



## ハードウェア モニタリング

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## System Monitoring CLI Command Cheat Sheet

The following table provides a brief summary of Cisco UCS Manager CLI commands you use to monitor managed objects in the system.

| Managed Object      | Monitoring Command   | Description                               |
|---------------------|--|---|
| <b>Hardware</b>     |  |   |
| Chassis             | <b>show chassis</b> [ <b>adaptor</b>   <b>cmc</b>   <b>decommissioned</b>   <b>detail</b>   <b>environment</b>   <b>fabric</b>   <b>fi-iom</b>   <b>firmware</b>   <b>fsm</b>   <b>inventory</b>   <b>psu</b>   <b>version</b> ] | Displays chassis information.             |
| Fabric Interconnect | <b>show fabric-interconnect</b> [ <b>a</b>   <b>b</b> ] [ <b>detail</b>   <b>environment</b>   <b>firmware</b>   <b>fsm</b>   <b>inventory</b>   <b>mac-aging</b>   <b>mode</b>   <b>version</b> ]                               | Displays Fabric Interconnect information. |
| FEX                 | <b>show fex</b> [ <b>detail</b>   <b>firmware</b>   <b>fsm</b>   <b>inventory</b>   <b>version</b> ]   | Displays Fabric Extender information      |

| Managed Object | Monitoring Command  | Description   |
|----------------|---|---|
| IOM            | <b>show iom</b> [ <b>firmware</b>   <b>health</b>   <b>version</b> ]  | Displays Fabric Input/Output Module information.                            |
| Server         | <b>show server</b> [ <b>actual-boot-order</b>   <b>adapter</b>   <b>assoc</b>   <b>bios</b>   <b>boot-order</b>   <b>cpu</b>   <b>decommissioned</b>   <b>environment</b>   <b>firmware</b>   <b>health</b>   <b>identity</b>   <b>inventory</b>   <b>memory</b>   <b>status</b>   <b>storage</b>   <b>version</b> ]                                | Displays server information .   |
| System         | <b>show system</b> [ <b>detail</b>   <b>firmware</b>   <b>version</b> ]   | Displays system information.  |
| System         | <b>scope monitoring</b> [ <b>show</b> ] [ <b>baseline-faults</b>   <b>callhome</b>   <b>event</b>   <b>fault</b>   <b>fault-suppress-policy</b>   <b>fsm</b>   <b>mgmt-if-mon-policy</b>   <b>new-faults</b>   <b>snmp</b>   <b>snmp-trap</b>   <b>snmp-user</b>   <b>stats-collection-policy</b>   <b>stats-threshold-policy</b>   <b>syslog</b> ] | Displays information about commands in Monitoring mode.                     |
| <b>Logs</b>    |   |   |
| Event          | <b>show event</b> [ <i>event-id</i>   <b>detail</b> ]   | Displays the Event log.   |
| Fault          | <b>show fault</b> [ <i>fault-id</i>   <b>cause</b>   <b>detail</b>   <b>severity</b>   <b>suppressed</b> ]  | Displays the Fault log.   |
| SEL            | <b>show sel</b> [ <i>chassis-id/blade-id</i>   <i>rack-id</i> ]   | Displays the System Event Log for the chassis, blade, or rack-mount server. |
| Syslog         | <b>scope monitoring</b> [ <b>show</b> ] [ <b>syslog</b> ]   | Displays the Syslog.  |

## Managing the Chassis

### Turning On the Locator LED for a Chassis

#### SUMMARY STEPS

1. UCS-A# **scope chassis** *chassis-num*
2. UCS-A /chassis # **enable locator-led**
3. UCS-A /chassis # **commit-buffer**

## DETAILED STEPS

|               | Command or Action                              | Purpose  |
|---------------|--|--|
| <b>Step 1</b> | UCS-A# <b>scope chassis</b> <i>chassis-num</i> | Enters chassis mode for the specified chassis.       |
| <b>Step 2</b> | UCS-A /chassis # <b>enable locator-led</b>     | Turns on the chassis locator LED.                    |
| <b>Step 3</b> | UCS-A /chassis # <b>commit-buffer</b>          | Commits the transaction to the system configuration. |

**Example**

The following example turns on the locator LED for chassis 2 and commits the transaction:

```
UCS-A# scope chassis 2
UCS-A /chassis # enable locator-led
UCS-A /chassis* # commit-buffer
UCS-A /chassis #
```

## Turning Off the Locator LED for a Chassis

## SUMMARY STEPS

1. UCS-A# **scope chassis** *chassis-num*
2. UCS-A /chassis # **disable locator-led**
3. UCS-A /chassis # **commit-buffer**

## DETAILED STEPS

|               | Command or Action                              | Purpose  |
|---------------|--|--|
| <b>Step 1</b> | UCS-A# <b>scope chassis</b> <i>chassis-num</i> | Enters chassis mode for the specified chassis.       |
| <b>Step 2</b> | UCS-A /chassis # <b>disable locator-led</b>    | Turns off the chassis locator LED.                   |
| <b>Step 3</b> | UCS-A /chassis # <b>commit-buffer</b>          | Commits the transaction to the system configuration. |

**Example**

The following example turns off the locator LED for chassis 2 and commits the transaction:

```
UCS-A# scope chassis 2
UCS-A /chassis # disable locator-led
UCS-A /chassis* # commit-buffer
UCS-A /chassis #
```

# Managing Blade Servers

## Turning On the Locator LED for a Blade Server

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-num / server-num*
2. UCS-A /chassis/server # **enable locator-led** [**multi-master** | **multi-slave**]
3. UCS-A /chassis/server # **commit-buffer**

### DETAILED STEPS

|               | Command or Action  | Purpose   |
|---------------|--|---|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>chassis-num / server-num</i>                                     | Enters chassis server mode for the specified chassis. |
| <b>Step 2</b> | UCS-A /chassis/server # <b>enable locator-led</b> [ <b>multi-master</b>   <b>multi-slave</b> ] | Turns on the blade server locator LED.                |
| <b>Step 3</b> | UCS-A /chassis/server # <b>commit-buffer</b>   | Commits the transaction to the system configuration.  |

### Example

The following example turns on the locator LED for blade server 4 in chassis 2 and commits the transaction:

```
UCS-A# scope server 2/4
UCS-A /chassis/server # enable locator-led
UCS-A /chassis/server* # commit-buffer
UCS-A /chassis/server #
```

## Turning Off the Locator LED for a Blade Server

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-num / server-num*
2. UCS-A /chassis/server # **disable locator-led** [**multi-master** | **multi-slave**]
3. UCS-A /chassis/server # **commit-buffer**

### DETAILED STEPS

|               | Command or Action   | Purpose  |
|---------------|---|--|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>chassis-num / server-num</i>                                      | Enters chassis mode for the specified chassis. |
| <b>Step 2</b> | UCS-A /chassis/server # <b>disable locator-led</b> [ <b>multi-master</b>   <b>multi-slave</b> ] | Turns off the blade server locator LED.        |

|        | Command or Action                            | Purpose  |
|--------|--|--|
| Step 3 | UCS-A /chassis/server # <b>commit-buffer</b> | Commits the transaction to the system configuration. |

### Example

The following example turns off the locator LED for blade server 4 in chassis 2 and commits the transaction:

```
UCS-A# scope chassis 2/4
UCS-A /chassis/server # disable locator-led
UCS-A /chassis/server* # commit-buffer
UCS-A /chassis/server #
```

# Managing Rack-Mount servers

## Turning On the Locator LED for a Rack-Mount Server

### SUMMARY STEPS

1. UCS-A# **scope server** *server-num*
2. UCS-A /server # **enable locator-led**
3. UCS-A /server # **commit-buffer**

### DETAILED STEPS

|        | Command or Action                            | Purpose   |
|--------|--|---|
| Step 1 | UCS-A# <b>scope server</b> <i>server-num</i> | Enters server mode for the specified rack-mount server. |
| Step 2 | UCS-A /server # <b>enable locator-led</b>    | Turns on the rack-mount server locator LED.             |
| Step 3 | UCS-A /server # <b>commit-buffer</b>         | Commits the transaction to the system configuration.    |

### Example

The following example turns on the locator LED for rack-mount server 2 and commits the transaction:

```
UCS-A# scope server 2
UCS-A /server # enable locator-led
UCS-A /server* # commit-buffer
UCS-A /server #
```

## Turning Off the Locator LED for a Rack-Mount Server

### SUMMARY STEPS

1. UCS-A# **scope server** *server-num*
2. UCS-A /server # **disable locator-led**
3. UCS-A /server # **commit-buffer**

### DETAILED STEPS

|               | Command or Action                            | Purpose   |
|---------------|--|---|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>server-num</i> | Enters server mode for the specified rack-mount server. |
| <b>Step 2</b> | UCS-A /server # <b>disable locator-led</b>   | Turns off the rack-mount server locator LED.            |
| <b>Step 3</b> | UCS-A /server # <b>commit-buffer</b>         | Commits the transaction to the system configuration.    |

#### Example

The following example turns off the locator LED for rack-mount server 2 and commits the transaction:

```
UCS-A# scope server 2
UCS-A /server # disable locator-led
UCS-A /server* # commit-buffer
UCS-A /server #
```

## Showing the Status for a Rack-Mount Server

### SUMMARY STEPS

1. UCS-A# **show server status**

### DETAILED STEPS

|               | Command or Action                | Purpose   |
|---------------|----------------------------------|---|
| <b>Step 1</b> | UCS-A# <b>show server status</b> | Shows the status for all servers in the Cisco UCS ドメイン. |

#### Example

The following example shows the status for all servers in the Cisco UCS ドメイン. The servers numbered 1 and 2 do not have a slot listed in the table because they are rack-mount servers.

| Server Slot | Status   | Availability | Overall Status | Discovery |
|-------------|----------|--------------|----------------|-----------|
| 1/1         | Equipped | Unavailable  | Ok             | Complete  |
| 1/2         | Equipped | Unavailable  | Ok             | Complete  |

|     |          |             |    |          |
|-----|----------|-------------|----|----------|
| 1/3 | Equipped | Unavailable | Ok | Complete |
| 1/4 | Empty    | Unavailable | Ok | Complete |
| 1/5 | Equipped | Unavailable | Ok | Complete |
| 1/6 | Equipped | Unavailable | Ok | Complete |
| 1/7 | Empty    | Unavailable | Ok | Complete |
| 1/8 | Empty    | Unavailable | Ok | Complete |
| 1   | Equipped | Unavailable | Ok | Complete |
| 2   | Equipped | Unavailable | Ok | Complete |

## Monitoring Fan Modules

### SUMMARY STEPS

1. UCS-A# **scope chassis** *chassis-num*
2. UCS-A /chassis # **show environment fan**
3. UCS-A /chassis # **scope fan-module** *tray-num module-num*
4. UCS-A /chassis/fan-module # **show** [**detail** | **expand**]

### DETAILED STEPS

|               | Command or Action   | Purpose   |
|---------------|---|---|
| <b>Step 1</b> | UCS-A# <b>scope chassis</b> <i>chassis-num</i>                            | 指定したシャーシでシャーシモードを開始します。   |
| <b>Step 2</b> | UCS-A /chassis # <b>show environment fan</b>                              | Displays the environment status for all fans within the chassis.<br>This includes the following information: <ul style="list-style-type: none"> <li>• Overall status</li> <li>• Operability</li> <li>• Power state</li> <li>• Thermal status</li> <li>• Threshold status</li> <li>• Voltage status</li> </ul> |
| <b>Step 3</b> | UCS-A /chassis # <b>scope fan-module</b> <i>tray-num module-num</i>       | Enters fan module chassis mode for the specified fan module.<br><b>Note</b> Each chassis contains one tray, so the tray number in this command is always 1.   |
| <b>Step 4</b> | UCS-A /chassis/fan-module # <b>show</b> [ <b>detail</b>   <b>expand</b> ] | Displays the environment status for the specified fan module.   |

## Example

The following example displays information about the fan modules in chassis 1:

```
UCS-A# scope chassis 1
UCS-A /chassis # show environment fan
Chassis 1:
  Overall Status: Power Problem
  Operability: Operable
  Power State: Redundancy Failed
  Thermal Status: Upper Non Recoverable

  Tray 1 Module 1:
    Threshold Status: OK
    Overall Status: Operable
    Operability: Operable
    Power State: On
    Thermal Status: OK
    Voltage Status: N/A

    Fan Module Stats:
      Ambient Temp (C): 25.000000

    Fan 1:
      Threshold Status: OK
      Overall Status: Operable
      Operability: Operable
      Power State: On
      Thermal Status: OK
      Voltage Status: N/A

    Fan 2:
      Threshold Status: OK
      Overall Status: Operable
      Operability: Operable
      Power State: On
      Thermal Status: OK
      Voltage Status: N/A

  Tray 1 Module 2:
    Threshold Status: OK
    Overall Status: Operable
    Operability: Operable
    Power State: On
    Thermal Status: OK
    Voltage Status: N/A

    Fan Module Stats:
      Ambient Temp (C): 24.000000

    Fan 1:
      Threshold Status: OK
      Overall Status: Operable
      Operability: Operable
      Power State: On
      Thermal Status: OK
      Voltage Status: N/A

    Fan 2:
      Threshold Status: OK
      Overall Status: Operable
      Operability: Operable
      Power State: On
```



```
Thermal Status: OK  
Voltage Status: N/A
```

The following example displays information about fan module 2 in chassis 1:

```
UCS-A# scope chassis 1  
UCS-A /chassis # scope fan-module 1 2  
UCS-A /chassis/fan-module # show detail  
Fan Module:  
  Tray: 1  
  Module: 2  
  Overall Status: Operable  
  Operability: Operable  
  Threshold Status: OK  
  Power State: On  
  Presence: Equipped  
  Thermal Status: OK  
  Product Name: Fan Module for UCS 5108 Blade Server Chassis  
  PID: N20-FAN5  
  VID: V01  
  Vendor: Cisco Systems Inc  
  Serial (SN): NWG14350B6N  
  HW Revision: 0  
  Mfg Date: 1997-04-01T08:41:00.000
```

## Monitoring Management Interfaces

### 管理インターフェイス モニタリング ポリシー

管理インターフェイスモニタリングポリシーでは、ファブリックインターコネクットの `mgmt0` イーサネットインターフェイスをモニタする方法を定義します。Cisco UCS Managerによって管理インターフェイスの障害が検出されると、障害レポートが生成されます。障害レポートの数が設定された数に達した場合、システムは管理インターフェイスが使用不能であると見なし、障害を生成します。デフォルトでは、管理インターフェイスモニタリングポリシーは有効です。

その時点で管理インスタンスであるファブリックインターコネクットの管理インターフェイスに障害が発生した場合、Cisco UCS Manager はまず、下位のファブリックインターコネク트가アップ状態であるかどうかを確認します。さらに、ファブリックインターコネク트가に対して記録されている障害レポートがその時点でない場合、Cisco UCS Manager はエンドポイントの管理インスタンスを変更します。

影響を受けるファブリックインターコネク트가ハイアベイラビリティ設定でプライマリに設定されている場合、管理プレーンのフェールオーバーがトリガーされます。このフェールオーバーはデータプレーンに影響しません。管理インターフェイスのモニタリングに関連している次のプロパティを設定できます。

- 管理インターフェイスのモニタに使用されるメカニズムのタイプ。
- 管理インターフェイスのステータスがモニタされる間隔。
- 管理が使用できないと判断し障害メッセージを生成する前にシステムの失敗を許容するモニタリングの最大試行回数。



**重要** ファブリック インターコネクットの管理インターフェイスに障害が発生した場合、次のいずれかが発生したときは、管理インスタンスを変えないことがあります。

- 従属ファブリック インターコネクット経由のエンドポイントへのパスが存在しない。
- 従属ファブリック インターコネクットの管理インターフェイスが失敗した。
- 従属ファブリック インターコネクット経由のエンドポイントへのパスが失敗した。

## Configuring the Management Interfaces Monitoring Policy

### SUMMARY STEPS

1. Enter monitoring mode.
2. Enable or disable the management interfaces monitoring policy.
3. Specify the number of seconds that the system should wait between data recordings.
4. Specify the maximum number of monitoring attempts that can fail before the system assumes that the management interface is unavailable and generates a fault message.
5. Specify the monitoring mechanism that you want the system to use.
6. If you selected **mii-status** as your monitoring mechanism, configure the following properties:
7. If you selected **ping-arp-targets** as your monitoring mechanism, configure the following properties:
8. If you selected **ping-gateway** as your monitoring mechanism, configure the following properties:
9. UCS-A /monitoring # **commit-buffer**

### DETAILED STEPS

- 
- Step 1** Enter monitoring mode.  
UCS-A# **scope monitoring**
- Step 2** Enable or disable the management interfaces monitoring policy.  
UCS-A /monitoring # **set mgmt-if-mon-policy admin-state** {**enabled** | **disabled**}
- Step 3** Specify the number of seconds that the system should wait between data recordings.  
UCS-A /monitoring # **set mgmt-if-mon-policy poll-interval**  
Enter an integer between 90 and 300.
- Step 4** Specify the maximum number of monitoring attempts that can fail before the system assumes that the management interface is unavailable and generates a fault message.  
UCS-A /monitoring # **set mgmt-if-mon-policy max-fail-reports** *num-mon-attempts*  
Enter an integer between 2 and 5.
- Step 5** Specify the monitoring mechanism that you want the system to use.  
UCS-A /monitoring # **set mgmt-if-mon-policy monitor-mechanism** {**mii-status** | **ping-arp-targets** | **ping-gateway**}

- **mii-status** —The system monitors the availability of the Media Independent Interface (MII).
- **ping-arp-targets** —The system pings designated targets using the Address Resolution Protocol (ARP).
- **ping-gateway** —The system pings the default gateway address specified for this Cisco UCS ドメイン in the management interface.

**Step 6** If you selected **mii-status** as your monitoring mechanism, configure the following properties:

- a) Specify the number of seconds that the system should wait before requesting another response from the MII if a previous attempt fails.

```
UCS-A /monitoring # set mgmt-if-mon-policy mii-retry-interval num-seconds
```

Enter an integer between 3 and 10.

- b) Specify the number of times that the system polls the MII until the system assumes that the interface is unavailable.

```
UCS-A /monitoring # set mgmt-if-mon-policy mii-retry-count num-retries
```

Enter an integer between 1 and 3.

**Step 7** If you selected **ping-arp-targets** as your monitoring mechanism, configure the following properties:

- a) Specify the first IPv4 or IPv6 address the system pings.

```
UCS-A /monitoring # set mgmt-if-mon-policy {arp-target1 | ndisc-target1} {ipv4-addr | ipv6-addr}
```

IPv4 アドレスに 0.0.0.0 と入力すると、ARP ターゲットが削除されます。または IPv6 アドレスの場合は N-disc ターゲットが削除されます。

- b) Specify the second IPv4 or IPv6 address the system pings.

```
UCS-A /monitoring # set mgmt-if-mon-policy {arp-target2 | ndisc-target2} {ipv4-addr | ipv6-addr}
```

IPv4 アドレスに 0.0.0.0 と入力すると、ARP ターゲットが削除されます。または IPv6 アドレスの場合は N-disc ターゲットが削除されます。

- c) Specify the third IPv4 or IPv6 address the system pings.

```
UCS-A /monitoring # set mgmt-if-mon-policy {arp-target3 | ndisc-target3} {ipv4-addr | ipv6-addr}
```

IPv4 アドレスに 0.0.0.0 と入力すると、ARP ターゲットが削除されます。または IPv6 アドレスの場合は N-disc ターゲットが削除されます。

**Note** The ping IPv4 ARP or IPv6 N-disc targets must be in the same subnet or prefix, respectively, as the fabric interconnect.

- d) Specify the number of ARP requests to send to the target IP addresses.

```
UCS-A /monitoring # set mgmt-if-mon-policy arp-requests num-requests
```

Enter an integer between 1 and 5.

- e) Specify the number of seconds to wait for responses from the ARP targets before the system assumes that they are unavailable.

```
UCS-A /monitoring # set mgmt-if-mon-policy arp-deadline num-seconds
```

Enter a number between 5 and 15.

**Step 8** If you selected **ping-gateway** as your monitoring mechanism, configure the following properties:

- a) Specify the number of times the system should ping the gateway.

```
UCS-A /monitoring # set mgmt-if-mon-policy ping-requests
```

Enter an integer between 1 and 5.

- b) Specify the number of seconds to wait for a response from the gateway until the system assumes that the address is unavailable.

```
UCS-A /monitoring # set mgmt-if-mon-policy ping-deadline
```

Enter an integer between 5 and 15.

**Step 9** UCS-A /monitoring # **commit-buffer**

Commits the transaction to the system configuration.

### Example

The following example creates a monitoring interface management policy using the Media Independent Interface (MII) monitoring mechanism and commits the transaction:

```
UCS-A# scope monitoring
UCS-A /monitoring # set mgmt-if-mon-policy admin-state enabled
UCS-A /monitoring* # set mgmt-if-mon-policy poll-interval 250
UCS-A /monitoring* # set mgmt-if-mon-policy max-fail-reports 2
UCS-A /monitoring* # set mgmt-if-mon-policy monitor-mechanism set mii-status
UCS-A /monitoring* # set mgmt-if-mon-policy mii-retry-count 3
UCS-A /monitoring* # set mgmt-if-mon-policy mii-retry-interval 7
UCS-A /monitoring* # commit-buffer
UCS-A /monitoring #
```

## ローカルストレージのモニタリング

Cisco UCS でのローカルストレージのモニタリングでは、ブレードまたはラック サーバに物理的に接続されているローカルストレージに関するステータス情報を提供します。これには、RAID コントローラ、物理ドライブおよびドライブグループ、仮想ドライブ、RAID コントローラ バッテリ（バッテリー バックアップユニット）、Transportable Flash Module（TFM）、スーパーキャパシタ、FlexFlash コントローラおよび SD カードが含まれます。

Cisco UCS Manager は、アウトオブバンドインターフェイスを使用して LSI MegaRAID コントローラおよび FlexFlash コントローラと直接通信するため、リアルタイムの更新が可能になります。表示される情報には次のようなものがあります。

- RAID コントローラ ステータスと再構築レート。
- 物理ドライブのドライブの状態、電源状態、リンク速度、運用性およびファームウェアバージョン。

- 仮想ドライブのドライブの状態、運用性、ストリップのサイズ、アクセスポリシー、ドライブのキャッシュおよびヘルス。
- BBU の運用性、それがスーパーキャパシタまたはバッテリーであるか、および TFM に関する情報。  
LSI ストレージ コントローラは、スーパーキャパシタを備えた Transportable Flash Module (TFM) を使用して RAID キャッシュ保護を提供します。
- SD カードおよび FlexFlash コントローラに関する情報 (RAID のヘルスおよび RAID の状態、カードヘルスおよび運用性を含む)。
- 再構築、初期化、再学習などストレージコンポーネント上で実行している操作の情報。



---

④ CIMC のリブートまたはビルドのアップグレード後は、ストレージコンポーネント上で実行している操作のステータス、開始時刻および終了時刻が正しく表示されない場合があります。

---

- すべてのローカルストレージコンポーネントの詳細な障害情報。



---

④ すべての障害は、[Faults] タブに表示されます。

---

## ローカルストレージ モニタリングのサポート

サポートされるモニタリングのタイプは、Cisco UCS サーバによって異なります。

### ローカルストレージ モニタリングについてサポートされる Cisco UCS サーバ

Cisco UCS Manager を使用して、次のサーバについてローカルストレージコンポーネントをモニタできます。

- Cisco UCS B200 M3 ブレードサーバ
- Cisco UCS B420 M3 ブレードサーバ
- Cisco UCS B22 M3 ブレードサーバ
- Cisco UCS B200 M4 ブレードサーバ
- Cisco UCS B260 M4 ブレードサーバ
- Cisco UCS B460 M4 ブレードサーバ
- Cisco UCS C420 M3 ラックサーバ
- Cisco UCS C240 M3 ラックサーバ

- Cisco UCS C220 M3 ラック サーバ
- Cisco UCS C24 M3 ラック サーバ
- Cisco UCS C22 M3 ラック サーバ
- Cisco UCS C220 M4 ラック サーバ
- Cisco UCS C240 M4 ラック サーバ
- Cisco UCS C460 M4 ラック サーバ
- Cisco UCS B200 M5 サーバ
- Cisco UCS B480 M5 サーバ
- Cisco UCS C220 M5 サーバ
- Cisco UCS C240 M5 サーバ
- Cisco UCS C480 M5 サーバ



(注) すべてのサーバがすべてのローカルストレージコンポーネントをサポートするわけではありません。Cisco UCS ラック サーバの場合は、マザーボードに組み込まれたオンボード SATA RAID 0/1 コントローラはサポートされません。

## ローカルストレージ モニタリングの前提条件

これらの前提条件は、有益なステータス情報を提供するため行われるローカルストレージモニタリングやレガシー ディスク ドライブ モニタリングの際に満たす必要があります。

- ドライブがサーバ ドライブ ベイに挿入されている。
- サーバの電源が投入されている。
- サーバが検出を完了している。
- BIOS POST の完了結果が正常である。

## Legacy Disk Drive Monitoring



**Note** The following information is applicable only for B200 M1/M2 and B250 M1/M2 blade servers.

The legacy disk drive monitoring for Cisco UCS provides Cisco UCS Manager with blade-resident disk drive status for supported blade servers in a Cisco UCS ドメイン。Disk drive monitoring provides a unidirectional fault signal from the LSI firmware to Cisco UCS Manager to provide status information.

The following server and firmware components gather, send, and aggregate information about the disk drive status in a server:

- Physical presence sensor—Determines whether the disk drive is inserted in the server drive bay.
- Physical fault sensor—Determines the operability status reported by the LSI storage controller firmware for the disk drive.
- IPMI disk drive fault and presence sensors—Sends the sensor results to Cisco UCS Manager.
- Disk drive fault LED control and associated IPMI sensors—Controls disk drive fault LED states (on/off) and relays the states to Cisco UCS Manager.

## Turning On the Local Disk Locator LED

---

- Step 1** UCS-A# **scope server *id***  
Enters server mode for the specified server.
- Step 2** UCS-A/server # **scope local-disk *id***  
Enters the RAID controller for the specified local disk.
- Step 3** UCS-A /server/local-disk # **enable locator-led**  
Turns on the disk locator LED.
- Step 4** UCS-A/server/local-disk\* # **commit-buffer**  
Commits the command to the system configuration.
- 

### Example

The following example displays how to turn on the local disk Locator LED:

```
UCS-A# scope server 1
UCS-A /server/raid-controller # scope local-disk 2
USA-A /server/raid-controller/local-disk # enable locator-led
USA-A /server/raid-controller/local-disk* # commit-buffer
```

## Turning Off the Local Disk Locator LED

---

- Step 1** UCS-A# **scope server *id***  
Enters server mode for the specified server.
- Step 2** UCS-A/server # **scope local-disk *id***  
Enters the RAID controller for the specified local disk.
- Step 3** UCS-A/server/local-disk # **disable locator-led**

Turns off the disk locator LED.

- Step 4** UCS-A/server/raid-controller/local-disk\* # **commit-buffer**  
Commits the command to the system configuration.

### Example

The following example displays how to disable the local disk Locator LED:

```
UCS-A# server 1
UCS-A /server # scope local-disk 2
USA-A /server/local-disk # disable locator-led
USA-A /server/local-disk* # commit-buffer
```

## Viewing the Local Disk Locator LED State

- Step 1** UCS-A# **scope server id**  
Enters server mode for the specified server.
- Step 2** UCS-A/server # **scope local-disk id**  
Enters the RAID controller for the specified local disk.
- Step 3** UCS-A/server/local-disk # **show locator-led**  
Shows the state of the disk locator LED.

### Example

The following example shows that the state of the local disk Locator LED is on:

```
USA-A# scope server 1
USA-A /server # scope local-disk 2
USA-A /server/local-disk # show locator-led
Locator LED:
  Equipment      Operational State
  -----
  1/SAS-1/2     On
```

## Flash Life Wear Level Monitoring

Flash life wear level monitoring enables you to monitor the life span of solid state drives. You can view both the percentage of the flash life remaining, and the flash life status. Wear level monitoring is supported on the Fusion IO mezzanine card with the following Cisco UCS blade servers:

- Cisco UCS B22 M3 blade server
- Cisco UCS B200 M3 blade server



- Cisco UCS B420 M3 blade server
- Cisco UCS B200 M4 blade server
- Cisco UCS B260 M4 blade server
- Cisco UCS B460 M4 blade server



**Note** Wear level monitoring requires the following:

- Cisco UCS Manager must be at release 2.2(2a) or greater.
- The Fusion IO mezzanine card firmware must be at version 7.1.15 or greater.

## Viewing Flash Life Status

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-id / server-id*
2. UCS-A /chassis/server # **show raid-controller detail expand**

### DETAILED STEPS

|               | Command or Action   | Purpose  |
|---------------|---|--|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>chassis-id / server-id</i>          | Enters chassis server mode for the specified server. |
| <b>Step 2</b> | UCS-A /chassis/server # <b>show raid-controller detail expand</b> | Displays details for the RAID controller.            |

### Example

The following example shows how to display the flash life status for server 3:

```
UCS-A# scope server 1/3
UCS-A /chassis/server # show raid-controller detail expand
```

```
RAID Controller:
  ID: 1
  Type: FLASH
  PCI Addr: 131:00.0
  Vendor: Cisco Systems Inc
  Model: UCSC-F-FIO-1205M
  Serial: 1315D2B52
  HW Rev: FLASH
  Raid Support: No
  OOB Interface Supported: No
  Rebuild Rate: N/A
  Controller Status: Unknown

Flash Life:
  Flash Percentage: N/A
  FLash Status: Error(244)
```

```
UCS-A /chassis/server #
```

## Viewing the Status of Local Storage Components

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-id / server-id*
2. UCS-A /chassis/server # **show inventory storage**

### DETAILED STEPS

|               | Command or Action  | Purpose  |
|---------------|--|--|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>chassis-id / server-id</i> | Enters chassis server mode for the specified server.               |
| <b>Step 2</b> | UCS-A /chassis/server # <b>show inventory storage</b>    | Displays the local and virtual storage information for the server. |

### Example

The following example shows how to display the local disk status for server 2:

```
UCS-A# scope server 1/2
UCS-A /chassis/server # show inventory storage
Server 1/2:
  Name:
  User Label:
  Equipped PID: UCSB-B200-M3
  Equipped VID: V01
  Equipped Serial (SN): FCH16207KXG
  Slot Status: Equipped
  Acknowledged Product Name: Cisco UCS B200 M3
  Acknowledged PID: UCSB-B200-M3
  Acknowledged VID: V01
  Acknowledged Serial (SN): FCH16207KXG
  Acknowledged Memory (MB): 98304
  Acknowledged Effective Memory (MB): 98304
  Acknowledged Cores: 12
  Acknowledged Adapters: 1
  Motherboard:
    Product Name: Cisco UCS B200 M3
    PID: UCSB-B200-M3
    VID: V01
    Vendor: Cisco Systems Inc
    Serial (SN): FCH16207KXG
    HW Revision: 0

  RAID Controller 1:
    Type: SAS
    Vendor: LSI Logic Symbios Logic
    Model: LSI MegaRAID SAS 2004 ROMB
    Serial: LSIROMB-0
    HW Revision: B2
    PCI Addr: 01:00.0
    Raid Support: RAID0, RAID1
    OOB Interface Supported: Yes
```

Rebuild Rate: 31  
Controller Status: Optimal

## Local Disk 1:

Product Name: 146GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted  
PID: A03-D146GA2  
VID: V01  
Vendor: SEAGATE  
Model: ST9146803SS  
Vendor Description: Seagate Technology LLC  
Serial: 3SD31S4X  
HW Rev: 0  
Block Size: 512  
Blocks: 285155328  
Operability: Operable  
Oper Qualifier Reason: N/A  
Presence: Equipped  
Size (MB): 139236  
Drive State: Online  
Power State: Active  
Link Speed: 6 Gbps  
Device Type: HDD

## Local Disk 2:

Product Name: 600G AL12SE SAS Hard Disk Drive  
PID: A03-D600GA2  
VID: V01  
Vendor: TOSHIBA  
Model: MBF2600RC  
Vendor Description: Toshiba Corporation  
Serial: EA00PB109T4A  
HW Rev: 0  
Block Size: 512  
Blocks: 1169920000  
Operability: Operable  
Oper Qualifier Reason: N/A  
Presence: Equipped  
Size (MB): 571250  
Drive State: Online  
Power State: Active  
Link Speed: 6 Gbps  
Device Type: HDD

## Local Disk Config Definition:

Mode: RAID 1 Mirrored  
Description:  
Protect Configuration: No

## Virtual Drive 0:

Type: RAID 1 Mirrored  
Block Size: 512  
Blocks: 285155328  
Operability: Operable  
Presence: Equipped  
Size (MB): 139236  
Lifecycle: Allocated  
Drive State: Optimal  
Strip Size (KB): 64  
Access Policy: Read Write  
Read Policy: Normal  
Configured Write Cache Policy: Write Through  
Actual Write Cache Policy: Write Through  
IO Policy: Direct  
Drive Cache: No Change

```
Bootable: False
```

```
UCS-A /chassis/server #
```

The following example shows how to display the local disk status for server 2 with PCIe\NVMe Flash Storage:

```
UCS-A# scope server 1/2
```

```
UCS-A /chassis/server # show inventory storage
```

```
Server 1/2:
```

```
Name:
```

```
Acknowledged Serial (SN): FCH1901V0FK
Acknowledged Product Name: Cisco UCS C240 M4S2
Acknowledged PID: UCSC-C240-M4S2
Acknowledged VID: 0
Acknowledged Memory (MB): 16384
Acknowledged Effective Memory (MB): 16384
Acknowledged Cores: 24
Acknowledged Adapters: 4
Motherboard:
  Product Name: Cisco UCS C240 M4S2
  PID: UCSC-C240-M4S2
  VID: V01
  Vendor: Cisco Systems Inc
  Serial (SN): FCH1901V0FK
  HW Revision: 0
```

```
Raid Controller 1:
```

```
Type: NVMe
Vendor: HGST
Model: HUSPR3280ADP301
Serial: STM0001A74F2
HW Revision:
PCI Addr: 42:00.0
Raid Support: No
OOB Interface Supported: Yes
Rebuild Rate: 0
Controller Status: Optimal
```

```
Local Disk 2:
```

```
Product Name: Cisco UCS 800GB 2.5 in NVMe based PCIeSSD
PID: UCS-SDHPCIE800GB
VID:
Vendor: HGST
Model: HUSPR3280ADP301
Vendor Description:
Serial: 14310CF8E975
HW Rev: 0
Block Size: 512
Blocks: 285155328
Operability: NA
Oper Qualifier Reason: N/A
Presence: Equipped
Size: 94413
Drive State: NA
Power State: NA
Link Speed: NA
Device Type: SSD
Thermal: N/A
```

```
UCS-A /chassis/server #
```

The following example shows how to display the local disk status for Cisco UCS (P3600) 2.5 inches 800 GB NVMe based PCIe SSD:

```
RAID Controller:
  ID: 1
  Type: NVME
  PCI Addr: 69:00.0
  Vendor: Intel
  Model: SSDPE2ME800G4K
  Serial: CVMD6083003D800GGN
  HW Rev:
  Raid Support: No
  OOB Interface Supported: Yes
  Mode: NVME
  Rebuild Rate: 0
  Controller Status: Optimal
  Config State: Not Applied
  Pinned Cache Status: Disabled
  Sub OEM ID: 0
  Supported Strip Sizes: Not Applicable
  Default Strip Size: Unknown
  PCI Slot: FrontPCIe5
  Product Variant: default
  Product Name: Cisco UCS (P3600) 2.5 inches 800 GB NVMe based PCIe SSD
  PID: UCS-PCI25-8003
  VID:
  Part Number:
  Storage Controller Admin State: Unspecified
  Vendor Id: 0x8086
  Subvendor Id: 0x1137
  Device Id: 0x953
  Subdevice Id: 0x15b
  Current Task:

Local Disk:
  ID: 5
  Block Size: 512
  Physical Block Size: Unknown
  Blocks: 1562822656
  Size: 763097
  Technology:
  Operability: N/A
  Oper Qualifier Reason: N/A
  Presence: Equipped
  Connection Protocol: NVME
  Product Variant: default
  Product Name: Cisco UCS (P3600) 2.5 inches 800 GB NVMe based PCIe SSD
  PID: UCS-PCI25-8003
  VID:
  Vendor: Intel
  Model: SSDPE2ME800G4K
  Vendor Description:
  Serial: CVMD6083003D800GGN
  HW Rev: 0
  Drive State: Unknown
  Power State: Unknown
  Link Speed: Unknown
  Enclosure Association Type: Unknown
  Device Version: N/A
  Device Type: SSD
  Thermal: N/A
  Admin State Type: N/A
  Admin Virtual Drive ID: Unspecified
  Current Task:
```

The following example shows how to display the status for Cisco UCS (P3600) HHL 2000 GB NVMe based PCIe SSD:

```

RAID Controller:
  ID: 3
  Type: NVME
  PCI Addr: 01:00.0
  Vendor: Intel
  Model: SSDPEDME020T401
  Serial: CVMD543200AQ2P0EGN
  HW Rev:
  Raid Support: No
  OOB Interface Supported: Yes
  Mode: NVME
  Rebuild Rate: 0
  Controller Status: Optimal
  Config State: Not Applied
  Pinned Cache Status: Disabled
  Sub OEM ID: 0
  Supported Strip Sizes: Not Applicable
  Default Strip Size: Unknown
  PCI Slot: 2
  Product Variant: default
  Product Name: Cisco UCS (P3600) HHHL 2000 GB NVMe based PCIe SSD
  PID: UCSC-F-I20003
  VID:
  Part Number:
  Storage Controller Admin State: Unspecified
  Vendor Id: 0x8086
  Subvendor Id: 0x1137
  Device Id: 0x953
  Subdevice Id: 0x1ac
  Current Task:

Embedded Storage:
  Size: 2000000
  Block Size: 512
  Number Of Blocks: 3906250000

```

## Viewing the Status of a Disk Drive

### SUMMARY STEPS

1. UCS-A# **scope chassis** *chassis-num*
2. UCS-A /chassis # **scope server** *server-num*
3. UCS-A /chassis/server # **scope raid-controller** *raid-contr-id* {**sas** | **sata**}
4. UCS-A /chassis/server/raid-controller # **show local-disk** [*local-disk-id* | **detail** | **expand**]

### DETAILED STEPS

|               | Command or Action  | Purpose                                     |
|---------------|--|---|
| <b>Step 1</b> | UCS-A# <b>scope chassis</b> <i>chassis-num</i>   | 指定したシャーシでシャーシモードを開始します。                     |
| <b>Step 2</b> | UCS-A /chassis # <b>scope server</b> <i>server-num</i>   | Enters server chassis mode.                 |
| <b>Step 3</b> | UCS-A /chassis/server # <b>scope raid-controller</b> <i>raid-contr-id</i> { <b>sas</b>   <b>sata</b> } | Enters RAID controller server chassis mode. |

|        | Command or Action  | Purpose |
|--------|--|---------|
| Step 4 | UCS-A /chassis/server/raid-controller # <b>show local-disk</b><br>[ <i>local-disk-id</i>   <b>detail</b>   <b>expand</b> ] |         |

### Example

The following example shows the status of a disk drive:

```
UCS-A# scope chassis 1
UCS-A /chassis # scope server 6
UCS-A /chassis/server # scope raid-controller 1 sas
UCS-A /chassis/server/raid-controller # show local-disk 1

Local Disk:
  ID: 1
  Block Size: 512
  Blocks: 60545024
  Size (MB): 29563
  Operability: Operable
  Presence: Equipped
```

## Viewing RAID Controller Operations

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-id* / *server-id*
2. UCS-A /chassis/server # **show raid-controller operation**

### DETAILED STEPS

|        | Command or Action   | Purpose   |
|--------|---|---|
| Step 1 | UCS-A# <b>scope server</b> <i>chassis-id</i> / <i>server-id</i> | Enters chassis server mode for the specified server.          |
| Step 2 | UCS-A /chassis/server # <b>show raid-controller operation</b>   | Displays the long running operations for the RAID controller. |

### Example

The following example shows how to display the RAID controller operations for server 3:

```
UCS-A# scope server 1/3
UCS-A /chassis/server # show raid-controller operation

Name: Rebuild
Affected Object: sys/chassis-1/blade-3/board/storage-SAS-1/disk-1
State: In Progress
Progress: 4
Start Time: 2013-11-05T12:02:10.000
End Time: N/A

UCS-A /chassis/server #
```

## Viewing RAID Controller Stats

The following procedure shows how to display controller stats for a server with PCIe\NVMe Flash Storage:

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-id / server-id*
2. UCS-A /chassis/server # **scope raid-controller** *raid-contr-id {flash | sas | sata | sd | unknown}*
3. UCS-A /chassis/server/raid-controller # **show stats**

### DETAILED STEPS

|               | Command or Action   | Purpose  |
|---------------|---|--|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>chassis-id / server-id</i>  | Enters chassis server mode for the specified server. |
| <b>Step 2</b> | UCS-A /chassis/server # <b>scope raid-controller</b> <i>raid-contr-id {flash   sas   sata   sd   unknown}</i> | Enters RAID controller server chassis mode.          |
| <b>Step 3</b> | UCS-A /chassis/server/raid-controller # <b>show stats</b>   | Displays the raid controller stats.                  |

### Example

The following example shows how to display the RAID controller stats:

```
UCS-A# scope server 1/3
UCS-A /chassis/server # scope raid-controller
UCS-A /chassis/server/raid-controller # show stats

Nvme Stats:
  Time Collected: 2016-06-22T12:37:55.043
  Monitored Object: sys/rack-unit-6/board/storage-NVME-1/nvme-stats
  Suspect: Yes
  Temperature (C): 27.000000
  Life Used Percentage: 0
  Thresholded: 0

UCS-A /chassis/server/raid-controller #
```

## Monitoring RAID Battery Status

This procedure applies only to Cisco UCS servers that support RAID configuration and TFM. If the Battery Backup Unit (BBU) has failed or is predicted to fail, you should replace the unit as soon as possible.

### Procedure

|               | Command or Action   | Purpose  |
|---------------|---|--|
| <b>Step 1</b> | UCS-A # <b>scope chassis</b> <i>chassis-num</i>   | Enters chassis mode for the specified chassis. |
| <b>Step 2</b> | UCS-A /chassis # <b>scope server</b> <i>server-num</i>  | Enters server chassis mode.                    |
| <b>Step 3</b> | UCS-A /chassis/server # <b>scope raid-controller</b> <i>raid-contr-id {flash   sas   sata   sd   unknown}</i> | Enters RAID controller server chassis mode.    |



|        | Command or Action   | Purpose                           |
|--------|---|-----------------------------------|
| Step 4 | UCS-A /chassis/server/raid-controller # <b>show raid-battery expand</b> | Displays the RAID battery status. |

### Example

This example shows how to view information on the BBU of a server:

```
UCS-A # scope chassis 1
UCS-A /chassis #scope server 3
UCS-A /chassis/server #scope raid-controller 1 sas
UCS-A /chassis/server/raid-controller # show raid-battery expand
RAID Battery:
  Battery Type: Supercap
  Presence: Equipped
  Operability: Operable
  Oper Qualifier Reason:
  Vendor: LSI
  Model: SuperCaP
  Serial: 0
  Capacity Percentage: Full
  Battery Temperature (C): 54.000000

  Transportable Flash Module:
    Presence: Equipped
    Vendor: Cisco Systems Inc
    Model: UCSE-RAID-1GBFM
    Serial: FCH164279W6
```

## Graphics Card Monitoring

### グラフィックス カード サーバ サポート

Cisco UCS Managerを使用すると、特定のグラフィックスカードとコントローラのプロパティを表示できます。グラフィックス カードは、次のサーバでサポートされています。

- Cisco UCS C240 M3 ラック サーバ
- Cisco UCS C460 M4 ラック サーバ
- Cisco UCS B200M4 ブレード サーバ
- Cisco UCS B200 M5 サーバ
- Cisco UCS B480 M5 サーバ
- Cisco UCS C220 M5 サーバ
- Cisco UCS C240 M5 サーバ
- Cisco UCS C480 M5 サーバ



- (注) 特定の NVIDIA グラフィック処理ユニット (GPU) では、エラー訂正コード (ECC) と vGPU の組み合わせはサポートされません。シスコでは、NVIDIA が公開しているそれぞれの GPU のリリースノートを参照して、ECC と vGPU の組み合わせがサポートされているかどうか確認することを推奨しています。

## Viewing Graphics Card Properties

### SUMMARY STEPS

1. UCS-A# **scope server blade-id**
2. UCS-A /server # **show graphics-card detail**

### DETAILED STEPS

|               | Command or Action                                | Purpose                                       |
|---------------|--|---|
| <b>Step 1</b> | UCS-A# <b>scope server blade-id</b>              | Enters server mode for the specified server.  |
| <b>Step 2</b> | UCS-A /server # <b>show graphics-card detail</b> | Displays information about the graphics card. |

### Example

The following example shows how to display the graphics card properties on server 1:

```
UCS-A# scope server 1
UCS-A /server # show graphics-card detail

ID: 1
Slot Id: 2
Magma Expander Slot Id:
Is Supported: Yes
Vendor: Cisco Systems Inc
Model: UCSB-GPU-M6
Serial: FHH1924002B
Mode: Graphics
PID: UCSB-GPU-M6
Firmware Version: 84.04.89.00.01|2754.0200.01.02
Vendor Id: 0x10de
Subvendor Id: 0x10de
Device Id: 0x13f3
Subdevice Id: 0x1143

UCS-A /server #
```

## Viewing Graphics Controller Properties

### SUMMARY STEPS

1. UCS-A# **scope server blade-id**

2. UCS-A /server # **scope graphics-card** *card-id*
3. UCS-A /server/graphics-card # **show graphics-controller detail**

#### DETAILED STEPS

|        | Command or Action  | Purpose  |
|--------|--|--|
| Step 1 | UCS-A# <b>scope server</b> <i>blade-id</i>                           | Enters server mode for the specified server.               |
| Step 2 | UCS-A /server # <b>scope graphics-card</b> <i>card-id</i>            | Enters graphics card mode for the specified graphics card. |
| Step 3 | UCS-A /server/graphics-card # <b>show graphics-controller detail</b> | Displays information about the graphics controllers.       |

#### Example

The following example shows how to display the graphics controller properties for graphics card 1 on server 1:

```
UCS-A# scope server 1
UCS-A /server # scope graphics-card 1
UCS-A /server/graphics-card # show graphics-controller detail
Graphics Controller:
  ID: 1
  Pci Address: 07:00.0

  ID: 2
  Pci Address: 08:00.0
UCS-A /server/graphics-card #
```

## PCI Switch Monitoring

### PCI スイッチ サーバ サポート

Cisco UCS Manager、PCI スイッチのプロパティを表示することができます。PCI スイッチは、次のサーバでサポートされます。

- Cisco UCS C480 M5 ML サーバー

### Viewing PCI Switch Properties

PCI Switch properties are visible only for servers which support PCI switch.

#### SUMMARY STEPS

1. UCS-A# **scope server** *server-num*
2. UCS-A /server # **show pci-switch**
3. UCS-A /server # **scope pci-switch** *pci-switch-number*
4. UCS-A /server # **show detail**

## DETAILED STEPS

|               | Command or Action  | Purpose  |
|---------------|--|--|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>server-num</i>                     | Enters server mode for the specified server.             |
| <b>Step 2</b> | UCS-A /server # <b>show pci-switch</b>                           | Displays information about the PCI switches.             |
| <b>Step 3</b> | UCS-A /server # <b>scope pci-switch</b> <i>pci-switch-number</i> | Enters the PCI switch mode for the specified PCI switch. |
| <b>Step 4</b> | UCS-A /server # <b>show detail</b>                               |  |

## Example

The following example shows how to display the PCI switch properties:

```
UCS-A# scope server 1
UCS-A /server # show pci-switch
Pci Switch:
ID Pci Switch name Firmware Version
---
1 PCI-Switch-1 xxxx
2 PCI-Switch-2 xxxxxxxx
3 PCI-Switch-3 xxx
4 PCI-Switch-4 xxxxx
UCS-A /server # scope pci-switch 1
UCS-A /server/pci-switch #show detail

Pci Switch:
ID: 1
Pci Switch name: PCI-Switch-1
No of Adapters: 3
Switch Status: Good
Switch Temperature (C): 45.000000
Switch Product Revision: 0XxB
Firmware Version: xxxx
Vendor Id: xxx
Subvendor Id: xxx
Device Id: xxxx
Subdevice Id: xxxxx
Switch Vendor: xxxxx
Pci Address: xx:00.0
UCS-A /server/pci-switch #
```

## Transportable Flash Module と スーパーキャパシタの管理

LSI ストレージコントローラは、スーパーキャパシタを備えた Transportable Flash Module (TFM) を使用して RAID キャッシュ保護を提供します。Cisco UCS Manager を使用すると、これらのコンポーネントをモニタしてバッテリー バックアップユニット (BBU) の状態を決定できます。BBU の動作状態は次のいずれかになります。

- [Operable]: BBU は正常に動作しています。
- [Inoperable]: TFM または BBU が欠落している、または BBU に障害が発生しており交換する必要があります。

- [Degraded]: BBU に障害が発生すると予測されます。

TFM およびスーパーキャパシタ機能は Cisco UCS Manager リリース 2.1(2) 以降でサポートされています。

## TFM とスーパーキャパシタの注意事項および制約事項

### TFM とスーパーキャパシタの制約事項

- Cisco UCS B420 M3 ブレード サーバの TFM およびスーパーキャパシタの CIMC センサーは、Cisco UCS Manager によってポーリングされません。
- TFM およびスーパーキャパシタが Cisco UCS B420 M3 ブレード サーバに搭載されていない、または搭載後にブレード サーバから取り外した場合、障害は生成されません。
- TFM は Cisco UCS B420 M3 ブレード サーバに搭載されていないが、スーパーキャパシタが搭載されている場合、Cisco UCS Manager によって BBU システム全体が欠落していると報告されます。TFM とスーパーキャパシタの両方がブレードサーバに存在することを物理的に確認する必要があります。

### TFM およびスーパーキャパシタについてサポートされる Cisco UCS サーバ

次の Cisco UCS サーバは TFM およびスーパーキャパシタをサポートしています。

- Cisco UCS B420 M3 ブレード サーバ
- Cisco UCS C22 M3 ラック サーバ
- Cisco UCS C24 M3 ラック サーバ
- Cisco UCS C220 M3 ラック サーバ
- Cisco UCS C240 M3 ラック サーバ
- Cisco UCS C420 M3 ラック サーバ
- Cisco UCS C460 M4 ラック サーバ
- Cisco UCS B200 M5 サーバ
- Cisco UCS B480 M5 サーバ
- Cisco UCS C220 M5 サーバ
- Cisco UCS C240 M5 サーバ
- Cisco UCS C480 M5 サーバ
- Cisco UCS C220 M3 ラック サーバ
- Cisco UCS C240 M3 ラック サーバ

# TPM Monitoring

Trusted Platform Module (TPM) is included on all Cisco UCS M3 blade and rack-mount servers. Operating systems can use TPM to enable encryption. For example, Microsoft's BitLocker Drive Encryption uses the TPM on Cisco UCS servers to store encryption keys.

Cisco UCS Manager enables monitoring of TPM, including whether TPM is present, enabled, or activated.

## Viewing TPM Properties

### SUMMARY STEPS

1. UCS-A# **scope server** *chassis-id / server-id*
2. UCS-A /chassis/server # **scope tpm** *tpm-id*
3. UCS-A /chassis/server/tpm # **show**
4. UCS-A /chassis/server/tpm # **show detail**

### DETAILED STEPS

|               | Command or Action  | Purpose  |
|---------------|--|--|
| <b>Step 1</b> | UCS-A# <b>scope server</b> <i>chassis-id / server-id</i> | Enters chassis server mode for the specified server. |
| <b>Step 2</b> | UCS-A /chassis/server # <b>scope tpm</b> <i>tpm-id</i>   | Enters TPM mode for the specified TPM ID.            |
| <b>Step 3</b> | UCS-A /chassis/server/tpm # <b>show</b>                  | Displays the TPM properties.                         |
| <b>Step 4</b> | UCS-A /chassis/server/tpm # <b>show detail</b>           | Displays detailed TPM properties.                    |

### Example

The following example shows how to display the TPM properties for blade 3 in chassis 1:

```
UCS-A# scope server 1/3
UCS-A /chassis/server # scope tpm 1
UCS-A /chassis/server/tpm # show

Trusted Platform Module:
  Presence: Equipped
  Enabled Status: Enabled
  Active Status: Activated
  Ownership: Unowned
UCS-A /chassis/server/tpm # show detail

Trusted Platform Module:
  Enabled Status: Enabled
  Active Status: Activated
  Ownership: Unowned
  Tpm Revision: 1
  Model: UCSX-TPM1-001
  Vendor: Cisco Systems Inc
  Serial: FCH16167DBJ
UCS-A /chassis/server/tpm #
```