

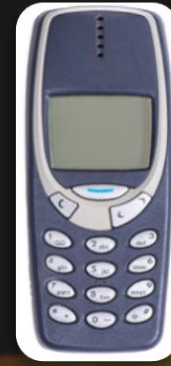
**RUCKUS**<sup>®</sup>  
**NETWORKS**

# AI 如何推動 Wi-Fi 7 成為下一代校園網路

Calvin Su  
Technical Consultant



TM  
IN



Do you Remember all these Products?



# ENTERING A NEW ERA OF NETWORKING



# 終端設備越來越多樣化

## Smart Phones



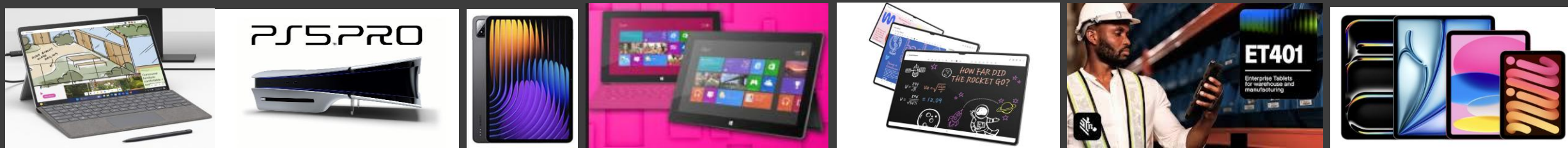
Xiaomi14 Oct '23    VivoX100 Nov '23    SamsungS24 Jan '24    Apple16 Sept '24    GooglePixel Oct 24    Xiaomi15 Oct 24    Apple 16E Feb' 25    Xiaomi15 Mar '25    SamsungS25 Mar '25    OnePlus13 Jun '25    SamsungZ Fold Jul '25    Apple 17 Series Sept '25

## Laptop



MSI Alpha 17 C7V Dec '23    Razer Blade 16 Mar '24    Acer AspireVero April 24    Asus ROG Strix May'24    Dell lattitud 9450 May'24    Dell lattitude7455 Aug'24    HP Envy Ultra 7 NOV '24    ThinkPad T14s,X16, Flip, IdeaPad Mar '25

## Tablets and Others

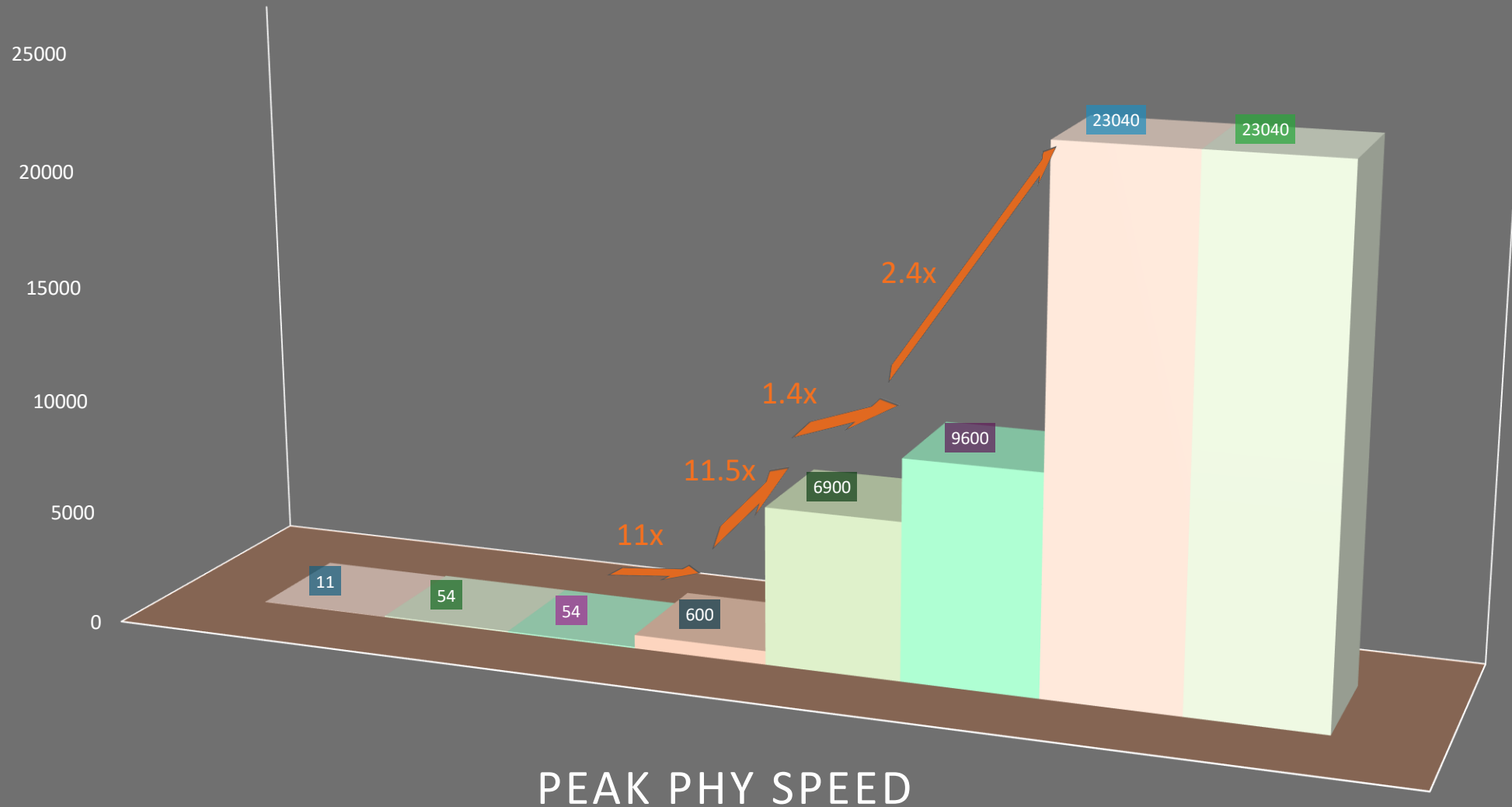


Microsoft Surface Pro 10 Mar '24    Sony PlayStation 5 Sept'24    Xiaomi Pad 7 Oct'24    Microsoft Surface Pro 11 Feb '25    Samsung Tab S10 Ultra Mar '25    Zebra ET401 Oct '25    Apple IPAD Oct '25

# Wi-Fi 技術正從速度饋源逐漸成熟，重點轉向可靠性



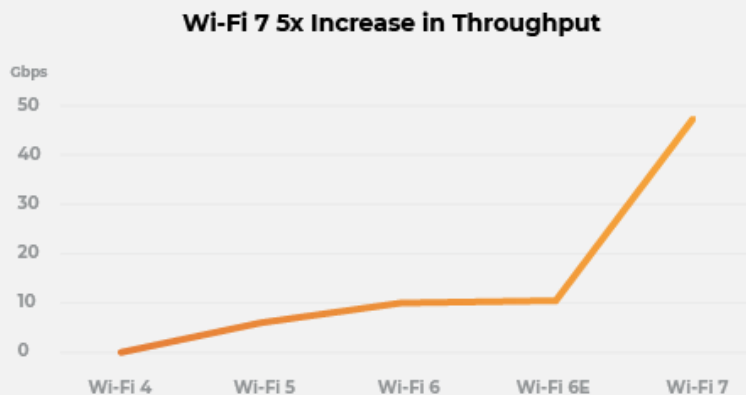
■ Wi-Fi 1 (802.11b) 2000	■ Wi-Fi 2 (802.11a) 2000	■ Wi-Fi 3 (802.11g) 2003	■ Wi-Fi 4 (802.11n) 2009	■ Wi-Fi 5 (802.11ac) 2013	■ Wi-Fi 6 (802.11ax) 2019	■ Wi-Fi 7 (802.11be) 2024	■ Wi-Fi 8 (802.11bn) 2028
--------------------------------	--------------------------------	--------------------------------	--------------------------------	---------------------------------	---------------------------------	---------------------------------	---------------------------------



# Wi-Fi 7 提供更穩定的連接

## Extremely High Throughput

- 4K QAM
- 16 spatial streams
- 320 MHz wide channels



## Punctured Transmission

- Increased channel availability
- Better throughput
- Lower latency

### Without Preamble Puncturing



### With Preamble Puncturing



## Multi-Link Operation

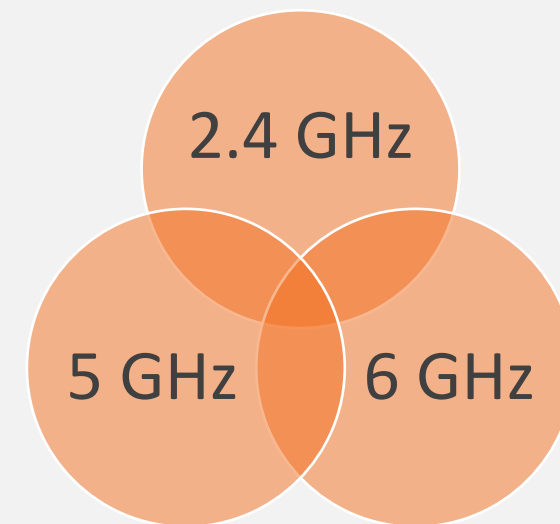
- Link redundancy (resilience)
- Link aggregation (throughput)
- Link selection (latency)



MLO (Multi-Link Operation)

## Works on All Bands

- Wi-Fi 7 increases performance on the 2.4 GHz and 5GHz bands
- Wi-Fi 6E is just Wi-Fi 6 with 6GHz added



# RUCKUS 領先 AI-Driven Wi-Fi 7 解決方案



- **RUCKUS R770 Launch**  
Industry-first enterprise-class AI-Driven Wi-Fi 7 Solution designed to deliver ultra-low latency, multi-gig speeds and unmatched RF intelligence



**Oct 2023**

- RUCKUS R770 solution wins "**Innovation of the Year**" award by The Wi-Fi Awards for its breakthrough design, seamless integration, and exceptional usability




**Mar 2024**

- **RUCKUS T670 Launch**  
Industry-first enterprise-class outdoor AI-Driven Wi-Fi 7 Solution
- RUCKUS T670 solution received FCC certification for the use of 6 GHz standard power (SP)




**May 2024**

- **RUCKUS R370 launch**  
First Dual-band AI-Driven Indoor Wi-Fi 7
- Entry-level Wi-Fi 7 for the masses



**July 2025**

**Jan 2024**



- Wi-Fi Alliance Selects RUCKUS Wi-Fi 7 Platform for Wi-Fi CERTIFIED 7 **Interoperability Certification Test Bed.**
- Demonstrate leadership in shaping interoperability of future Wi-Fi devices worldwide.

**Apr 2024**



- **RUCKUS R670 Launch**  
Democratizing enterprise-class AI-Driven Wi-Fi 7 Solution
- RUCKUS R770 solution received FCC certification for the use of 6 GHz standard power (SP)

**May 2025**



- **RUCKUS T670SN Launch**  
unique programmable directional antenna array that is software-configurable for either narrow-angle or wide-angle coverage



# How to identify wireless connectivity issue

## 問題連線

```

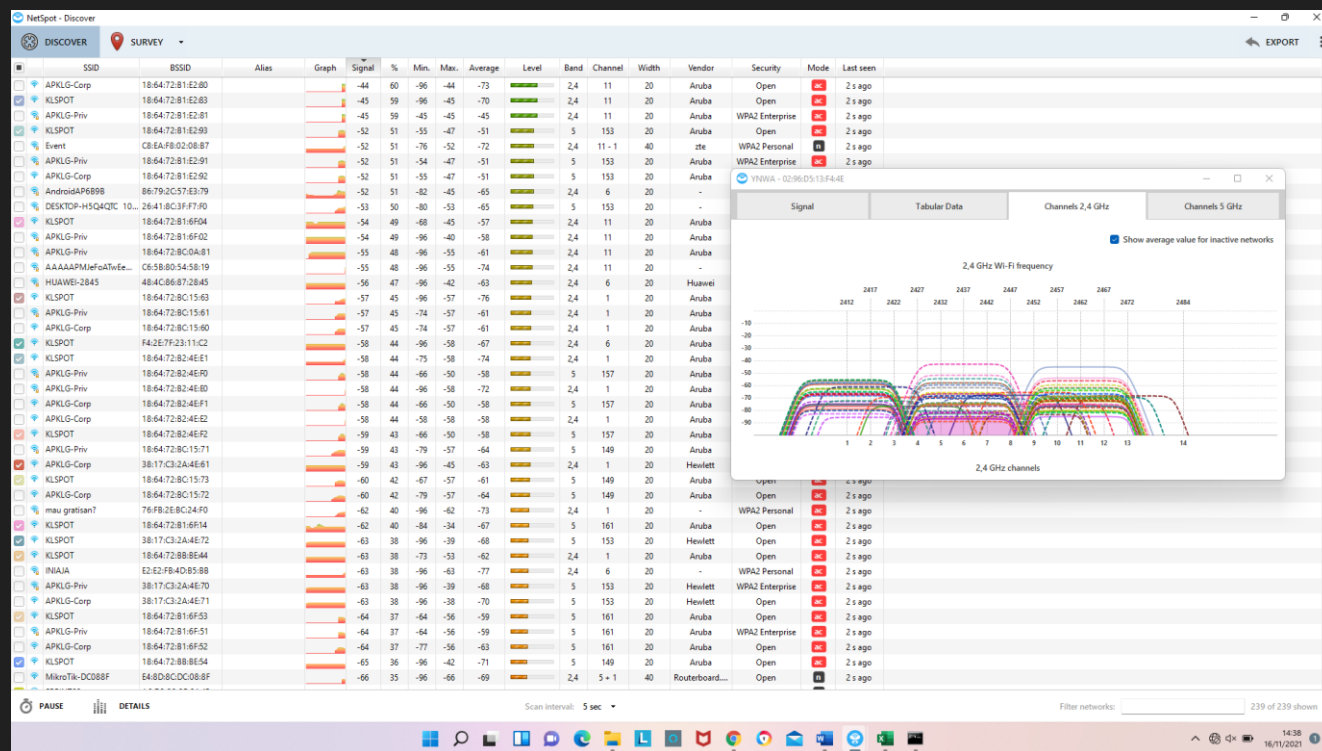
Mik
Core
Reply from 172.16.195.1: bytes=32 time=10ms TTL=254
Reply from 172.16.195.1: bytes=32 time=85ms TTL=254
Reply from 172.16.195.1: bytes=32 time=8ms TTL=254
Request timed out.
Reply from 172.16.195.1: bytes=32 time=90ms TTL=254
Reply from 172.16.195.1: bytes=32 time=792ms TTL=254
Reply from 172.16.195.1: bytes=32 time=12ms TTL=254
Reply from 172.16.195.1: bytes=32 time=40ms TTL=254
Reply from 172.16.195.1: bytes=32 time=15ms TTL=254
Reply from 172.16.195.1: bytes=32 time=6ms TTL=254
Reply from 172.16.195.1: bytes=32 time=7ms TTL=254
Reply from 172.16.195.1: bytes=32 time=14ms TTL=254
Reply from 172.16.195.1: bytes=32 time=11ms TTL=254
Request timed out.
Reply from 172.16.195.1: bytes=32 time=9ms TTL=254
Reply from 172.16.195.1: bytes=32 time=12ms TTL=254
Reply from 172.16.195.1: bytes=32 time=22ms TTL=254
Reply from 172.16.195.1: bytes=32 time=5ms TTL=254
Reply from 172.16.195.1: bytes=32 time=6ms TTL=254
Reply from 172.16.195.1: bytes=32 time=5ms TTL=254
Reply from 172.16.195.1: bytes=32 time=16ms TTL=254
Reply from 172.16.195.1: bytes=32 time=229ms TTL=254
Reply from 172.16.195.1: bytes=32 time=9ms TTL=254
Reply from 172.16.195.1: bytes=32 time=25ms TTL=254
Reply from 172.16.195.1: bytes=32 time=7ms TTL=254
Reply from 172.16.195.1: bytes=32 time=10ms TTL=254
Reply from 172.16.195.1: bytes=32 time=8ms TTL=254
Reply from 172.16.195.1: bytes=32 time=7ms TTL=254
Request timed out.
  
```

## 內部因素:

- 訊號覆蓋範圍
- 障礙物
- 軟件
- 設定
- AP 控制器
- IP/port
- 應用程式
- 人為錯誤等

## 外部因素:

- 頻道環境
- Dos 攻擊
- DHCP 伺服器
- 非法DHCP
- 用戶端晶片組裝置
- MITM
- 用戶端驅動程式
- etc



傳統觀念：  
 AP up, Switch up, No user complain  
 ==  
 Network is good ???

# 我們正處在一個全新的網絡時代！

- 現代化網路變得 **越來越多元應用且複雜**
- IT人力越來越 **精簡**
- 重點在於 **服務指標 (SLAs) 與 責任劃分**
- 服務中斷所付出的 **代價日益增加**
- 技術支援中心 ( Helpdesk ) 的 **管理成本正日益增加**
- 聘僱領域專家 (Subject Matter Expertise) 成本越來越 **昂貴**

您會如何選擇：**轉型適應或被時代淘汰？**

# RUCKUS 全系列解決方案



## Security & Assurance

### Security Network Access & Policy



Cloudpath Enrollment System

### AI-Driven Assurance and Business Intelligence



RUCKUS AI

## Control & Management

### Physical & Virtual Appliances



SmartZone™



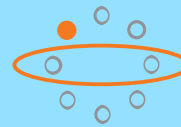
vSZ

### Cloud-Managed



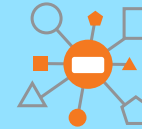
RUCKUS One™

### Controller-less



RUCKUS Unleashed™

### IoT



RUCKUS IoT Suite

### Edge Solutions



RUCKUS Edge

## Switches

### AV/Pro AV



ICX 8200PV

### Access



ICX 8100



ICX 8200

### Aggregation



ICX 7550

### Core



ICX 7850

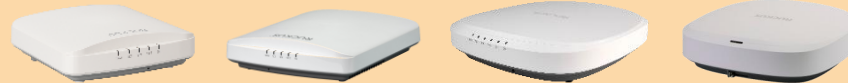
## Access Points

### Outdoor



T-Series

### Indoor



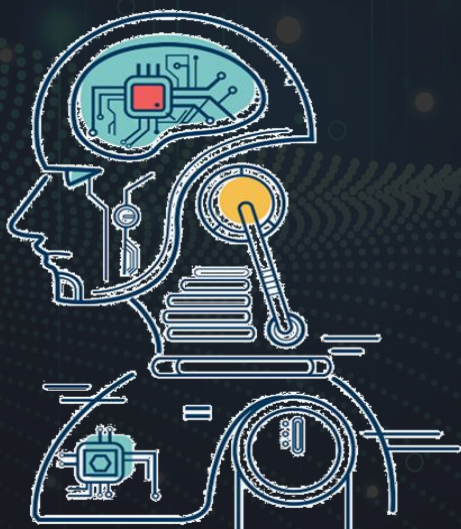
R-Series

### Specialty



H-Series

# RUCKUS AI

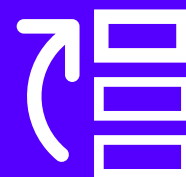


在問題變得更糟  
前警戒



Machine Learning Incident  
偵測異常

解決最緊迫的問題



AI 驅動的優先排序  
優先排序事件

快速解決問題  
解決方法



Machine Driven Root Cause  
猜測原因和  
建議改進的方法

比較並分析修改前  
後的KPI



Config change analysis  
視覺化狀態變化

提升品質  
提供優化建議

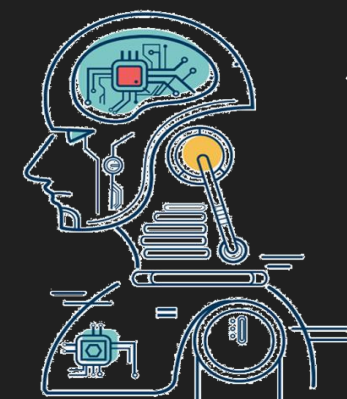


AI-recommendations  
建議設定

# IntentAI 提供符合使用者需求與意圖的選項

- 整合為每個 AI 功能，統稱為「IntentAI」
  - AI-Driven RRM:分析並了解整體 WLAN 使用狀況，以提供最佳的無線網路環境 (Channel Plan, Bandwidth, Tx Power)
  - AI Operations:建議適合你所使用的環境設定
  - EquiFlex :有效減少管理流量 ( Probe Response )，並改善高密度環境中的通話時間
- 呈現符合使用者意圖的設定。
  - 用戶端密度與用戶端吞吐量
  - 用戶端吞吐量與射頻覆蓋率
  - 向下相容性與效率
  - Etc

## IntentAI



分析結果  
根據以下條件提出選項



AI-Driven RRM



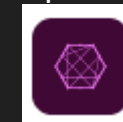
Channel Plan 提供  
Full Optimize vs Partial Optimize

AI Operation



建議根據你的環境量身打造的設定  
Throughput vs Long Range

EquiFlex



Probe Response 調整  
Reduce response vs Connectivity

解說動畫：<https://play.vidyard.com/qvPNRwUL353LxKcnPU9p78>

# AI Incidents for Wired/Wireless networks

AI Assurance /

## AI Analytics

Entire Organization ▼

🕒 Last 24 Hours

Inc

Total

6

P1

P2

P3

P4

🔍

○

○

○

○

○

○

AI Assurance / AI Analytics / Incidents /

### Incident Details P1

Port flap detected in Switch: Access-Switch (34:20:E3:30:29:16)

Incident Category:  
Infrastructure

Incident Sub-Category:  
Port Flap

Type:  
Switch

Scope:  
[Access-Switch \(34:20:E3:30:29:16\)](#)

Duration:  
6 d

Event Start Time:  
11/11/2025 15:25

Event End Time:  
11/17/2025 15:50

Visibility:  
Unmuted

#### 💡 Insights

##### Root Cause Analysis

Common causes of port flapping include:

1. Faulty or unsupported cables: Damaged or non-standard cables can cause intermittent connections
2. Issues with Small Form-Factor Pluggable (SFP) modules: Problems with these modules can lead to synchronization issues
3. Loose connections: Poorly connected cables or modules can result in unstable links
4. Peer Device: Continuous rebooting of an end device connected to the port or incorrect speed/duplex and configurations.

##### Recommended Action

To troubleshoot port flapping, you can:

- Check and replace cables: Ensure all cables are in good condition and properly connected
- Verify SFP modules: Make sure they are compatible and securely installed
- Monitor syslogs and port configuration: Check syslog for additional information related port flap and error disable. Also check port configurations like speed/duplex setting, POE details.

#### Details



Switch Name  
**Access-Switch**

Switch Firmware Version  
**SPR10010g\_cd2**

Switch Model  
**ICX7150**

Number Of Ports  
**16**

Switch MAC  
**34:20:E3:30:29:16**

Ports With Flap  
**2**

AI Assurance > Incidents > Incident Details

## Incident Details

802.11 Authentication

Client Impact: 10 of 10 clients

Incident Category: Connection

Incident Sub-Category: 802.11 Authentication

Type: Access Point

Scope: [Redacted]

Duration: 39 m

Event Start Time: 03/09/2026 14:00

Event End Time: 03/09/2026 15:00

Visibility: Unmuted

AI Assurance > Incidents > Incident Details

## Incident Details P3

AP(s) operating in Low Power Mode: Access Point: [Redacted]

AP Impact Count: 1 of 1 AP (100%)

Incident Category: Infrastructure

Incident Sub-Category: PoE

Type: Access Point

Scope: [Redacted]

Duration: 1 d

Event Start Time: 03/09/2026 05:30

Event End Time: 03/10/2026 05:30

Visibility: Unmuted

### Insights

#### Root Cause Analysis

System has detected the AP(s) are underperforming w.r.t Wi-Fi Radio spatial streams due to insufficient power available on PoE port. This can occur due to following reasons:

- Insufficient power from the Power over Ethernet (PoE) switch or PoE injector device aka. Power Sourcing Equipment (PSE).
- Faulty cables, Wrong cable types and very long cables can lead to power deterioration supplied to AP.

#### Recommended Action

To remediate the problems identified above, follow the corresponding recommended actions:

- Ensure that PSE (PoE switch or PoE injector) capacity is appropriately matching with deployed AP models power requirement.
- Check the cable length, cable type for good PoE use.

### Network Impact

AP Model

100% of failures impacted R560

AP Firmware

100% of failures impacted 7.1.1.530.5225

### APs PoE Impact

Automate configuration and monitoring tasks using AIOps, AI-Driven RRM, and EquiFlex

The screenshot shows the Ruckus IntentAI dashboard. The left sidebar contains navigation options: Dashboard, AI Assurance, App Experience, Zones, Clients, Wi-Fi, Wi-Fi, Business Insights, and Administration. The main content area is titled 'AI Analytics' and includes a search bar for 'Entire Organization' and 'Intent Settings (3)'. Below the search bar, there are three feature cards: 'AI-Driven RRM' (Throughput vs Client Density), 'EquiFlex' (Time to Connect vs Client Density), and 'AI Operations' (Optimize Network with AI Insights). A table below these cards lists various AI features and incidents. The table has columns for AI Feature, Intent, Category, Zone, Status, and Last Update. The table is filtered to show 'All AI Features', 'All Intents', 'All Categories', and 'All Zones'. The table contains 10 rows of data, all with a status of 'New' and a last update time of 'Feb 23 2026 02:40'. The table is highlighted with an orange border. The bottom of the page shows a pagination control for '10 / page'.

AI Feature	Intent	Category	Zone	Status	Last Update
AI Operations	Client Performance vs Compatibility	Wi-Fi Experience	Seagull.Inn	New	Feb 23 2026 02:40
AI-Driven RRM	Client Density vs Throughput for 2.4 GHz radio	Wi-Fi Experience	Seagull.Inn	New	Feb 23 2026 02:40
AI Operations	Expanded Radar channels vs Limited Channel options	Wi-Fi Experience	Beach.House.Inn	New	Feb 23 2026 02:40
AI Operations	Client Performance vs Compatibility	Wi-Fi Experience	LRI.Main	New	Feb 23 2026 02:40
AI-Driven RRM	Client Density vs Throughput for 2.4 GHz radio	Wi-Fi Experience	Beach.House.Inn	New	Feb 23 2026 02:40
AI Operations	Client Performance vs Compatibility	Wi-Fi Experience	Beach.House.Inn	New	Feb 23 2026 02:40
AI Operations	Distributed Wi-Fi Load vs Client Stability	Wi-Fi Experience	LRI.Main	New	Feb 23 2026 02:40
AI-Driven RRM	Client Density vs Throughput for 2.4 GHz radio	Wi-Fi Experience	LRI.Main	New	Feb 23 2026 02:40

AI Assurance / AI Analytics / Intent AI /

## Intent Details

**AI-Driven RRM**

Leverage **AI-Driven RRM Full Optimization** mode to assess the neighbor AP radio channels for each AP radio and build a channel plan for each radio to optimize the network.

Details

Interfering Links: **13** -55.17%

AI Assurance / AI Analytics / Intent AI /

## Intent Details

**EquiFlex**

Leverage **EquiFlex**, available only through IntentAI for intelligent handling of probe requests/response and optimize management traffic in a dense network.

For improved performance, this option disables the Air Time Decompression (ATD) feature if previously enabled for this site.

Intent: Time to Connect vs Client Density for

Intent Priority: Reduce Management traffic in dense network

Category: Wi-Fi Experience

Venue: Sunnysvale.Site

Status: **Active**

Last Update: 11/10/2025 16:30

Last Updated By: SKO REC on 10/09/2025 19:05

Networks: 4 networks selected

Details

**EquiFlex** **Enabled** Current

**Enabled** Recommended

Average management traffic per client: **1.53 GB** -0.58%

AI Assurance / AI Analytics / Intent AI /

## Intent Details

**AI Operations**

IntentAI will change the background scan interval allowing the network to swiftly detect and react to interference, optimizing performance and ensuring a more responsive and efficient Wi-Fi experience.

Intent: Network Efficiency vs Stability on 5 GHz radio

Intent Priority: Yes, apply the recommendation

Category: Wi-Fi Experience

Venue: Sunnysvale.Site

Status: **Active**

Last Update: 10/10/2025 11:38

Last Updated By: SKO REC on 10/09/2025 19:04

Details

**Background Scan Timer (5 GHz)**

Current: **20 s** Recommended: **20 s**

**Average AP Channel Change Count**

--  
Metrics / Charts unavailable for data beyond 30 days

**Max AP Channel Change Count**

--  
Metrics / Charts unavailable for data beyond 30 days

**Co-channel Interference Ratio**

--  
Metrics / Charts unavailable for data beyond 30 days

**Benefits**

An optimized scan timer for background feature enables RUCKUS APs to scan the channels for an appropriate time interval. Time interval that is too long would result in longer time for radio channel selection.

**Potential Trade-off**

More frequent scans may lead to increased power consumption and brief connectivity interruptions, potentially disrupting real-time applications, such as audio and video calls, and impacting overall network stability and user experience.

**Status Trail**

11/19/2025 11:40	Active
11/18/2025 11:39	Active
11/17/2025 11:41	Active
11/16/2025 11:40	Active
11/15/2025 11:40	Active
11/14/2025 11:38	Active
11/13/2025 11:38	Active
11/12/2025 11:39	Active
-----	-----

11/14/2025 17:00	Apply In Progress
11/14/2025 11:38	Scheduled
11/13/2025 11:38	Active
11/12/2025 17:00	Active
11/12/2025 17:00	Apply In Progress
11/12/2025 11:39	Scheduled
11/11/2025 11:39	Active
11/10/2025 17:00	Active
-----	-----

**AI Ops** reduces manual intervention by proactively detecting issues, optimizing configurations, and adapting to changing conditions.

# Wireless Digital Twin: AI-RRM and AIOps



- 善用雲端中的人工智慧力量
- 製作實體射頻網路的數位副本- '數位孿生'
- 在數位孿生系統上執行RRM模擬
- 保持實體網路不變
- 提供新的無線電頻道計畫
- 視覺化顯示網路的改善
- 利用 AIOps 工具自動化將數位孿生的配置套用到實體網路
- 預測、排程、監控及還原選項

### AI-Driven RRM 5

There are 5 recommendations for 5 zones covering 379.2K possible RRM combinations. Currently, 0 zones are optimized.

- **FR-AUDU**  
13 interfering links can be optimized to 0
- **FR-PLFI**  
33 interfering links can be optimized to 0
- **GCR-CHI**  
16 interfering links can be optimized to 0
- **HS-HOUSTON**  
4 interfering links can be optimized to 0
- **TESLA**  
5 interfering links can be optimized to 0

### QuadrantA

Zone RRM Health: ● Optimized  
Date: Oct 10 2023 01:20  
Summary: From 1559 to 764 interfering links

#### Recommendation Details

Original Configuration	Background scanning and 20 MHz for 2.4 GHz with static AP Tx Power
Current Configuration	AI-Driven RRM for channel and bandwidth plan with static and reduced AP Tx Power in 332 APs

Zone: QuadrantA is experiencing high co-channel interference in 2.4 GHz band due to suboptimal channel planning. The channel plan, and potentially channel bandwidth and AP transmit power can be optimized by enabling AI-Driven Cloud RRM. This will help to improve the Wi-Fi end user experience.

#### Why this recommendation?

AI-Driven Cloud RRM will constantly monitor the network, and adjust the channel plan, bandwidth and AP transmit power when necessary to minimize co-channel interference. These changes, if any, will be indicated by the Key Performance Indicators. The number of interfering links may also fluctuate, depending on any changes in the network, configurations and/or rogue AP activities.

#### Potential trade-off

AI-Driven Cloud RRM will be applied at the zone level, and all configurations (including static configurations) for channel, channel bandwidth, Auto Channel Selection, Auto Cell Sizing and AP transmit power will potentially be overwritten. Do note that any unlicensed APs added to the zone after AI-Driven Cloud RRM is applied will not be considered and this may result in suboptimal channel planning in the zone.

#### Status Trail

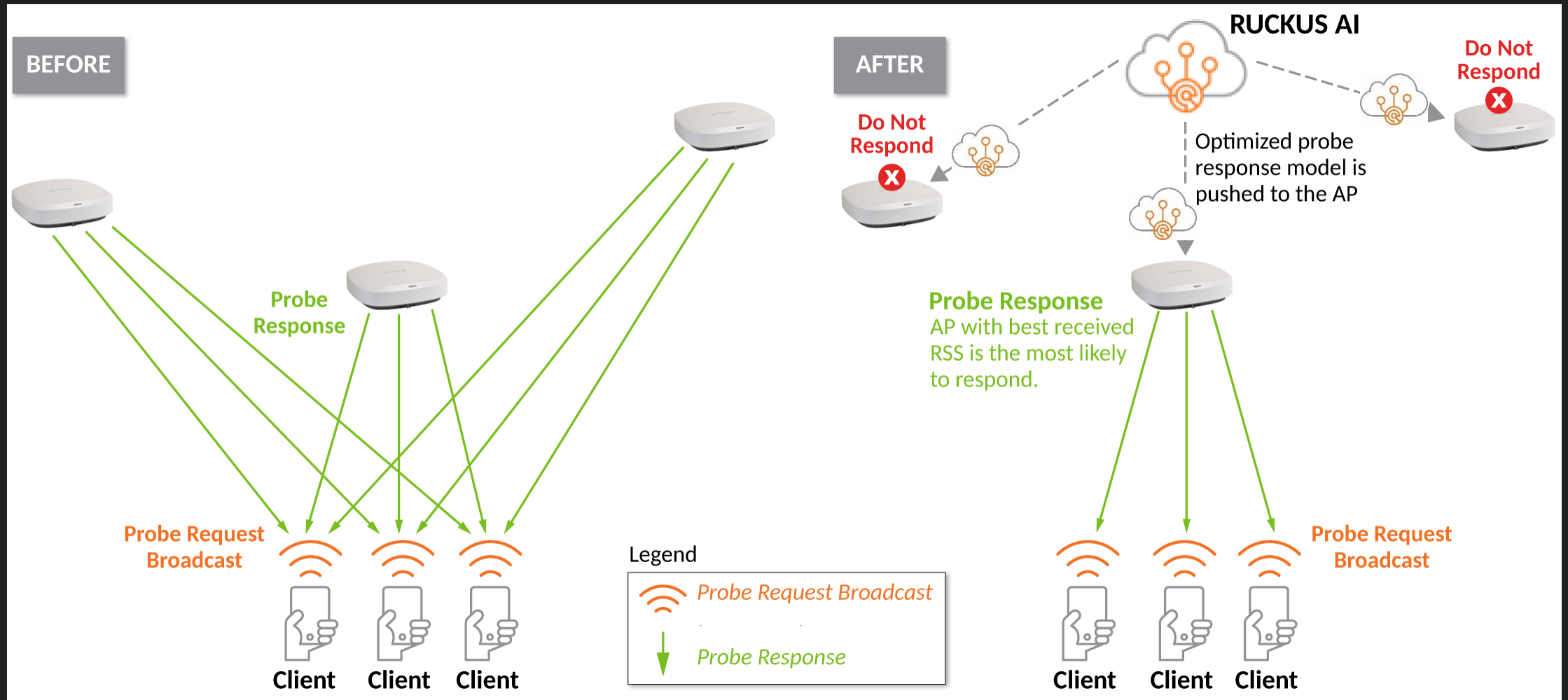
#### Key Performance Indications

Before

Recommended

More details

# EquiFlex- An Example of Hybrid Federated Machine Learning (HFML)



AI Assurance / IntentAI

# EcoFlexAI

Intent: Reduction in energy footprint vs Mission criticality | Zone: SPS-Hospitality-BLR

- Introduction**
- Trade-off
- Setting
- Summary

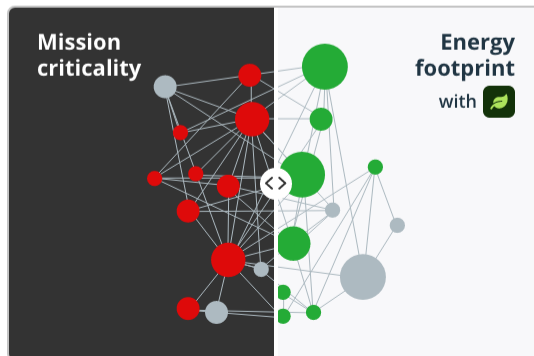
## Introduction

Intent: Reduction in energy footprint vs Mission criticality  
Zone: SPS-Hospitality-BLR  
Date: May 20 2024 14:45

### Wireless network design involves balancing different priorities:

**Reduction in energy footprint:** This approach prioritizes energy efficiency and sustainability, aiming to minimize overall energy consumption. It is ideal for environments where reducing environmental impact and optimizing resource usage are paramount.

**Mission criticality:** This approach focuses on maintaining uninterrupted operation and ensuring reliability for essential services. It is ideal for environments with critical consequences for downtime, like infrastructure or emergency services.



## Side Notes

### Why the recommendation?

This recommendation aims to reduce power consumption in RUCKUS WIFI systems during off-peak hours, conserving energy and reducing costs while maintaining essential connectivity for clients.

### Resources

- [EcoFlexAI Video Demo](#)
- [IntentAI User Guide](#)

- Dashboard
- AI Assurance**
- App Experience
- Clients
- Wi-Fi
- Wired
- Business Insights
- Administration

AI Assurance / IntentAI

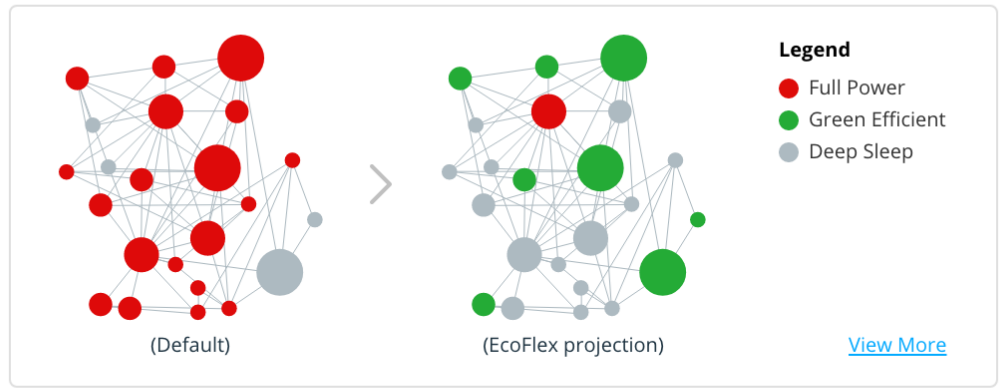
# EcoFlexAI

Intent: Reduction in energy footprint vs Mission criticality | Zone: SPS-Hospitality-BLR

- Introduction
- Trade-off
- Setting
- Summary**

## Summary

Projected energy reduction



Projected power saving  
9014.4 kWh/month **-20%**

Projected monetary benefits  
USD 250/month

Hours not applied for EcoFlexAI  
Mon-Fri 09h00-19h00  
Sat-Sun 09h00-13h00

Excluded AP Groups / APs

## Side Notes

### Energy Footprint

To reduce the energy footprint, RUCKUS AI will intelligently move a few APs to reduced power mode during off-peak hours. In this mode, limited Wi-Fi service will be available.

As RUCKUS AI detects active Wi-Fi clients, it will move the APs back to normal power mode with full Wi-Fi service.

Back

Apply

< Collapse



# Key Use-Cases



# IntentAI - Understand & Auto-Tune my Network



IntentAI :深入了解您的網路，提供建議並在核准後自動套用設定

**AI-Driven RRM**  
**Throughput vs Client Density**  
Optimize for maximum throughput or minimal interference in high-density areas.


**EquiFlex**  
**Time to Connect vs Client Density**  
Balance clients evenly across APs for consistent performance and optimal resource use.

**AI Operations**  
**Optimize Network with AI Insights**  
Detect, diagnose, and resolve network issues automatically using AI-driven insights.

**Energy Saving**  
**Energy Footprint vs Mission Criticality**  
Reduce energy footprint for efficiency and sustainability.

ROI : Best Value Extraction

COST Reduction : Simplified Operations



<input type="checkbox"/>	AI Feature	Intent	Category	Venue	Status
<input type="checkbox"/>	Energy Saving	Energy Footprint vs Mission Criticality	Sustainability	Sunnyvale Site	Scheduled
<input type="checkbox"/>	AI-Driven RRM	Client Density vs Throughput for 2.4 GH...	Wi-Fi Experience	Atlanta	Paused, Apply Failed
<input type="checkbox"/>	AI-Driven RRM	Client Density vs Throughput for 5 GHz ...	Wi-Fi Experience	Atlanta	Paused, Apply Failed
<input type="checkbox"/>	AI-Driven RRM	Client Density vs Throughput for 6 GHz ...	Wi-Fi Experience	Atlanta	Paused, Apply Failed
<input type="checkbox"/>	AI-Driven RRM	Client Density vs Throughput for 2.4 GH...	Wi-Fi Experience	Sunnyvale Site	Active

1-Click / Detailed Workflow | Once Approved, runs autonomous | Audit Trails | Revoke Function

# Higher Education – Exceed Student and Admin Expectations



## They're there to learn

**Libraries and Labs:** Students need to access online journals, databases, and ebooks, which demand extensive wireless coverage with dynamic channel management.



## The business of Higher Ed

**Student centers and retail locations,** such as bookstores and cafes, depend on Wi-Fi with advanced switching to run POS systems provide guests seamless access.



## Students would pick fast Wi-Fi over hot water!

**Dorms and multi-dwelling units (MDUs)** need fast/reliable Wi-Fi and easy onboarding to cater to the personal and academic needs of students.



## Smart Connected Classrooms

Student and Faculty require reliable and high-capacity Wi-Fi® access points to support AV capabilities, cloud access, and video lectures

## HighScale Connectivity

Auditoriums and sports arenas crave robust wireless networks allowing attendees to stay connected and allowing organizers to manage operations effectively.

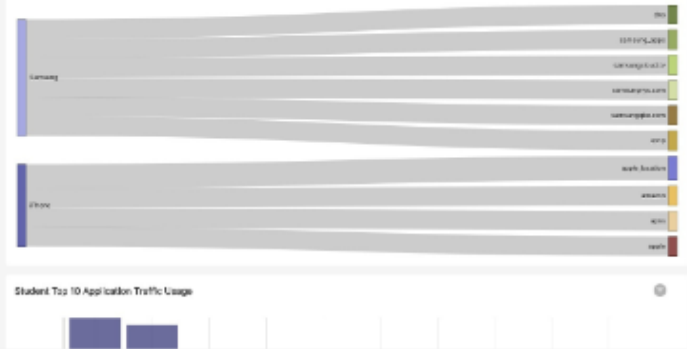


## Cost Effective Administration/Operations

Universities benefit from AI-driven network assurance and business intelligence platforms in their wireless networks for fast and secure day-to-day operations

# Education Reports at a Click of a Button

## Student Application Usage



### Student Experience



Displays information about the students and their Wi-Fi experience.

## Number of Student Devices by Zone

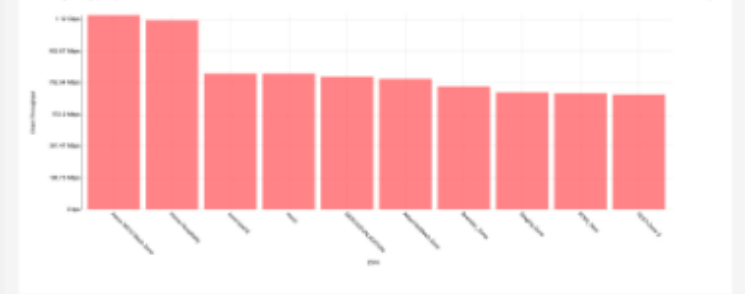


### Student Devices



Displays information about the number of student devices based on the...

## Student Avg Throughput by Zone



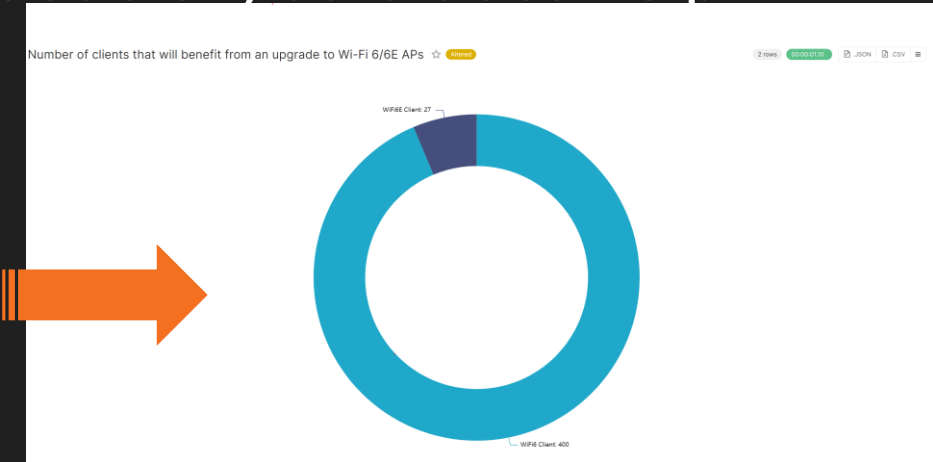
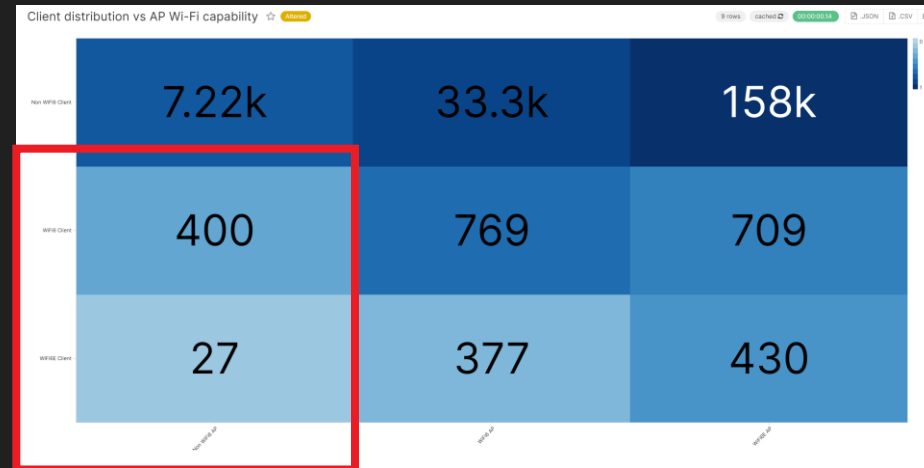
### Student Bandwidth



Displays the throughput estimates per zone, for student devices.

# When is it time to upgrade Wi-Fi technology?

- While there are many considerations in this decision, data does help



- 427 (400+27) Modern clients connected to legacy Aps can immediately benefit from higher speeds and reliability

## Autonomous Driving

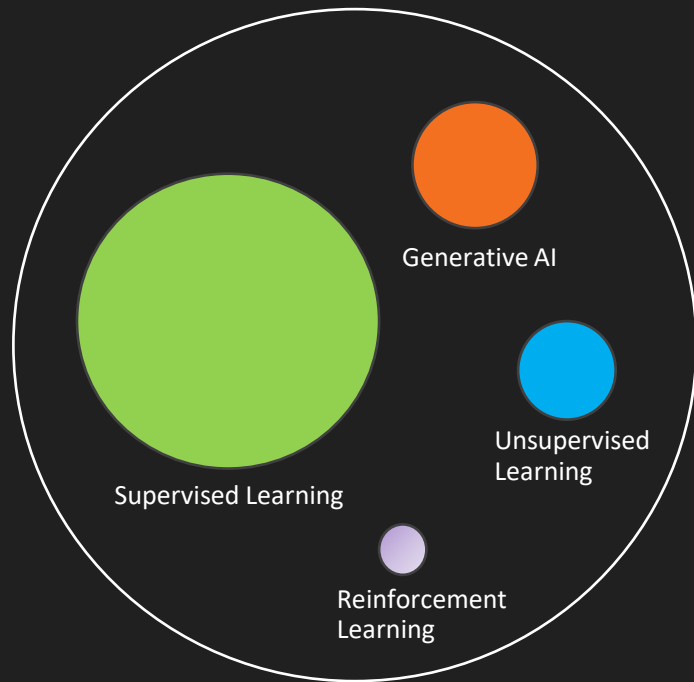


## RUCKUS AI



- 定義期望的成果或業務目標
- 網絡決定如何達成這些目標
- 專注於「該完成什麼」，而不是「怎麼做」

# GenAI & Agentic AI



### Gen AI

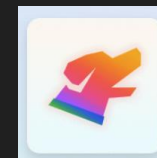
- Content Generation
- Single LLM Call
- Generates response instantaneously

### AI Agents

- Can execute multiple LLM driven steps
- Can reflect & Iterate
- Can invoke tools to perform tasks beyond content generation

### Agentic AI

- Orchestrator Agent managing a Group of AI-Agents
- Large context window, complicated tasks

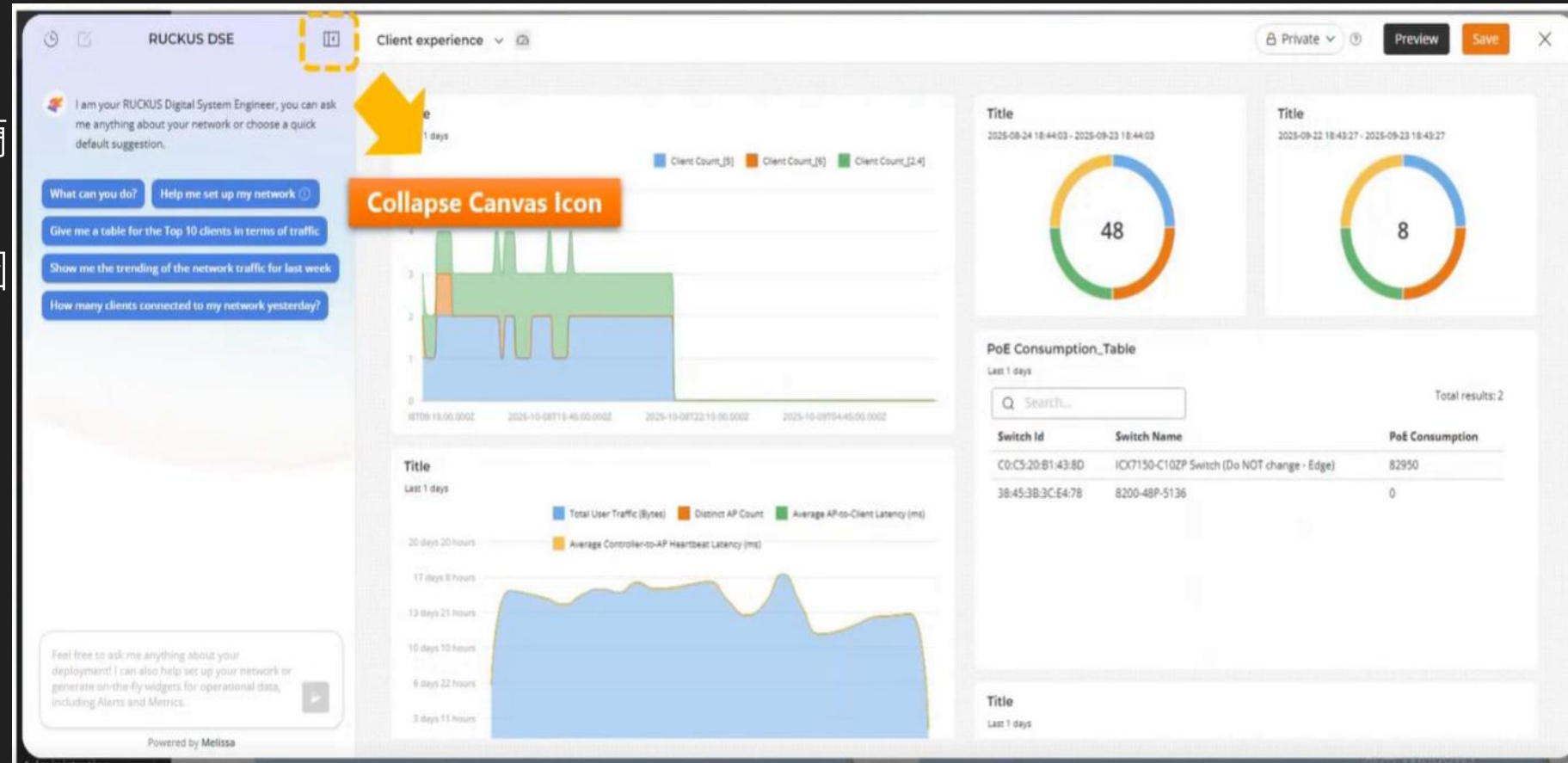


Digital System Engineer (DSE)

# RUCKUS Digital Systems Engineer (DSE) & Canvas



- AI驅動的DSE
- 易用的聊天介面：使用簡單易懂的語言發問
- 即時回覆答案：表格、圖表和自訂小工具
- 私人儀表板 → 個人工作區
- 公用儀表板 → 團隊共享



# DSE – Canvas Agent Demo



US 🔍 RuckusTMEDEMO 🔔 999+ 🕒 ? RD

RUCKUS One Default Dashboard + ⌵ Add... Entire Organization Last 8 Hours

### Alarms

4082

### Incidents

1

### Client Experience

Connection Success ██████████

Time To Connect ██████████

Client Throughput ██████████

Online APs ███

AP Capacity ███

### Did you know?

Top venue with highest number of incidents last week was **Singapore PoC.**

### Venues

102

### Devices

Access Points ██████████ 10

Switches ██████████ 7

No RUCKUS Edges [Add RUCKUS Edge](#)

No RWGs [Add RWG](#)

No IoT Controllers [Add IoT Controller](#)

### Clients

Wi-Fi ██████████ 8

No AP Wired Clients

Switch Wired ██████████ 48

Wi-Fi | Switch | RUCKUS Edge See more reports >

### Traffic by Volume

23.8 MB

19.1 MB

2.4 GHz 5 GHz 6 GHz

### Connected Clients Over Time

10

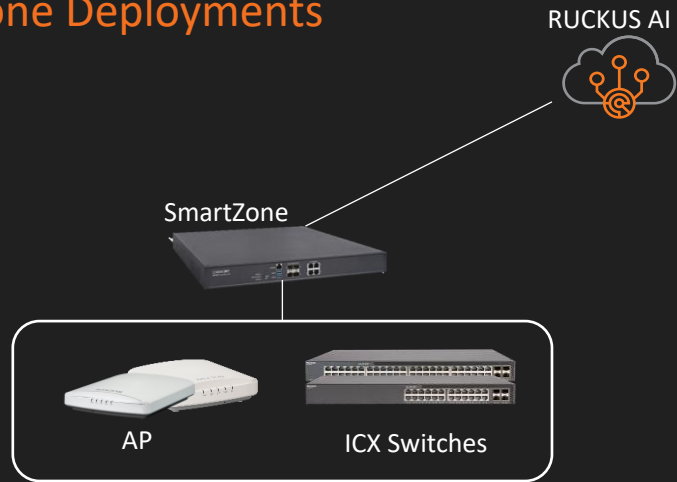
8

2.4 GHz 5 GHz 6 GHz

# AI Subscriptions

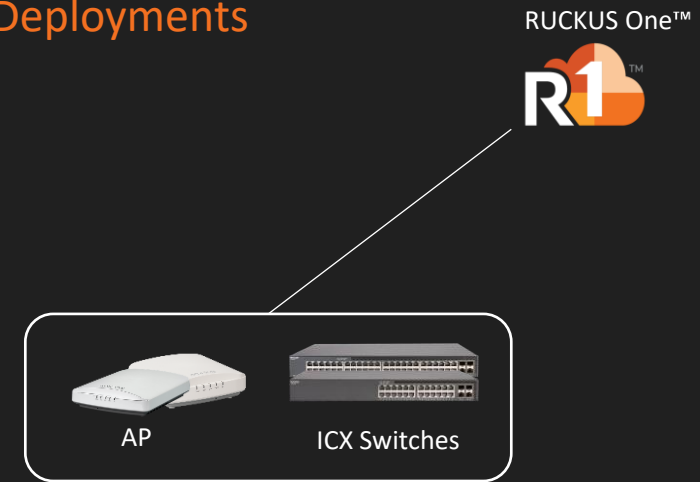


## SmartZone Deployments



- AI is a bolt on cloud-service
- 'RAI' subscription
  - ~90% of AI (No DSE)
- <https://docs.vistancenetworks.com/bundle/ruckusai-licensing-guide/page/GUID-DA2BA274-F313-43A8-A198-2E8176377C64-homepage.html>

## R1 Cloud Deployments



- AI is integrated into R1
- R1 Subscriptions
  - Essentials : 80% of AI
  - Professional : 100% of AI
- <https://docs.vistancenetworks.com/bundle/ruckusone-licenseguide/page/GUID-1D8E7BF7-6E24-4A23-BF88-B183C8D55FDE-homepage.html>

Thank You!

