



Monitor and Troubleshoot

Following are some troubleshooting tips for installing and using the Cisco Smart PHY.

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Monitor Host Resources

Use the Grafana dashboard for monitoring host resources.

Go to Cisco Operations Hub main menu > **Dashboards**.

The **Gallery** page opens. The following two types of dashboards are available:

- Operations Hub Dashboard: Capturing Kubernetes, Open Source, Infrastructure, and KPI metrics.
 - User Created Dashboards: Customized dashboards (if any).
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API Explorer

API documentation for the Cisco Smart PHY application and the Cisco Operations Hub are centralised. You can access them from the Cisco Operations Hub main menu > **API Explorer**.

Cisco SmartPHY APIs are categorised into **RPD Service Manager** and **Inventory Management**. You can see these categories under the Cisco Smart PHY API section.

Debug RPD SSD on Cisco Smart PHY

The SSD related logs in Cisco Smart PHY application are available at:

```
/var/log/rpd-service-manager/rpd-service-manager.log.
```

Check SSD on NSO

The Cisco Network Services Orchestrator (NSO) supports the SSD profile from the iosNed 6.28.

1. Access the `robot-cfgsvc` container and check the SSD configuration on the NSO side.
2. Wait until the device moves into in-sync.

```
router# devices device _DEVICE_20.5.30.13 check-sync
result out-of-sync
info got: 4a0ba9b4ecdaa8710a9202e8656bfe82 expected: c22a63a573c84e40c1ad5e735888461c
router# devices device _DEVICE_20.5.30.13 check-sync
result in-sync
show running-config devices device _DEVICE_20.5.30.13 | begin ssd
  ios:cable profile ssd 1
    ssd 12.2.2.2 tftp xxx
  !
  ios:cable profile ssd 2
    description ssd 2
    ssd 10.1.1.1 tftp abc
```

The SSD configuration on NSO must be the same as with the Cisco cBR-8 router.

Check SSD using RestAPI

1. Get the SSD profiles, which are read by NSO from the Cisco cBR-8 router, use the **query-core-details** command.

`https://{{controller}}:{{new-port}}/rpd-service-manager/rpdorch/v2/core-topology/query-core-details`

Output:

SSD profile info must be the same as that with the Cisco cBR-8 router.

```
Input:
{
  "ipAddress": "10.0.0.1"
}

Result:
{
  "status": "Success",
  "coreList": [
    {
      "ipAddressList": [
        "10.0.0.1"
      ],
      "uuid": "_DEVICE_10.0.0.1",
      "gpsLocation": {},
      "hostName": "NG03.cisco.com",
      "interfacesList": [...],
      "virtualSGs": [],
      "ndfProfiles": {},
      "ndrProfiles": {},
      "ssdProfiles": [
        {
          "id": 1,
          "name": "xxx"
        },
        {
          "id": 2,
```

```

        "name": "abc"
      },
      {
        "id": 3,
        "name": "aaa"
      },
      {
        "id": 4,
        "name": "abcdef"
      },
      {
        "id": 5,
        "name": "abbbc"
      },
      {
        "id": 6,
        "name": "acde"
      },
      {
        "id": 7,
        "name": "xxx"
      },
      {
        "id": 9,
        "name": null
      },
      {
        "id": 10,
        "name": "abcc"
      }
    ],
    "state": "ONLINE",
    "productType": "CBR-8-CCAP-CHASS",
    "swVersion": "16.10.1f",
    "vendorName": "Cisco",
    "protectedLC": -1
  }
]
}

```

2. Check the RPD pairing details, use the **query-rpd-pairing** command.

<https://{{controller}}:{{new-port}}/rpd-service-manager/rpdorch/v2/rpd-pairing/query-rpd-pairing>

Output:

The value of `ssidProfileId` must be correct.

Input:

```
{
}
```

Result:

```
{
  "status": "Success",
  "rpdPairingRspList": [
    {
      "macAddress": "aabb11112124",
      "name": "1",
      "serviceTemplate": "C02",
      "approvalState": "Approved",
      "assignedCores": [
        {
          "serviceType": "Data",
          "mgmtCore": "C02.cisco.com",

```

```

        "rpdConnectionInterface": "TenGigabitEthernet7/1/0",
        "primaryUsPort": 1
    },
    ],
    "pairingChangeTimestamp": 1563823890549,
    "description": "",
    "state": "ResourceAllocationError",
    "gpsLocation": {
        "latitude": 77,
        "longitude": 99,
        "genericLocation": "Shanghai"
    },
    "ssidProfileId": 1
},
"nextFrom": null
}

```

3. Verify the SSD profile ID and the image name in the **Edit** window of the RPD pairing table.

The screenshot shows the 'Edit - MK_DB_DUMMY_07' window. The 'RPD Parameters' section includes fields for RPD Name, MAC, Node Segmentation, Service Definition, and Disable Network Delay. The 'Data / Principal Core' section includes fields for Principal Core, Principal Core Interface, SSD Profile (set to '1 - ssid_171'), and various ports and service groups. Below this is a table of associated RPDs.

S...	P...	RPD Name	MAC	SS...	Se...	Service Definition	Principal Core	Principal Cor...	DS Port	US Port	Base ...	Tit Pl...
<input type="checkbox"/>	<input checked="" type="checkbox"/>	MK_DB_DUMMY_07	a0f8.496f.6117	1 - ssid_171	2x2	CBR_37	sphy-c2.cisco.com	TenGigabitEthernet1/10	0	0		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	MK_DB_DUMMY_01	a0f8.496f.6100	1 - ssid_171	1x1	CBR_171	sphy-c2.cisco.com	TenGigabitEthernet1/12	0	0	25	0

4. Verify whether the RPD Details contain the SSD command.



Check SSD on Cisco cBR-8

Run the following command to check the SSD on the Cisco cBR-8 router.

```
cable rpd PRPD
identifier a0f8.496f.6506
type shelf
  rpd-ds 0 base-power 25
  rpd-ds 1 base-power 25
  core-interface Te9/1/6
  principal
    rpd-ds 0 downstream-cable 9/0/16 profile 100
    rpd-us 0 upstream-cable 9/0/1 profile 4
  r-dti 2
  rpd-event profile 0
  ssid 1
  rpd-55d1-us-event profile 0
```

Debug SSD on Cisco cBR-8

Use the following command to check the upgrading state on the Cisco cBR-8 router.

```
cable rpd xxxx.xxxx.xxxx ssid status
```

DEPI Latency Measurement in Service Template

If a Service Template is already in use, you can update only the DLM fields (Static delay, DLM sampling value, Measure Only) and the existing behavior is maintained for all other fields.

Following operations are allowed when Service Template is already in use:

- If there is no existing DLM configuration in the service template, you can add `network-delay static <delay-val>`, `network-delay dlm <interval>`, and `network-delay dlm <interval><measure-only>`.

If the `network-delay static <delay-val>` is configured in the service template, the user can modify the `<delay-val>` for static.

If the `network-delay dlm <interval>` is configured in the service template, the user can modify the `dlm <interval>` and `<measure-only>` parameters.

If the `network-delay dlm <interval><measure-only>` is configured in the service template, the user can modify only the `dlm <interval>`.

The RPD detailed information contains the DLM command.

Before you update a Service Definition, you should check whether any Cisco cBR-8 line cards are in a high availability state an active secondary line card.

The DLM configuration gets automatically applied to all RPDs assigned to the Service Definition. However, the RPD configuration is rejected if the Cisco cBR-8 line card for DOCSIS controllers is in high availability mode. In addition, because this operation might take more time, you may see a network connectivity issue.

After updating a Service Definition, you should check the RPD service manager logs for errors. To recover an RPD with a configuration rejection or error, do the following:

- If the secondary line card is active:
 1. Revert to the primary line card.
 2. Wait until the primary line card is active
- For each RPD with a configuration rejection or error:
 1. From the **RPD Assignment** page, click **Edit** for that RPD.
 2. On the **Edit** page, click **Save**.

Check New DLM Configuration on Cisco cBR-8

```
cable rpd <RPD Name>
  identifier a0f8.496f.6506
  type shelf
  rpd-ds 0 base-power 25
  rpd-ds 1 base-power 25
  core-interface Te9/1/6
  principal
  rpd-ds 0 downstream-cable 9/0/16 profile 100
  rpd-us 0 upstream-cable 9/0/1 profile 4
  network-delay dlm 100
  r-dti 2
  rpd-event profile 0
```

```
ssd 1
rpd-55d1-us-event profile 0
!
```

