

# Mist 設定マニュアル - Wired Assurance - スイッチメトリック 確認手順

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2021年8月 Ver 1.0



# はじめに

- ❖ 本マニュアルは、『スイッチメトリックの確認手順』について説明します
- ❖ 手順内容は 2021年8月 時点の Mist Cloud にて確認を実施しております  
実際の画面と表示が異なる場合は以下のアップデート情報をご確認下さい  
<https://www.mist.com/documentation/category/product-updates/>
- ❖ 設定内容やパラメータは導入する環境や構成によって異なります  
各種設定内容の詳細は下記リンクよりご確認ください  
<https://www.mist.com/documentation/>
- ❖ 他にも多数の Mist 日本語マニュアルを「ソリューション＆テクニカル情報サイト」に掲載しております  
<https://www.juniper.net/jp/ja/local/solution-technical-information/mist.html>

# Mist Wired Assurance について

Wired Assuranceには2種類(Basic, Advanced)ございます。

本書では「スイッチメトリック」について紹介します。

	Basic Wired Assurance	Advanced Wired Assurance
対応機種	○ 他社SWでも可能 ※1	○ Juniper EXスイッチのみ
スイッチ一覧の表示	○ ※1	○
スイッチメトリック ※2	○ ※1	○
トポロジの可視化	○ ※1	○
スイッチ障害時における電波の影響範囲	○ ※1	○
SLEの可視化、不具合原因の可視化	-	○
ポートの可視化	-	○
メモリ・CPU・PoE給電・通信量・イベントの可視化	-	○
GUI設定	-	○
各種運用ツール(Ping, OSアップグレード等)	-	○

※1 : 他社SWにてLLDPを有効化する必要がございます

※2 : メトリックとはスイッチ一覧の上部に表示される5つの要素「Switch-AP Affinity」「PoE Compliance」「VLANs」「Version Compliance」「Switch Uptime」を指しております

## ■ 運用ケース(例)

### スイッチの各種メトリックを確認したい時

# メトリックとは？

スイッチ上の問題を検出する事が可能です

## ■メトリックの種類

- ・ **スイッチ-AP アフィニティ** – 12台以上のAPが接続されているスイッチの検出
- ・ **PoE コンプライアンス** – 802.3atで給電されていないAPの検出
- ・ **VLAN設定** – 不一致のVLANの検出
- ・ **バージョンコンプライアンス** – 異なるファームウェアを実行しているスイッチの検出
- ・ **スイッチ稼働状況** – 不安定なスイッチの検出

JUNIPER  
NETWORKS

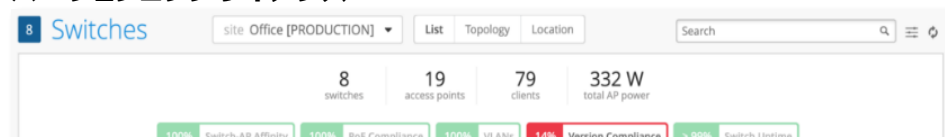
CISCO

CISCO  
Meraki

Hewlett Packard  
Enterprise

aruba  
a Hewlett Packard  
Enterprise company

### バージョンコンプライアンス



#### Version Compliance

1 switch is running version 12.2(55)SE5, but 6 switches have other versions

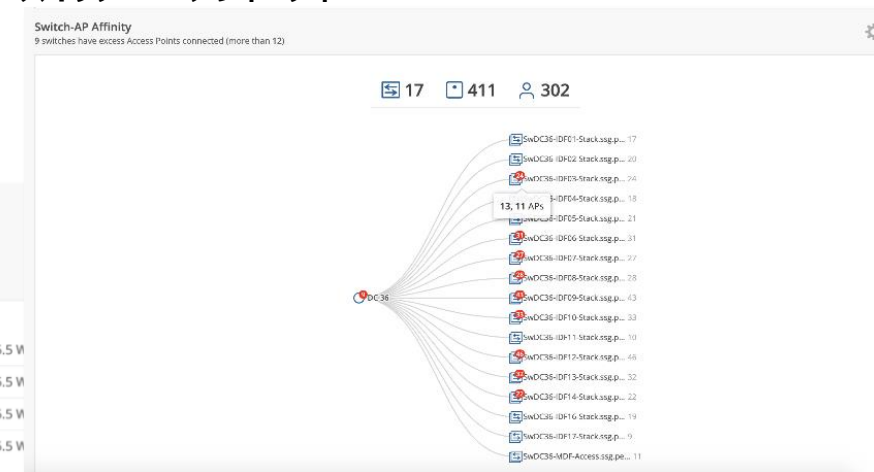
Name
CORP-A-DIST-SW
CORP-C-SW-1.mist.local
Juniper48MP-NearPrinter
CiscoSwitch1FrontRoom.mist.local
UBNT

### PoEコンプライアンス

< Switches: Juniper48MP-NearPrinter

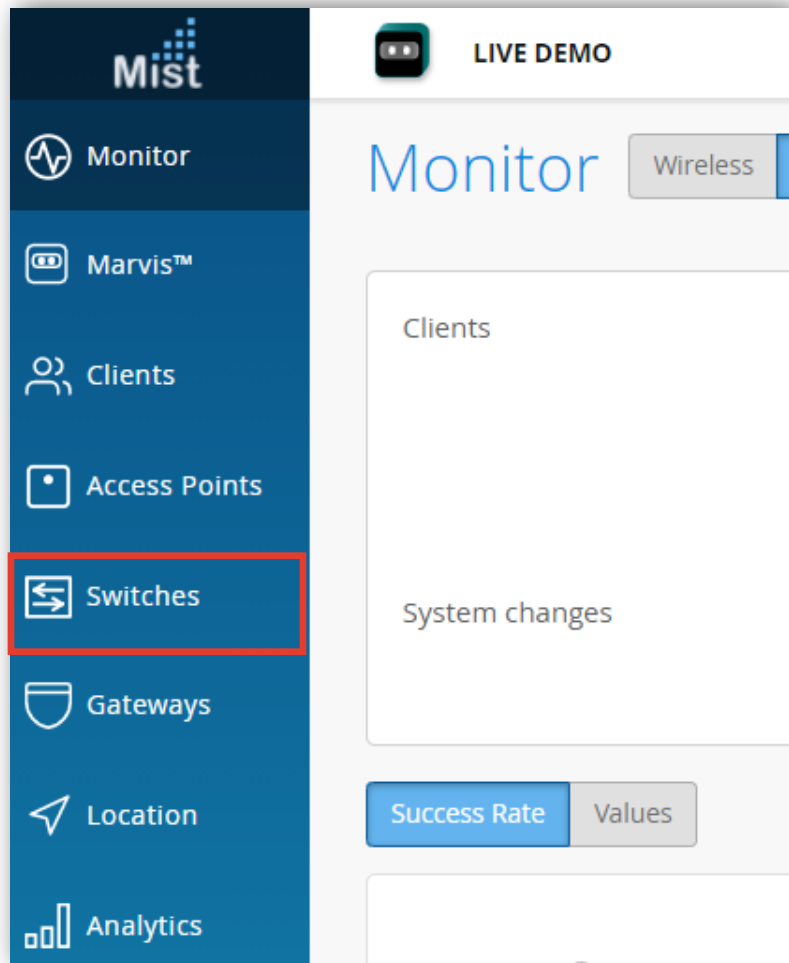
Port	Access Point	Wireless Clients	Power
mge-0/0/19	Mist: R2D2	0	26 W (25.5 W)
mge-0/0/17	APHX - Near Rakesh	0	26 W (25.5 W)
mge-0/0/24	APHX - Marvis	14	26 W (25.5 W)
mge-0/0/29	Mist: Near Randy's new seat	1	25 W (25.5 W)

### スイッチ-AP アフィニティ



# スイッチのメトリック 確認手順

1. [Switches] を選択します



# スイッチのメトリック 確認手順

2. メトリック欄にてスイッチネットワーク上の問題を把握します  
※各メトリックの詳細は次ページ以降で紹介します

The screenshot shows the Mist Switches page. At the top, there's a header with the Mist logo, a 'LIVE DEMO' button, and a timestamp 'WED, 06:20 PM'. Below the header, the page title is 'Switches' with a dropdown menu set to 'site Live Demo'. There are tabs for 'List', 'Topology', and 'Location'. A refresh button shows '6:19:54 PM (updates every 3 minutes)'. On the right, there are buttons for 'Inventory' and 'Claim Switches'. A callout box highlights the metrics for 8 adopted switches: '100% Switch-AP Affinity', '100% PoE Compliance', '80% VLANs', 'Version Compliance', and '100% Switch Uptime'. Below this, there's a table of switches with columns: Name, IP Address, Mist APs, MAC Address, Wireless Clients, Model, Status, and Serial Number.

<input type="checkbox"/>	Name	IP Address	Mist APs	MAC Address	Wireless Clients	Model	Status	Serial Number
<input type="checkbox"/>	ld-cup-idf-a-sw2	192.168.9.140	2	18:2a:d3:56:2c:62	1	EX3400-48P	Connected	NY3619240963
<input type="checkbox"/>	ld-cup-idf-b-sw1	192.168.200.16	3	18:2a:d3:4a:3d:69	4	EX3400-48P	Connected	NY3619240450
<input type="checkbox"/>	ld-cup-idf-d-sw1_1	192.168.2.61	2, 0	d0:dd:49:91:65:2d	1	EX2300-48P	Connected	JW3619300922
<input type="checkbox"/>	ld-cup-idf-d-desktop	192.168.2.203	0	3c:8c:93:94:74:dc	0	EX2300-C-12P	Reboot to use new image	HV3619190181
<input type="checkbox"/>	ld-cup-idf-d-sw4400	192.168.2.133	0	c0:bf:a7:01:1d:94	0	EX4400-48T	Connected	YK4320030007
<input type="checkbox"/>	ICX7450-48P Switch	10.2.2.15	1	--	0	--	Unknown	--
<input type="checkbox"/>	ex4300-LD-TEST1	10.2.15.173	0	f4:b5:2f:4c:72:40	0	EX4300-48T	Connected	PE3714100634

# スイッチのメトリック 確認手順(Switch-AP Affinity)

3. [Switch-AP Affinity]をクリックします

Switch-AP Affinityでは12台以上のAPが接続されているスイッチの検出が可能です

The screenshot shows the Mist network management interface. On the left is a sidebar with navigation links: Monitor, Marvis™, Clients, Access Points, Switches (highlighted), Gateways, and Location. The main content area is titled 'Switches' and shows a 'LIVE DEMO' status. Below the title, there are tabs for 'List', 'Topology', and 'Location'. A summary section displays key metrics: 7 Adopted Switches, 1 Discovered Switch, 33 Wired Clients, and 203 W Total Allocated AP Power. Below this, a row of compliance metrics is shown: 100% Switch-AP Affinity (highlighted with a red box), 100% PoE Compliance, 80% VLANs, -- Version Compliance, and 100% Switch Uptime. A modal window titled 'Switch-AP Affinity' is open, displaying the message 'No switches have excess Access Points connected' and 'No Switch-AP Affinity problems observed'.

Mist

LIVE DEMO

MON, 02:18 PM

8 Switches site Live Demo

List Topology Location

2:17:43 PM (updates every 3 minutes)

Inventory Claim Switches

7 Adopted Switches

1 Discovered Switch

33 Wired Clients

203 W Total Allocated AP Power

100% Switch-AP Affinity

100% PoE Compliance

80% VLANs

-- Version Compliance

100% Switch Uptime

Switch-AP Affinity

No switches have excess Access Points connected

No Switch-AP Affinity problems observed



# スイッチのメトリック 確認手順(PoE Compliance)

## 4. [PoE Compliance]をクリックします

PoE Complianceでは802.3atで給電されていないAPの検出が可能です

The screenshot displays the Mist network management interface. On the left is a blue sidebar with navigation icons for Monitor, Marvis™, Clients, Access Points, Switches, Gateways, Location, Analytics, Network, and Organization. The main content area is titled 'Switches' and includes a 'LIVE DEMO' badge, a dropdown menu set to 'site Live Demo', and tabs for 'List', 'Topology', and 'Location'. A status bar at the top right shows the time '2:17:43 PM' and a refresh icon, with buttons for 'Inventory' and 'Claim Switches'. Below this, a summary row shows: 7 Adopted Switches, 1 Discovered Switch, 33 Wired Clients, and 203 W Total Allocated AP Power. A row of compliance metrics follows: 100% Switch-AP Affinity, 100% PoE Compliance (highlighted with a red box), 80% VLANs, -- Version Compliance, and 100% Switch Uptime. The 'PoE Compliance' section is expanded, showing the title 'PoE Compliance', the message 'All APs have the required 802.3at power', and a large box stating 'No PoE Compliance problems observed'.

# スイッチのメトリック 確認手順(VLANs)

5. [VLANs]をクリックします  
VLANsでは未設定のVLAN又は、不一致のVLANの検出が可能です

Mist

Monitor

Marvis™

Clients

Access Points

Switches

Gateways

Location

LIVE DEMO

8 Switches

site Live Demo

List

Topology

Location

2:17:43 PM (updates every 3 minutes)

Inventory

Claim Switches

7 Adopted Switches

1 Discovered Switch

33 Wired Clients

203 W Total Allocated AP Power

100% Switch-AP Affinity

100% PoE Compliance

80% VLANs

-- Version Compliance

100% Switch Uptime

VLANs

1 Access Point on 1 switch has inactive wired VLANs

問題が発生しているスイッチとVLAN情報など確認出来ます

Name	IP Address	APs with inactive or Mismatched Wired VLANs	Ports of APs with inactive or Mismatched Wired VLANs
ICX7450-48P Switch	10.2.2.15	LD_IDF_B_AP (missing VLAN 24)	cc:4e:24:88:8b:d5

# スイッチのメトリック 確認手順(Version Compliance)

6. [Version Compliance]をクリックします

Version Complianceでは異なるファームウェアで動いているスイッチの検出が可能です

The screenshot displays the Mist network management interface. On the left is a blue sidebar with navigation icons for Monitor, Marvis™, Clients, Access Points, Switches (selected), Gateways, Location, Analytics, Network, and Organization. The main content area is titled '8 Switches' and includes a dropdown for 'site Live Demo' and tabs for 'List', 'Topology', and 'Location'. A status bar at the top right shows '2:17:43 PM (updates every 3 minutes)' and buttons for 'Inventory' and 'Claim Switches'. Below this, a summary row shows: 7 Adopted Switches, 1 Discovered Switch, 33 Wired Clients, and 203 W Total Allocated AP Power. A row of compliance metrics follows: 100% Switch-AP Affinity, 100% PoE Compliance, 80% VLANs, Version Compliance (highlighted with a red box), and 100% Switch Uptime. A modal window titled 'Version Compliance' is open, displaying 'No Version Compliance data' and 'No Version Compliance problems observed'.

Metric	Value
Adopted Switches	7
Discovered Switch	1
Wired Clients	33
Total Allocated AP Power	203 W
Switch-AP Affinity	100%
PoE Compliance	100%
VLANs	80%
Version Compliance	--
Switch Uptime	100%

# スイッチのメトリック 確認手順(Switch Uptime)

7. [Topology]から[Switch Uptime]をクリックします

Switch Uptimeでは過去7日間に稼働時間が100%未満のスイッチの検出が可能です

The screenshot shows the Mist network management interface. On the left is a sidebar with navigation icons for Monitor, Marvis™, Clients, Access Points, Switches, Gateways, Location, Analytics, Network, and Organization. The main content area is titled 'Switches' and includes a 'LIVE DEMO' badge. Below this, there are tabs for 'List', 'Topology' (highlighted with a red box), and 'Location'. A search bar is on the right. A summary row displays: 7 Adopted Switches, 4 Discovered Switch, 39 Wired Clients, and 199 W Total Allocated AP Power. Below this, a row of metrics shows: 100% Switch-AP Affinity, 100% PoE Compliance, 80% VLANs, -- Version Compliance, and 81% Switch Uptime (highlighted with a red box). A red dashed arrow points from the 'Topology' tab to the 'Switch Uptime' metric. The 'Switch Uptime' section has a title 'Switch Uptime' and a message 'No Switches had < 100% uptime during the past 7 days'. Below this is a topology diagram showing a 'Live-Demo' node connected to 'valinor-srv-1' (0.0.0.0) and 'id-cup-idf-c-sw1 7'. A red dot on the 'valinor-srv-1' node is highlighted with a blue box, and a callout box points to it with the text: '警告マークがあるスイッチが稼働時間が100%未満のスイッチです' (Switches with a warning mark have an uptime of less than 100%).



# Thank you

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