0
```

```
{  
  "name": "shade0",  
  "channel": 1,  
  "type": "somfy_rs485",  
  "cluster": "group1",  
  "position": 50,  
  "position_duration_minutes": -1,  
  "position_duration_seconds": 0,  
  "position_final": 0,  
  "somfy_hostname": "none",  
  "somfy_pin_code": "none",  
  "somfy_cookie": "none",  
  "somfy_id": 1,  
  "somfy_position": 0,  
  "somfy_found": "false",  
  "mecho_coaphost": "",  
  "mecho_uid": 0,  
  "mecho_position": 0,  
  "mecho_found": "false",  
  "somfy_rs485_id": 582805,  
  "somfy_rs485_position": 50,  
  "somfy_rs485_found": "true"  
}
```

Conclusion

The compatibility test between the Cisco Catalyst 9300 24H PoE switch, MHT Inspextor Core Node, and Somfy Sonesse 30 RS485 shade motor (24V, 0.67A, ID: 0x08E495 / 582805) was **successful**. All test objectives were completed and verified:

Configuration Verification: - Core Node firmware version 2.29.1 (gateway) and 2.18.0 (driver) were confirmed - The actuator was successfully configured for 24V, 1A current limit, and `pwm_mode: ALWAYS_ON` (dimming disabled) with the shade disconnected to prevent overvoltage risk - Output voltage was verified at approximately 23.66V (`voltage: 23661`), which is within expected tolerance for a 24V nominal setting

Shade Resource & Discovery: - The shade resource was configured as `somfy_rs485` - Somfy RS485 discovery successfully identified the shade (`somfy_rs485_id: 582805`, `somfy_rs485_found: true`) after proper wiring and power cycle sequence

Motor Control: - Position control was confirmed by commanding `position: 50` and verifying readback at `somfy_rs485_position: 50`

Result: The system demonstrates full compatibility and is ready for deployment. The MHT Inspextor Core Node successfully integrates with the Somfy Sonesse 30 RS485 motor over the Cisco 9300 PoE infrastructure, providing reliable RS-485 shade discovery and position control when configured per the documented safe setup procedure.