

無線網路THIN AP建置 進階課程

網管輔導員:李 煒
alfred@ntpc.edu.tw
80723456-517



課前準備

2

- 課程資料
 - <https://drive.google.com/drive/folders/1lGJgS767ZzwxJoaY3tCvZRvj5JoR-GLW?usp=sharing>
- 建議用雙螢幕，或是帶筆電+桌機看MEET
- 下載後先安裝**PACKET TRACERT**
- 下載後先安裝**prtg**
- 要先能看到**1110531 PACKET TRACERT lab**
- 課程多為實務及實作。原理介紹。理論大家要找**GOOGLE**好朋友喔!!!

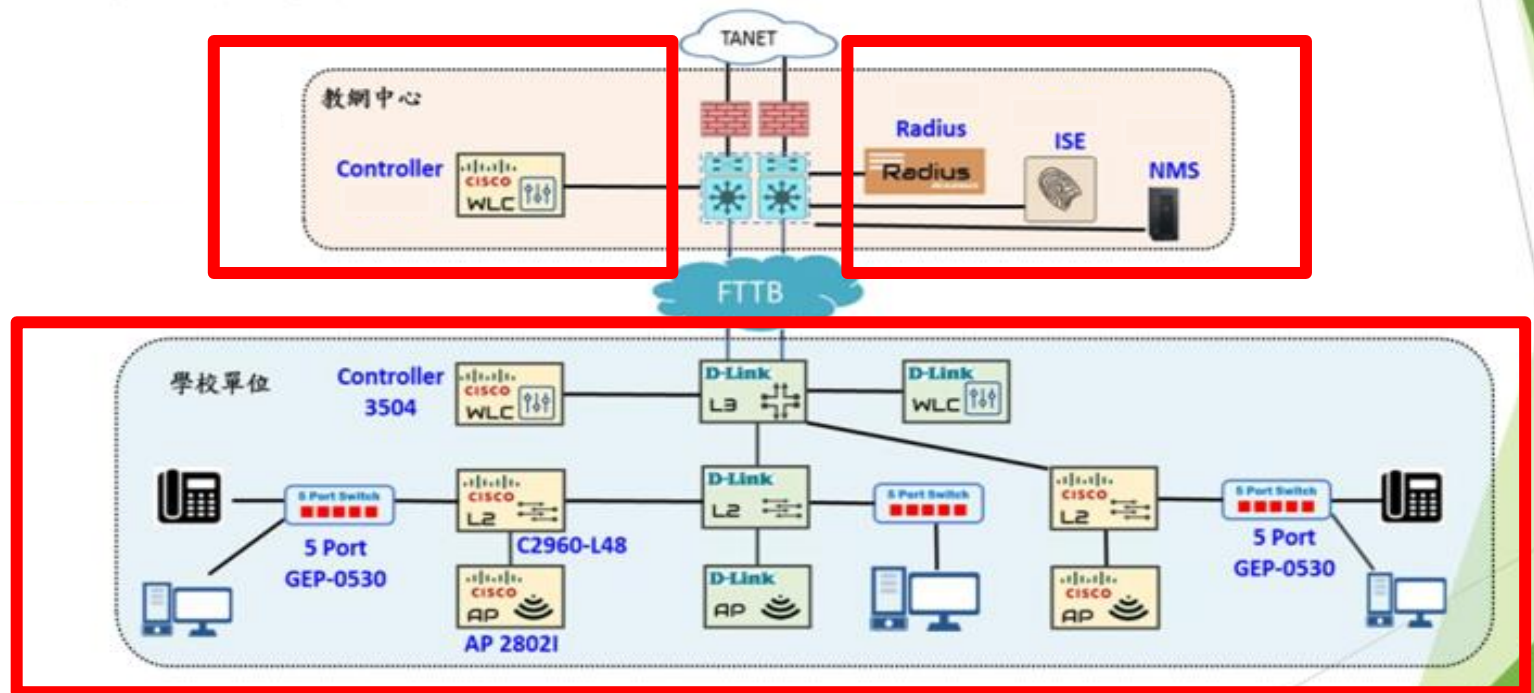
課程主題

3

- 瞭解 LAB 測試操作。
- 瞭解用PRTG監控CISCO WLC 3
 - nms.ntpc.edu.tw
 - Cisco AP整合入PRTG
 - 手機監控學校網路
- THIN AP VS FAT AP
- PT LAB WLC3504
- 設定 CISCO WLC。

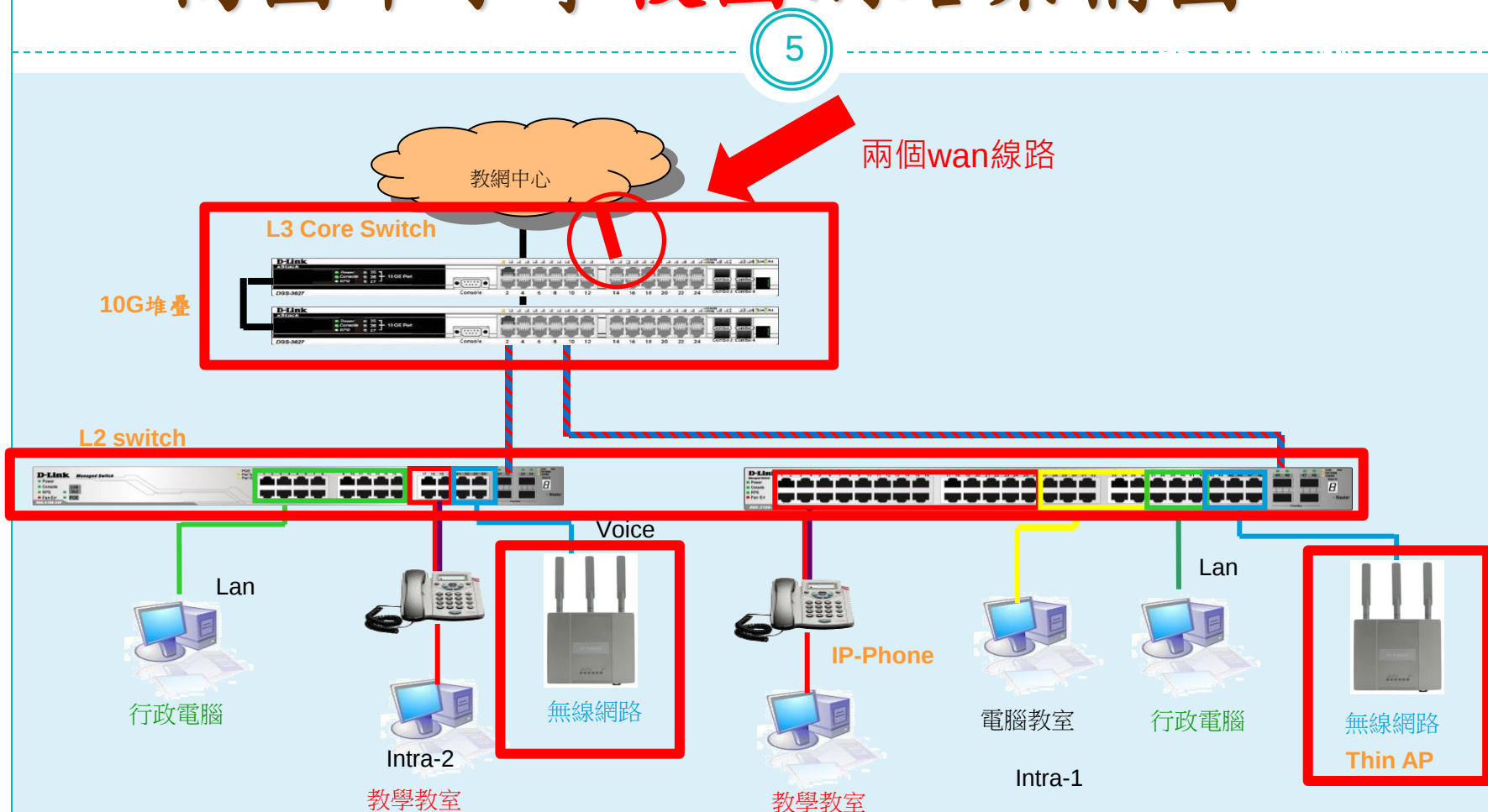
整體網路架構

- 整體系統架構圖



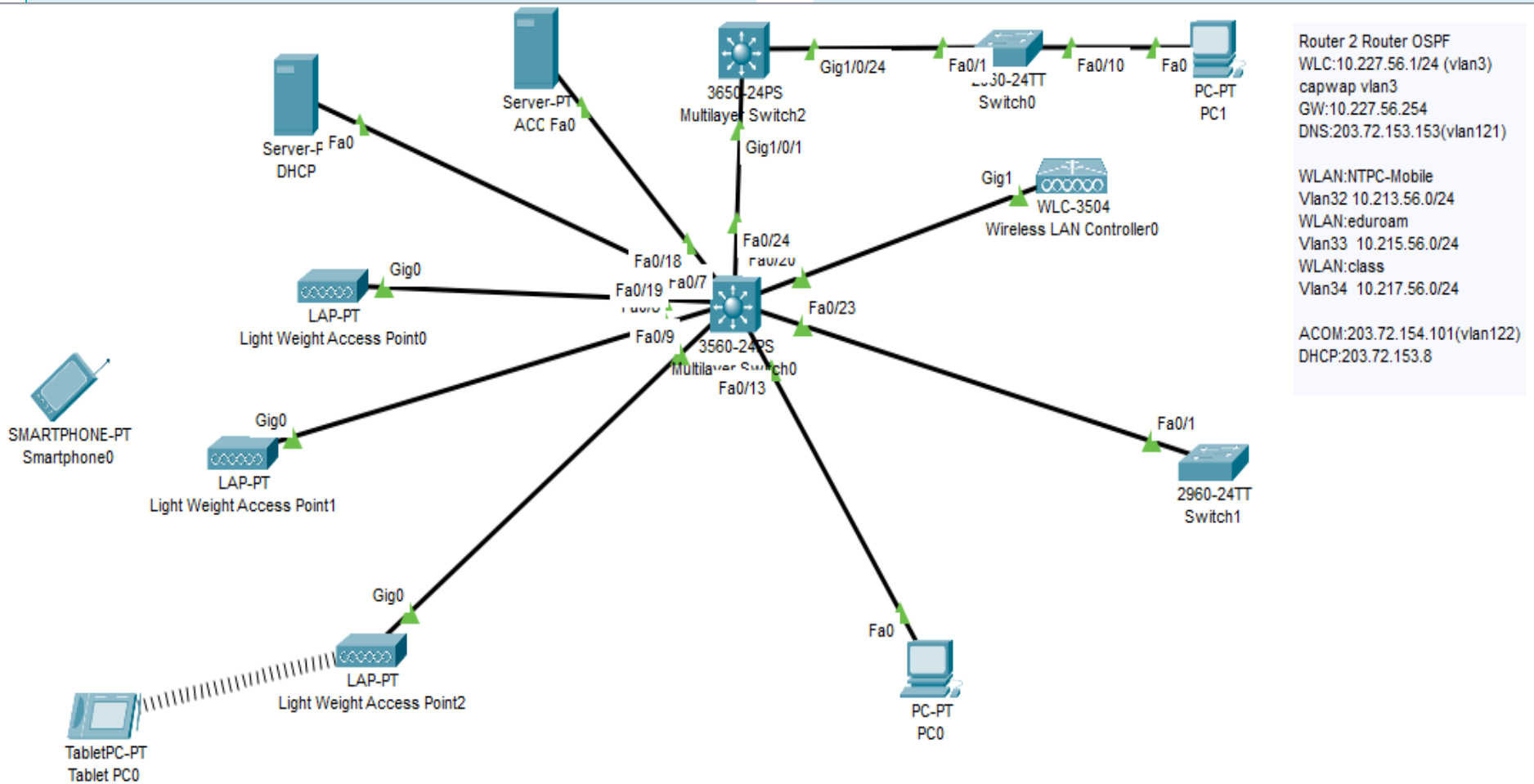
高國中小學校園網路架構圖

5



Lab説明

6



New AP Step by Step

(7)

- Check vlan
 - Add vlan31

Switch1

Physical **Config** CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

SWITCHING

- VLAN Database**

INTERFACE

- FastEthernet0/1
- FastEthernet0/2
- FastEthernet0/3
- FastEthernet0/4
- FastEthernet0/5
- FastEthernet0/6
- FastEthernet0/7
- FastEthernet0/8
- FastEthernet0/9

VLAN Configuration

VLAN Number: 31

VLAN Name: TANETRoaming

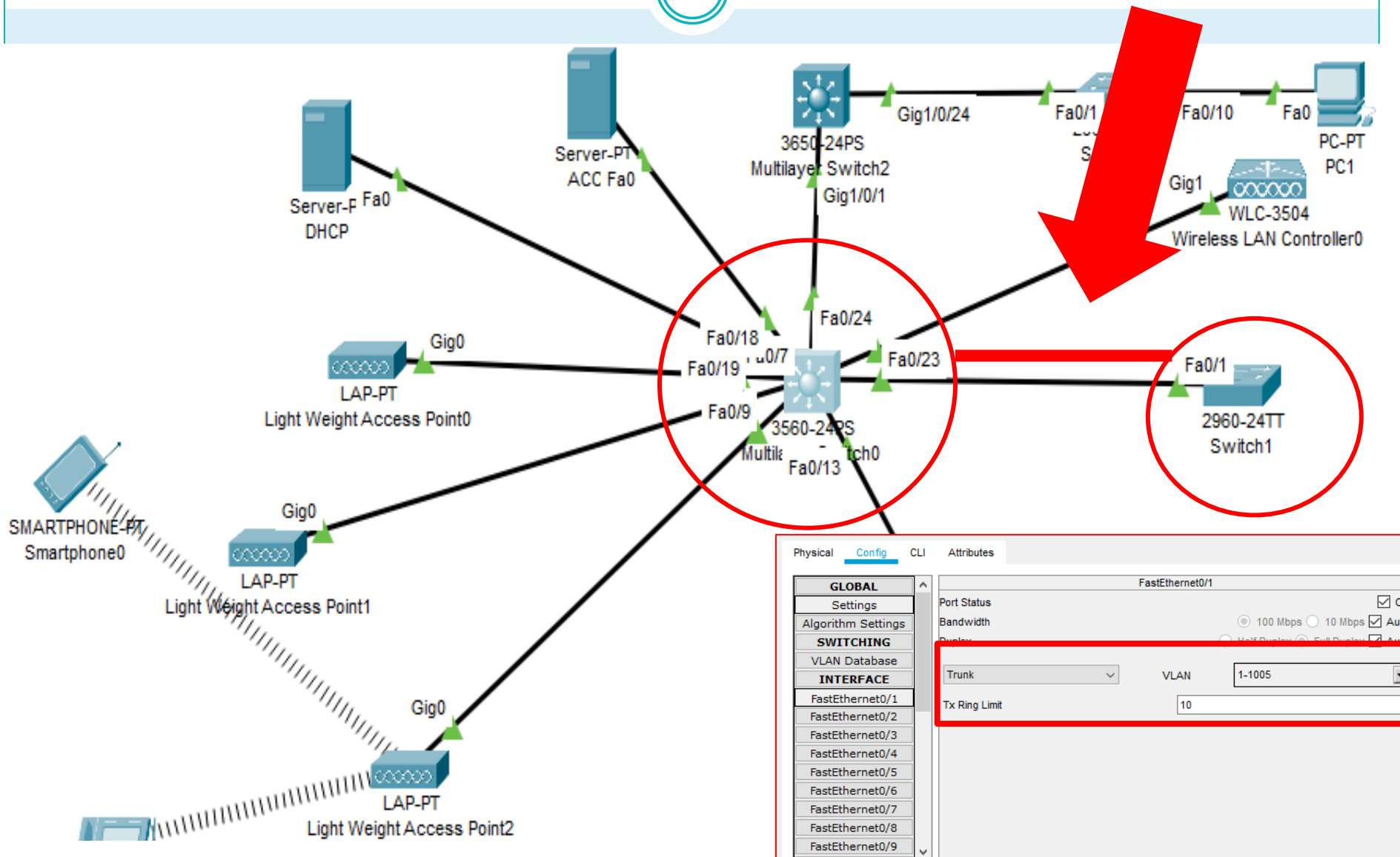
Add Remove

VLAN No	VLAN Name
1	default
2	wan
3	cisco
5	lan
32	mobile
33	eduroam
34	class

Equivalent IOS Commands

骨幹間交換器線路Vlan都有帶

8



Cisco AP port 設定

9

```
Switch>enable
```

```
Switch#config t
```

```
Switch(config)#
```

```
interface FastEthernet 0/10
```

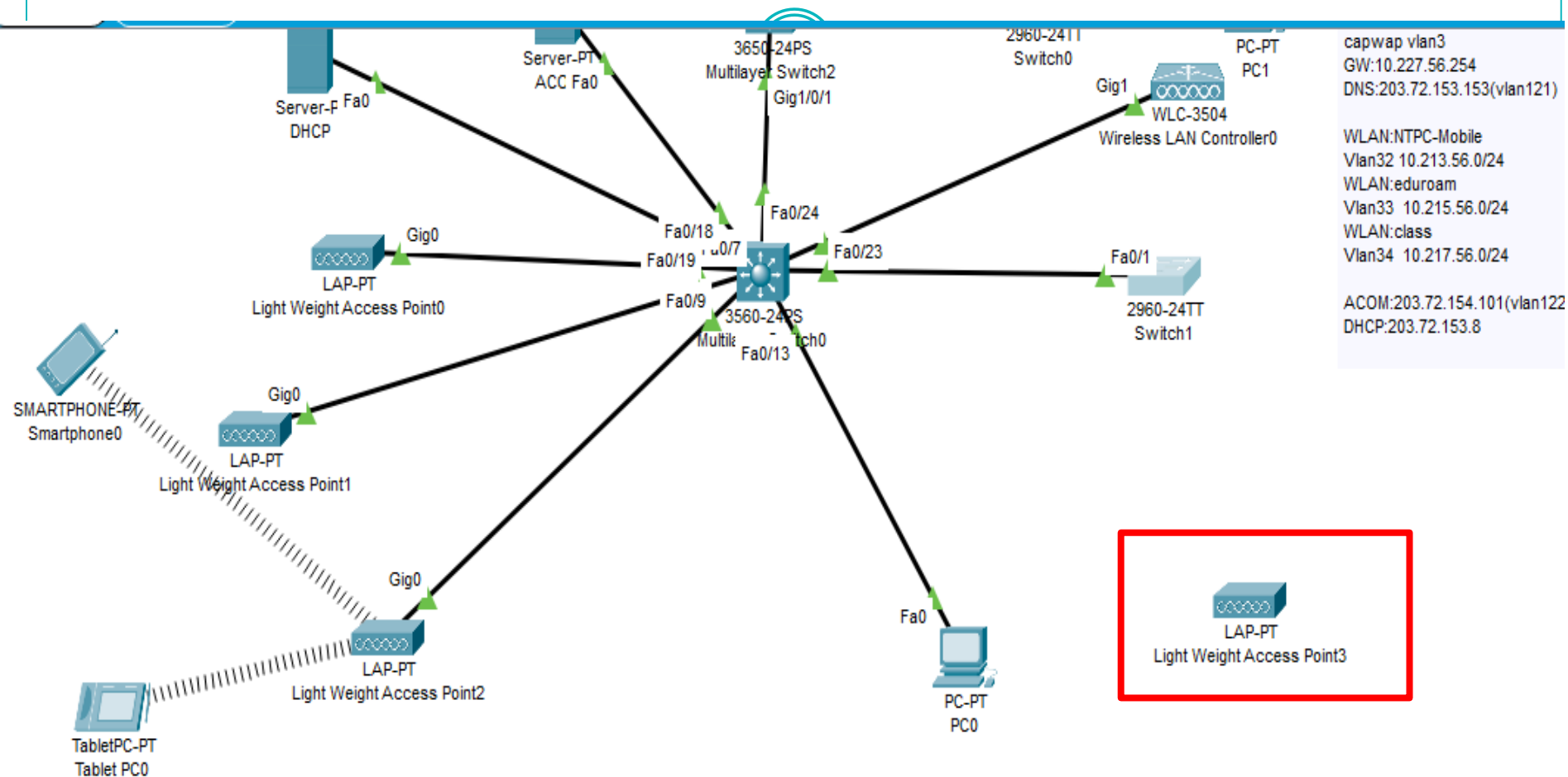
```
    switchport trunk native vlan 3
```

```
    switchport trunk allowed vlan 3,31-34
```

```
    switchport trunk encapsulation dot1q → 在較新的Switch上不用打
```

```
    switchport mode trunk
```

Add New AP



Time: 00:28:11



插電

11

Light Weight Access Point3

Physical Config Attributes

MODULES

ACCESS_POINT_POWER_ADAPTER

Physical Device View

Zoom In

Original Size

Zoom Out



Customize
Icon in
Physical View



Customize
Icon in
Logical View



Power Adapter



New AP Step by Step

(12)

- Check vlan
 - Add vlan31

Switch1

Physical **Config** CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

SWITCHING

- VLAN Database**

INTERFACE

- FastEthernet0/1
- FastEthernet0/2
- FastEthernet0/3
- FastEthernet0/4
- FastEthernet0/5
- FastEthernet0/6
- FastEthernet0/7
- FastEthernet0/8
- FastEthernet0/9

VLAN Configuration

VLAN Number: 31

VLAN Name: TANETRoaming

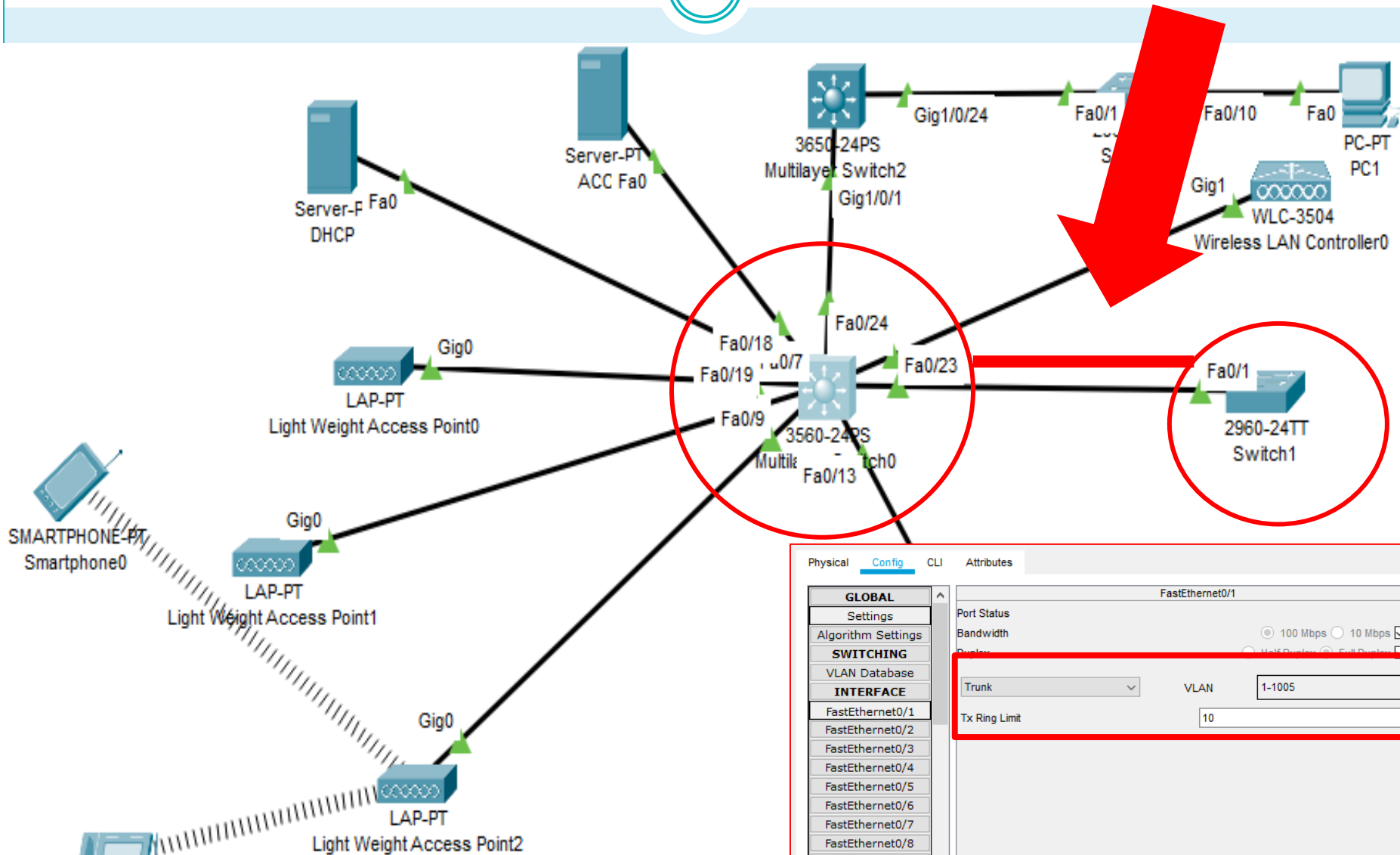
Add Remove

VLAN No	VLAN Name
1	default
2	wan
3	cisco
5	lan
32	mobile
33	eduroam
34	class

Equivalent IOS Commands

骨幹間交換器線路Vlan都有帶

13



Cisco AP port 設定

14

```
Switch(config)#interface FastEtherneto/3  
interface FastEthernet o/3
```

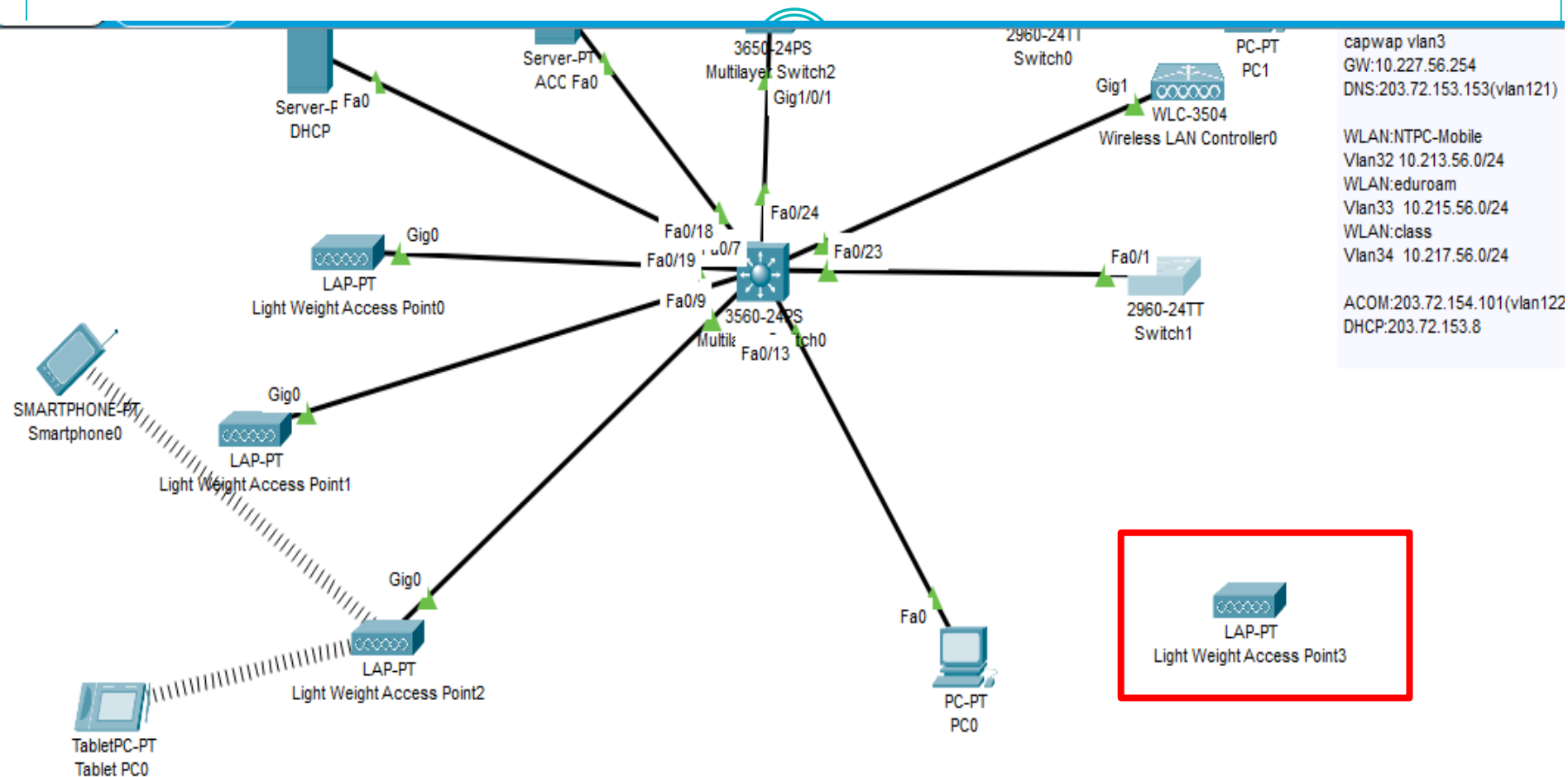
```
switchport trunk native vlan 3
```

```
switchport trunk allowed vlan 3,32-34
```

```
switchport trunk encapsulation dot1q
```

```
switchport mode trunk
```

Add New AP



Time: 00:28:11



插電

16

Light Weight Access Point3

Physical Config Attributes

MODULES

ACCESS_POINT_POWER_ADAPTER

Physical Device View

Zoom In

Original Size

Zoom Out



Customize
Icon in
Physical View



Customize
Icon in
Logical View



Power Adapter



登入WLC

17

- mis.ntpc.edu.tw參考第三碼校碼
- 10.228 or 229 .校碼.1
 - ex：教研10.228.56.1

連線單位

mis.ntpc.edu.tw/p/412-1001-78.php?Lang=zh-tw

cdx juniper (2) Facebook IPv6 DoS Policy (瑞士少女維自由... [公式サイト]ルート... [教學] [統計] ANO... [攻略]日本 名古屋*... [筆記]資訊安全參考...

教務局 / 網站導

新北市資訊業務入口網

EDUCATION

新北市資訊業務入口網

活動宣導

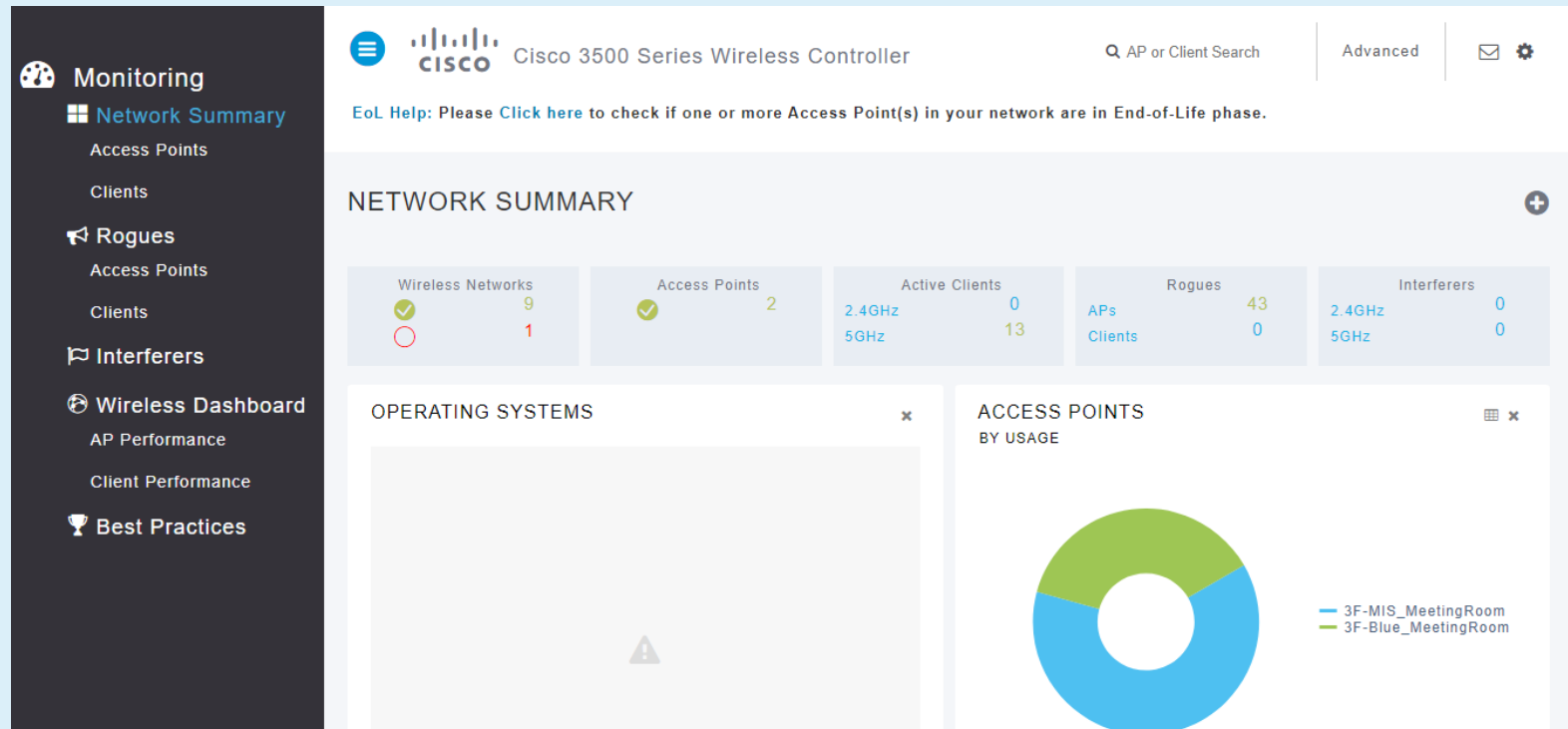
停課不停學 學習送到家 新北市e學習平台 線上學習資源

首頁 / 網管及資安 / 連線單位

連線單位

連線單位IPv4分配 連線單位IPv6分配 光纖連線單位 學校網域

監控頁面



Access Point



Monitoring

Network Summary

Access Points

Clients

Rogues

Access Points

Clients

Interferers

Wireless Dashboard

AP Performance

Client Performance

Best Practices

EoL Help: Please [Click here](#) to check if one or more Access Point(s) in your network are in End-of-Life phase.

ACCESS POINTS

2.4GHz

5GHz

AP Name	Clients	Usage	Uptime	Chan...	Channels	Cove...	Interf...	Rogue
3F-MIS_MeetingRoom	0	0	19 Days 9 Hours	0	11	0	0	0
3F-Blue_MeetingRoom	0	0	6 Days 11 Hours	0	1	0	0	0

GENERAL



AP Name
3F-MIS_MeetingRoom [✎](#)

Location
default location

MAC Address	a0:b4:39:88:72:68
IP Address	10.228.56.5
CDP / LLDP	3F-Blue_MeetingRoom, GigabitEthernet0
Ethernet Speed	1000 Mbps
Model / Domain	AIR-AP2802I-T-K9 / 802.11bg:-A 802.11a:-T
Power status	PoE/Full Power
Serial Number	FJC2409M8W3
Groups	AP Group: 5G, Flex Group: default-flex-group
Mode / Sub-mode	FlexConnect / Not Configured
Max Capabilities	802.11n 2.4GHz, 802.11ac 5GHz Spatial Streams : 3 (2.4GHz), 3 (5.0GHz) Max. Data Rate : 217 Mbps(2.4GHz), 2340 Mbps(5.0GHz)
Fabric	Disabled

PERFORMANCE SUMMARY

	2.4GHz	5GHz	Remote LAN
Number of clients	0	13	0
Channels	11	(100, 104, 108, 112)	0
Configured Rate	Min: 36 Mbps, Max: 217 Mbps	Min: 36 Mbps, Max: 1300 Mbps	Min: 0 Mbps, Max: 0 Mbps
Usage Traffic	0	22.0 GB	0
Throughput	0	884.0 B	0
Transmit Power	14 dBm	17 dBm	0 dBm
Noise	Not Available	-96 -97 -97 -97	Not Available
Channel Utilization	0%	0%	0%
Interference	0%	0%	0%
Traffic	0%	0%	0%
Air Quality	-	-	-
Admin Status	Disabled	Enabled	Enabled
Clean Air Status	Down	Down	Not applicable

Clients



Monitoring

Network Summary

Access Points

Clients

Rogues

Access Points

Clients

Interferers

Wireless Dashboard

AP Performance

Client Performance

Best Practices

Clients		Total	Wireless		Apple	
		13	2.4GHz	0	Fastlane	0
			5GHz	13	Analytics	13
User Name ↓	IPv4 Address ↓	AP Name ↓	Protocol ↓	Client Type ↓	Connectio... ↓	
Unknown	10.225.56.232	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.180	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.242	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.231	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.245	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.143	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.158	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.148	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.153	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.155	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.175	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.225	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	
Unknown	10.225.56.150	3F-MIS_MeetingRoom	802.11ac	Unclassified	867	

GENERAL



MAC Address

Uptime

SSID

AP Name

Nearest APs

Device Type

Performance

Capabilities

Cisco Compatible

Connection Score

User Name

Unknown

Host Name

Unknown

ac:15:f4:6e:bc:d3 [Deauthenticate](#)

Associated since 19 Days 9 Hours

class

3F-MIS_MeetingRoom (Ch 100)

Unclassified

Signal Strength: -61 dBm Signal Quality: 31 dB
Connection Speed: 867 Mbps Channel Width:
80 MHz

802.11ac (5GHz) Spatial Stream: 2

Not Supported

100%

CONNECTIVITY



TOP APPLICATIONS



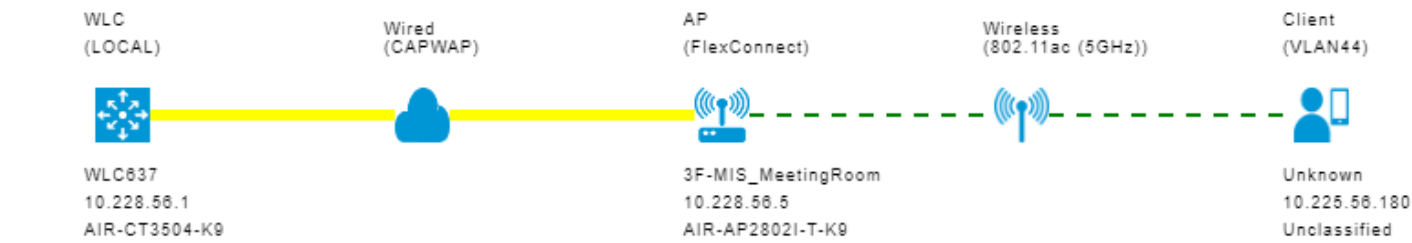
Name

Usage

% Usage

No Data Available!

MOBILITY STATE



NETWORK & QOS

Description	Status
IP Address	10.225.56.180
IPv6 Address	fe80::c8e:91ae:b576:7165
VLAN	44
Source Group Tag	N/A
Fastlane Client	No
Mobility Role	Local
WMM	Supported
U-APSD	Disabled
QoS Level	Silver

SECURITY & POLICY

Description	Status
Policy	N/A
Cipher	None
Key Management	N/A
EAP Type	N/A
ACL (IP/IPv6)	None/None
mDNS Profile	None
AAA Role	None
User Authenticated by	RADIUS Server



CLIENT TEST

PING TEST

CONNECTION

EVENT LOG

Start





CISCO

MONITORWLANSCONTROLLERWIRELESSSECURITYMANAGEMENTCOMMANDSHelpFEEDBACK

Monitor

Summary

Access Points

Cisco CleanAir

Statistics

CDP

Rogues

Clients

Sleeping Clients

Multicast

Applications

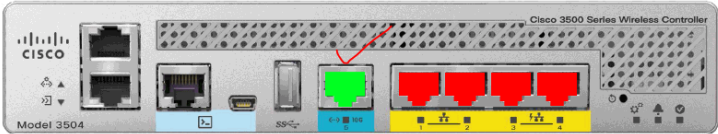
Lync

Local Profiling

Cloud Services

Summary

150 Access Points Supported



Model 3504

Controller Summary

Management IP Address10.228.175.1, ::1/128

Service Port IP Address0.0.0.0, ::1/128

Software Version8.8.111.0

Emergency Image Version8.5.103.0

System NameWLC793

Up Time78 days, 9 hours, 17 minutes

System TimeMon May 11 12:05:50 2020

Redundancy ModeDisabled

Internal Temperature+61 C

Mplg Temperature+46 C

802.11a Network StateEnabled

802.11b/g Network StateEnabled

Local

Rogue Summary

Active Rogue APs221

Active Rogue Clients78

Adhoc Rogues0

Rogues on Wired Network0

Session Timeout☐

Top WLANs

Profile Name# of Clients

Most Recent Traps

Rogue AP: a2:30:5b:e5:06:7b detected on Base Radio MAC: 74:88:bb:c6:af:60 Interface no: 157

Rogue AP: 78:44:76:dd:0f:5c detected on Base Radio MAC: 74:88:bb:e3:08:e0 Interface no: 157

Channel changed for Base Radio MAC: 74:88:bb:d0:ca:60 on 802.11a radio. Old Channel: 157

Rogue client: 04:69:f8:a3:cb:b2 is detected by 1 APs Rogue Client Bssid: b8:a3:86:fe:00:f0, Interference Profile Updated to Pass for Base Radio MAC: 74:88:bb:c1:1d:a0 and slotNo: 1

View All



This

Access Point Summary

	Total	Up	Down	
✓ 802.11a/n/ac Radios	57	 57	 0	Detail
802.11b/g/n Radios	0	 0	 0	Detail
Dual-Band Radios	57	 57	 0	Detail
All APs	57	 57	 0	Detail

Client Summary

Current Clients	0	Detail
Excluded Clients	0	Detail
Disabled Clients	0	Detail



Monitor

802.11a/n/ac Radios

Entries 1 - 25 of 77

◀ ◻ 1 2 3 4 ▶ ▶▶

Current Filter: None

[\[Change Filter\]](#) [\[Clear Filter\]](#)

AP Name	Radio Slot#	Base Radio MAC	Sub Band	Operational Status	Load Profile	Mesh Radio Role	Radio Role	Noise Profile
AP7488.BBC0.3CD6	0	74:88:bb:e2:14:60	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BBC0.3CD6	1	74:88:bb:e2:14:60	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB53.5DD6	1	74:88:bb:c1:83:00	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB39.B9CE	0	74:88:bb:88:20:e0	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BB39.B9CE	1	74:88:bb:88:20:e0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BBCE.9B2C	1	74:88:bb:d0:cb:c0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB36.2468	1	74:88:bb:8a:b6:60	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB36.230E	0	74:88:bb:8a:a0:c0	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BB36.230E	1	74:88:bb:8a:a0:c0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BBC2.EBEE	1	74:88:bb:e8:97:00	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BBC2.EB5C	0	74:88:bb:e8:8d:e0	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BBC2.EB5C	1	74:88:bb:e8:8d:e0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB68.66CA	0	74:88:bb:8f:ad:80	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BB68.66CA	1	74:88:bb:8f:ad:80	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB68.D300	1	74:88:bb:c6:7b:80	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB68.C978	1	74:88:bb:c5:e2:e0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB39.B97A	1	74:88:bb:88:1b:a0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB68.B27A	1	74:88:bb:8d:14:00	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BBC0.3002	1	74:88:bb:bf:95:80	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB68.D320	0	74:88:bb:c6:7d:80	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BB68.D320	1	74:88:bb:c6:7d:80	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BB53.51D4	0	74:88:bb:8c:1f:e0	-	UP	Passed	NA	5 GHz * (Remote)	Passed
AP7488.BB53.51D4	1	74:88:bb:8c:1f:e0	-	UP	Passed	NA	Client Serving (Remote)	Passed
AP7488.BBC0.3C86	1	74:88:bb:e2:0f:60	-	UP	Passed	NA	Client Serving (Remote)	Passed

Monitor

Summary

▼ Access Points

▼ Radios

802.11a/n/ac

✓ 802.11b/g/n

Dual-Band Radios

▼ Cisco CleanAir

▼ 802.11a/n/ac

Interference

Devices

Air Quality Report

▼ 802.11b/g/n

Interference

Devices

BLE Beacons

Air Quality Report

Worst Air-Quality

Report

▼ Statistics

Controller

AP Join

Ports

RADIUS Servers

Mobility Statistics

IPv6 Neighbor Bind

Counters

PMIPv6 LMA

Statistics

Preferred Mode

Optimized Roaming

► CDP

► Rogues

Clients

Sleeping Clients

Multicast

802.11b/g/n Radios

Current Filter: None

[\[Change Filter\]](#) [\[Clear Filter\]](#)

Entries 1 - 25 of 37

◀ 1 2 ▶

AP Name	Radio Slot#	Base Radio MAC	Operational Status	Load Profile	Radio Role	Noise Profile	Interference Profile	Coverage Profile	Clea Adm Stat
AP7488.BB53.5DD6	0	74:88:bb:c1:83:00	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBCE.9B2C	0	74:88:bb:d0:cb:c0	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB36.2468	0	74:88:bb:8a:b6:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC2.EBEE	0	74:88:bb:e8:97:00	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.D300	0	74:88:bb:c6:7b:80	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.C978	0	74:88:bb:c5:e2:e0	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB39.B97A	0	74:88:bb:88:1b:a0	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.B27A	0	74:88:bb:8d:14:00	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC0.3002	0	74:88:bb:bf:95:80	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC0.3C86	0	74:88:bb:e2:0f:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC0.3CF6	0	74:88:bb:e2:16:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB36.21A2	0	74:88:bb:85:c2:80	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC0.3D56	0	74:88:bb:e2:1c:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC0.2D2C	0	74:88:bb:bf:68:20	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC0.3D08	0	74:88:bb:e2:17:80	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.D626	0	74:88:bb:c6:ad:e0	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.D2E2	0	74:88:bb:c6:79:a0	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBCE.95F2	0	74:88:bb:d0:78:20	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BBC2.EBDE	0	74:88:bb:e8:96:00	UP	Passed	Client Serving * (Remot	Passed	Passed	Passed	Enat
AP7488.BB53.4450	0	74:88:bb:8b:45:e0	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB36.2336	0	74:88:bb:8a:a3:40	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.84B6	0	74:88:bb:e2:ea:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB53.4528	0	74:88:bb:8b:53:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat
AP7488.BB68.D63E	0	74:88:bb:c6:af:60	UP	Passed	Client Serving * (Remot	Passed	Failed	Passed	Enat



Monitor

Dual-Band Radios

Entries 1 - 25 of 57

◀ ◻ 1 2 3 ▶ ▶▶

Current Filter: None

[\[Change Filter\]](#) [\[Clear Filter\]](#)

AP Name	Radio Slot#	Base Radio MAC	Coverage Overlap Factor	Sensor Coverage	Suggested Mode	Operational Status	Load Profile	Radio Role	Noise Profile
AP7488.BBC0.3CD6	0	74:88:bb:e2:14:60	100 %	Unavailable	5GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB53.5DD6	0	74:88:bb:c1:83:00	7 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB39.B9CE	0	74:88:bb:88:20:e0	100 %	Unavailable	5GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBCE.9B2C	0	74:88:bb:d0:cb:c0	38 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB36.2468	0	74:88:bb:8a:b6:60	23 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB36.230E	0	74:88:bb:8a:a0:c0	100 %	Unavailable	5GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC2.EBEE	0	74:88:bb:e8:97:00	57 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC2.EB5C	0	74:88:bb:e8:8d:e0	100 %	Unavailable	5GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.66CA	0	74:88:bb:8f:ad:80	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.D300	0	74:88:bb:c6:7b:80	30 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.C978	0	74:88:bb:c5:e2:e0	73 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB39.B97A	0	74:88:bb:88:1b:a0	76 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.B27A	0	74:88:bb:8d:14:00	34 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC0.3002	0	74:88:bb:bf:95:80	42 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.D320	0	74:88:bb:c6:7d:80	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB53.51D4	0	74:88:bb:8c:1f:e0	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC0.3C86	0	74:88:bb:e2:0f:60	53 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC0.3CF6	0	74:88:bb:e2:16:60	46 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC0.3A4A	0	74:88:bb:e1:eb:a0	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB36.21A2	0	74:88:bb:85:c2:80	23 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.D670	0	74:88:bb:c6:b2:80	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB68.66CC	0	74:88:bb:8f:ad:a0	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BB53.4534	0	74:88:bb:8b:54:20	Unavailable	Unavailable	Unavailable	UP	Passed	Client Serving * (Remote)	Passed
AP7488.BBC0.3D56	0	74:88:bb:e2:1c:60	61 %	Unavailable	2.4GHz	UP	Passed	Client Serving * (Remote)	Passed

Summary

Access Points

Radios

802.11a/n/ac
802.11b/g/n
Dual-Band Radios

Cisco CleanAir

802.11a/n/ac
Interference
Devices
Air Quality Report
802.11b/g/n
Interference
Devices
BLE Beacons
Air Quality Report
Worst Air-Quality
Report

Statistics

Controller
AP Join
Ports
RADIUS Servers
Mobility Statistics
IPv6 Neighbor Bind
Counters
PMIPv6 LMA
Statistics
Preferred Mode
Optimized Roaming

CDP

Rogues

Clients

Sleeping Clients

Multicast



Monitor

Summary

- ▼ Access Points
 - ▼ Radios
 - 802.11a/n/ac
 - 802.11b/g/n
 - Dual-Band Radios
- ▼ Cisco CleanAir
 - ▼ 802.11a/n/ac
 - Interference Devices
 - Air Quality Report
 - ▼ 802.11b/g/n
 - Interference Devices
 - BLE Beacons
 - Air Quality Report
 - Worst Air-Quality Report
- ▼ Statistics
 - Controller
 - AP Join
 - Ports
 - RADIUS Servers
 - Mobility Statistics
 - IPv6 Neighbor Bind
 - Counters
 - PMIPv6 LMA
 - Statistics
 - Preferred Mode
 - Optimized Roaming
- CDP
- Rogues
- Clients
- Sleeping Clients

Controller Statistics

Octets Received	1964606237
Packets Received Without Error	571954743
Unicast Packets Received	415566787
Multicast Packets Received	90953160
Broadcast Packets Received	65434796
Receive Packets Discarded	376618
Octets Transmitted	4114802591
Packets Transmitted without Errors	379118290
Unicast Packets Transmitted	248497248
Multicast Packets Transmitted	102112
Broadcast Packets Transmitted	130518930
Transmit Packets Discarded	0
Most Address Entries Ever Used	6
Address Entries in Use	6
Maximum VLAN Entries	128
Most VLAN Entries Ever Used	1
Static VLAN Entries	1
Time Since Counters Last Cleared	78 day 9 hr 23 min 32 sec



Monitor

Summary

Access Points

Radios

802.11a/n/ac
802.11b/g/n
Dual-Band Radios

Cisco CleanAir

802.11a/n/ac
Interference
Devices
Air Quality Report
802.11b/g/n
Interference
Devices
BLE Beacons
Air Quality Report
Worst Air-Quality
Report

Statistics

Controller
AP Join
Ports
RADIUS Servers
Mobility Statistics
IPv6 Neighbor Bind
Counters
PMIPv6 LMA
Statistics
Preferred Mode
Optimized Roaming

CDP

Rogues

Clients

Sleeping Clients

Multicast

AP Join Statistics

Current Filter:

None

[\[Change Filter\]](#) [\[Clear Filter\]](#)[Clear Statistics on all APs](#)

Entries 1 - 25 of 57

◀ 1 2 3 ▶

Base Radio MAC	AP Name	Status	Ethernet MAC	IP Address(Ipv4/Ipv6)	Last J
74:88:bb:85:c2:80	AP7488.BB36.21A2	Joined	74:88:bb:36:21:a2	10.228.175.54	Apr 21
74:88:bb:88:1b:a0	AP7488.BB39.B97A	Joined	74:88:bb:39:b9:7a	10.228.175.31	Apr 13
74:88:bb:88:20:e0	AP7488.BB39.B9CE	Joined	74:88:bb:39:b9:ce	10.228.175.22	Mar 03
74:88:bb:88:37:00	AP7488.BB39.BB30	Joined	74:88:bb:39:bb:30	10.228.175.19	May 01
74:88:bb:8a:a0:c0	AP7488.BB36.230E	Joined	74:88:bb:36:23:0e	10.228.175.20	Mar 03
74:88:bb:8a:a3:40	AP7488.BB36.2336	Joined	74:88:bb:36:23:36	10.228.175.45	Apr 21
74:88:bb:8a:a7:a0	AP7488.BB36.237C	Joined	74:88:bb:36:23:7c	10.228.175.63	Apr 21
74:88:bb:8a:b6:60	AP7488.BB36.2468	Joined	74:88:bb:36:24:68	10.228.175.39	Mar 03
74:88:bb:8b:45:e0	AP7488.BB53.4450	Joined	74:88:bb:53:44:50	10.228.175.41	Apr 21
74:88:bb:8b:53:20	AP7488.BB53.4524	Joined	74:88:bb:53:45:24	10.228.175.14	Apr 21
74:88:bb:8b:53:60	AP7488.BB53.4528	Joined	74:88:bb:53:45:28	10.228.175.46	Apr 21
74:88:bb:8b:53:a0	AP7488.BB53.452C	Joined	74:88:bb:53:45:2c	10.228.175.52	Apr 21
74:88:bb:8b:54:20	AP7488.BB53.4534	Joined	74:88:bb:53:45:34	10.228.175.50	Apr 21
74:88:bb:8b:af:40	74:88:bb:53:4a:dc	Joined	74:88:bb:53:4a:dc	10.228.175.11	Apr 21
74:88:bb:8c:1f:e0	AP7488.BB53.51D4	Joined	74:88:bb:53:51:d4	10.228.175.18	Apr 21
74:88:bb:8d:06:c0	AP7488.BB68.B1A6	Joined	74:88:bb:68:b1:a6	10.228.175.12	May 01
74:88:bb:8d:12:00	AP7488.BB68.B25A	Joined	74:88:bb:68:b2:5a	10.228.175.27	Apr 21
74:88:bb:8d:13:20	AP7488.BB68.B26C	Joined	74:88:bb:68:b2:6c	10.228.175.13	Apr 21
74:88:bb:8d:14:00	AP7488.BB68.B27A	Joined	74:88:bb:68:b2:7a	10.228.175.29	Apr 13
74:88:bb:8f:ad:80	AP7488.BB68.66CA	Joined	74:88:bb:68:66:ca	10.228.175.43	Mar 04
74:88:bb:8f:ad:a0	AP7488.BB68.66CC	Joined	74:88:bb:68:66:cc	10.228.175.38	Apr 21
74:88:bb:a0:2a:a0	AP7488.BB68.C5DE	Joined	74:88:bb:68:c5:de	10.228.175.64	Apr 21
74:88:bb:bf:68:20	AP7488.BBC0.2D2C	Joined	74:88:bb:c0:2d:2c	10.228.175.66	Apr 21
74:88:bb:bf:95:80	AP7488.BBC0.3002	Joined	74:88:bb:c0:30:02	10.228.175.33	Apr 13
74:88:bb:c0:e1:e0	AP7488.BB14.72CE	Joined	74:88:bb:14:72:ce	10.228.175.21	Apr 21



Monitor

Summary

Access Points

- ▼ Radios
 - 802.11a/n/ac
 - 802.11b/g/n
 - Dual-Band Radios

Cisco CleanAir

- ▼ 802.11a/n/ac
 - Interference Devices
 - Air Quality Report
- ▼ 802.11b/g/n
 - Interference Devices
 - BLE Beacons
 - Air Quality Report
 - Worst Air-Quality Report

Statistics

- Controller
- AP Join
- ✓ Ports
- RADIUS Servers
- Mobility Statistics
- IPv6 Neighbor Bind
- Counters
- PMIPv6 LMA
- Statistics
- Preferred Mode
- Optimized Roaming

CDP

Rogues

Clients

Ports Statistics

Port No	Admin Status	Physical Mode	Physical Status	Link Status	
1	Enable	Auto	Auto	Link Down	View Statistics
2	Enable	Auto	Auto	Link Down	View Statistics
3	Enable	Auto	Auto	Link Down	View Statistics
4	Enable	Auto	Auto	Link Down	View Statistics
5	Enable	Auto	1000 Mbps Full Duplex	Link Up	View Statistics

[MONITOR](#)[WLANs](#)[CONTROLLER](#)[WIRELESS](#)[SECURITY](#)[MANAGEMENT](#)[COMMANDS](#)[HELP](#)[FEEDBACK](#)

Monitor

Summary

▼ Access Points

▼ Radios

[802.11a/n/ac](#)[802.11b/g/n](#)[Dual-Band Radios](#)

▼ Cisco CleanAir

▼ 802.11a/n/ac

[Interference](#)[Devices](#)[Air Quality Report](#)

▼ 802.11b/g/n

[Interference](#)[Devices](#)[BLE Beacons](#)[Air Quality Report](#)[Worst Air-Quality](#)[Report](#)

▼ Statistics

[Controller](#)[AP Join](#)[Ports](#)[RADIUS Servers](#)[Mobility Statistics](#)[IPv6 Neighbor Bind](#)[Counters](#)[PMIPv6 LMA](#)[Statistics](#)[Preferred Mode](#)[Optimized Roaming](#)

▶ CDP

▶ Rogues

Clients

Sleeping Clients

Multicast

IPv6 Neighbor Bind Counters

Received Messages

NDP Router Solicitation	26585
NDP Router Advertisement	92764
NDP Neighbor Solicitation	2565172
NDP Neighbor Advertisement	5300
NDP Redirect	0
NDP Certificate Solicit	0
NDP Certificate Advert	0
DHCPv6 Solicitation	206
DHCPv6 Advertisement	0
DHCPv6 Request	0
DHCPv6 Reply	0
DHCPv6 Inform	0
DHCPv6 Confirm	0
DHCPv6 Renew	0
DHCPv6 Rebind	0
DHCPv6 Release	0
DHCPv6 Decline	0
DHCPv6 Reconfigure	0
DHCPv6 Relay Forward	0
DHCPv6 Relay Reply	0

Bridged Messages

NDP Router Solicitation	26585
NDP Router Advertisement	92764

▼ Radios
802.11a/n/ac
802.11b/g/n
Dual-Band Radios

▼ Cisco CleanAir
▼ 802.11a/n/ac
Interference
Devices
Air Quality Report
▼ 802.11b/g/n
Interference
Devices
BLE Beacons
Air Quality Report
Worst Air-Quality
Report

▼ Statistics
Controller
AP Join
Ports
RADIUS Servers
Mobility Statistics
IPv6 Neighbor Bind
Counters
PMIPv6 LMA
Statistics
Preferred Mode
Optimized Roaming

▼ CDP
Interface Neighbors
AP Neighbors
Traffic Metrics

► Rogues

Clients

Sleeping Clients

Multicast

CDP > AP Neighbors > Detail

[< Back](#)

✓ AP Name AP7488.BBC0.3CD6

Base Radio MAC 74:88:bb:e2:14:60

AP IP Address 10.228.175.42

Local Interface GigabitEthernet0

Neighbor Name Switch.ntpc.edu.tw

10.228.175.245

Neighbor Address

Neighbor Port GigabitEthernet0/5

Advt Version v2

TTL 180

Capability Router Switch IGMP

Platform cisco WS-C2960L-48PQ-LL

Software Version Cisco IOS Software, C2960L Software (C2960L-UNIVERSALK9-M), Version 15.2(6)E, RELEASE SOFTWARE

WLANs

▼ WLANs

WLANs

► Advanced

WLANs

Current Filter: None

[\[Change Filter\]](#)[\[Clear Filter\]](#)

Create New

Go

Entries 1 - 75 of 221

◀ 1 2 3 ▶

☐	WLAN ID	Type	Profile Name	WLAN SSID	Admin Status	Security Policies	
☐	1	WLAN	management	management	Enabled	[WPA2][Auth(PSK)]	▼
☐	2	WLAN	TANetRoaming	TANetRoaming	Enabled	Web-Auth	▼
☐	3	WLAN	NTPC-Mobile	NTPC-Mobile	Enabled	MAC Filtering	▼
☐	4	WLAN	eduroam	eduroam	Enabled	[WPA2][Auth(802.1X)]	▼
☐	5	WLAN	class	class	Enabled	[WPA2][Auth(PSK)]	▼
☐	6	WLAN	class101	class101	Enabled	[WPA2][Auth(PSK)]	▼
☐	7	WLAN	class102	class102	Enabled	[WPA2][Auth(PSK)]	▼
☐	8	WLAN	class103	class103	Enabled	[WPA2][Auth(PSK)]	▼
☐	9	WLAN	class104	class104	Enabled	[WPA2][Auth(PSK)]	▼
☐	10	WLAN	class105	class105	Enabled	[WPA2][Auth(PSK)]	▼
☐	11	WLAN	class106	class106	Enabled	[WPA2][Auth(PSK)]	▼
☐	12	WLAN	class107	class107	Enabled	[WPA2][Auth(PSK)]	▼
☐	13	WLAN	class108	class108	Enabled	[WPA2][Auth(PSK)]	▼
☐	14	WLAN	class109	class109	Enabled	[WPA2][Auth(PSK)]	▼
☐	15	WLAN	class110	class110	Enabled	[WPA2][Auth(PSK)]	▼
☐	16	WLAN	class111	class111	Enabled	[WPA2][Auth(PSK)]	▼
☐	17	WLAN	class112	class112	Enabled	[WPA2][Auth(PSK)]	▼
☐	18	WLAN	class113	class113	Enabled	[WPA2][Auth(PSK)]	▼
☐	19	WLAN	class114	class114	Enabled	[WPA2][Auth(PSK)]	▼
☐	20	WLAN	class115	class115	Enabled	[WPA2][Auth(PSK)]	▼
☐	21	WLAN	class116	class116	Enabled	[WPA2][Auth(PSK)]	▼
☐	22	WLAN	class117	class117	Enabled	[WPA2][Auth(PSK)]	▼
☐	23	WLAN	class118	class118	Enabled	[WPA2][Auth(PSK)]	▼
☐	24	WLAN	class119	class119	Enabled	[WPA2][Auth(PSK)]	▼
☐	25	WLAN	class120	class120	Enabled	[WPA2][Auth(PSK)]	▼
☐	26	WLAN	class121	class121	Enabled	[WPA2][Auth(PSK)]	▼



WLANs

- ▼ WLANs
 - WLANs
- ▼ Advanced
 - AP Groups

Ap Groups > Edit 'default-group'

General **WLANs** APs 802.11u Location Ports/Module Intelligent Capture

WLAN ID	WLAN SSID ⁽²⁾ ₍₆₎	Interface/Interface Group(G)	SNMP NAC State
1	management	management	Disabled
2	TANetRoaming	v31	Disabled
3	NTPC-Mobile	v32	Disabled
4	eduroam	v33	Disabled
5	class	v34	Disabled
6	class101	v101	Disabled
7	class102	v102	Disabled
8	class103	v103	Disabled
9	class104	v104	Disabled
10	class105	v105	Disabled
11	class106	v106	Disabled
12	class107	v107	Disabled
13	class108	v108	Disabled
14	class109	v109	Disabled
15	class110	v110	Disabled
16	class111	v111	Disabled



WLANs

- ▼ WLANs
- WLANs
- Advanced

WLANs > Edit 'TANetRoaming'

General Security QoS Policy-Mapping Advanced

Profile Name ✓ TANetRoaming

Type WLAN

SSID ✓ TANetRoaming

Status ✓ ☒ Enabled

Security Policies **Web-Auth**
(Modifications done under security tab will appear after applying the changes.)

Radio Policy All ✓

Interface/Interface Group(G) v31 ✓

Multicast Vlan Feature ☐ Enabled

Broadcast SSID ☒ Enabled

NAS-ID none

Foot Notes

- 1 Web Policy cannot be used in combination with IPsec
- 2(a) FlexConnect Local Switching is not supported with Override Interface ACLs
- 2(b) When flexconnect local authentication is enabled, irrespective of AP on connected or standalone mode the AP will act as NAS
- 2(c) When flexconnect local authentication is disabled, AP on connected mode will use WLC as NAS and AP as NAS while its on standalone mode
- 3 When client exclusion is enabled, a Timeout Value of zero means infinity (will require administrative override to reset excluded clients)
- 4 Client MFP is not active unless WPA2 is configured
- 5 Learn Client IP is configurable only when FlexConnect Local Switching is enabled
- 6 WMM and open or AES security should be enabled to support higher 11n rates
- 8 Value zero implies there is no restriction on maximum clients allowed.
- 9 MAC Filtering is not supported with FlexConnect Local authentication
- 10 MAC Filtering should be enabled.
- 11 Guest tunneling, Local switching, DHCP Required should be disabled

General

Security

QoS

Policy-Mapping

Advanced

Layer 2

Layer 3

AAA Servers

Layer 3 Security

Web Policy ▼

Captive Network Assistant Bypass

None ▼

- ☒ Authentication ✓
- ☐ Passthrough
- ☐ Conditional Web Redirect
- ☐ Splash Page Web Redirect
- ☐ On MAC Filter failure¹⁰

☐ Web policy done locally on AP^{warning}

Preauthentication ACL

IPv4

PreAuth ▼

IPv6

None ▼

WebAuth Flex IPV4 Acl

None ▼

WebAuth Flex IPV6 Acl

None ▼

Sleeping Client ☐ EnableSleeping Client Auto Authenticate ☒ EnableOverride Global Config²⁰ ☐ Enable

VPN Pass-Through

Foot Notes

1 Web Policy cannot be used in combination with IPsec

2(a) FlexConnect Local Switching is not supported with Override Interface ACLs

2(b) When flexconnect local authentication is enabled, irrespective of AP on connected or standalone mode the AP will act as NAS

2(c) When flexconnect local authentication is disabled, AP on connected mode will use WLC as NAS and AP as NAS while its on standalone mode

3 When client exclusion is enabled, a Timeout Value of zero means infinity (will require administrative override to reset excluded clients)

4 Client MFP is not active unless WPA2 is configured

5 Learn Client IP is configurable only when FlexConnect Local Switching is enabled

6 WMM and open or AES security should be enabled to support higher 11n rates

8 Value zero implies there is no restriction on maximum clients allowed.

9 MAC Filtering is not supported with FlexConnect Local authentication

10 MAC Filtering should be enabled.

11 Guest tunneling, Local switching, RUCK Required should be disabled.



WLANs

WLANs

Advanced

WLANs > Edit 'TANetRoaming'

General Security QoS Policy-Mapping Advanced

Layer 2 Layer 3 AAA Servers

Select AAA servers below to override use of default servers on this WLAN

RADIUS Servers

RADIUS Server Overwrite interface ☐ Enabled

Apply Cisco ISE Default Settings ☐ Enabled

Authentication Servers

☒ Enabled

Server 1 IP:203.72.154.101, Port:1812

Server 2 IP:203.72.154.102, Port:1812

Server 3 None

Server 4 None

Server 5 None

Server 6 None

Accounting Servers

☒ Enabled

IP:203.72.154.101, Port:1813

IP:203.72.154.102, Port:1813

None

None

None

None

Authorization ACA Server

☐ Enabled

Accounting ACA Server

☐ Enabled

Foot Notes

1 Web Policy cannot be used in combination with IPsec

2(a) FlexConnect Local Switching is not supported with Override Interface ACLs

2(b) When flexconnect local authentication is enabled, irrespective of AP on connected or standalone mode the AP will act as NAS

2(c) When flexconnect local authentication is disabled, AP on connected mode will use WLC as NAS and AP as NAS while its on standalone mode

3 When client exclusion is enabled, a Timeout Value of zero means infinity (will require administrative override to reset excluded clients)

4 Client MFP is not active unless WPA2 is configured

5 Learn Client IP is configurable only when FlexConnect Local Switching is enabled

6 WMM and open or AES security should be enabled to support higher 11n rates

8 Value zero implies there is no restriction on maximum clients allowed.

9 MAC Filtering is not supported with FlexConnect Local authentication

10 MAC Filtering should be enabled



WLANs

- ▼ WLANs
- WLANs
- Advanced

WLANs > Edit 'NTPC-Mobile'

- General
- Security
- QoS
- Policy-Mapping
- Advanced

Profile Name

Type

SSID

Status ☒ Enabled

Security Policies **MAC Filtering**
(Modifications done under security tab will appear after applying the changes.)

Radio Policy

Interface/Interface Group(G)

Multicast Vlan Feature ☐ Enabled

Broadcast SSID ☒ Enabled

NAS-ID



WLANs

WLANs
WLANs

Advanced

WLANs > Edit 'NTPC-Mobile'

< Back

Apply

General | **Security** | QoS | Policy-Mapping | AdvancedLayer 2 | **Layer 3** | AAA ServersLayer 2 Security ⁶ None ▾MAC Filtering ⁹ ☒

Fast Transition

Fast Transition Adaptive ▾

Over the DS ☒

Reassociation Timeout 20 Seconds

Lobby Admin Configuration

Lobby Admin Access ☐

Foot Notes

- 1 Web Policy cannot be used in combination with IPsec
- 2(a) FlexConnect Local Switching is not supported with Override Interface ACLs
- 2(b) When flexconnect local authentication is enabled, irrespective of AP on connected or standalone mode the AP will act as NAS
- 2(c) When flexconnect local authentication is disabled, AP on connected mode will use WLC as NAS and AP as NAS while its on standalone mode
- 3 When client exclusion is enabled, a Timeout Value of zero means infinity (will require administrative override to reset excluded clients)
- 4 Client MFP is not active unless WPA2 is configured
- 5 Learn Client IP is configurable only when FlexConnect Local Switching is enabled
- 6 WMM and open or AES security should be enabled to support higher 11n rates
- 8 Value zero implies there is no restriction on maximum clients allowed.
- 9 MAC Filtering is not supported with FlexConnect Local authentication
- 10 MAC Filtering should be enabled.

WLANs

▼ WLANs

WLANs

► Advanced

WLANs > Edit 'NTPC-Mobile'

General

Security

QoS

Policy-Mapping

Advanced

Layer 2

Layer 3

AAA Servers

Layer 3 Security

None ▼

Captive Network Assistant Bypass

None ▼

Foot Notes

1 Web Policy cannot be used in combination with IPsec

2(a) FlexConnect Local Switching is not supported with Override Interface ACLs



WLANs

- ▼ WLANs
 - WLANs
- Advanced

WLANs > Edit 'NTPC-Mobile'

General Security QoS Policy-Mapping Advanced

Layer 2 Layer 3 AAA Servers

Select AAA servers below to override use of default servers on this WLAN

RADIUS Servers

RADIUS Server Overwrite interface ☐ Enabled

Apply Cisco ISE Default Settings ☐ Enabled

Authentication Servers

☒ Enabled

Server 1	IP:203.72.154.101, Port:1812 ▼
Server 2	IP:203.72.154.102, Port:1812 ▼
Server 3	None ▼
Server 4	None ▼
Server 5	None ▼
Server 6	None ▼

Accounting Servers

☒ Enabled

IP:203.72.154.101, Port:1813 ▼
IP:203.72.154.102, Port:1813 ▼
None ▼
None ▼
None ▼
None ▼

Authorization ACA Server

☐ Enabled

Accounting ACA Server

☐ Enabled

Foot Notes

- 1 Web Policy cannot be used in combination with IPsec
- 2(a) FlexConnect Local Switching is not supported with Override Interface ACLs
- 2(b) When flexconnect local authentication is enabled, irrespective of AP on connected or standalone mode the AP will act as NAS
- 2(c) When flexconnect local authentication is disabled, AP on connected mode will use WLC as NAS and AP as NAS while its on standalone mode
- 3 When client exclusion is enabled, a Timeout Value of zero means infinity (will require administrative override to reset excluded clients)
- 4 Client MFP is not active unless WPA2 is configured
- 5 Learn Client IP is configurable only when FlexConnect Local Switching is enabled
- 6 WMM and open or AES security should be enabled to support higher 11n rates
- 8 Value zero implies there is no restriction on maximum clients allowed.
- 9 MAC Filtering is not supported with FlexConnect Local authentication
- 10 MAC Filtering should be enabled.

WLANs > Edit 'eduroam'

General

Security

QoS

Policy-Mapping

Advanced

Layer 2

Layer 3

AAA Servers

Layer 2 Security [6](#) WPA+WPA2 ▼

MAC Filtering [9](#) ☐

Fast Transition

Fast Transition Adaptive ▼

Over the DS ☒

Reassociation Timeout 20 Seconds

Protected Management Frame

PMF Disabled ▼

WPA+WPA2 Parameters

WPA Policy ☐

WPA2 Policy ☒

WPA2 Encryption ☒ AES ☐ TKIP ☐ CCMP256 ☐ GCMP128 ☐ GCMP256

OSN Policy ☐

Authentication Key Management [19](#)

Foot Notes

1 Web Policy cannot be used in combination with IPsec

2(a) FlexConnect Local Switching is not supported with Override Interface ACLs

2(b) When flexconnect local authentication is enabled, irrespective of AP on connected or standalone mode the AP will act as NAS

2(c) When flexconnect local authentication is disabled, AP on connected mode will use WLC as NAS and AP as NAS while its on standalone mode

3 When client exclusion is enabled, a Timeout Value of zero means infinity (will require administrative override to reset excluded clients)

4 Client MFP is not active unless WPA2 is configured

5 Learn Client IP is configurable only when FlexConnect Local Switching is enabled

6 WMM and open or AES security should be enabled to support higher 11n rates

8 Value zero implies there is no restriction on maximum clients allowed.

9 MAC Filtering is not supported with FlexConnect Local authentication

10 MAC Filtering should be enabled.

11 Client Exclusion is not supported with FlexConnect Local authentication

General

Name	WLC793
------	--------

802.3x Flow Control Mode Disabled ▾

LAG Mode on next reboot Disabled ▾ (LAG Mode is currently disabled)

Broadcast Forwarding Disabled ▾

AP Multicast Mode Unicast ▼

AP IPv6 Multicast Mode Unicast ▼

AP Fallback Enabled ▾

CADWAP Preferred Mode inv4

Fast SSID change

☐ Fast SSID change Disabled

Link Local Bridging Disabled

Default Mobility Domain Name	RF_Group
------------------------------	----------

RF Group Name	RF_Group
---------------	----------

User Idle Timeout (seconds)	300
-----------------------------	-----

ARP Timeout (seconds)	300
-----------------------	-----

Web Radius Authentication PAP

Operating Environment	Commercial (10 to 35 C)
-----------------------	-------------------------

Internal Temp Alarm Limits	-10 to 80 C
----------------------------	-------------

Mgig Temp Alarm Limits -10 to 78 C

WebAuth Proxy Redirection Mode Disabled ▼

WebAuth Proxy Redirection Port	0
--------------------------------	---

Captive Network Assistant Bypass Disabled ▾

Global IPv6 Config Enabled ▾

Web Color Theme Default ▾

HA Skill secondary unit Disabled ▼

Nas-Id	
--------	--

HTTP Profiling Port	80
---------------------	----



Controller

Interfaces

Entries 1 - 50 of 225 [New...](#)[1](#) [2](#) [3](#) [4](#) [5](#)

- General
- Icons
- Inventory
- Interfaces
- Interface Groups
- Multicast
- Network Routes
- Fabric Configuration
- Redundancy
- Internal DHCP Server
- Mobility Management
- Ports
- NTP
- CDP
- PMIPv6
- Tunneling
- IPv6
- mDNS
- Advanced
- Lawful Interception

Interface Name	VLAN Identifier	IP Address	Interface Type	Dynamic AP Management	IPv6 Address
management	3	10.228.175.1	Static	Enabled	::/128
redundancy-management	3	0.0.0.0	Static	Not Supported	
redundancy-port	untagged	0.0.0.0	Static	Not Supported	
service-port	N/A	0.0.0.0	DHCP	Disabled	::/128
v101	101	10.64.248.1	Dynamic	Disabled	::/128
v102	102	10.64.248.65	Dynamic	Disabled	::/128
v103	103	10.64.248.129	Dynamic	Disabled	::/128
v104	104	10.64.248.193	Dynamic	Disabled	::/128
v105	105	10.65.248.1	Dynamic	Disabled	::/128
v106	106	10.65.248.65	Dynamic	Disabled	::/128
v107	107	192.168.6.1	Dynamic	Disabled	::/128
v108	108	192.168.7.1	Dynamic	Disabled	::/128
v109	109	192.168.8.1	Dynamic	Disabled	::/128
v110	110	192.168.9.1	Dynamic	Disabled	::/128
v111	111	192.168.10.1	Dynamic	Disabled	::/128
v112	112	192.168.11.1	Dynamic	Disabled	::/128
v113	113	192.168.12.1	Dynamic	Disabled	::/128
v114	114	192.168.13.1	Dynamic	Disabled	::/128
v115	115	192.168.14.1	Dynamic	Disabled	::/128
v116	116	192.168.15.1	Dynamic	Disabled	::/128
v117	117	192.168.16.1	Dynamic	Disabled	::/128
v118	118	192.168.17.1	Dynamic	Disabled	::/128
v119	119	192.168.18.1	Dynamic	Disabled	::/128
v120	120	192.168.19.1	Dynamic	Disabled	::/128
v121	121	192.168.20.1	Dynamic	Disabled	::/128
v122	122	192.168.21.1	Dynamic	Disabled	::/128
v123	123	192.168.22.1	Dynamic	Disabled	::/128



Controller

DHCP Scopes

[New...](#)

General

Icons

Inventory

Interfaces

Interface Groups

Multicast

▼ Network Routes

- IPv4 Routes
- IPv6 Routes

▼ Fabric Configuration

- Control Plane
- Interface
- Templates

▼ Redundancy

- Global Configuration
- Peer Network Route

▼ Internal DHCP Server

- DHCP Scope
- DHCP Allocated Leases

► Mobility Management

Ports

Scope Name	Address Pool	Lease Time	Status
TANetRoaming	10.211.168.11 - 10.211.168.200	1 d	Disabled ▼
management	10.228.168.230 - 10.228.168.240	1 d	Disabled ▼
NTPC-Mobile	10.213.168.11 - 10.213.168.200	1 d	Disabled ▼
eduroam	10.215.168.11 - 10.215.168.200	1 d	Disabled ▼

Wireless

Global Configuration

Apply

General

LED State ☐ Enable ▾

CDP

CDP State ☒

Ethernet Interface#	CDP State
0	☒
1	☒
2	☒
3	☒
4	☒

Radio Slot#	CDP State
0	☒
1	☒
2	☒

Login Credentials

Username

Password

Enable Password

802.1x Supplicant Credentials

802.1x Authentication ☐

AP Failover Priority

Global AP Failover Priority ▾

High Availability

AP Heartbeat Timeout(10-30)

Local Mode AP Fast Heartbeat Timer State ▾

FlexConnect Mode AP Fast Heartbeat Timer State ▾

AP Primary Discovery Timeout(30 to 3600)

AP Primed Join Timeout(120 - 43200 seconds)

Back-up Primary Controller IP Address(Ipv4/Ipv6)

Back-up Primary Controller name

Back-up Secondary Controller IP Address(Ipv4/Ipv6)

Back-up Secondary Controller name

TCP MSS

Global TCP Adjust MSS (IPv4: 536 - 1363, IPv6: 1220 - 1331) ☒

AP Retransmit Config Parameters

AP Retransmit Count ☐

AP Retransmit Interval ☐

OEAP Config Parameters

Disable Local Access ☐ (Applicable only for OEAP)

NOTE:

Enabling this feature could violate security policies within your organization. Please make sure you are in

Security

AAA

General

RADIUS

Authentication

Accounting

Auth Cached Users

Fallback

DNS

Downloaded AVP

TACACS+

LDAP

Local Net Users

MAC Filtering

Disabled Clients

User Login Policies

AP Policies

Password Policies

Local EAP

Advanced EAP

Priority Order

Certificate

Access Control Lists

Wireless Protection Policies

Web Auth

TrustSec

Local Policies

Umbrella

Advanced

RADIUS Authentication Servers

Apply

New...

Auth Called Station ID Type

IP Address

Use AES Key Wrap

☐

(Designed for FIPS customers and requires a key wrap compliant RADIUS server)

MAC Delimiter

Colon

Framed MTU

1300

Network User	Management	Tunnel Proxy	Server Index	Server Address(Ipv4/Ipv6)	Port	IPSec	Admin Status
☒	☐	☐	1	203.72.154.101	1812	Disabled	Enabled
☒	☐	☐	2	203.72.154.102	1812	Disabled	Enabled
☐	☒	☐	3	203.72.154.115	1812	Disabled	Enabled



Accounting
Auth Cached
Users
Fallback
DNS
Downloaded AVP

Access Control Lists > Edit

< Back

Add New Rule

General

Access List Name PreAuth

Deny Counters 0

Seq	Action	Source IP/Mask	Destination IP/Mask	Protocol	Source Port	Dest Port	DSCP	Direction	Number of Hits	
<u>1</u>	Permit	203.72.154.103 / 255.255.255.255	0.0.0.0 / 0.0.0.0	TCP	Any	Any	Any	Outbound	0	☒
<u>2</u>	Permit	0.0.0.0 / 0.0.0.0	203.72.154.103 / 255.255.255.255	TCP	Any	Any	Any	Inbound	0	☒
<u>3</u>	Permit	0.0.0.0 / 0.0.0.0	203.72.153.153 / 255.255.255.255	UDP	Any	DNS	Any	Any	0	☒

▼ TACACS+
LDAP
Local Net Users
MAC Filtering
▼ Disabled Clients
User Login Policies
AP Policies
Password Policies

▼ Local EAP

General
Profiles
EAP-FAST
Parameters
Authentication
Priority

Advanced EAP

▼ Priority Order

Management User

▼ Certificate

LSC
SSC
CSR

▼ Access Control Lists

Access Control Lists
CPU Access Control
Lists
► FlexConnect ACLs
Layer2 ACLs
URL ACLs

► Wireless Protection Policies



Save Config

MONITOR WLANS CONTROLLER WIRELESS **SECURITY** MANAGEMENT COMMANDS HELP FEEDBACK

Priority

Advanced EAP

▼ Priority Order

Management User

▼ Certificate

LSC

SSC

CSR

▼ Access Control Lists

Access Control Lists

CPU Access Control

Lists

▼ FlexConnect ACLs

IPv4 ACL

IPv6 ACL

Layer2 ACLs

URL ACLs

▼ Wireless Protection Policies

▼ Rogue Policies

General

Rogue Rules

Friendly Rogue

Standard Signatures

Custom Signatures

Signature Events

Summary

Client Exclusion

Policies

AP Authentication

Management Frame

Protection

▼ Web Auth

Web Login Page

Certificate

Secure Web

▶ TrustSec

Local Policies

Web Login Page

Web Authentication Type

External (Redirect to external server) ▼

Redirect URL after login

http://www.google.com

Login Success Page Type

Default ▼

External Webauth URL

http://203.72.154.103/index.php

QrCode Scanning Bypass Timer

0

QrCode Scanning Bypass Count

0



Priority

Advanced EAP

▼ Priority Order

Management User

▼ Certificate

LSC

SSC

CSR

▼ Access Control Lists

Access Control Lists

CPU Access Control Lists

▼ FlexConnect ACLs

IPv4 ACL

IPv6 ACL

Layer2 ACLs

URL ACLs

▼ Wireless Protection Policies

▼ Rogue Policies

General

Rogue Rules

Friendly Rogue

Standard Signatures

Custom Signatures

Signature Events

Summary

Client Exclusion

Policies

AP Authentication

Management Frame

Protection

▼ Web Auth

Web Login Page

Certificate

Secure Web

► TrustSec

Local Policies

Web Authentication Certificate

Apply

Regenerate C

Current Certificate

Name:	bsnSslWebauthCert
Type:	Locally Generated
Serial Number:	A7C897F0
Valid:	From Jun 12 00:00:01 2019 GMT Until Jun 12 00:00:01 2029 GMT
Subject Name:	C=US, O=Cisco Systems Inc., OU=DeviceSSL (WebAuth), CN=1.1.1.1
Issuer Name:	C=US, O=Cisco Systems Inc., OU=DeviceSSL (WebAuth), CN=1.1.1.1
SHA256 Fingerprint:	9c:0b:ee:b6:86:79:bb:b5:23:ad:5d:f2:b1:1a:d6:08:4a:58:e8:20:ba:1f:05:f
SHA1 Fingerprint:	c0:00:76:42:fa:9c:14:1e:ec:f2:81:3b:9c:5c:ae:27:06:ae:9a:0a

☐ Download SSL Certificate *

** Controller must be rebooted for the new certificate to take effect.*

Management

Summary

► SNMP

HTTP-HTTPS

IPSEC

Telnet-SSH

Serial Port

Local Management

Users

User Sessions

► Logs

Mgmt Via Wireless

▼ Cloud Services

Server

CMX

▼ Telemetry

▼ Network Assurance

Server

Sensor

Webhook

Intelligent Capture

▼ Software Activation

Licenses

~~License Usage~~

License Type

▼ Tech Support

System Resource

Information

Controller Crash

Core Dump

AP Crash Log

System Statistics

Dx ICache Summary

Licenses

Adder License

License Count

License	Type	Time(expires)	RTU Count	Status
ap_count	Evaluation	12 weeks, 5 days	150	Inactive
ap_count (adder)	Permanent	No Expiry	150	Active, In-use

PRTG NETWORK MONITOR

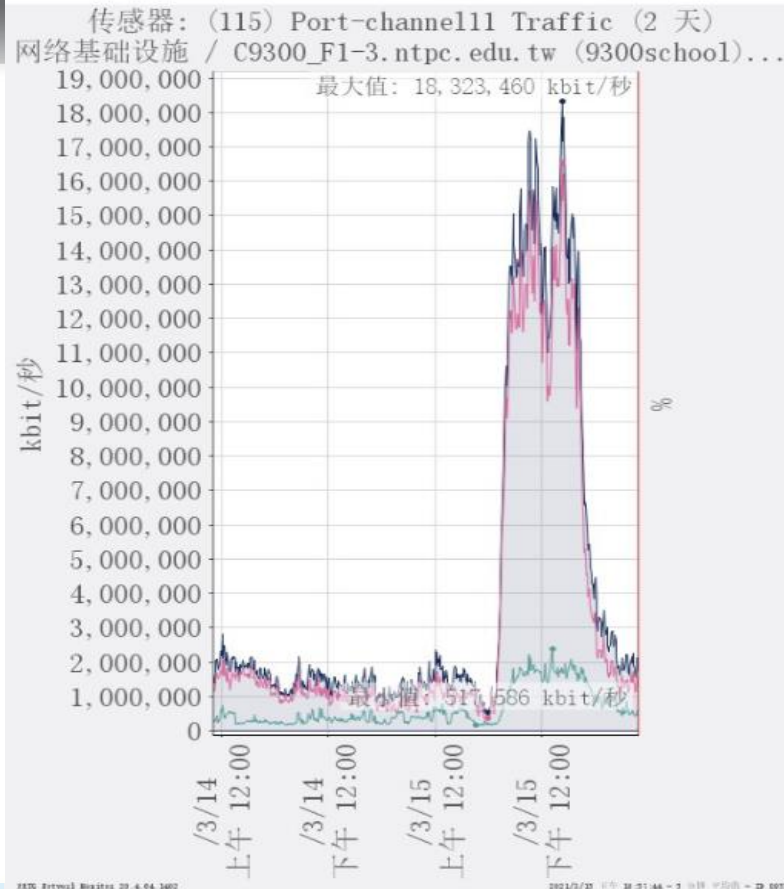


- 監視DHCP、DNS、Gateway
- 監視學校L3 Router重要 port
- 監視重要電腦
- 監視重要伺服器
- 設計一個手機監控智慧網管

手機監控

Back 网络基础设施 2021/03/15 下午 10:56

- DNS: dns153
✓ 2
- DNS: dns154
✓ 2
- forti3950b-a
✓ 4
- forti3950b-b
✓ 2
- C9300_F1-3.ntpc.edu.tw (9300...
✓ 24
- C9300-NCCU
✓ 15
- NX_B (n7k-b) [Cisco Device]
✓ 16



✓ (101) TenGigabitEthernet2/1/1 Traffic

确定

Last Value: 575,332 kbit/秒

✓ (102) TenGigabitEthernet2/1/2 Traffic

确定

Last Value: 304,412 kbit/秒

✓ (103) TenGigabitEthernet2/1/3 Traffic

确定

Last Value: 284,344 kbit/秒

✓ (115) Port-channel11 Traffic

确定

Last Value: 1,738,718 kbit/秒

W 1 ✓ 99

Last Update: 2021/3/15, 10:59 PM

下載 www.paessler.com



← → ↻ ⓘ <https://www.paessler.com>



 **PAESSLER**

PRODUCT ▼

PRICING

LEARN ▼

SUPPORT ▼

Work smarter, start monitoring

PRTG monitors your whole IT infrastructure 24/7 and alerts you to problems before users even notice. Find out more about the monitoring software that helps system administrators work smarter, faster, better.



DOWNLOAD FREE TRIAL

DOWNLOAD FREWARE

PRTG

Network Monitoring Software
Version 18.4.47.1962 (December 11th, 2018)

Languages

English, German, Spanish, French, Portuguese, Dutch, Russian, Japanese, and Simplified Chinese

Unified Monitoring

Network devices, bandwidth, servers, applications, virtual environments, remote systems, IoT, and more

License key



← → ↻ https://www.paessler.com/download/prtg-download?download=1



PRODUCT ▼ PRICING LEARN ▼ SUPPORT ▼

Blog Company ▼ Partners ▼ | 

[Home](#) > [Downloads](#) > PRTG Download - Thanks for downloading!

PRTG download - Thanks for downloading!

Your PRTG License Name

prtgtrial

Your PRTG License Key

000014-164KFM-8FFZ8K-NJ5QAF-
QNZNMH-J75U6E-JBA0D3-NH6MMY-
XZ0ZQC-ZEB0P1

If your PRTG download didn't start automatically:

DOWNLOAD PRTG



下載、安裝



← → ↻ https://www.paessler.com/download/prtg-download?download=1

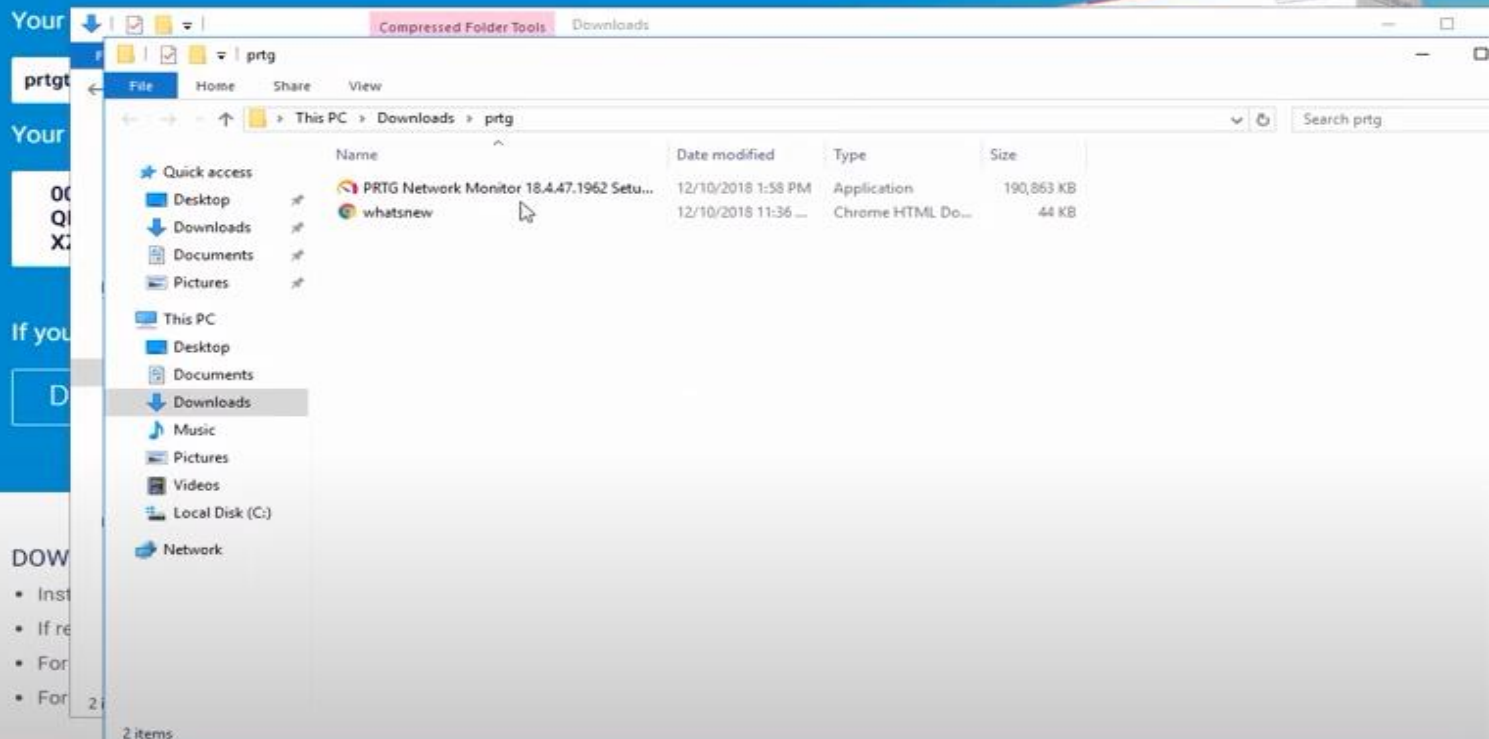


PRODUCT ▾ PRICING LEARN ▾ SUPPORT ▾

Blog Company ▾ Partners ▾ |

[Home](#) > [Downloads](#) > PRTG Download - Thanks for downloading!

PRTG download - Thanks for downloading!



E-mail and license key



← → ↻ https://www.paessler.com/download/prtg-download?download=1 com/download/prtg-download?download=1

PAESSLER PRODUCT ▾ PRICING LEARN ▾ SUPPORT ▾

Blog Company ▾ Partner

PAESSLER PRODUCT ▾ PRICING LEARN ▾ SUPPORT ▾

Blog Company ▾ Partners ▾

Home > Downloads > PRTG Download - Thanks for downloading!

PRTG download - Thanks for downloading!

Your PRTG License Name

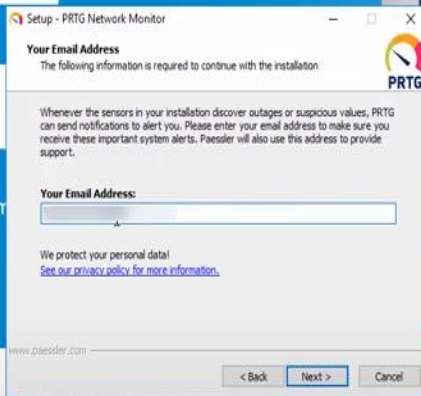
prtgtrial

Your PRTG License Key

000014-164KFM-8FFZ8K-NJ5QAF-
QNZNMH-J75U6E-JBA0D3-NH6MMY-
XZ0ZQC-ZEB0P1

If your PRTG download didn't start autom

DOWNLOAD PRTG



DOWNLOAD PRTG AND GET STARTED IN A FEW MINUTES

- Install PRTG Network Monitor in your network and enter your license key. Watch [this video](#) how to do it.
- If required, all your settings and data from the trial phase can be kept in your commercial edition.
- For [technical support](#) check our manual and Knowledge Base or open a support ticket.
- For questions regarding purchasing and available licenses, please contact sales@paessler.com.

Home > Downloads > PRTG Download - Thanks for downloading!

PRTG download - Thanks for downloading!

Your PRTG License Name

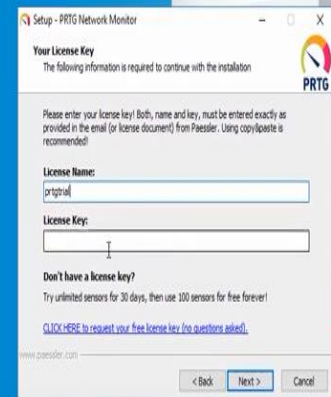
prtgtrial

Your PRTG License Key

000014-164KFM-8FFZ8K-NJ5QAF-
QNZNMH-J75U6E-JBA0D3-NH6MMY-
XZ0ZQC-ZEB0P1

If your PRTG download didn't start automatically:

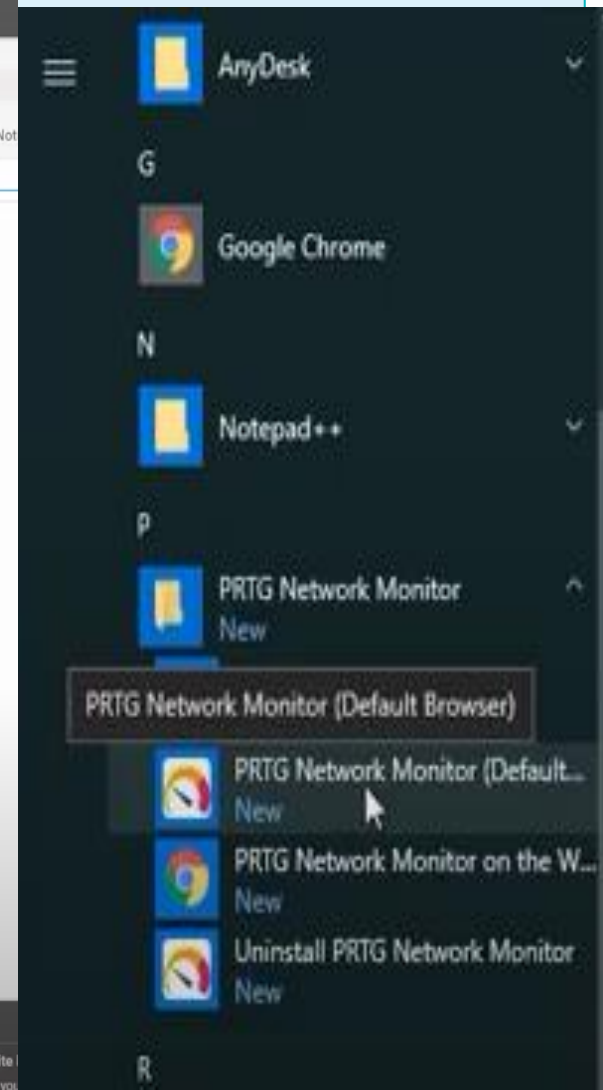
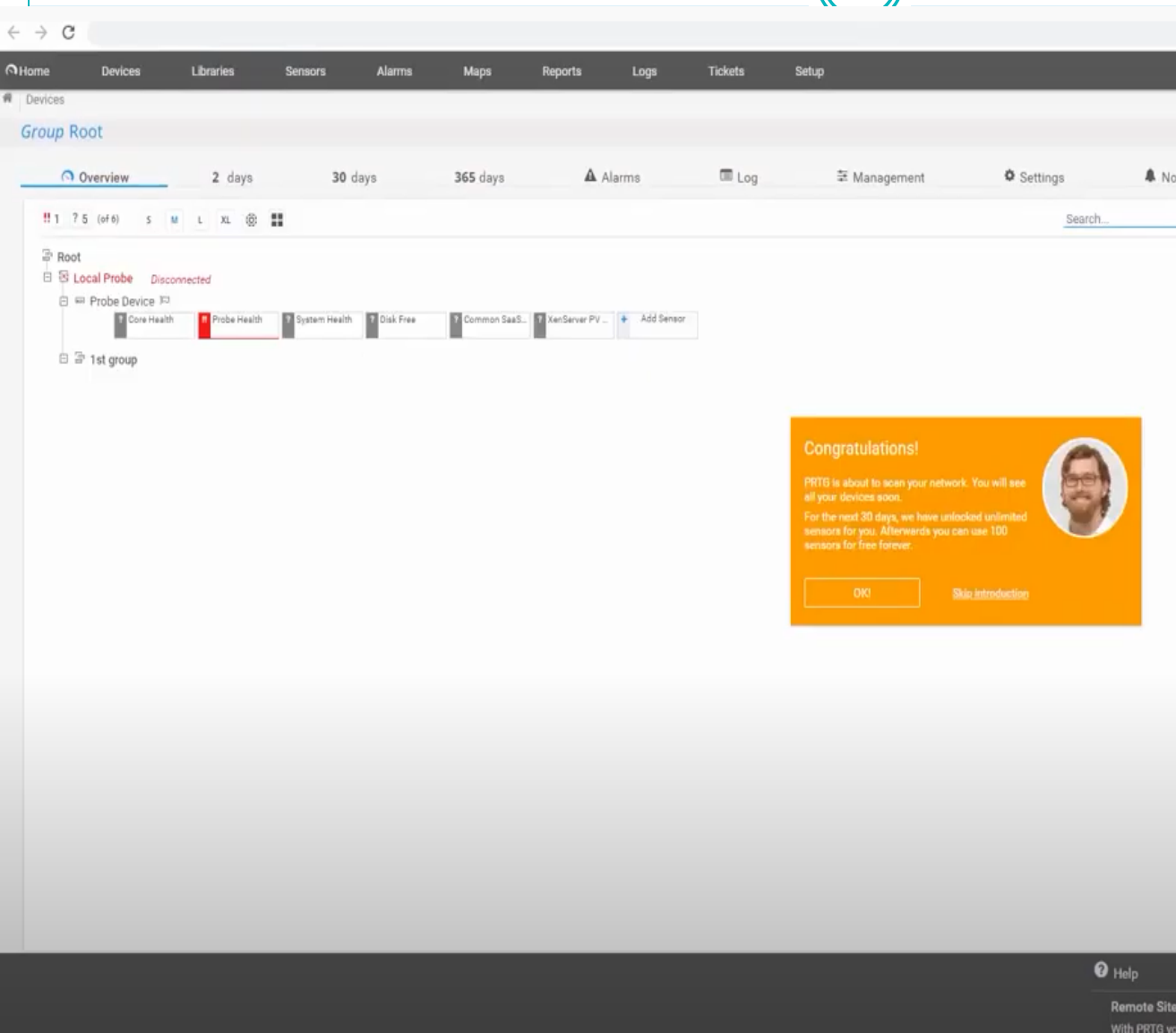
DOWNLOAD PRTG



DOWNLOAD PRTG AND GET STARTED IN A FEW MINUTES

- Install PRTG Network Monitor in your network and enter your license key. Watch [this video](#) how to do it.
- If required, all your settings and data from the trial phase can be kept in your commercial edition.
- For [technical support](#) check our manual and Knowledge Base or open a support ticket.
- For questions regarding purchasing and available licenses, please contact sales@paessler.com.

進入網頁設定(管理) 程式集



PRTG Monitor後台，新密碼!(很重要)

PRTG Network Monitor - PRTG Administration Tool

PAESSLER PRTG Network Monitor

核心连接的探针设置	用于监控的探针设置	服务启动/停止	日志和信息
PRTG Web 服务器	PRTG 核心服务器	群集	管理员

PRTG 系统管理员用户帐户的登录凭据

电子邮件地址:

登录名:

密码:

PRTG Network Monitor - PRTG Administration Tool

PAESSLER PRTG Network Monitor

Probe Settings for Core Connection	Probe Settings for Monitoring	Service Start/Stop	Logs and Info
Web Server	Core Server	Cluster	Administrator

Select TCP Port for PRTG's Web Server

☐ Secure HTTPS Server (standard port 443, recommended, mandatory for Internet access)

☒ Insecure HTTP server (standard port 80, not recommended)

☐ Expert configuration

Select IP Address for PRTG's Web Server

☐ Localhost: Use 127.0.0.1 (PRTG will not be accessible from other computers)

☒ All IPs: Use all IPs available on this computer (Note: Selected TCP port must be available on all IPs)

☐ Specify IPs:

☒ ☒

Select System Language

English

设置

群组 **Root**

 设置

DNS

DNS

(380)

(380)
To: New Switch

503)

(037)
TopGigabitEthe

System Health
温度

System Health

(131)

369099099)
port_channel349System Health
Memory

HTTP

Ping

Ping

Ping

SNMP

Credentials for VMware/XenServer

User ⓘ

Password ⓘ

VMware Protocol ⓘ

☒ HTTPS (recommended)

☐ HTTP

Session Pool ⓘ

☒ Reuse session for multiple scans (recommended)

☐ Create a new session for each scan

Credentials for SNMP Devices

SNMP Version ⓘ

☐ v1

☒ v2c (recommended)

☐ v3

Community String ⓘ

public

SNMP Port ⓘ

161

SNMP Timeout (Sec.) ⓘ

5

Due to internal limitations, you can only monitor a limited number of sensors per second when using SNMP v3. The main limiting factor is CPU power. Currently, PRTG is able to handle roughly 40 requests per second and computer core, depending on your system. This means that you can run about 5,000 SNMP v3 sensors with a 60-second scanning interval on a computer with two cores, and around 10,000 sensors with a 60-second interval on a system with four cores. If you experience an increased Interval Delay or Open Requests reading of the Probe Health sensor, you need to distribute the load over multiple probes. SNMP v1 and v2 do not have this limitation.

面板介绍

主页 设备 库 传感器 警报 拓扑图 报表 日志 工单 设置

设备

群组 Root

概述 2 天 30 天 365 天 警报 日志 管理 设置 通知

1 93 6 (共 100) S M L XL 搜索...

+ 添加传感器

C9300_F1-3.ntpc.edu.tw (9300school) [Cisco Device Cisco IOS]

(036) TenGigabitEthernet1/1/1 Traffic	303,933 kbit/秒
(037) TenGigabitEthernet1/1/2 Traffic	283,515 kbit/秒
(038) TenGigabitEthernet1/1/3 Traffic	133,974 kbit/秒
(096) GigabitEthernet2/0/48 Traffic	138,665 kbit/秒
(101) TenGigabitEthernet2/1/1 Traffic	352,281 kbit/秒
(102) TenGigabitEthernet2/1/2 Traffic	251,524 kbit/秒
(103) TenGigabitEthernet2/1/3 Traffic	545,065 kbit/秒
(115) Port-channel11 Traffic	1,305,734 kbit/秒
(502) To_3950B_A_F1-1 Traffic	483,810 kbit/秒
(503) To_3950B_B_F1-2 Traffic	698,083 kbit/秒
(504) To_C3750-CHT-4 Traffic	167,042 kbit/秒
(031) GigabitEthernet1/0/24 Traffic	29,076 kbit/秒
(036) TenGigabitEthernet1/1/1 Traffic	304,034 kbit/秒
(037) TenGigabitEthernet1/1/2 Traffic	288,949 kbit/秒
(038) TenGigabitEthernet1/1/3 Traffic	135,126 kbit/秒
(040) TenGigabitEthernet1/1/5 Traffic	298,986 kbit/秒
(041) TenGigabitEthernet1/1/6 Traffic	1,052,833 kbit/秒
(042) TenGigabitEthernet1/1/7 Traffic	664,865 kbit/秒
(119) To_C3750-CHT-4 Traffic	170,375 kbit/秒

Add device

The screenshot shows a web interface for managing devices. The top navigation bar includes links for Home, Devices, Libraries, Sensors, Alarms, Maps, Reports, Logs, Tickets, and Setup. The left sidebar shows a tree view with 'Root' and 'Group Root'. The right sidebar shows a list of devices with status indicators. The main content area displays a '30 days' view with a table of device status.

Navigation Bar: Home, Devices, Libraries, Sensors, Alarms, Maps, Reports, Logs, Tickets, Setup

Left Sidebar: Root, Group Root

Right Sidebar: 30 days, 365 days, Alarms, Log, Management, Settings, Notifications

Main Content Area:

- 30 days
- 365 days
- Alarms
- Log
- Management
- Settings
- Notifications

Device List:

Device	Status	System Health	Disk Free	Common SaaS	Business Proc.	Synology Receiver	Add Sensor
Root	OK	100 %	100 %	100 %	Down	0 %	+
Network Discovery	OK	100 %	100 %	100 %	Down	0 %	+
Network Infrastructure	OK	100 %	100 %	100 %	Down	0 %	+
Virtual Systems	OK	100 %	100 %	100 %	Down	0 %	+
Linux / MacOS / Unix	OK	100 %	100 %	100 %	Down	0 %	+
Custom Sensors	OK	100 %	100 %	100 %	Down	0 %	+
Burp Suite	OK	100 %	100 %	100 %	Down	0 %	+
Synology	OK	100 %	100 %	100 %	Down	0 %	+

Device Details:

- System Health: 100 %
- Disk Free: 100 %
- Common SaaS: 100 %
- Business Proc.: Down
- Synology Receiver: 0 %
- Add Sensor: +

Network Discovery:

- Network Infrastructure: 100 %
- Virtual Systems: 100 %
- Linux / MacOS / Unix: 100 %

Custom Sensors:

- Burp Suite: 100 %
- Synology: 100 %

Buttons: Add Sensor, Run Auto-Discovery

添加新设备

必要时定义设备名称、地址以及针对自动发现、凭据设置 (Windows 、 Linux 、 VMware/XEN 和 SNMP) 的选项。

PRTG 手册：添加设备

设备名称和地址

设备名称 ⓘ

Device

IP 版本 ⓘ

☒ 使用 IPv4 连接

☐ 使用 IPv6 连接

IPv4 地址/DNS 名称 ⓘ

需要此字段。

标签 ⓘ



设备图标 ⓘ



取消

确定

设备名称

设备地址

SNMP 设备凭据

☒ 继承自 网络发现 (SNMP 版本: V2, SNMP 端口: 161, 超时 (秒): 5 秒)

SNMP 版本 ⓘ

☐ v1

☒ v2c (推荐)

☐ v3

社区字符串 (Community String) ⓘ

public

SNMP 端口 ⓘ

161

超时 (秒) ⓘ

5

数据库管理系统的凭据

☒ 继承自 网络发现 (超时 (秒): 60 秒)

AWS 的凭据

☒ 继承自 网络发现

Credentials for Dell EMC

取消

确定

Add sensor

127.0.0.1/group.htm?id=0&tabid=1

Home Devices Libraries Sensors Alarms Maps Reports Logs

Devices

- All
- Favorite Devices
- Device List
- Dependencies
- Add Group
- Add Auto-Discovery Group
- Add Device

30 days 365 days Alarms

System Health 100% Disk Free 100% Common SaaS 100% Business Proc. Down Synology Res.

Network Discovery

- Network Infrastructure
 - W 5 Sens. ✓ 253 Sen. U 12 Sen.
- Virtual Systems
 - ✓ 11 Sen.
- Linux / MacOS / Unix
 - II PING W 5 Sens. II 24 Sen. ✓ 223 Sen. U 3 Sens.
- Custom Sensors
 - Buffalo
 - ✓ SNMP System 8d 16h Ping 0 msec Table(nas disk 1.906 # Add Sensor
 - Synology
 - Add Sensor Run Auto-Discovery

127.0.0.1/addsensor.htm?id=3062

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Devices Local Probe Custom Sensors

Add Sensor to Device Synology

Monitor What?	Target System Type?	Technology Used?
☐ Availability/Uptime	☐ Windows	☐ Ping
☐ CPU Usage	☐ Storage and File Server	☐ HTTP
☐ Bandwidth/Traffic	☐ Linux/macOS	☐ SNMP
☐ Speed/Performance	☐ Email Server	☐ SSH
☐ Memory Usage	☐ Database	☐ WMI
☐ Network Infrastructure	☐ Virtualization OS	☐ Packet Sniff
☐ Custom Sensors		☐ Performance Counters
		☐ NetFlow, AF

Cancel sensor creation

Search Type to search name or description 257 Matching Sensor Types

Most Used Sensor Types

DNS ? Monitors a DNS server (Domain Name Service), resolves a domain name, and compares it to an IP address Add this sensor to a device the DNS service is running on	Ping ? Monitors connectivity using Ping Ping requests are used to check whether a device is reachable through the network.	SNMP CPU Load ? Monitors the load of a CPU via SNMP To query data from a probe device (localhost, 127.0.0.1, or :1), add this device to PRTG with the IP address it has in your network and create the sensor on this device.	SNMP Custom ? Monitors a numerical value returned by a specific OID using SNMP If you want to monitor more than one OID, use the SNMP Custom Advanced Sensor instead.	SNMP Disk Free ? Monitors the free disk space on a logical disk via SNMP Uses more generic OID values compared to the SNMP Linux Disk Free Sensor.	SNMP ? Monitors system Shows re of read a
SNMP Memory ?	SNMP System Uptime ?	SNMP Traffic ?			

加減sensor

Device Synology ★★☆☆☆

Overview

2 days

30 days

365 days

Alarms

System Information

Log

Settings

Notification

To see sensor gauges here, please change the priority of one or more sensors to ★★★★★☆ / ★★★★★★.

Pos	Sensor	Status	Message	Graph	Priority	
1.	disk: 0 - disk id	Unknown	No data yet	Response Tim No data	★★★☆☆	
2.	Table(disk: 1): [tablename] / [rowidentifier]	Unknown	No data yet	disk temperat No data	★★★☆☆	
3.	Table(disk: 2): [tablename] / [rowidentifier]	Unknown	No data yet	disk temperat No data	★★★☆☆	
4.	Table(disk: 3): [tablename] / [rowidentifier]	Unknown	No data yet	disk temperat No data	★★★☆☆	
5.	Table(disksmart: 2): [tablename] / [rowidentifier]	Unknown	No data yet	disk smart att No data	★★★☆☆	
6.	Table(disksmart: 21): [tablename] / [rowidentifier]	Unknown	No data yet	disk smart att No data	★★★☆☆	

<< 1 to 6 of 6 >>

Recommended Sensors

Priority	Sensors	Total Sensors	Links
★★★★★	1×Ping	1	Add These Sensors
★★★★☆	4×SNMP Traffic, 1×SNMP Disk Free, 1×CPU Load, 2×SNMP Memory, 1×RDP (Remote ...	9	Add These Sensors

Recommend Now

What is this?

PRTG can inspect your devices to recommend useful sensor types. Add these sensors to get a much better and more detailed picture about the status of this device in the future.

监控什么?

- ☐ 可用性/正常运行时间
- ☐ CPU 使用情况
- ☐ 硬件参数
- ☐ 带宽/流量
- ☐ 磁盘使用情况
- ☐ 网络基础设施
- ☐ 速度/性能
- ☐ 内存使用情况
- ☐ 自定义传感器

目标系统类型?

- ☐ Windows
- ☐ 存储和文件服务器
- ☐ 数据库
- ☐ Linux/macOS
- ☐ 电子邮件服务器
- ☐ 云服务
- ☐ 虚拟化操作系统

使用的技术?

- ☐ Ping
- ☐ HTTP
- ☐ PowerShell
- ☐ SNMP
- ☐ SSH
- ☐ 推送消息接收程序
- ☐ WMI
- ☐ 数据包嗅探
- ☐ PRTG Cloud
- ☐ 性能计数器
- ☐ xFlow

取消传感器创建

查找更多传感器类型? 查看 PRTG 全球

搜索 键入以搜索名称或描述

284 正在匹配传感器类型

最常用的传感器类型

AWS Cost

Monitors the costs of an AWS account by reading its data from the AWS Cost Explorer API

Needs valid credentials for AWS in the settings of the parent device or group. Every sensor scan generates API call costs in your AWS account.

DNS

监控 DNS 服务器、解析域名并将其与 IP 地址进行比较

将此传感器添加到 DNS 服务运行的设备上。

HTTP

使用 HTTP 监控 Web 服务器

显示网站或特定网站元素是否可达。

Microsoft Azure Subscription Cost BETA

Monitors the cost in a Microsoft Azure subscription

Requires valid Azure AD credentials in the settings of the parent device or group. Make sure that you assigned the correct permissions and roles in your Microsoft Azure subscription.

MQTT 往返

监控 MQTT 代理 (服务器) 的可用性、连接时间, 以及数据包的往返时间。PRTG 将作为发布和订阅客户端连接到代理, 并使用预定义主题发送数据包。

需要在父设备中定义的有效 MQTT 凭据。

NetApp 卷 BETA

使用 SOAP 监控 NetApp cDOT 或 ONTAP 存储系统的卷

在探针系统上需要 .NET 4.7.2, 支持 NetApp cDOT 版本 8.3 及更高版本, 并支持 NetApp ONTAP 版本 9.0 及更高版本。

Ping

通过 ping 提供连接连接

POP3

使用 POP3 监控电子邮件服务器

SNMP 流量

监控在指定 SNMP 的服务器 命令计数

W 1 U 2 (共 100) S M L XL 搜索...

Root	
本地设备	
Probe Device	
Core H...	2 传感器
网络发现	
网络基础设施	
DNS: dns153	
PING	1 毫秒
DNS	6 毫秒
添加传感器	
DNS: dns154	
PING	4 毫秒
DNS	5 毫秒
添加传感器	
forti3950b-a	
(003) HA-120 Traffic	23,090 kbit/秒
(004) HA-64 Traffic	2.16 kbit/秒
(379) TO_N7K_A Traffic	2,366,909 kbit/秒
(380) To_New_Switch Traffic	2,283,062 kbit/秒
添加传感器	
forti3950b-b	
(379) TO_N7K_A Traffic	2,567,220 kbit/秒
(380) To_New_Switch Traffic	2,510,121 kbit/秒
添加传感器	
C9300_F1-3.ntpc.edu.tw (9300school) [Cisco Device Cisco IOS]	
(036) TenGigabitEthernet1/1/1 Traffic	1,813,333 kbit/秒

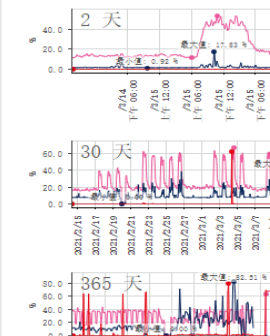
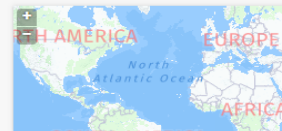
NEED SOME TECHNICAL ADVICE?

Not sure how to make this PRTG,
YOUR PRTG?

Ask the team >>

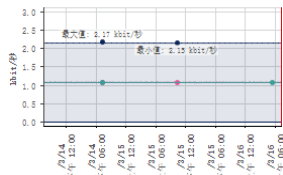
状态: 确定
默认时间间隔: 60 seconds
ID: #0

添加传感器



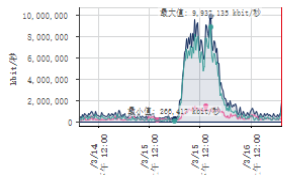


+(004) HA-64 Traffic



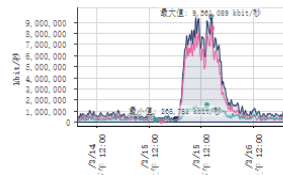
■ 停机时间 (%) ■ 流量合计 (kbit/秒)
■ 入站流量 (kbit/秒) ■ 出站流量 (kbit/秒)

+(379) TO_N7K_A Traffic



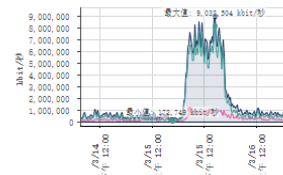
■ 停机时间 (%) ■ 流量合计 (kbit/秒)
■ 入站流量 (kbit/秒) ■ 出站流量 (kbit/秒)

+(380) To_New_Switch Traffic



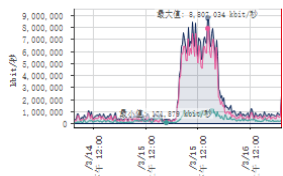
■ 停机时间 (%) ■ 流量合计 (kbit/秒)
■ 入站流量 (kbit/秒) ■ 出站流量 (kbit/秒)

+(379) TO_N7K_A Traffic



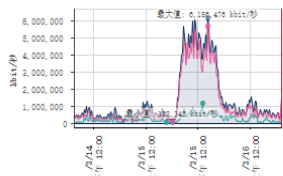
■ 停机时间 (%) ■ 流量合计 (kbit/秒)
■ 入站流量 (kbit/秒) ■ 出站流量 (kbit/秒)

+(380) To_New_Switch Traffic



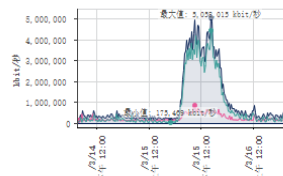
■ 停机时间 (%) ■ 流量合计 (kbit/秒)
■ 入站流量 (kbit/秒) ■ 出站流量 (kbit/秒)

+(036) TenGigabitEthernet1/1/1 Traffic



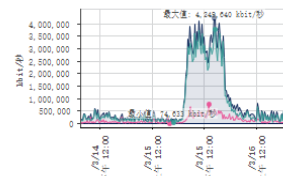
■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)

+(037) TenGigabitEthernet1/1/2 Traffic



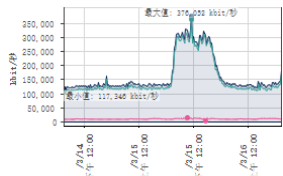
■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)

+(038) TenGigabitEthernet1/1/3 Traffic



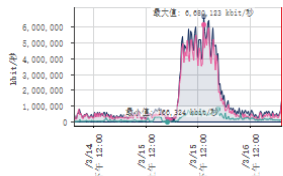
■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)

+(096) GigabitEthernet2/0/48 Traffic



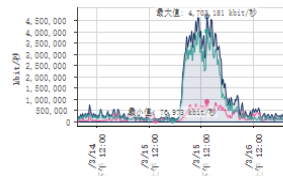
■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)

+(101) TenGigabitEthernet2/1/1 Traffic



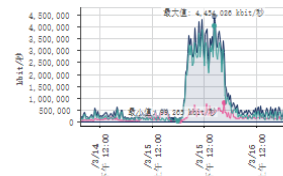
■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)

+(102) TenGigabitEthernet2/1/2 Traffic



■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)

+(103) TenGigabitEthernet2/1/3 Traffic



■ 停机时间 (%) ■ Traffic Total (kbit/秒)
■ Traffic In (kbit/秒) ■ Traffic Out (kbit/秒)



Overview Live Data 2 days 30 days 365 days Historic Data Log Settings Notification Triggers Comments History



The top graph, titled "Live Graph, 2 hours", displays a live data stream over a 2-hour period. The y-axis is labeled "km/s" and ranges from 0 to 300,000. The x-axis shows time from 06:30 to 08:11. A blue line represents the live data, which fluctuates significantly, with a peak near 300,000 km/s. A red line at the bottom represents a secondary data series. A grey box in the center of the graph contains the text "2011-2012 season". The top right corner indicates a maximum value of "Max: 297,202 km/s".

The bottom graph, titled "2 days", displays data over a 2-day period. The y-axis is labeled "km/s" and ranges from 0 to 400,000. The x-axis shows time from 06:30 to 08:11. A blue line represents the data, which shows a sharp peak near 400,000 km/s. A red line at the bottom represents a secondary data series. The top right corner indicates a maximum value of "Max: 440,000 km/s".

Add sensor

Add Sensor to Device school [10.226.127.254]

(Step 1 of 2)

Monitor What?

- ☐ Availability/Uptime
- ☐ CPU Usage
- ☐ Hardware Parameters
- ☐ Bandwidth/Traffic
- ☐ Disk Usage
- ☐ Network Infrastructure
- ☐ Speed/Performance
- ☐ Memory Usage
- ☐ Custom Sensors

Target System Type?

- ☐ Windows
- ☐ Storage and File Server
- ☐ Cloud Services
- ☐ Linux/macOS
- ☐ Email Server
- ☐ Virtualization OS
- ☐ Database

Technology Used?

- ☐ Ping
- ☐ HTTP
- ☐ PowerShell
- ☐ SNMP
- ☐ SSH
- ☐ Push Message Receiver
- ☐ WMI
- ☐ Packet Sniffing
- ☐ PRTG Cloud
- ☒ xFlow

< Cancel sensor creation

> Looking for more sensor types? See our PRTG Sensor Hub.

Search  Type to search for a name or description

10 Matching Sensor Types

Matching Sensor Types

IPFIX



Monitors a device using IPFIX

You have to enable IPFIX export on the device for this sensor to work.



IPFIX (Custom)



Monitors a device using IPFIX (customizable)

You have to enable IPFIX export on the device for this sensor to work.



jFlow v5



Monitors a device using jFlow v5

You have to enable jFlow v5 export on the device for this sensor to work.



jFlow v5 (Custom)



Monitors a device using jFlow v5 (customizable)

You have to enable jFlow v5 export on the device for this sensor to work.



NetFlow v5



Monitors a device using NetFlow v5

You have to enable NetFlow v5 export on the device for this sensor to work.



NetFlow v5 (Custom)



Monitors a device using NetFlow v5 (customizable)

You have to enable NetFlow v5 export on the device for this sensor to work.



NetFlow v9



Monitors a device using NetFlow v9

You have to enable NetFlow v9 export on the device for this sensor to work.



NetFlow v9 (Custom)



Monitors a device using NetFlow v9 (customizable)

You have to enable NetFlow v9 export on the device for this sensor to work.



sFlow



Monitors a device using sFlow v5

You have to enable sFlow v5 export on the device for this sensor to work.



sFlow (Custom)



Monitors a device using sFlow v5 (customizable)

You have to enable sFlow v5 export on the device for this sensor to work.



Dlink 3620 sflow 指令



- enable sflow
- create sflow analyzer_server 1 owner NTPC timeout infinite collectoraddress
163.20.66.142 collectorport 6343 maxdatagramsize 1400
- create sflow flow_sampler ports 1:1-24 analyzer_server_id 1 rate 1 tx_rate 1
maxheadersize 256
- 說明：163.20.66.142 要改成安裝prtg的server ip

Top Talkers

✓ Sensor sFlow — Toplist Top Talkers



Sensor Overview Print This Toplist

Top Talkers

Top Connections

Top Protocols

session

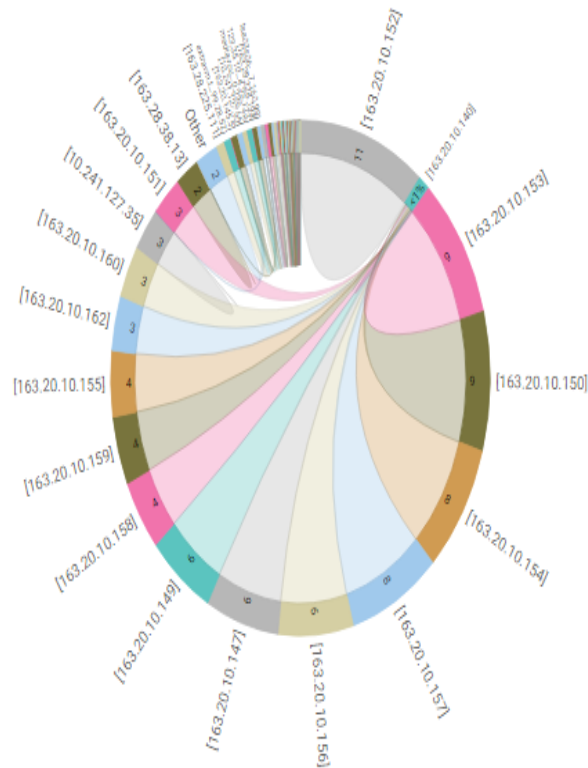
Start x

End x

2021/11/24

- 下午 08:15:00 - 下午 08:30:00
- 下午 08:00:00 - 下午 08:15:00
- 下午 07:45:00 - 下午 08:00:00
- 下午 07:30:00 - 下午 07:45:00
- 下午 07:15:00 - 下午 07:30:00
- 下午 07:00:00 - 下午 07:15:00
- 下午 06:45:00 - 下午 07:00:00
- 下午 06:30:00 - 下午 06:45:00
- 下午 06:15:00 - 下午 06:30:00
- 下午 06:00:00 - 下午 06:15:00
- 下午 05:45:00 - 下午 06:00:00
- 下午 05:30:00 - 下午 05:45:00
- 下午 05:15:00 - 下午 05:30:00
- 下午 05:00:00 - 下午 05:15:00
- 下午 04:45:00 - 下午 05:00:00
- 下午 04:30:00 - 下午 04:45:00
- 下午 04:15:00 - 下午 04:30:00
- 下午 04:00:00 - 下午 04:15:00
- 下午 03:45:00 - 下午 04:00:00
- 下午 03:30:00 - 下午 03:45:00

Top Talkers 2021/11/24 下午 08:00:00 - 下午 08:15:00



Items: ▼ 50

Pos	Source IP	Destination IP	Bytes	
1.	[163.20.10.152]	[163.20.10.140]	2,782 MB	11 %
2.	[163.20.10.153]	[163.20.10.140]	2,317 MB	9 %
3.	[163.20.10.150]	[163.20.10.140]	2,248 MB	9 %
4.	[163.20.10.154]	[163.20.10.140]	2,086 MB	8 %
5.	[163.20.10.157]	[163.20.10.140]	2,001 MB	8 %
6.	[163.20.10.156]	[163.20.10.140]	1,643 MB	6 %
7.	[163.20.10.147]	[163.20.10.140]	1,602 MB	6 %
8.	[163.20.10.149]	[163.20.10.140]	1,457 MB	6 %
9.	[163.20.10.158]	[163.20.10.140]	1,155 MB	4 %
10.	[163.20.10.159]	[163.20.10.140]	1,099 MB	4 %
11.	[163.20.10.155]	[163.20.10.140]	1,063 MB	4 %
12.	[163.20.10.162]	[163.20.10.140]	886 MB	3 %
13.	[163.20.10.160]	[163.20.10.140]	849 MB	3 %
14.	[10.241.127.35]	[163.20.10.201]	697 MB	3 %
15.	[163.20.10.151]	[163.20.10.140]	672 MB	3 %
16.	[163.28.38.13]	[10.197.2.164]	515 MB	2 %
Other			485 MB	2 %

TOP Connections

✓ Sensor **sFlow** — Toplist Top Connections

Sensor Overview

[Print This Toplist](#)

Top Talkers



Top Connections



Top Protocols



session



Start



End



2021/11/24

下午 08:15:00 - 下午 08:30:00

下午 08:00:00 - 下午 08:15:00

下午 07:45:00 - 下午 08:00:00

下午 07:30:00 - 下午 07:45:00

下午 07:15:00 - 下午 07:30:00

下午 07:00:00 - 下午 07:15:00

下午 06:45:00 - 下午 07:00:00

下午 06:30:00 - 下午 06:45:00

下午 06:15:00 - 下午 06:30:00

下午 06:00:00 - 下午 06:15:00

下午 05:45:00 - 下午 06:00:00

下午 05:30:00 - 下午 05:45:00

14 05:15:00 - 14 05:30:00

14 05:00:00 - 14 05:15:00

下午 04:45:00 - 下午 05:00:00

下午 04:30:00 - 下午 04:45:00

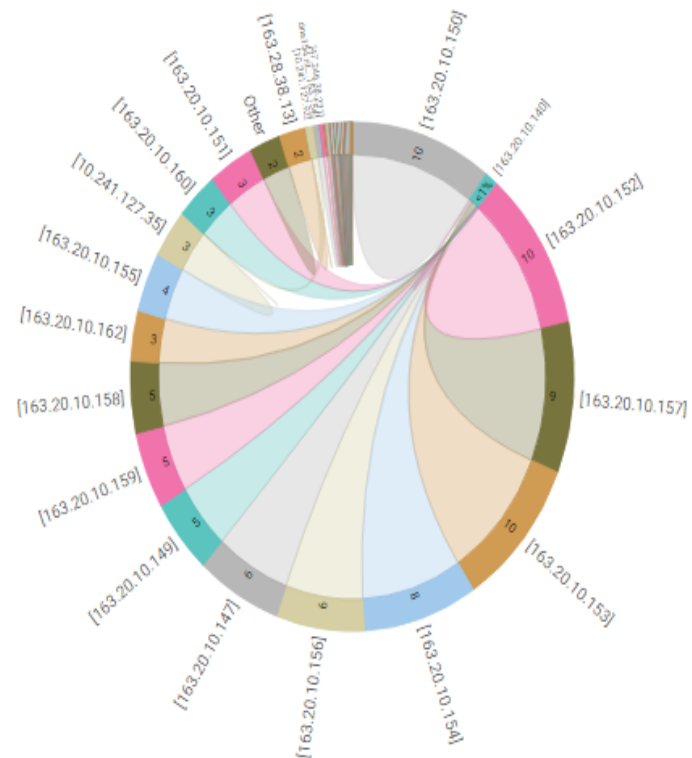
下午 04:00:00 - 下午 04:15:00

下午 03:45:00 - 下午 04:00:00

下午 00:00:00 下午 00:15:00

00:36:36 00:40:00

Top Connections 2021/11/24 下午 08:15:00 - 下午 08:30:00 (Live Toplist, 89 % Complete)



Pos	Source IP	Source Port	Destination IP	Destination Port	Protocol	Bytes	
1.	[163.20.10.150]	10000	[163.20.10.140]	65391	6	2,194 MB	10 %
2.	[163.20.10.152]	10000	[163.20.10.140]	63874	6	2,179 MB	10 %
3.	[163.20.10.157]	10000	[163.20.10.140]	65394	6	2,011 MB	9 %
4.	[163.20.10.153]	10000	[163.20.10.140]	65393	6	1,846 MB	8 %
5.	[163.20.10.154]	10000	[163.20.10.140]	65390	6	1,709 MB	8 %
6.	[163.20.10.156]	10000	[163.20.10.140]	63883	6	1,306 MB	6 %
7.	[163.20.10.147]	10000	[163.20.10.140]	65388	6	1,053 MB	5 %
8.	[163.20.10.149]	10000	[163.20.10.140]	65515	6	1,039 MB	5 %
9.	[163.20.10.159]	10000	[163.20.10.140]	65376	6	977 MB	4 %
10.	[163.20.10.158]	10000	[163.20.10.140]	65392	6	937 MB	4 %
11.	[163.20.10.155]	554	[163.20.10.140]	65445	6	699 MB	3 %
12.	[163.20.10.162]	10000	[163.20.10.140]	65514	6	694 MB	3 %
13.	[163.20.10.160]	10000	[163.20.10.140]	65396	6	674 MB	3 %
14.	[10.241.127.35]	6921	[163.20.10.201]	6910	17	657 MB	3 %
Other						516 MB	2 %
15.	[163.20.10.151]	554	[163.20.10.140]	65450	6	503 MB	2 %
16.	[163.28.38.13]	443	[10.197.2.164]	64572	17	436 MB	2 %
17.	[163.20.10.147]	10000	[163.20.10.140]	65386	6	291 MB	1 %
18.	[120.102.234.81]	443	[163.20.145.95]	55921	6	230 MB	1 %
19.	[163.20.10.151]	554	[163.20.10.140]	65454	6	216 MB	< 1 %
20.	[163.20.10.153]	10000	[163.20.10.140]	65387	6	195 MB	< 1 %
21.	[163.20.10.155]	554	[163.20.10.140]	65473	6	138 MB	< 1 %
22.	[10.241.127.92]	6921	[163.20.10.201]	6910	17	117 MB	< 1 %

TOP Protocols

/ Sensor sFlow — Toplist Top Protocols



Sensor Overview

Print This Toplist

Top Talkers



Top Connections



Top Protocols



session



Start



End



2021/11/24

下午 08:15:00 - 下午 08:30:00

下午 08:00:00 - 下午 08:15:00

下午 07:45:00 - 下午 08:00:00

下午 07:30:00 - 下午 07:45:00

下午 07:15:00 - 下午 07:30:00

下午 07:00:00 - 下午 07:15:00

下午 06:45:00 - 下午 07:00:00

下午 06:30:00 - 下午 06:45:00

下午 06:15:00 - 下午 06:30:00

下午 06:00:00 - 下午 06:15:00

下午 05:45:00 - 下午 06:00:00

下午 05:30:00 - 下午 05:45:00

下午 05:15:00 - 下午 05:30:00

下午 05:00:00 - 下午 05:15:00

下午 04:45:00 - 下午 05:00:00

下午 04:30:00 - 下午 04:45:00

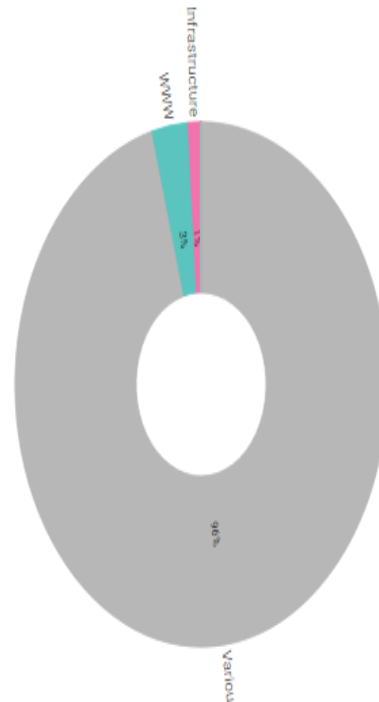
下午 04:15:00 - 下午 04:30:00

下午 04:00:00 - 下午 04:15:00

下午 03:45:00 - 下午 04:00:00

下午 03:30:00 - 下午 03:45:00

Top Protocols 2021/11/24 下午 08:15:00 - 下午 08:30:00



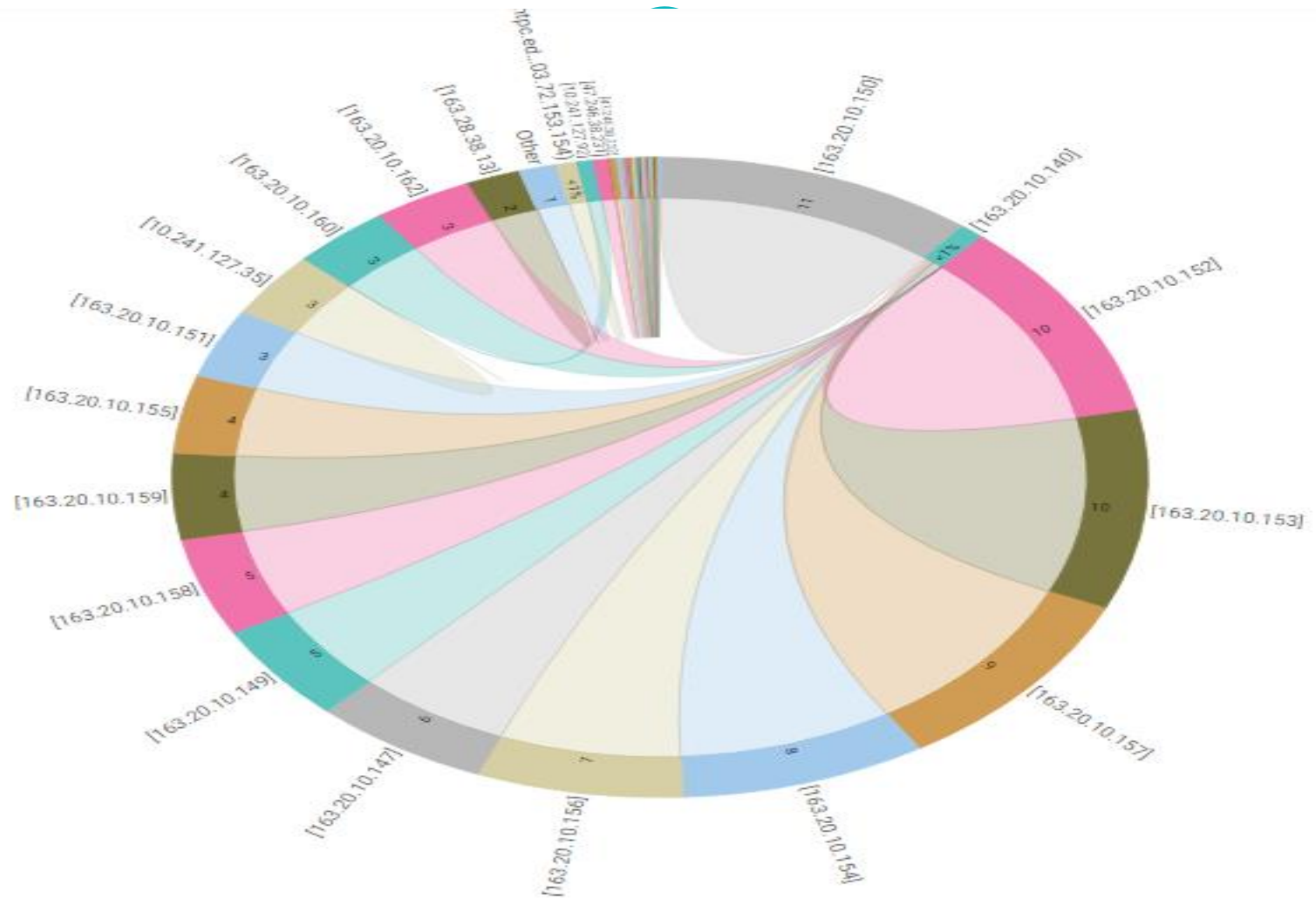
Pos	Channel	Bytes	
1.	Various	23 GB	96 %
2.	WWW	762 MB	3 %
3.	Infrastructure	270 MB	1 %
4.	NetBIOS	2,410 KB	< 1 %
5.	Remote Control	1,364 KB	< 1 %
Other		0 Byte	< 1 %

<< 1 to 6 of 6 >>



Items: 30

Pos	Source IP	Source Port	Destination IP	Destination Port	Protocol	IPv4 ToS	Channel	IP	Port	Interface	Sender IP	Inbound Interface	Outbound Interface	Bytes
1.	[163.20.10.150]	10000	[163.20.10.140]	65391	6	0	Various	[163.20.10.150]	10000	23	[163.20.204.241]	23	27	120 MB
2.	[163.20.10.150]	10000	[163.20.10.140]	65391	6	0	Various	[163.20.10.140]	65391	27	[163.20.204.241]	23	27	104 MB
3.	[163.20.10.149]	10000	[163.20.10.140]	65515	6	0	Various	[163.20.10.149]	10000	26	[163.20.204.241]	26	27	96 MB
4.	[163.20.10.158]	10000	[163.20.10.140]	65392	6	0	Various	[163.20.10.158]	10000	23	[163.20.204.241]	23	27	89 MB
5.	[163.20.10.158]	10000	[163.20.10.140]	65392	6	0	Various	[163.20.10.140]	65392	27	[163.20.204.241]	23	27	86 MB
6.	[163.20.10.149]	10000	[163.20.10.140]	65515	6	0	Various	[163.20.10.140]	65515	27	[163.20.204.241]	26	27	86 MB
7.	[163.20.10.147]	10000	[163.20.10.140]	65388	6	0	Various	[163.20.10.147]	10000	23	[163.20.204.241]	23	27	80 MB
8.	[163.20.10.147]	10000	[163.20.10.140]	65388	6	0	Various	[163.20.10.140]	65388	27	[163.20.204.241]	23	27	79 MB
9.	[163.20.10.157]	10000	[163.20.10.140]	65394	6	0	Various	[163.20.10.157]	10000	23	[163.20.204.241]	23	27	75 MB
10.	[163.20.10.157]	10000	[163.20.10.140]	65394	6	0	Various	[163.20.10.140]	65394	27	[163.20.204.241]	23	27	74 MB
11.	[163.20.10.153]	10000	[163.20.10.140]	65393	6	0	Various	[163.20.10.153]	10000	23	[163.20.204.241]	23	27	72 MB
12.	[163.20.10.153]	10000	[163.20.10.140]	65393	6	0	Various	[163.20.10.140]	65393	27	[163.20.204.241]	23	27	69 MB
13.	[163.20.10.156]	10000	[163.20.10.140]	63883	6	0	Various	[163.20.10.156]	10000	25	[163.20.204.241]	25	27	66 MB
14.	[163.20.10.156]	10000	[163.20.10.140]	63883	6	0	Various	[163.20.10.140]	63883	27	[163.20.204.241]	25	27	64 MB
15.	edge-star-shv-01-tpe1.facebo...	443	[10.197.0.248]	61112	17	0	Various	edge-star-shv-01-tpe1.facebo...	443	24	[163.20.206.249]	24	23	61 MB
16.	[163.20.10.152]	10000	[163.20.10.140]	63874	6	0	Various	[163.20.10.152]	10000	25	[163.20.204.241]	25	27	60 MB
17.	[163.20.10.155]	554	[163.20.10.140]	65445	6	184	Various	[163.20.10.155]	554	23	[163.20.204.241]	23	27	59 MB
18.	[163.20.10.152]	10000	[163.20.10.140]	63874	6	0	Various	[163.20.10.140]	63874	27	[163.20.204.241]	25	27	59 MB
19.	[163.20.10.155]	554	[163.20.10.140]	65445	6	184	Various	[163.20.10.140]	65445	27	[163.20.204.241]	23	27	54 MB
20.	[163.20.10.159]	10000	[163.20.10.140]	65376	6	0	Various	[163.20.10.159]	10000	23	[163.20.204.241]	23	27	52 MB
21.	[163.20.10.159]	10000	[163.20.10.140]	65376	6	0	Various	[163.20.10.140]	65376	27	[163.20.204.241]	23	27	51 MB
22.	[163.20.10.162]	10000	[163.20.10.140]	65514	6	0	Various	[163.20.10.162]	10000	26	[163.20.204.241]	26	27	46 MB
23.	[163.20.10.162]	10000	[163.20.10.140]	65514	6	0	Various	[163.20.10.140]	65514	27	[163.20.204.241]	26	27	37 MB





- Deployment and Usage
- Download the required zip archive [here](#).
- Extract the archive to your [PRTG program directory](#). By default, this is %Program Files (x86)%\PRTG Network Monitor\. Move the contents of the single folders to the corresponding ones within the application directory.
- In PRTG, restart the core server: open Setup | System Administration | Administrative Tools | Restart Core Server and click Go!. This ensures that the MIB and lookups are loaded before you run the auto-discovery.
- Create a [new device](#) in PRTG with the address (IP or FQDN) of the device that you want to monitor and configure the [SNMP credentials](#) accordingly.



- Right-click your new device, select Run Auto Discovery with Template, browse for wlc and select the Custom Cisco WLC Access Point Status v0.2 and Custom Cisco WLC SSID Statistics v0.2 templates from the list.
Note: Using the auto-discovery with a dedicated device template is convenient here because it automates the creation of the custom sensors in an organized fashion.
- The sensors are deployed after a couple of seconds.
- You can adjust the channel limits or lookups to your needs later.



- 部署和使用
- [在此處](#)下載所需的zip 存檔。
- 將存檔解壓縮到您的[PRTG 程序目錄](#)。默認情況下，這是%**Program Files (x86)%\PRTG Network Monitor**。將單個文件夾的內容移動到應用程序目錄中的相應文件夾。
- 在 PRTG 中，重新啟動核心服務器：打開**Setup | 系統管理 | 管理工具 | 重新啟動核心服務器**並單擊**執行！**。這可確保在您運行自動發現之前加載 MIB 和查找。
- 在 PRTG 中使用您要監控的設備的地址（IP 或 FQDN）創建一個[新設備，並相應地配置SNMP 憑據](#)。
- 右鍵單擊您的新設備，選擇**Run Auto Discovery with Template**，瀏覽wlc並從列表中選擇**Custom Cisco WLC Access Point Status v0.2**和**Custom Cisco WLC SSID Statistics v0.2**模板。
注意：在這裡使用帶有專用[設備模板](#)的[自動發現](#)很方便，因為它會以有組織的方式自動創建自定義傳感器。
- 傳感器在幾秒鐘後部署。
- 您可以稍後根據需要調整[通道限制](#)或[查找](#)。
- 結果

手機安裝



- 1、PRTG APP 下載
- 2、PRTG ip
- 3、user name/password
- 4、password random

Vlan

85

IEEE 802.1p/802.1q Frame Tagging

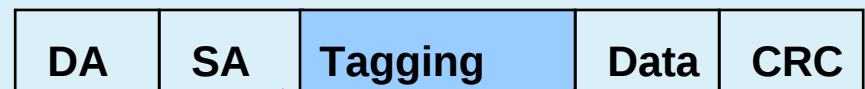
The 32-bit field (VLAN Tag) in the frame header that identifies the frame as belonging to a specific VLAN/priority.

The Max. size of a Tagged Ethernet Frame is 1522 Bytes (1518+ 4 bytes tagging).

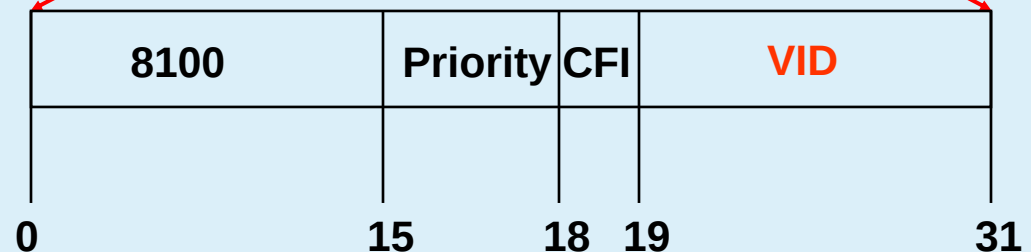
The frame without VLAN tag, we call it as Untagged Frame or Frame.



Regular frame (or untagged frame)



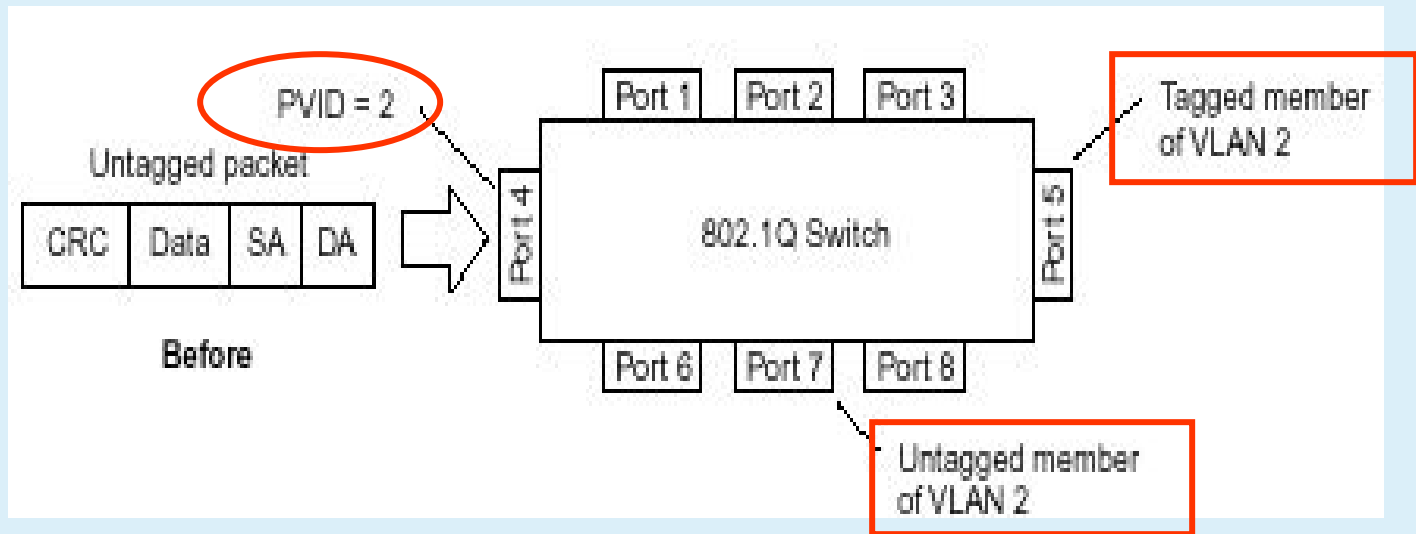
802.1q/1p tagged frame



Priority (1p) has 3 bits, 0-7.

VLAN (1q) has 12 bits, 0-4095

802.1p/1q Untagged Incoming Frame



Assumed the PVID of port4 is 2 and default priority=0

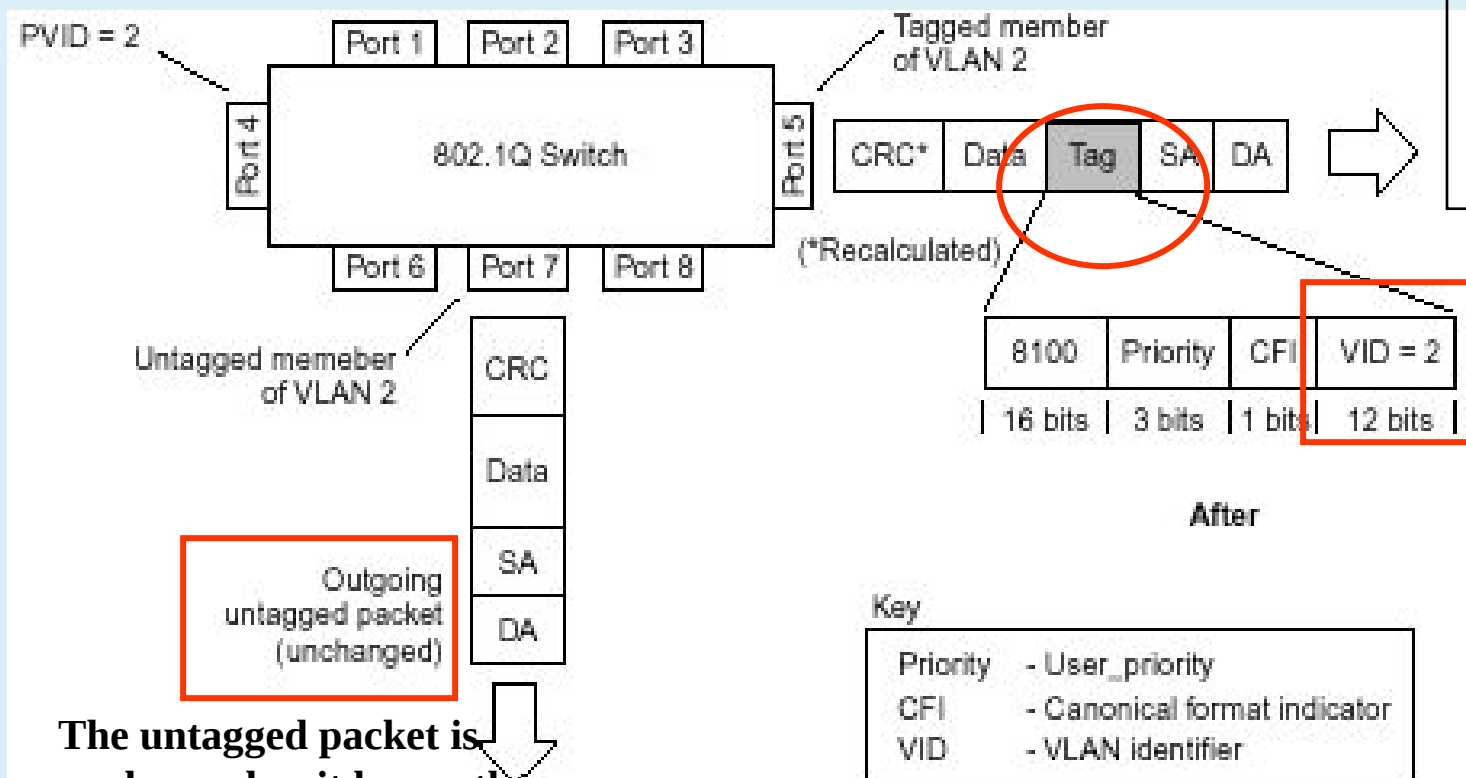
The incoming untagged packet will be assigned to VLAN 2/priority=0

Port5 is tagged and port 7 is untagged egress member of VLAN 2

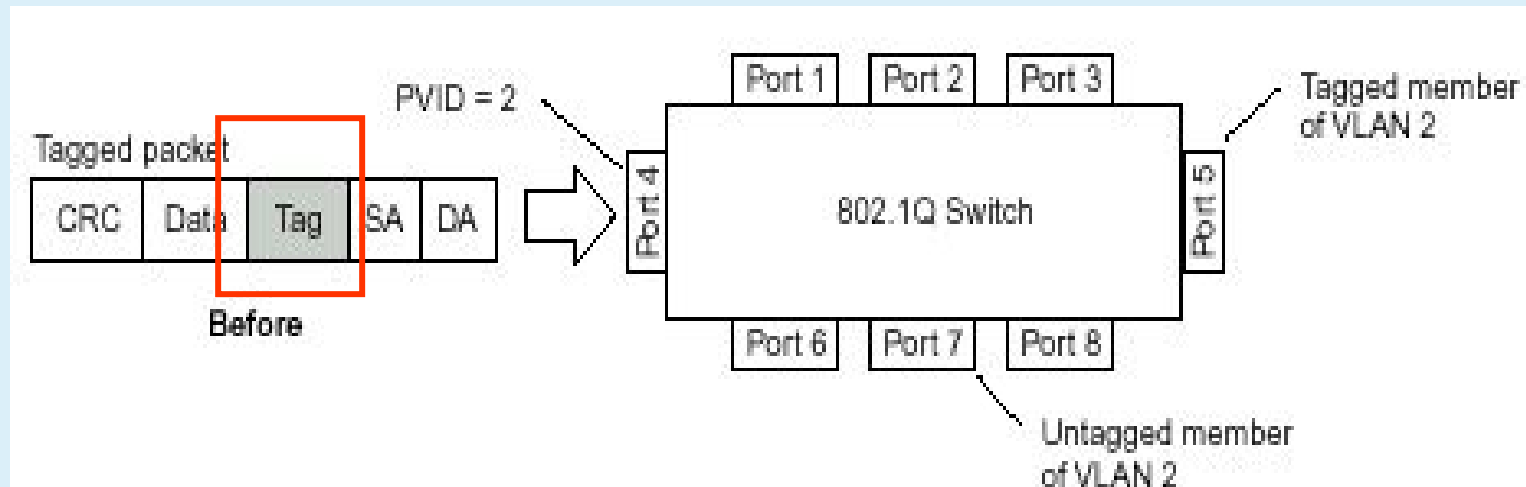
This packet will be forwarded to port5 and port7 with tagged and untagged respectively.

Priority tagging (802.1p) follows the similar rule as 802.1q tagging.

802.1p/1q Untagged Incoming Frame



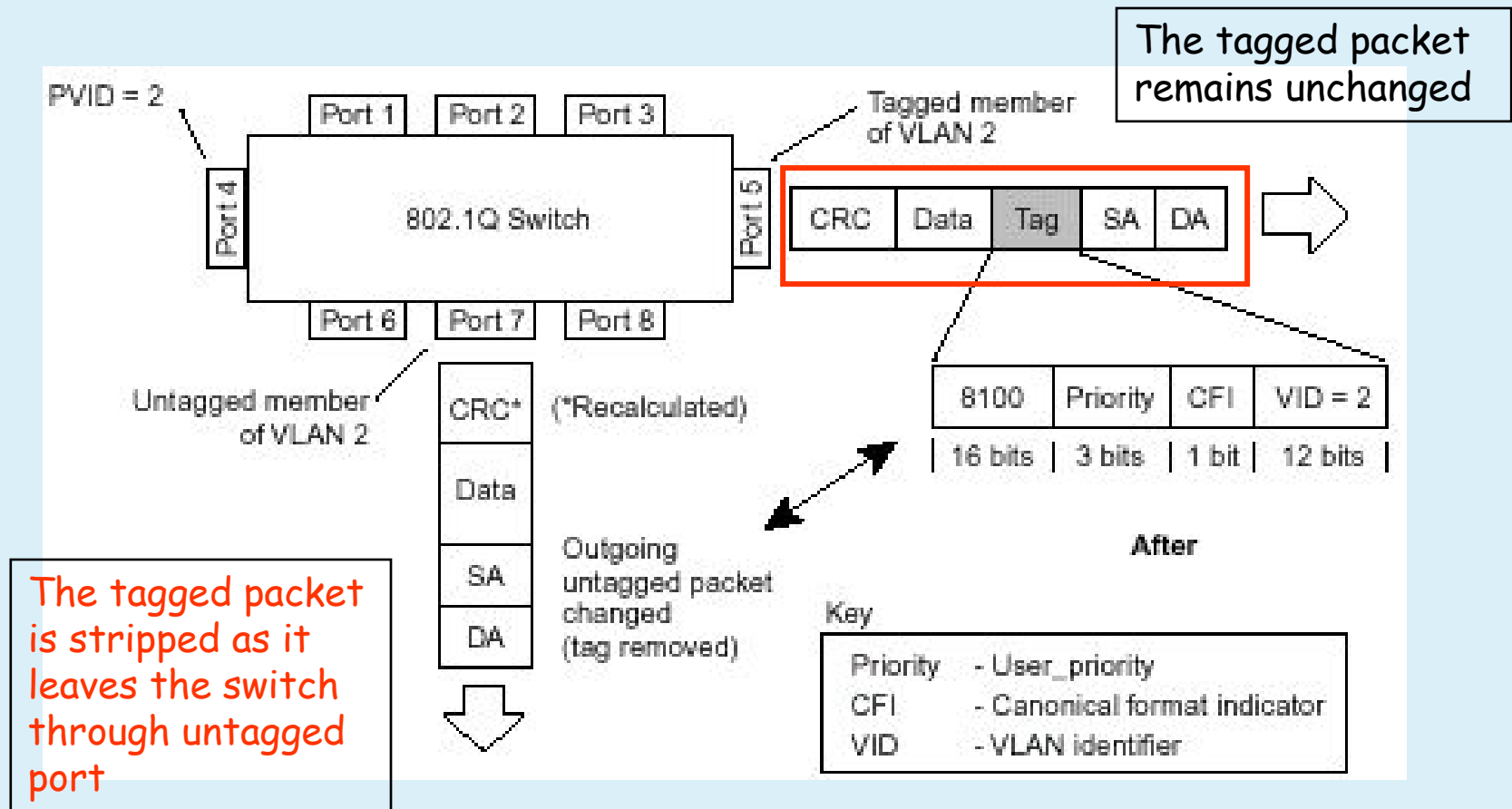
802.1p/1q Tagged Incoming Frame



Assumed tagged incoming packet having vid=2/priority=0
Port5 is a tagged and port 7 is an untagged egress member of VLAN 2
This packet will be forwarded to port5 and port7

22=00100010

802.1p/1q Tagged Incoming Frame



802.1p/1q Tagging summary

Ingress (incoming frame):

- If receiving **untagged** frame, add the tag into this frame with VID=PVID and priority= 802.1p default priority
- If receiving **tagged** frame, the VID/priority values are unchanged.

Inside the Switch (all frames are tagged)

- For VLAN, based on the VID to lookup the VLAN table, and forward frame to member ports of this VLAN.
- For priority, based on the “Class of Service mapping” to process the frame with associated priority Queue.

Egress (outgoing frame):

- **Untagged** egress port: Remove the tagging.
- **Tagged** Egress port: Un-change the tagging, so that the 1p/1q info can be carried to next 802.1p/q aware switch.

Vlan 水管理論

92

在大水管中，大管內壁(小水管外and大水管壁之間空隙)
能接觸到的資料流是untag

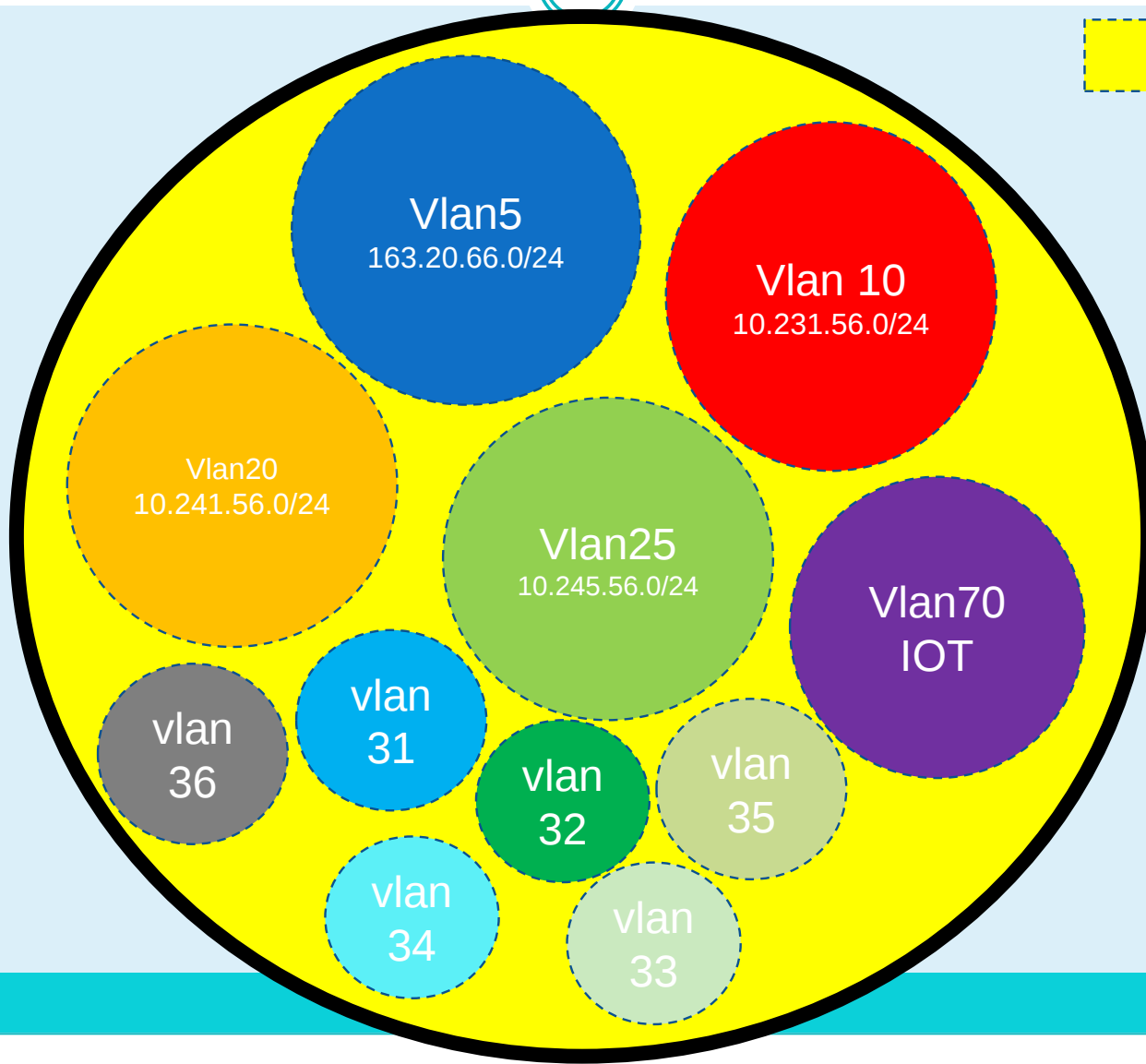
在所有小水管中的資料流都是帶tag



VLAN大水管

93

untag



Vlan tag

94

PDU Information at Device: Multilayer Switch0

OSI Model [Inbound PDU Details](#) Outbound PDU Details

PDU Formats

Ethernet 802.1q

PREAMBLE: 101010..10				SF D	DEST ADDR:0001.963B.B604				Bytes
SRC ADDR:0090.2167.AA29		TPID:0x8100		TCI:0x000a		PDU Information at Device: Switch0			
DATA (VARIABLE LENGTH)						OSI Model Inbound PDU Details Outbound PDU Details			

IP

0		4		8	
VER:4		IHL		DSCP:0x00	
ID:0x0009					
TTL:128				PRO:0x01	
SRC I					
DS					
OPT:0x00000000					
DATA (V					

PDU Information at Device: Switch0

OSI Model [Inbound PDU Details](#) Outbound PDU Details

PDU Formats

Ethernet 802.1q

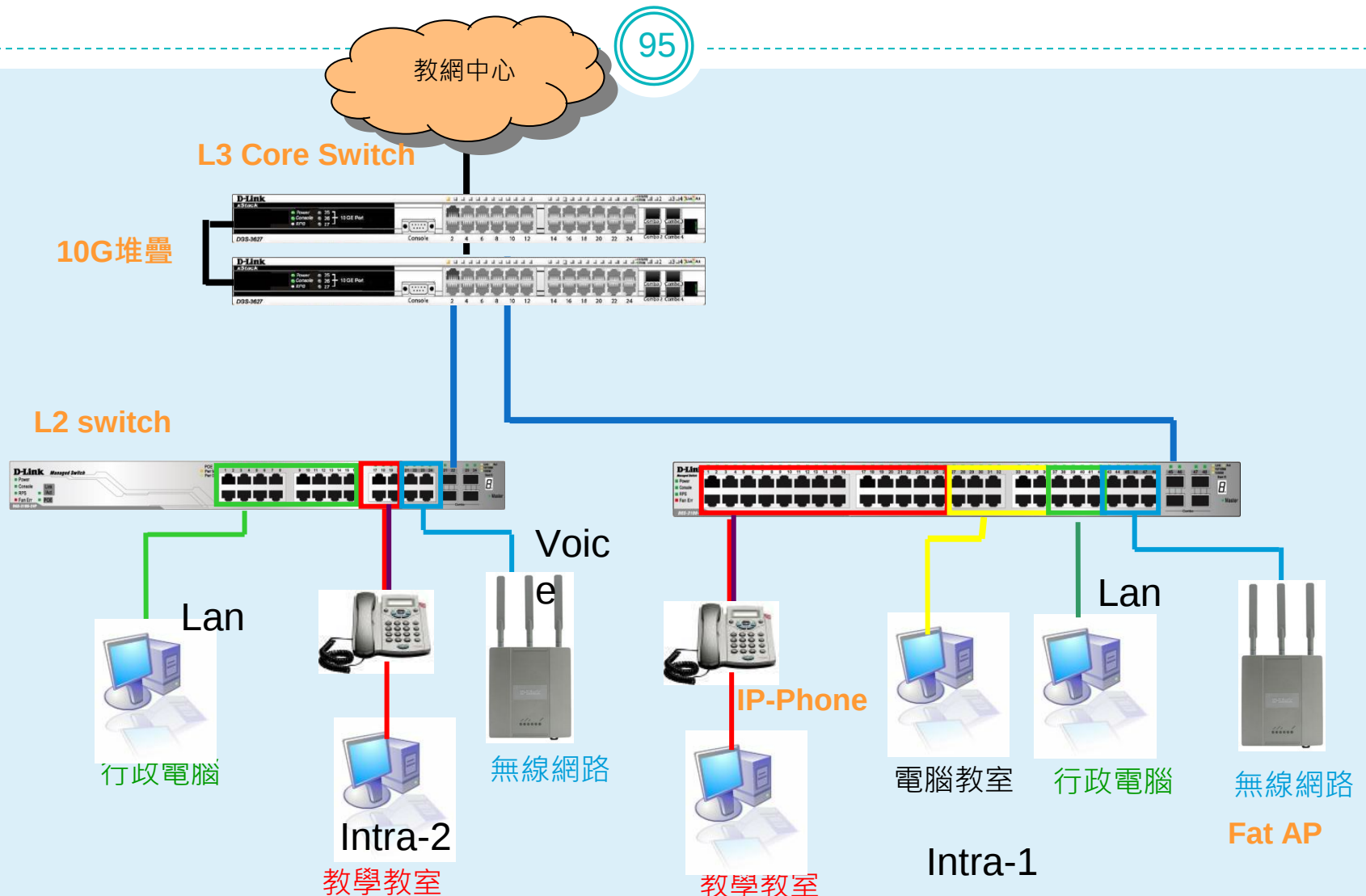
PREAMBLE: 101010..10				SF	DEST ADDR:000D.BD6B.DD96			
SRC ADDR:0000.0CC9.5A02				TPID:0x8100	TCI:0x0058		Type:0x1	
DATA (VARIABLE LENGTH)						FCS:0x00000000		

IP

0		4		8		16		20		24		Bits	
VER:4		IHL		DSCP:0x00		TL:128							
ID:0x0009						FLAGS:0x0		FRAG OFFSET:0x000					
TTL:126			PRO:0x01			CHKSUM							
SRC IP:10.231.56.1													
DST IP:8.8.8.8													
OPT:0x00000000									PADDING:0x00				

新北市高國中小學校園網路架構圖

95



(實作資料) 學校ip分配表

96

- <http://mis.ntpc.edu.tw>
- 網路服務
- 網路設定
- 連線單位Ipv4分配
- 連線單位Ipv6分配
- 光纖連線單位

學校IP基本網段

Vlan	VID	網段	IPv6	用途
Mgt	1	10.226.56.254	2001:288:22xx:1::/64	網管用 >101 L2, >201 AP
Wan	2	163.20.202.184/29	2001:288:2201::xx/124	對外連結網段
Lan	5	163.20.66.254/24	2001:288:22xx:5::/64	行政用 保留<10 ; >250
dsa_wan	8	10.253.56.254/24	2001:288:22xx:8::/64	DSA-WAN IP (10.253.56.1)
Intra-1	10	10.231.56.254/24	2001:288:22xx:10::/64	電腦教室
Intra-2	20	10.241.56.254/24	2001:288:22xx:20::/64	教學教室
Voice	25	10.243.56.0/24	2001:288:22xx:25::/64	VoIP
Wlan	30	10.251.56.254/24	2001:288:22xx:30::/64	無線網路 (IP移至 DSA-3600使用)
WPA2	35	10.245.56.0/24	2001:288:22xx:35::/64	無線WAP2用
MAC	36	10.247.56.0/24	2001:288:22xx:36::/64	無線Mobile用

Sflow 收取

98

- enable sflow
- create sflow analyzer_server 1 owner NTPC timeout infinite collectoraddress **163.20.66.142** collectorport 6343 maxdatagramsize 1400
- create sflow flow_sampler ports 1:1-24 analyzer_server_id 1 rate 1 tx_rate 1 maxheadersize 256
- delete sflow flow_sampler ports 1:1-24