

Mist 運用マニュアル

電波干渉 有無の確認手順(拠点単位)

ジュニパーネットワークス株式会社
2024年5月 Ver 1.1

JUNIPER 
driven by Mist AI

はじめに

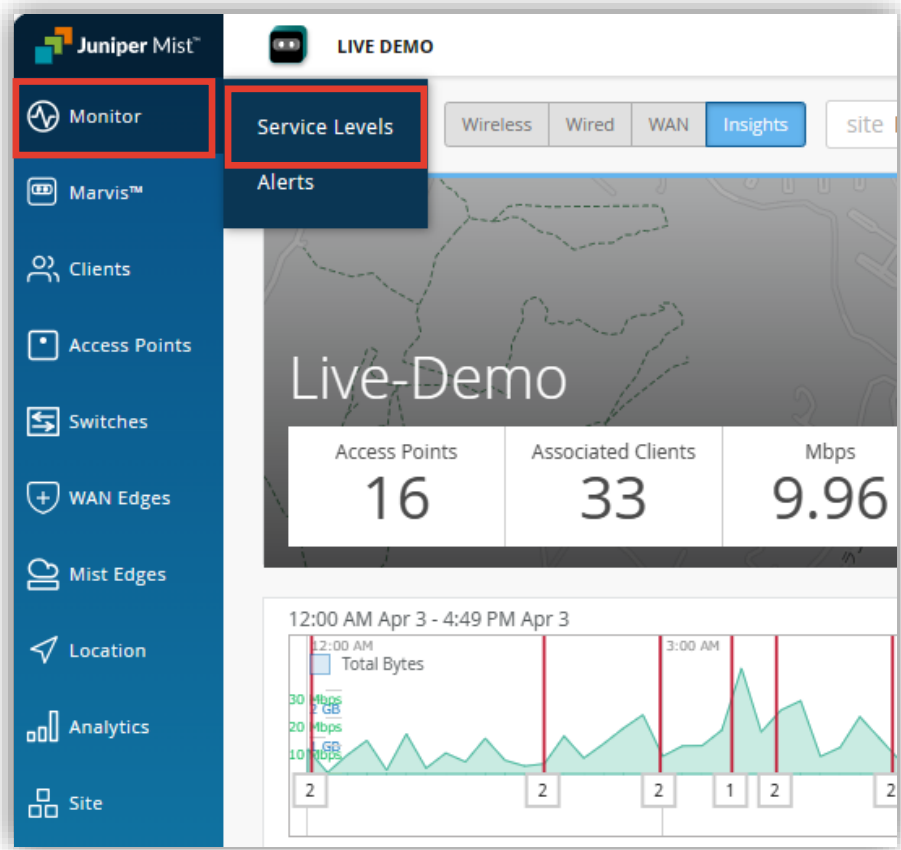
- ❖ 本マニュアルは、『電波干渉 有無の確認手順(拠点単位)』について説明します
- ❖ 手順内容は 2024年5月 時点の Mist Cloud にて確認を実施しております
実際の画面と表示が異なる場合は以下のアップデート情報をご確認ください
<https://www.mist.com/documentation/category/product-updates/>
- ❖ 設定内容やパラメータは導入する環境や構成によって異なります
各種設定内容の詳細は下記リンクよりご確認ください
<https://www.mist.com/documentation/>
- ❖ 他にも多数の Mist 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>
- ❖ **本資料の内容は資料作成時点におけるものであり事前の通告無しに内容を変更する場合があります**
また本資料に記載された構成や機能を提供することを条件として購入することはできません

■ 運用ケース(例)

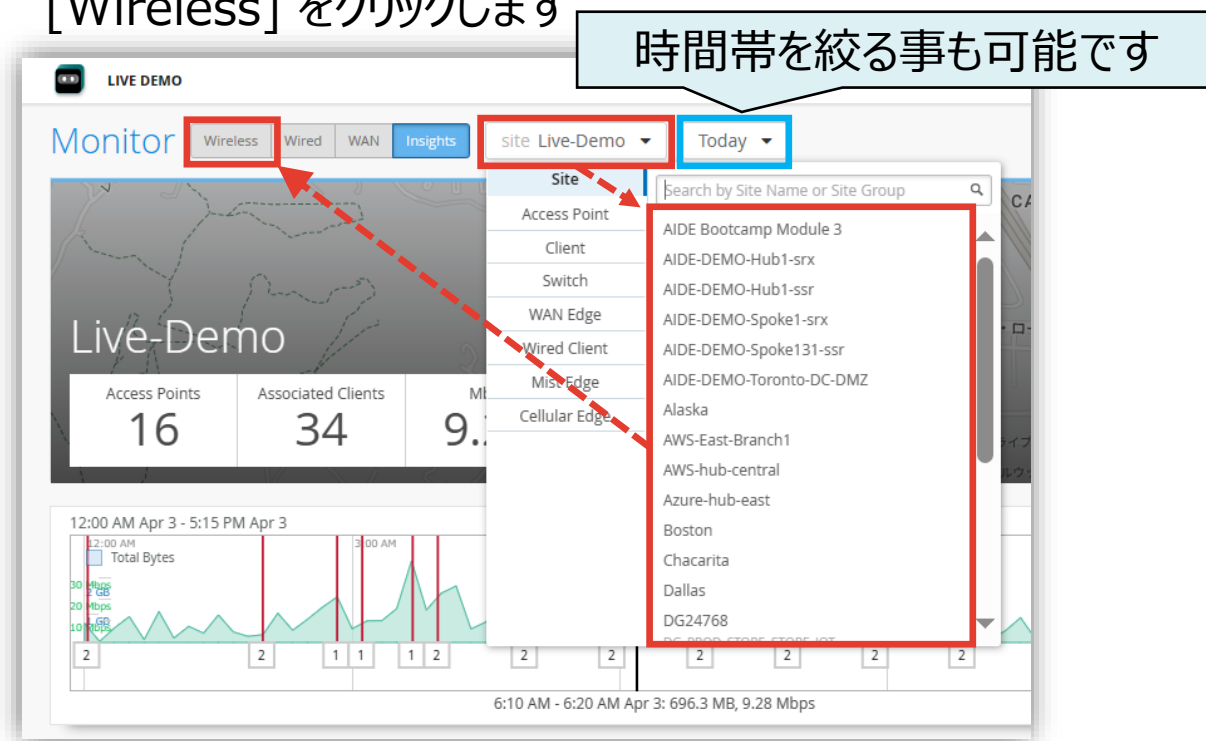
同一拠点の複数のクライアントから不具合の問合せを受領し、
電波干渉の発生有無を確認したい時

対象拠点を選択

1. [Monitor] から [Service Levels] をクリックします



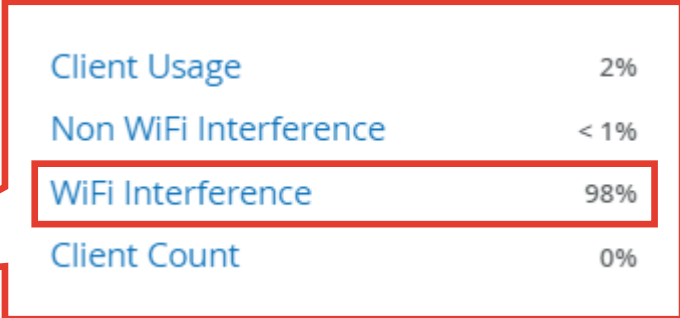
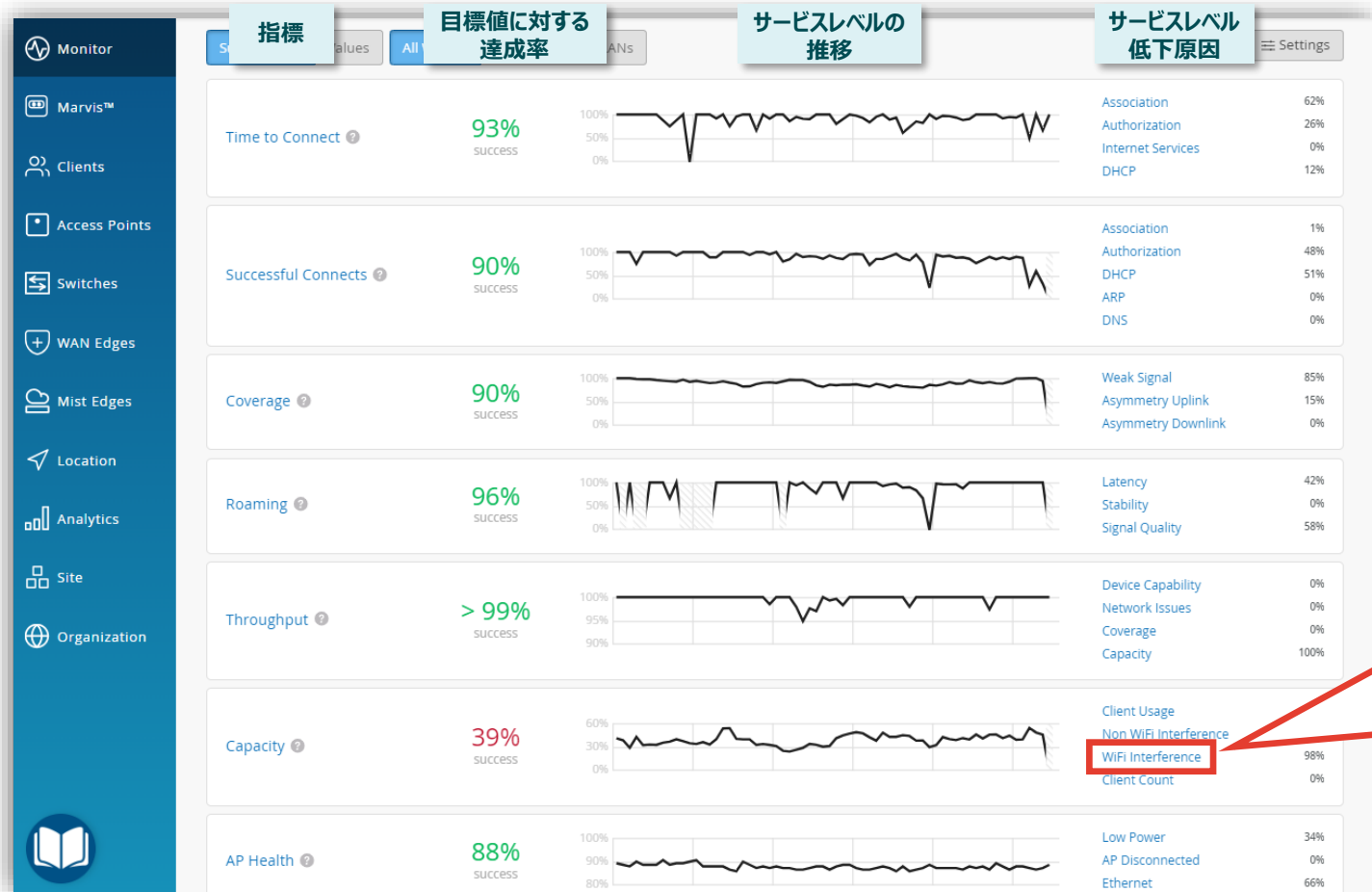
2. [Site] から 対象拠点 (Site Name) を選択し、
[Wireless] をクリックします



SLE の達成率、SLE が低い原因を確認

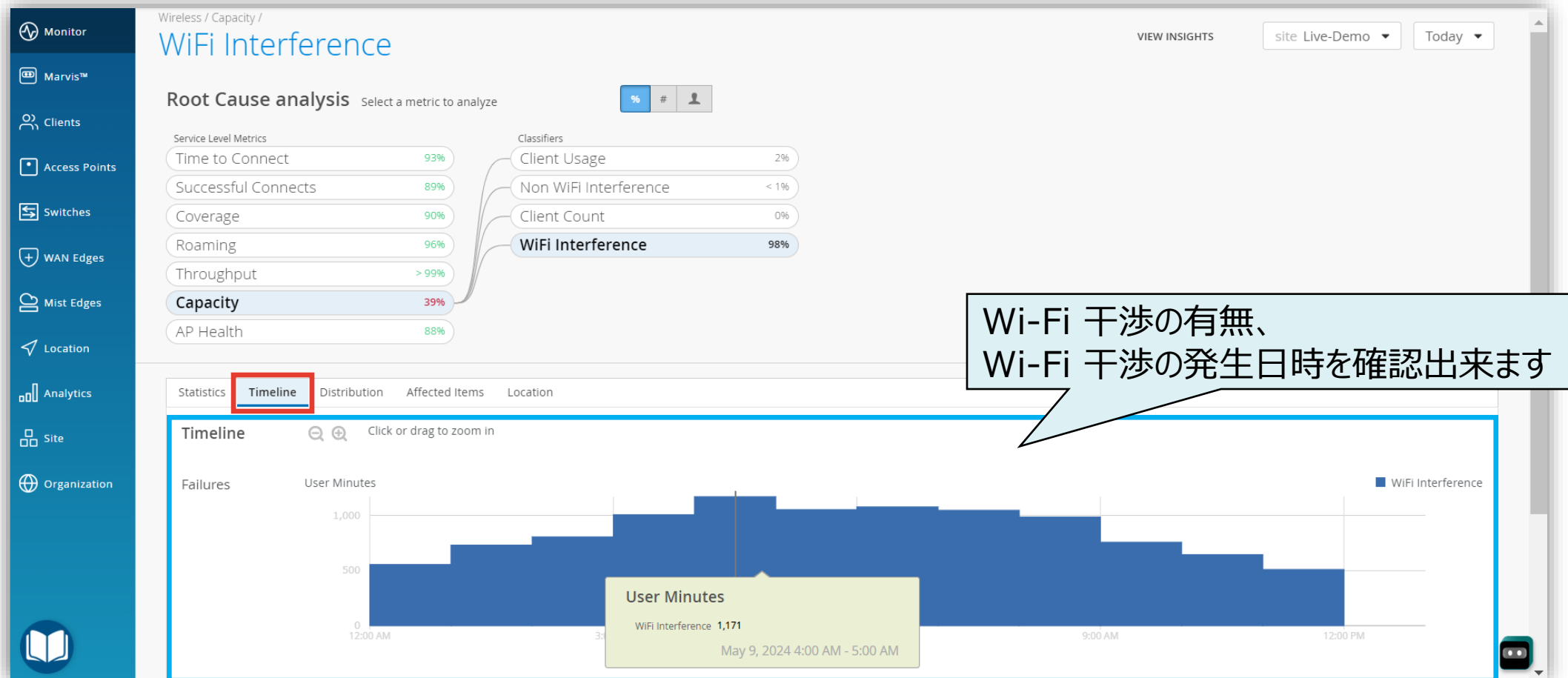
最初に「Wi-Fi 干渉」について確認します

3. [Capacity] から [WiFi Interference] をクリックします



不具合が発生している時間帯を特定(Wi-Fi 干渉)

4. [Timeline] をクリックします



不具合に関する傾向分析(Wi-Fi 干渉)

5. [Distribution] をクリックします

The screenshot shows the Juniper Mist WiFi Interference dashboard. The 'Root Cause analysis' section displays two columns of metrics:

- Service Level Metrics:** Time to Connect (93%), Successful Connects (89%), Coverage (90%), Roaming (96%), Throughput (> 99%), Capacity (39%), AP Health (88%).
- Classifiers:** Client Usage (2%), Non WiFi Interference (< 1%), Client Count (0%), WiFi Interference (98%).

The 'Distribution' tab is selected, showing a table of service level failures by attribute. The table is sorted by most anomalous.

Attribute	Name	Overall Impact	Failure Rate	Anomaly	0	1x
Device OSs	Oreo	11%	100%	1.70x		■
WLANs	Monterey	5%	96%	1.64x		■
Wireless Bands	Android 12	7%	96%	1.63x		■
Access Points	15.3.1	4%	82%	1.40x		■
Device Types	Android 10	6%	81%	1.38x		■

Device OSs、WLANs、Wireless Bands、Access Points、Device Types における電波干渉の発生傾向を確認出来ます

影響範囲の調査(Wi-Fi 干渉)

6. [Affected Items] をクリックします

The screenshot shows the 'WiFi Interference' dashboard. The 'Root Cause analysis' section displays 'Capacity' at 39% and 'WiFi Interference' at 98%. The 'Affected Items' tab is selected and highlighted with a red box. Below it, a table lists affected items with columns for Name, Overall Impact, Failure Rate, MAC Address, Device, OS, Last AP, WLAN, and Location.

Users、Access Points、Applications における電波干渉の影響範囲を確認出来ます

Name	Overall Impact	Failure Rate	MAC Address	Device	OS	Last AP	WLAN	Location
wenfengw-mbp	0.37%	100%	f4:d4:88:8e:cc:7c	Mac	Catalina	LD_DataScience	Live_demo_only	01 - Office
android-8eb7e670e52591b3	6.25%	100%	40:83:de:e4:9d:42	Zebra	Oreo	LD_DataScience	Live_demo_only	01 - Office
e0:f7:28:c1:fa:b3	5.97%	100%	e0:f7:28:c1:fa:b3	unknown	Android 11	LD_Conf2	NAC-demo-1hr	01 - Office
12:59:44:d9:46:de	0.01%	100%	12:59:44:d9:46:de	unknown	Windows 11 enterprise	LD_DataScience	Live_demo_do_not_remove	01 - Office

影響を受ける AP の位置確認(Wi-Fi 干渉)

7. [Location] をクリックします

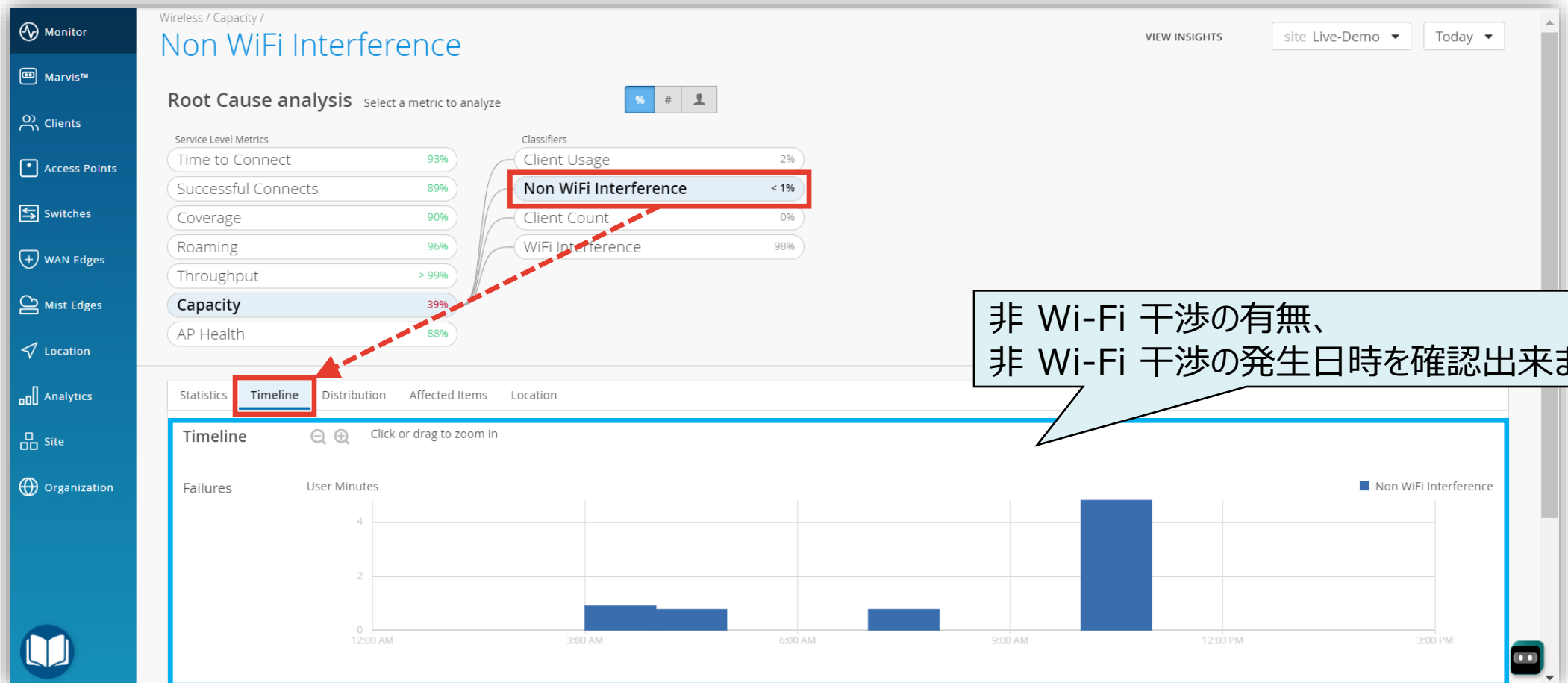
The screenshot displays the Juniper Mist WiFi Interference dashboard. The left sidebar contains navigation options: Monitor, Marvis™, Clients, Access Points, Switches, WAN Edges, Mist Edges, Location (highlighted with a red box), Analytics, Site, and Organization. The main content area is titled "WiFi Interference" and includes a "Root Cause analysis" section with two columns of metrics. The "Capacity" metric is highlighted in blue. Below this, a "Location" tab is selected, showing a floorplan with several AP locations marked with red and green circles. A callout box points to the floorplan with the text "AP の配置場所をフロアプラン上で確認出来ます". To the right of the floorplan is a table titled "APs on Floorplan" listing various APs and their interference percentages.

AP Name	MAC Address	Interference %
LD_Testbed_MD	5c:5b:35:8e:6f:ea	64%
LD_Bad_cable_AP	5c:5b:35:1e:c0:2b	--%
LD_IDF_B_AP-3rd-Pa...	5c:5b:35:3e:4e:ca	0%
LD_Marvis	a8:3a:79:30:1a:40	3%
LD_RS_Support	a8:3a:79:30:18:fb	3%
LD_MHMD	d4:20:b0:f1:05:4b	9%
LD_DataScience	a8:3a:79:30:19:0f	10%

不具合が発生している時間帯を特定(非 Wi-Fi 干渉)

次に「非 Wi-Fi 干渉」について確認します

8. [Non WiFi Interference] から [Timeline] をクリックします



不具合に関する傾向分析(非 Wi-Fi 干渉)

9. [Distribution] をクリックします

The screenshot displays the Juniper Mist interface for 'Non WiFi Interference' analysis. The 'Root Cause analysis' section shows 'Capacity' at 39% and 'Non WiFi Interference' at < 1%. The 'Distribution' tab is selected, showing a table of service level failures by attribute.

Attribute	Name	Overall Impact	Failure Rate	Anomaly
Access Points	LD_IDF_B_AP-3rd-Party-Switch	67%	1%	6.39x
Wireless Bands	LD_MCB_AP	33%	< 1%	0.37x

Device OSs, WLANs, Wireless Bands, Access Points, Device Types における電波干渉(Wi-Fi 以外)の発生傾向を確認出来ます

影響範囲の調査(非 Wi-Fi 干渉)

10. [Affected Items] をクリックします

Wireless / Capacity / Non WiFi Interference

VIEW INSIGHTS site Live-Demo Today

Root Cause analysis Select a metric to analyze

Service Level Metrics

- Time to Connect 93%
- Successful Connects 89%
- Coverage 90%
- Roaming 96%
- Throughput > 99%
- Capacity 39%
- AP Health 88%

Classifiers

- Client Usage 2%
- Non WiFi Interference < 1%
- Client Count 0%
- WiFi Interference 98%

Statistics Timeline Distribution **Affected Items** Location

Affected Items Specific Items that failed to meet the service level goal

Users 2
Access Points 2
Applications 33

Filter

Name	Overall Impact	Failure Rate	MAC Address	Device	OS	Last AP	WLAN	Location
C200_9D0462	66.67%	< 1%	48:22:54:9d:04:62	unknown	unknown	LD_MCB_AP	NAC-demo-IoT-PSK	01 - Office
C200_9D06B0	33.33%	< 1%	48:22:54:9d:06:b0	unknown	unknown	LD_MCB_AP	NAC-demo-IoT-PSK	01 - Office

Users、Access Points、Applications における電波干渉の影響範囲を確認出来ます

影響を受ける AP の位置確認(非 Wi-Fi 干渉)

11. [Location] をクリックします

The screenshot shows the Juniper Mist dashboard interface. The main heading is "Non WiFi Interference". Under "Root Cause analysis", the "Capacity" metric is highlighted with a red bar and 39% value. The "Classifiers" section shows "Non WiFi Interference" with a value of < 1%. The "Location" tab is selected in the bottom navigation bar, and a red box highlights it. A callout bubble points to the floorplan area with the text "AP の配置場所をフロアプラン上で確認出来ます".

Service Level Metrics

Time to Connect	93%
Successful Connects	89%
Coverage	90%
Roaming	96%
Throughput	> 99%
Capacity	39%
AP Health	88%

Classifiers

Client Usage	2%
Non WiFi Interference	< 1%
Client Count	0%
WiFi Interference	98%

Statistics Timeline Distribution Affected Items **Location**

01 - Office

APs on Floorplan

LD_IDF_B_AP-3rd-Pa... 5c:5b:35:3e:4e:ca	0%
LD_Marvis a8:3a:79:30:1a:40	2%
LD_RS_Support a8:3a:79:30:18:fb	3%
LD_MHMD d4:20:b0:f1:05:4b	9%
LD_DataScience a8:3a:79:30:19:0f	11%
LD_Conf2 a8:f7:d9:81:77:50	47%
LD_APEng ac:23:16:fc:03:7f	85%

Thank you

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