

Ruckus Cloud 網路管理平台線上研討會

Ruckus Cloud & Analytics

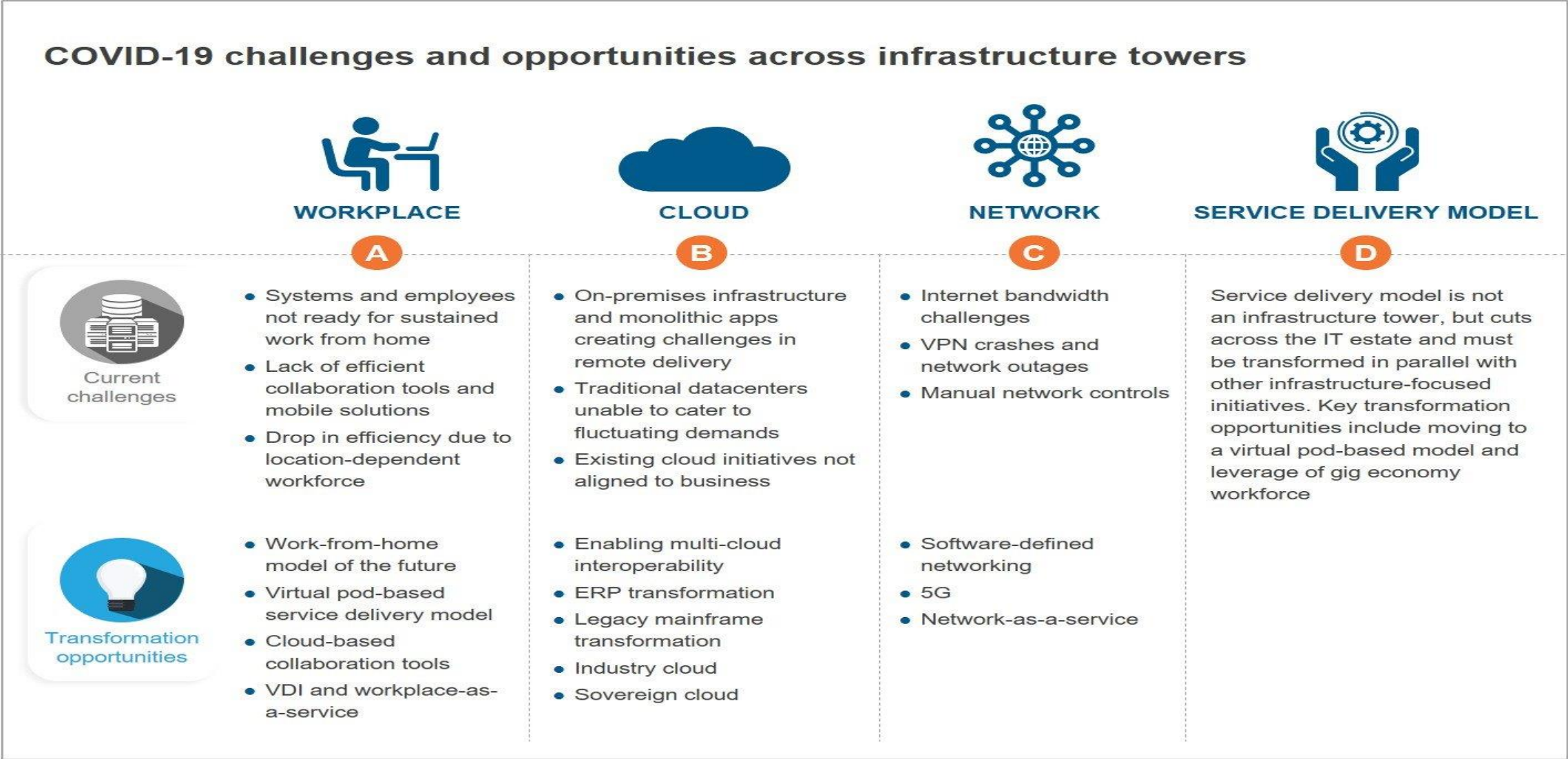
網路數位轉型迎接後疫情時代挑戰

Ruckus 技術顧問

Kevin Su



COVID-19挑戰與機會



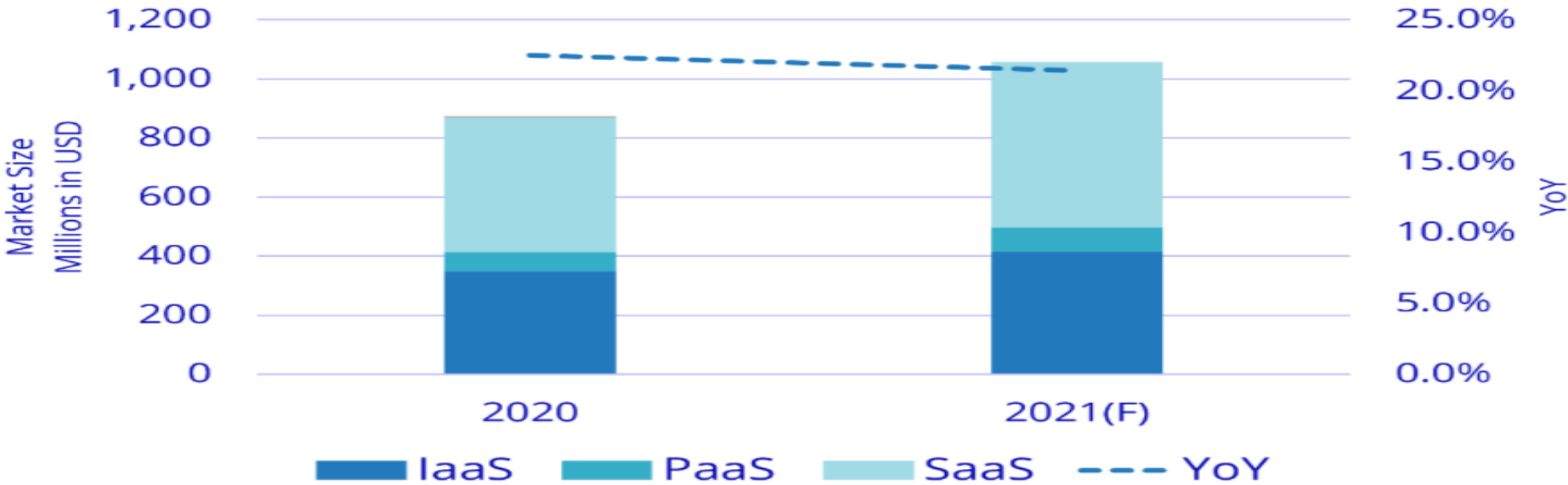
IDC分析資料



05 8月 2021

IDC：台灣公有雲服務市場受益於疫情帶動企業加速數位轉型，整體市場規模從2020的8.71億美元增長至2025的20.85億美元，年複合成長率19.1%

台灣公有雲服務市場2020規模和2021預測
(單位: 百萬美元)



Source: IDC 2021

為什麼採用雲端管理Wi-Fi

簡單管理& 支援多點服務

- ✓ 雲端擴展規模 – 無須花費額外的成本和精力即可擁有額外的控制器容量
- ✓ 簡單管理，大幅節省配置、設定、故障排除時間
- ✓ 未來雲端服務的擴充 (e.g., wired/wireless, security, in-building LTE, location services)



- ✓ 僅有控制 & 管理在遠端
- ✓ 資料落地 (local bridge, not tunnel)
- ✓ 基於角色的管理Role-based administration



- ✓ 可靠的雲端架構
- ✓ 訂閱終止後仍可正常運作
- ✓ 減少因為維護或升級導致的停機時間



Ruckus Cloud Wi-Fi



Cloud-managed Wi-Fi for
simplified management of
your multi-site WLAN

內容：

- 管理授權 (AP & ICX)
- 報表 & 分析
- 原生行動APP
- 功能及安全性更新
- 24x7 全時段技術支援

Supports a Wide Range of indoor/outdoor 802.11ac and 802.11ax APs



選擇Ruckus的原因

極佳的無線效能



降低持有成本



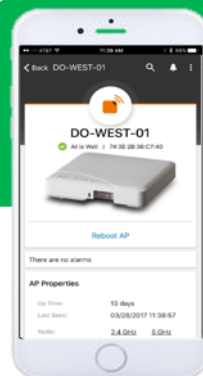
Cloud Wi-Fi

powered by the
Ruckus Cloud

投資保障



簡單管理



只有Ruckus雲端管理解決方案能夠同時提供上述優勢

出色的Wi-Fi效能

別人不行的地方，我們特別出眾...

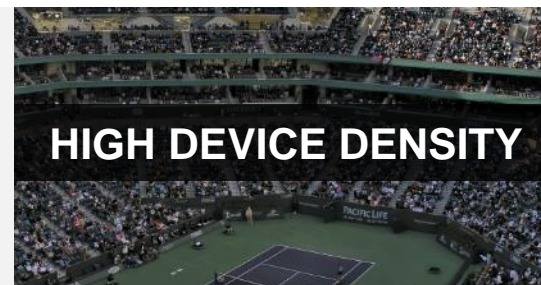
- High device density
- High loss
- High interference

秘密武器: 專利的 **BeamFlex+, ChannelFly**

- Dynamic antenna adaptation to maximize signal gain and application flow and minimize radio interference and noise
- ChannelFly intelligently selects the optimal 2.4/5GHz channel based on channel capacity prediction models
- In addition, capacity-based admission control ensures all clients receive required QoS

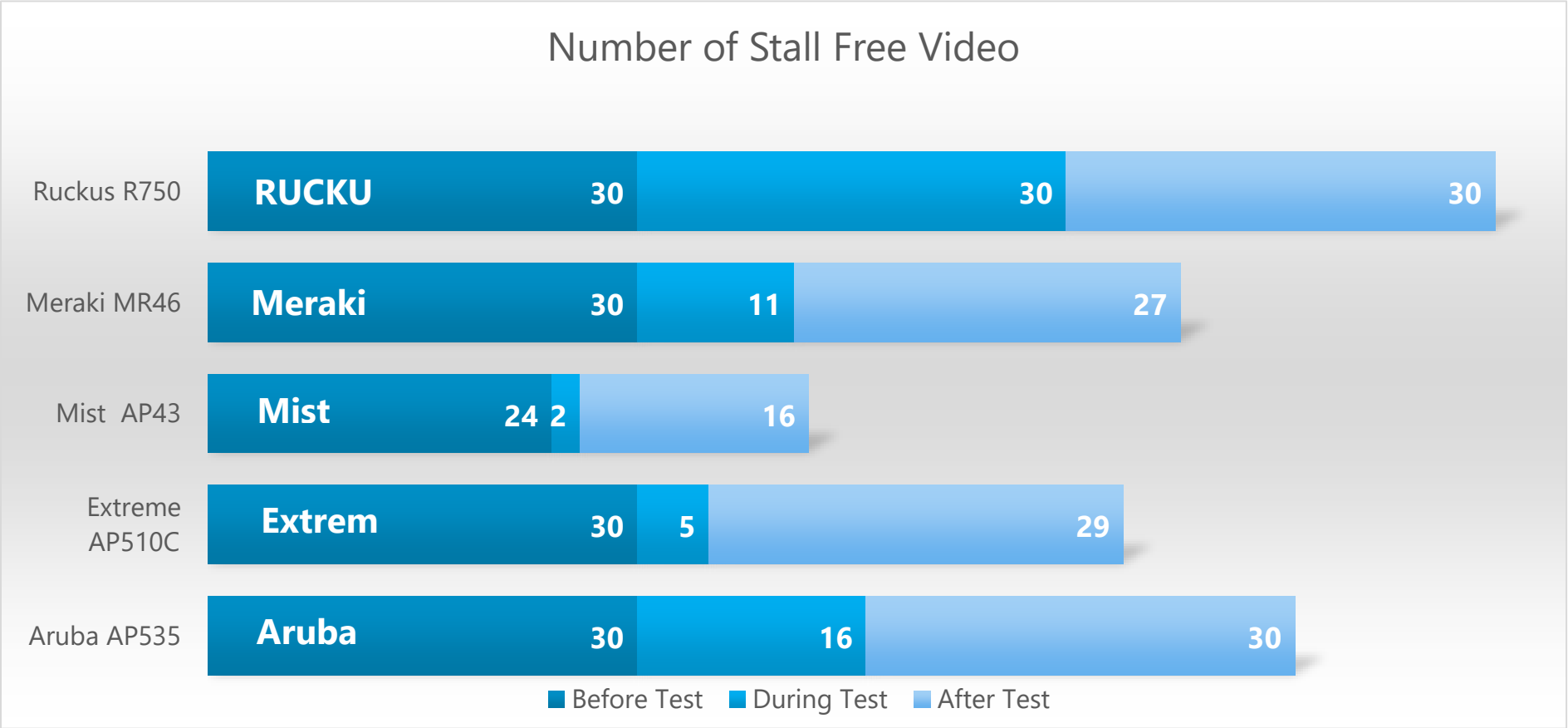
POWERING CUTTING-EDGE INSTRUCTIONAL MODELS

Not surprisingly, the building that houses the nursing program was the first one scheduled for the new Ruckus APs. "Originally we had four APs in the simulation lab and performance was still poor. Now we have just two Ruckus APs in the lab and we've had zero complaints about connectivity, download speeds, or stability," says Villarreal. "They love the new Ruckus network."



第三方驗證：優異、不中斷的視訊傳輸

Number of non-stalled videos before, during, and after the test



Why does this matter?

Quality of Experience is obviously distressed by stalled video receivers deeming the Wi-Fi solution inadequate

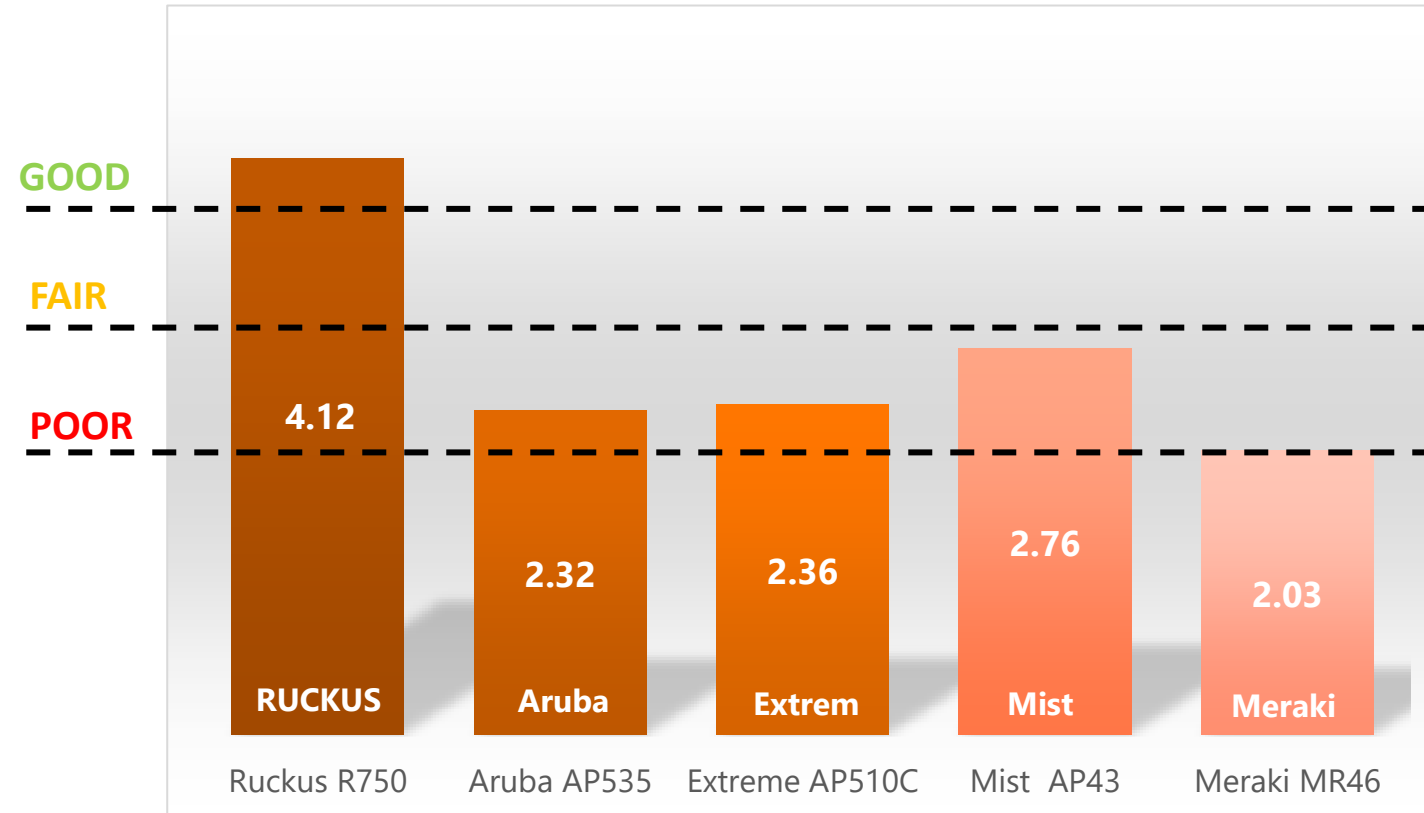
Source : Packet 6

第三方語音應用驗證：Mean Opinion Score (MOS)

MOS is about Quality of Experience

- RUCKUS R750 – Best MOS at **4.12**
- No competitor gets close, not even to 3.0
- MOS scale is 1 to 5 but, in practice, the highest score a PSTN-grade call can receive is ~4.5

MOS	Quality	Impairment
5	Excellent	Imperceptible
4	Good	Perceptible but not annoying
3	Fair	Slightly annoying
2	Poor	Annoying
1	Bad	Very annoying

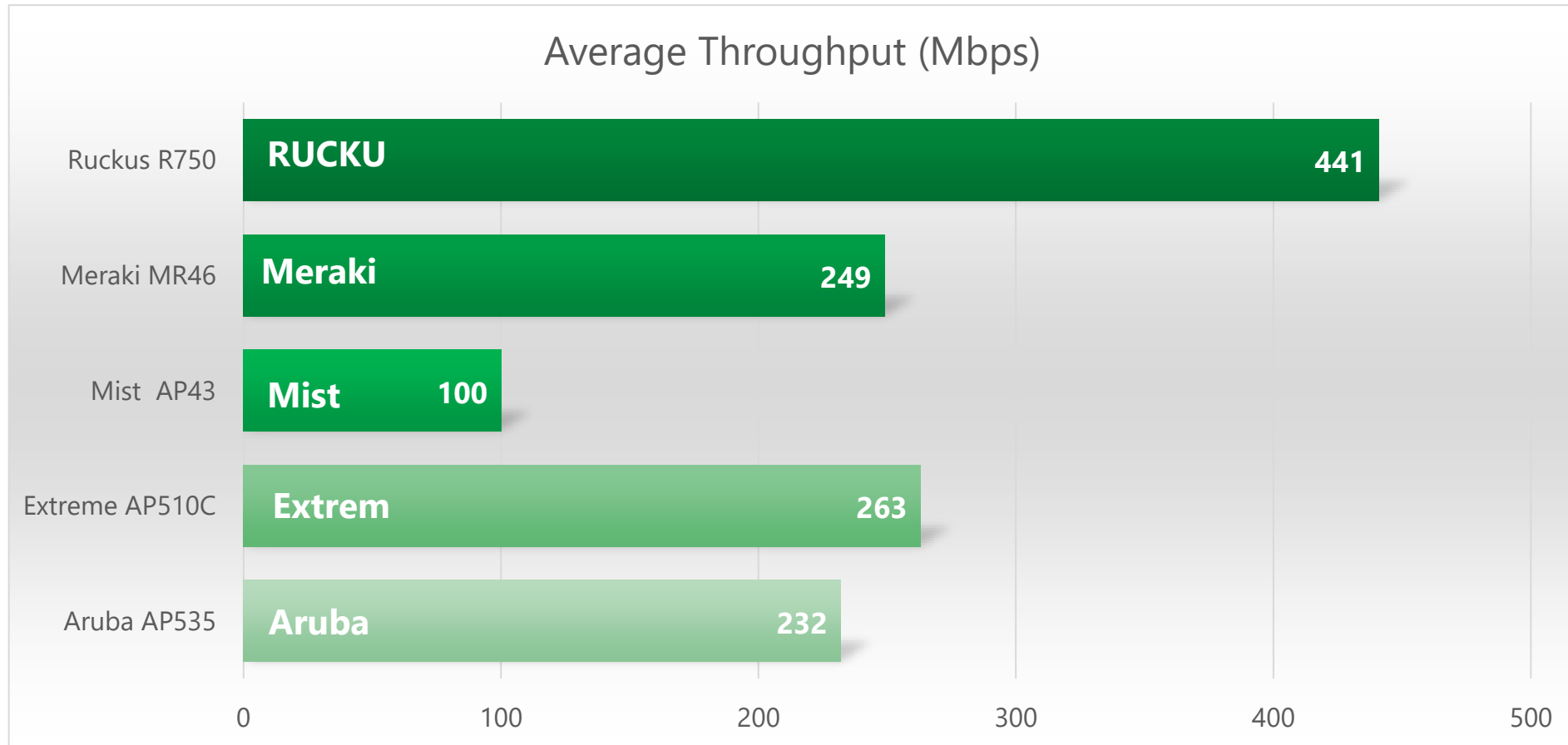


Why does this matter?

Poor QoS handling can starve time sensitive applications such as VoIP and adversely affect the Quality of Experience.

第三方效能驗證：優異的傳輸率

Real-world environment of mixed clients, applications and protocols

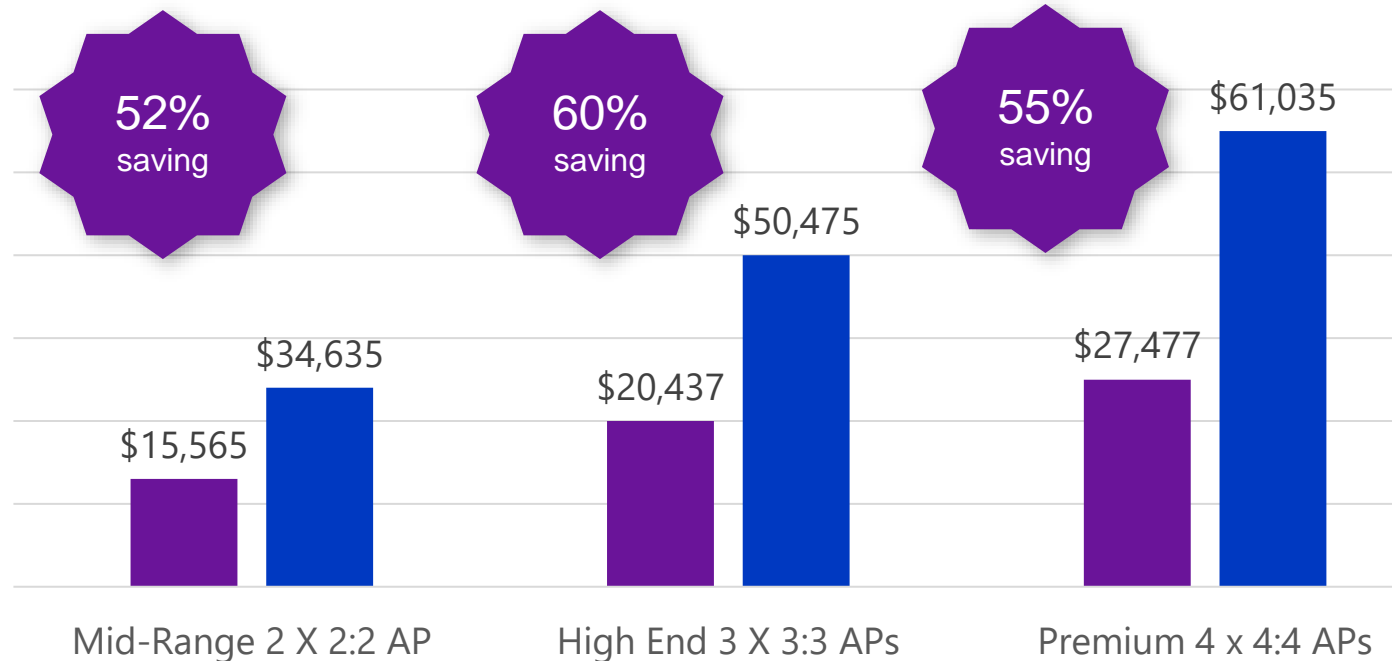


Why this matters

Application traffic should not suffer starvation – Properly categorizing and servicing applications' traffic embodies exceptional Quality of Experience.

以更低的成本獲得更好的效能

Ruckus vs. Other Deployment Cost Comparison



Assumptions

- Ruckus able to handle 60 clients per AP; Other vendor able to handle up to 30 clients per AP
- MSRP for subscription and AP costs
- Scenario for comparison:
 - 500 concurrent users
 - 20% user growth YoY
 - 1.5 clients/user
 - 4 year refresh cycle
 - 30% new installation
- Includes costs of cabling, installation, switching, and power

Source: [Ruckus Cloud TCO model](#)

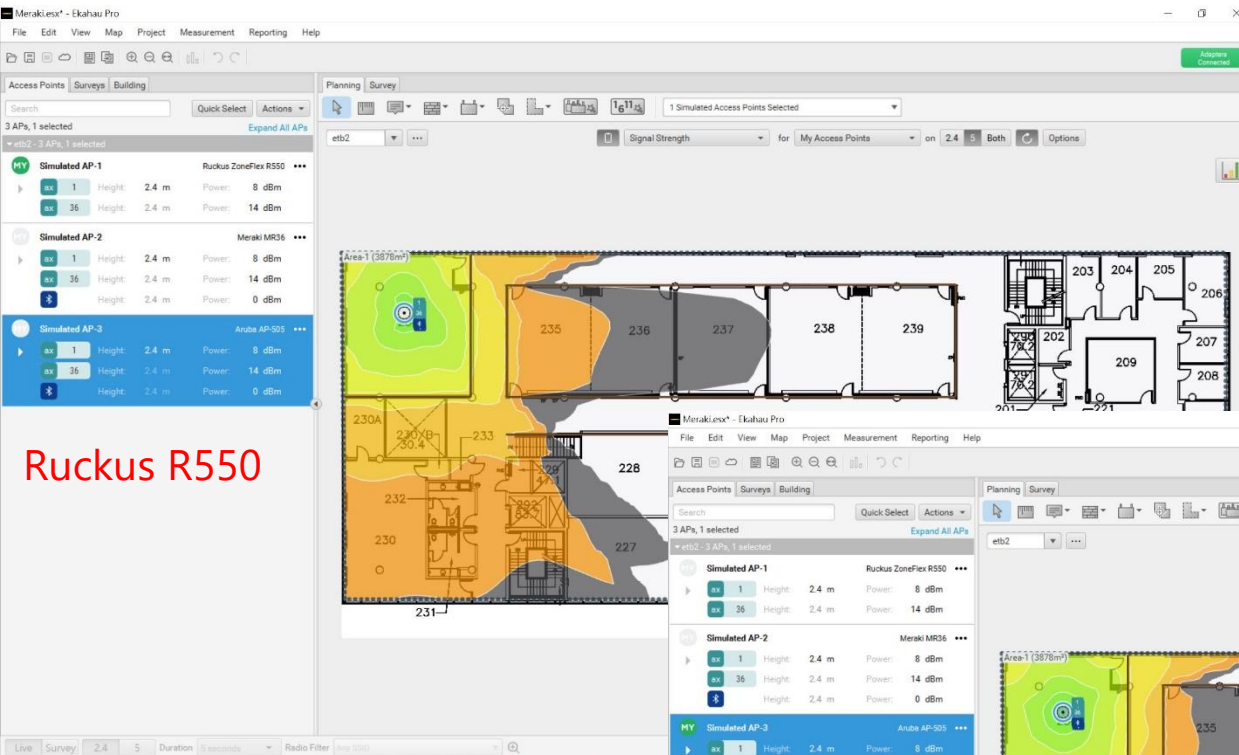
■ Ruckus ■ Other

Ekahau Pro Site Survey熱感圖比較

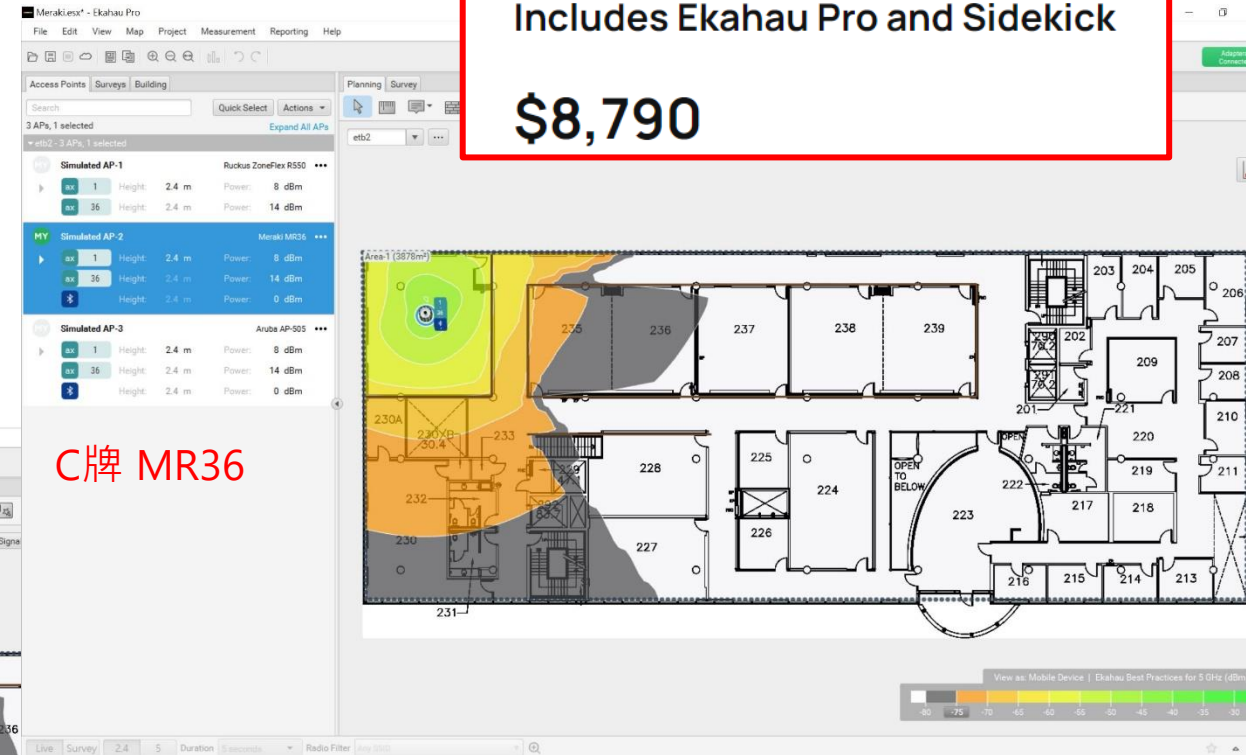
Ekahau Connect

Includes Ekahau Pro and Sidekick

\$8,790



Ruckus R550



C牌 MR36



A牌 AP505

提供客戶投資保障

Competitive solutions limit your freedom of choice

- Locks you into a fixed architecture—APs become “bricks” once your subscription ends
- Works with only a subset of expensive and/or low performing APs



當有需要改變時，提供相當的彈性

- Ruckus APs work with different management architectures: on-premises, cloud, controller-less
- Migrate from one Ruckus architecture to another* (unlike competitive solutions)

當訂閱服務終止時仍有多種選擇

- Ruckus Unleashed
- Virtual SmartZone-managed
- SmartZone appliance-managed
- Base software

Supports a wide range of Indoor/Outdoor 802.11ac & 802.11ax APs



For full list of currently-supported access points, go to:
www.ruckuswireless.com/cloud-devices

**Assumes AP model is supported by this option. Not all APs are supported by all management options*

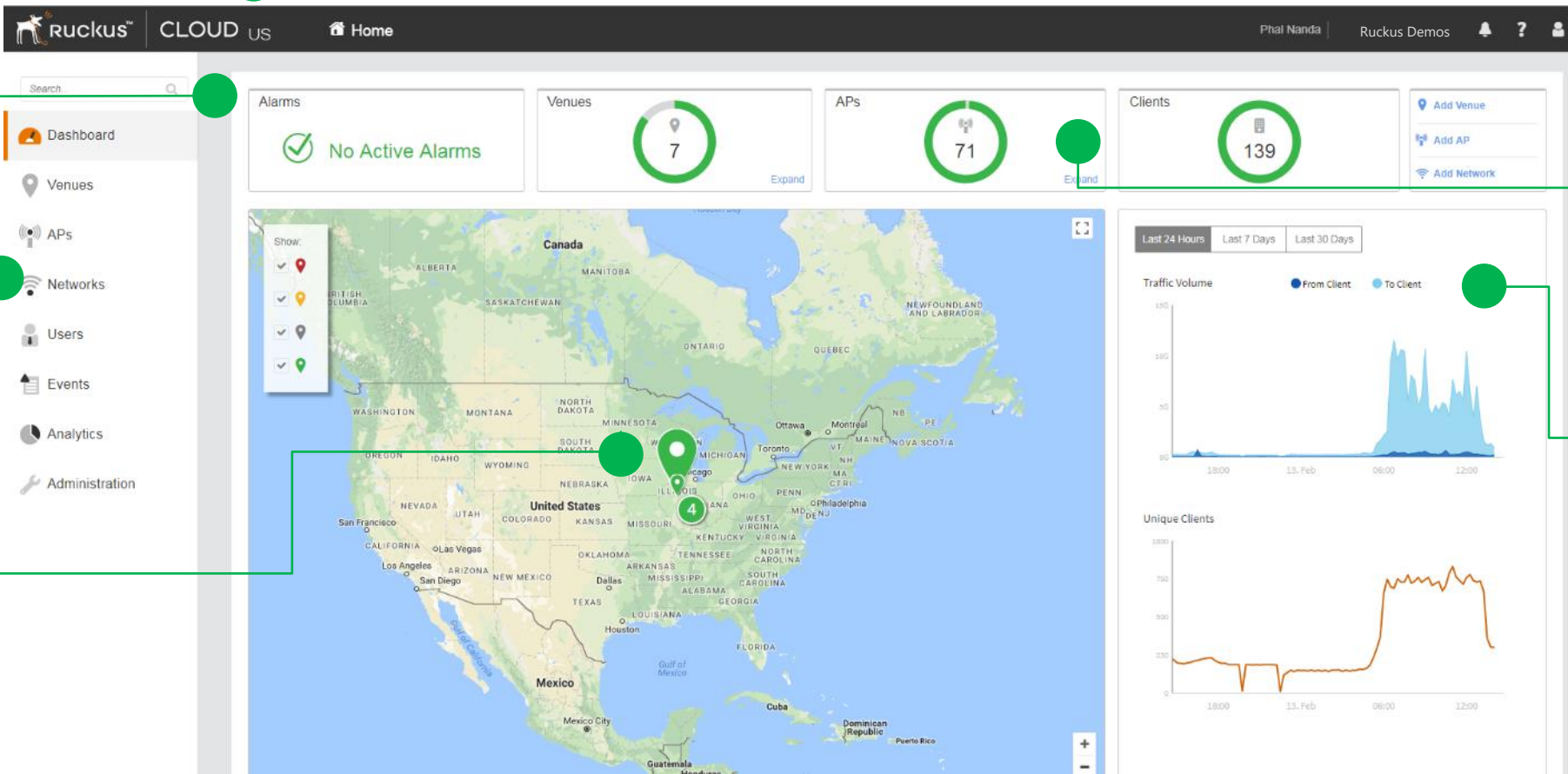
直覺簡單管理介面

Verify your
hosting region –
US or EU

Know the health
of your network
at a glance

An intent-
driven UI
simplifies
work flows

Map shows
location of your
venues. Click on
“teardrops” to get
detailed venue
information



Drill down for
more detailed
information on
APs, venues,
and clients

Customizable
reports allow
you to focus in
on key metrics
that drive your
business.

多樣性的訪客存取功能

Network Details | **Onboarding** | Portal Web Page | Venues | Advanced

Allow Sign-In Using:
(At least one option must be selected)

- ☒ SMS Token
- ☒ Facebook
- ☒ Google
- ☒ Twitter
- ☒ LinkedIn

☐ Allowed domains:

☐ Redirect users to:

☐ Collect email addresses of users who connect to this network

Password expires after: Hours

☒ Enable Ruckus DHCP service [More details](#)

Self Sign In

Diagram illustrating the Self Sign In process: A mobile phone connects to the Guest Network, which is managed by the Portal. The Portal is connected to social media logins (Facebook, Google, LinkedIn, Twitter) and a Subscribe Manager. The Portal also handles SMS authentication. The Guest Network is connected to a Data: Local-Breakout router.

Enable Guest Access Without Losing Control or Compliance

- 4 Social Logins (Google, Facebook, LinkedIn, Twitter)
- SMS based authentication at **no extra charge**
- Create Guest Portal once and deploy across multiple sites

Usage Examples:

- Events / guests
- Vendors, contractors

內建DPSK資料庫高達20K筆

COMMScope® RUCKUS® CLOUD US

Search...

Q

Dashboard

Venues

Networking Devices

Wireless Networks

Switch Configuration

Services

Users

Events

Users

WiFi

Switch (0)

Clients (0 Connected)

Guest Pass Credentials (0 Active)

DPSK User Credentials (20000 Active)

0 selected

Search by username, MAC address

Q

All Networks

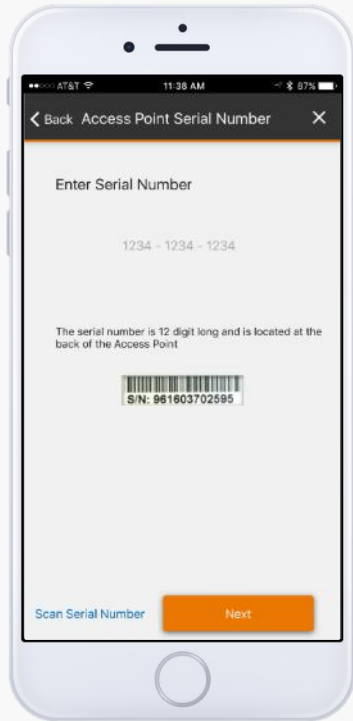
Filter by VLAN

Q

☒ Show expired passphrases

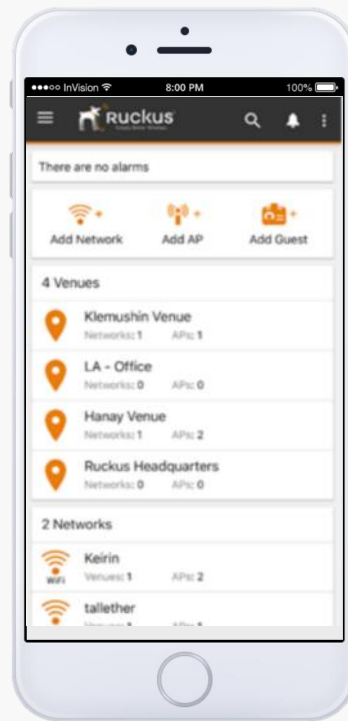
<input type="checkbox"/>	Passphrase created	User Name	No. of Devices	MAC Address	Passphrase	Network
	09/01/2021 13:55	dpsk04-15	1		.....	lab-dpsk-test
	09/01/2021 13:55	dpsk04-23	1		.....	lab-dpsk-test
	09/01/2021 13:55	dpsk04-7	1		.....	lab-dpsk-test
	09/01/2021 13:55	dpsk04-14	1		.....	lab-dpsk-test
	09/01/2021 13:55	dpsk04-19	1		.....	lab-dpsk-test
	09/01/2021 13:55	dpsk04-22	1		.....	lab-dpsk-test

功能齊全的行動App讓IT不再束縛於辦公桌前



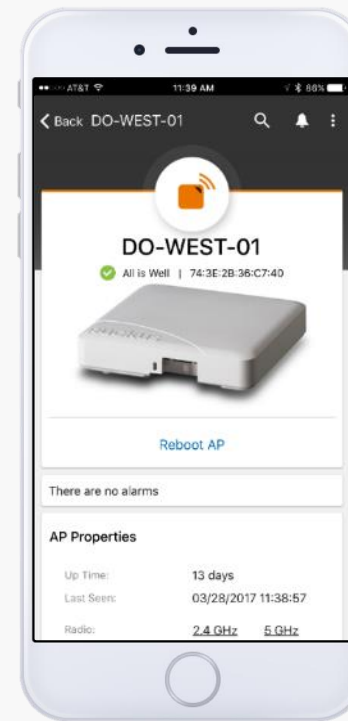
配置

Easily add APs by scanning the barcode on the back



監控

Monitor connections, status, and network performance



管理

Create and configure new network, update captive portal, reboot APs, reset passwords, schedule network availability



Cloud MSP

COMMScope® RUCKUS® CLOUD_{us} View Region: US

yenru lee | CHUNGHWA TELECOM CO LTD

Customers

MSP Licenses

My Account

MSP Customers (4)

VAR Customers (0)

Integrators & Installers (0)

Search for customer...

Q

Customer

Status

Address

MSP Administrators

Customer Administrators

Active Alarms

Wi-Fi Licenses

Wi-Fi Licenses Utilization

Switch Licenses

Active From

Service Expires on

CHT-KH

Active

No. 21, Gaonan Hwy, Renwu Di...

1

4

0

5

40%

0

09/08/2021

11/07/2021

JM

Active

106, Taiwan, Taipei City, Da'an ...

1

1

1

1

100%

0

06/22/2021

Expired on 07/08/2021

KS

Active

No. 411, Ruiguang Road, Neihsu ...

1

2

1

0

0%

0

07/01/2021

--

Sysage

Active

No. 516, Section 1, Neihsu Rd, N...

1

1

0

2

0%

2

05/13/2021

Expired on 05/31/2021

Add Customer

Portal Settings

Export To CSV

Refresh

COMMScope® RUCKUS® CLOUD_{us} View Region: US

yenru lee | CHUNGHWA TELECOM CO LTD

Customers

MSP Licenses

My Account

Wi-Fi

Switch

Total Wi-Fi Licenses Usage:

19%

5 / 27

MSP Wi-Fi Licenses

Show Expired Licenses

License Management

Refresh

License for

Type

Activated on

Expires on

Time left

25 APs

Basic

06/10/2021

06/11/2026

More than 4 Years

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RUCKUS Analytics



企業客戶面臨的挑戰



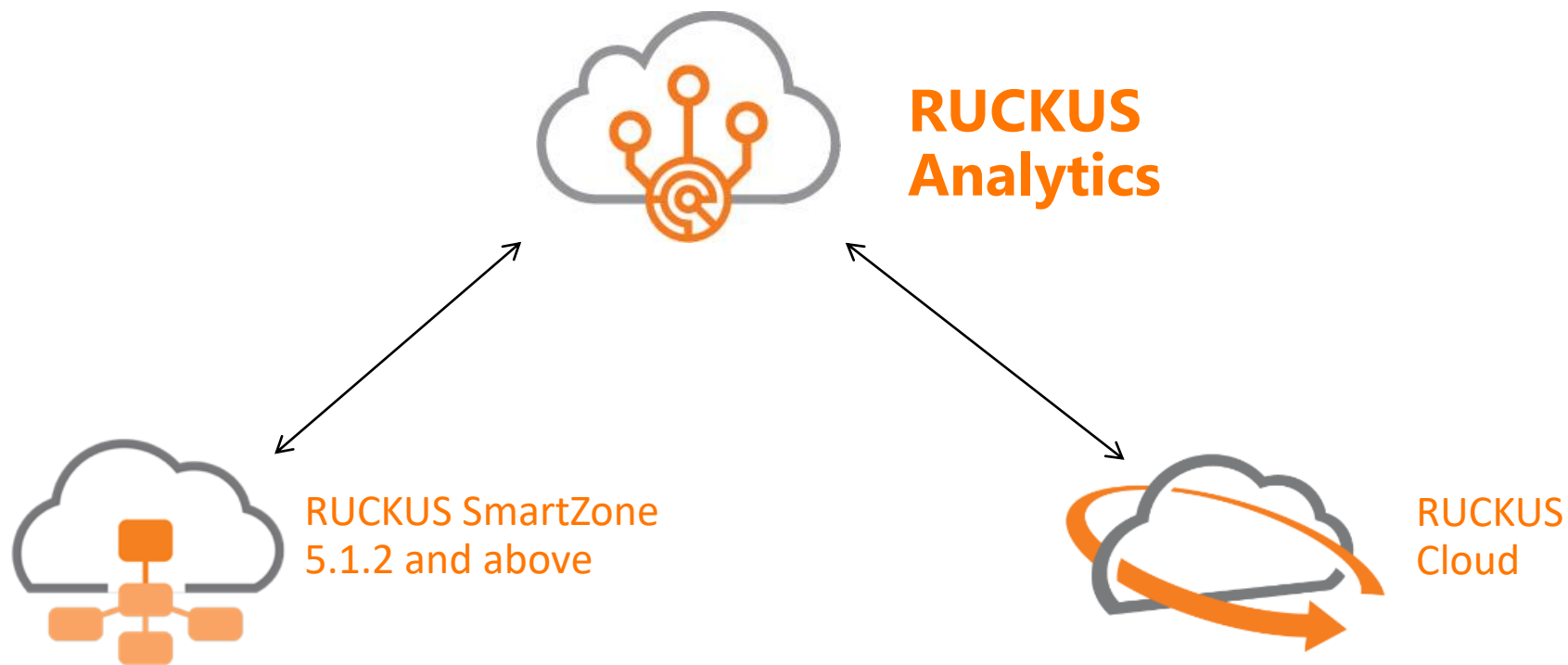
缺乏整體網路的可視性

IT常被瑣碎的網路申告弄得焦頭爛額

無法分類該優先處理的事件導致用戶體驗下降



落地或雲端控制器皆適用的雲端服務



RUCKUS Analytics能為您做甚麼



RUCKUS Analytics 功能特色



Network Health Monitoring



Incident Analytics



Client Troubleshooting

Switch Function :

- VLAN mismatch Insight
- High Switch Memory Utilization Insight
- PoE InSight



Reporting, Dashboards and Data Explorer



Network Topology

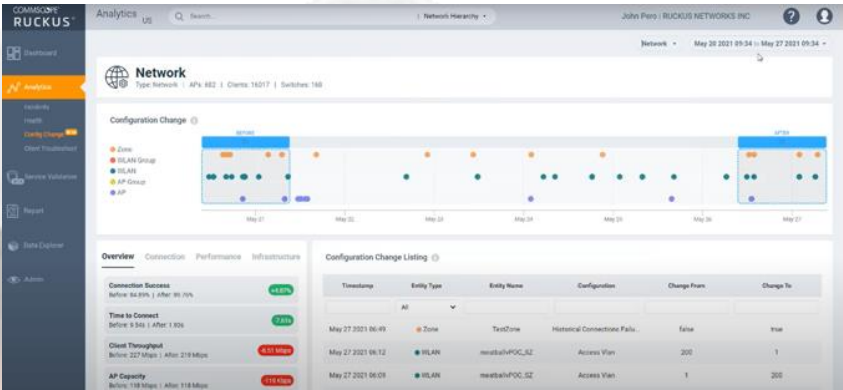
RUCKUS Analytics功能特色-續

SARAVANAN-FT
APs Under Test: 7 APs | Test Result: 85.71% pass | WLAN: SARAVANAN-1x | Radio Band: 2.4 GHz | Authentication Method: WPA2-Enterprise

TEST TIME: Feb 01 2021 21:45:22

AP Name	AP MAC	802.11 Auth	Association	EAP	RADIUS	DHCP	DNS	Ping	Traceroute	Upload	Download
RuckusAP	60:00:2C:1F:18:80	Pass	Pass	Pass	Pass	Fail	N/A	N/A	N/A	N/A	N/A
MUSA-R610-Switch1	B4:79:C8:04:D8:F0	Pass	Pass	Pass	Pass	Pass	Pass	96.4ms	↔	29.6 Mbps	23.2 Mbps
MUSA-R610-Switch2	D8:38:FC:1E:B1:10	Pass	Pass	Pass	Pass	Pass	Pass	87.6ms	↔	34.8 Mbps	23.4 Mbps
MUSA-R720-Switch1	1C:3A:60:0C:09:C0	Pass	Pass	Pass	Pass	Pass	Pass	329ms	↔	30.4 Mbps	21.2 Mbps
MUSA-Switch2-R710	18:4B:00:1C:A2:40	Pass	Pass	Pass	Pass	Pass	Pass	96.3ms	↔	27.2 Mbps	22 Mbps
RuckusAP	B4:79:C8:12:8C:50	Pass	Pass	Pass	Pass	Pass	Pass	86.6ms	↔	17.7 Mbps	15 Mbps
SARAVANAN-AP-MUSA-1...	38:FF:36:12:85:40	Pass	Pass	Pass	Pass	Pass	Pass	86.3ms	↔	26 Mbps	22.4 Mbps

Service Validation



Configuration Change Analysis

Melissa BETA

How is my network today?

Is my network meeting expectations?

Here is a summary of your network from Nov 30 2020 17:59 -08:00 to Dec 01 2020 17:59 -08:00:

- 438 AP(s), 270 online and 53 with alarms
- 92 WLAN(s)
- 1550 unique clients
- 595 GB of traffic with an average throughput of 60.2 Mbps

Number of incidents reported:

- P1: 0
- P2: 1
- P3: 6
- P4: 60

Ask something...

Melissa Virtual Assistant

Zoom Video Call QoE

TEST CALL INFO

TEST NAME: 2704-test

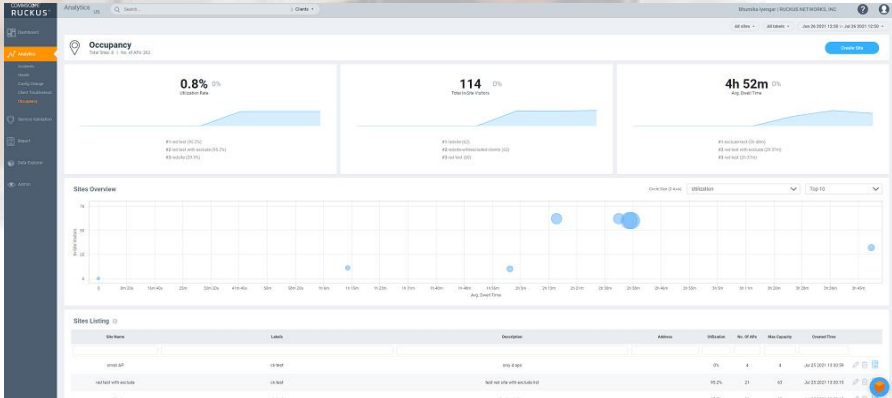
CALL DETAILS: The meeting is accessible by clicking the URL below. Copy and share the URL with other participants.

Participant: Darshan Manjappa

URL: <https://zoom.us/j/97940856092?pwd=RHbWMTdD1pPVXNMNk51THFpSmNzdz09>

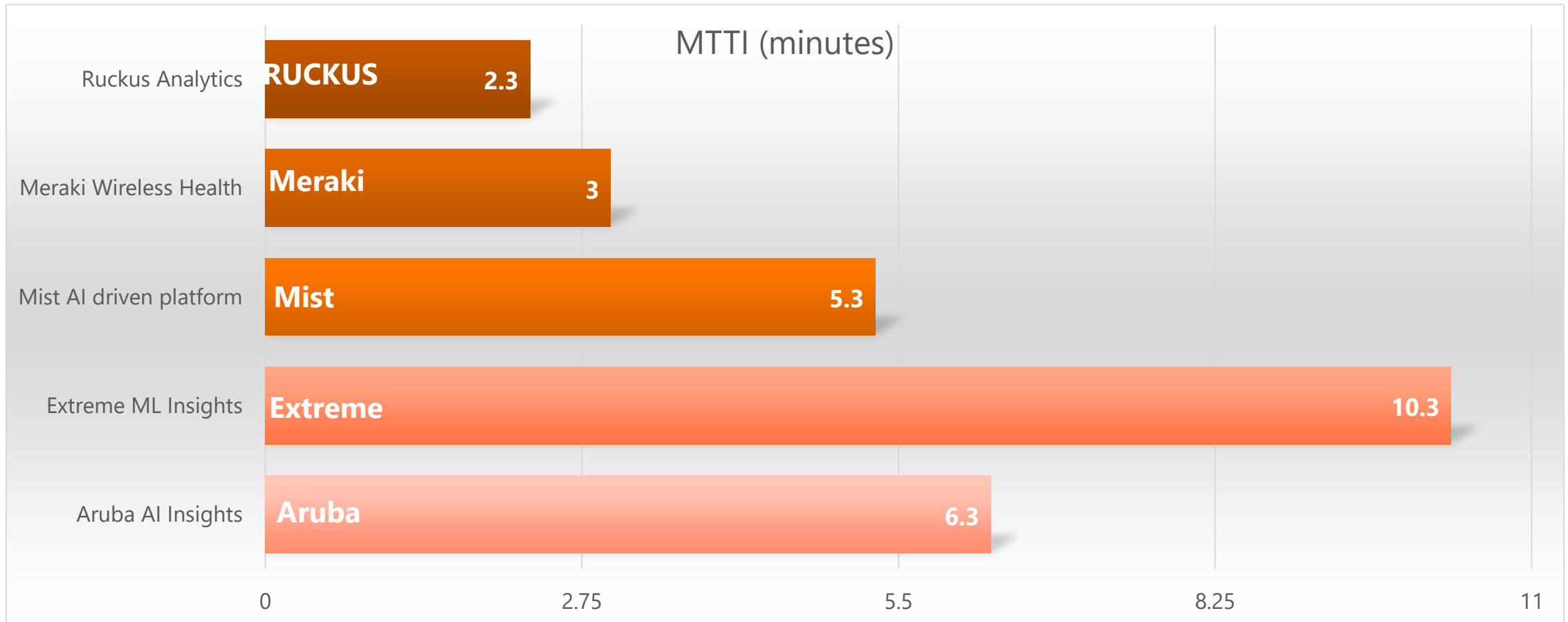
Video Call QoE: Good

Zoom Video Call QoE



Occupancy Analytics

Analytics-driven Mean Time to Identify (MTTI)



IT teams aim for low MTTI through dashboard workflow efficiency and accuracy of the data displayed.

輕鬆開始30天免費試用 RUCKUS Cloud

步驟 1：請打開瀏覽器輸入以下網址進入鉅立資訊

【免費試用活動頁面】

<https://www.jlead.com.tw/zh/ruckus/ruckus-cloud-trial.html>

步驟 2：看完說明，點選

立即申請

步驟 3：填妥連絡資料後送出申請

鉅立資訊收到申請後，會在 5 至 7 個工作天和符合資格的申請者聯絡並進行後續試用計劃的說明

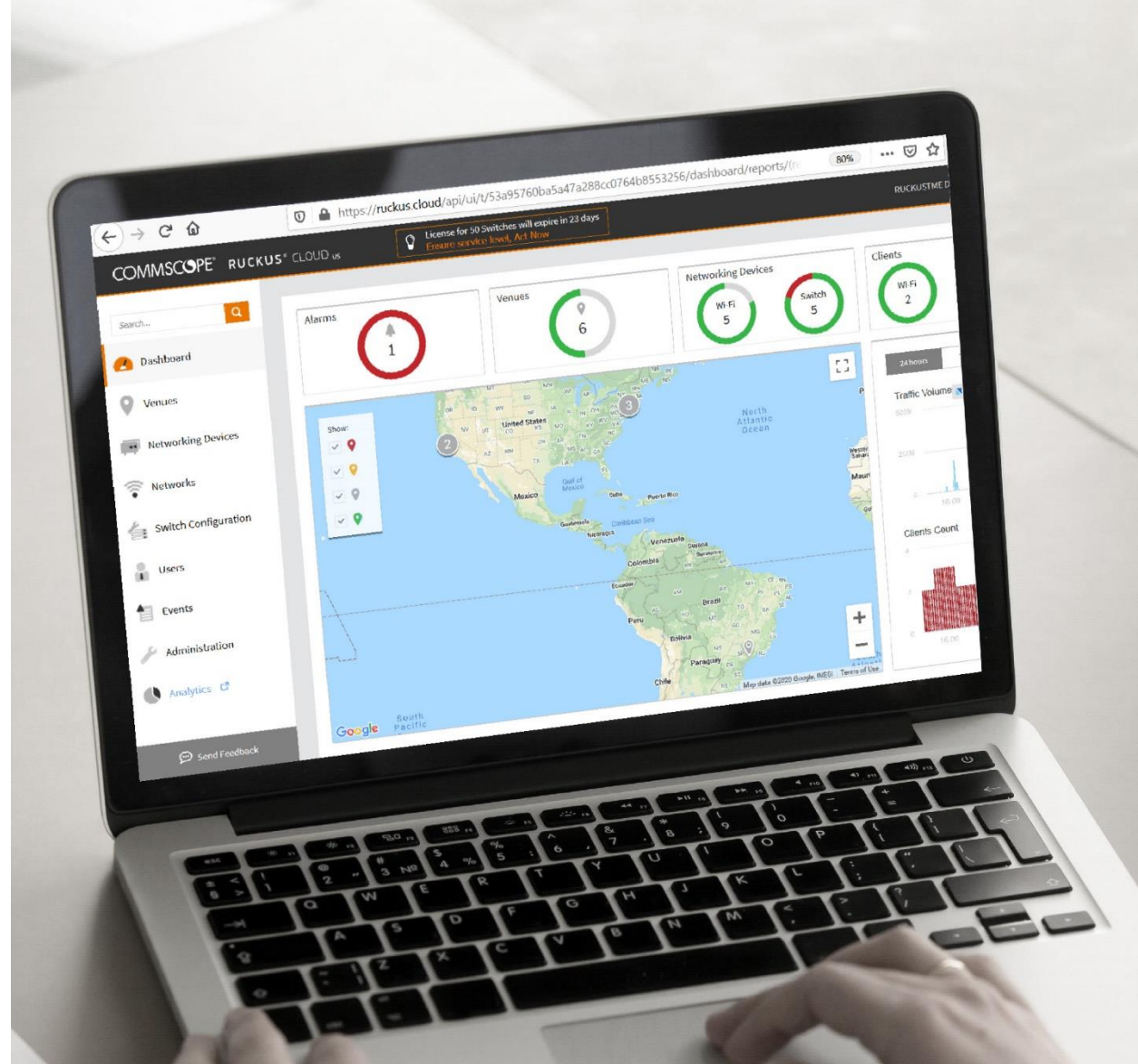
試用活動獎勵



• 試用者免費試用 30 天後，只要完成以下兩點

- (1) 填寫試用問卷
- (2) 提供 300 - 500 字的產品試用心得 (照片加文字) 供行銷使用

試用期間所使用的 RUCKUS 無線網路基地台，即免費贈送無需歸還!!



JLEAD 鉅立資訊

* 鉅立資訊保留隨時修改、終止變更本活動之權利。修改後之活動內容將於活動網頁更新，恕不另行通知。如有未盡事宜，鉅立資訊保有調整及最終解釋權之權利 ...

THANK YOU