新北市政府 教育局
Education Department, New Taipei City Government

網路管理建置經驗分享

網管輔導員 李 煒

107-110智慧校園網路專案

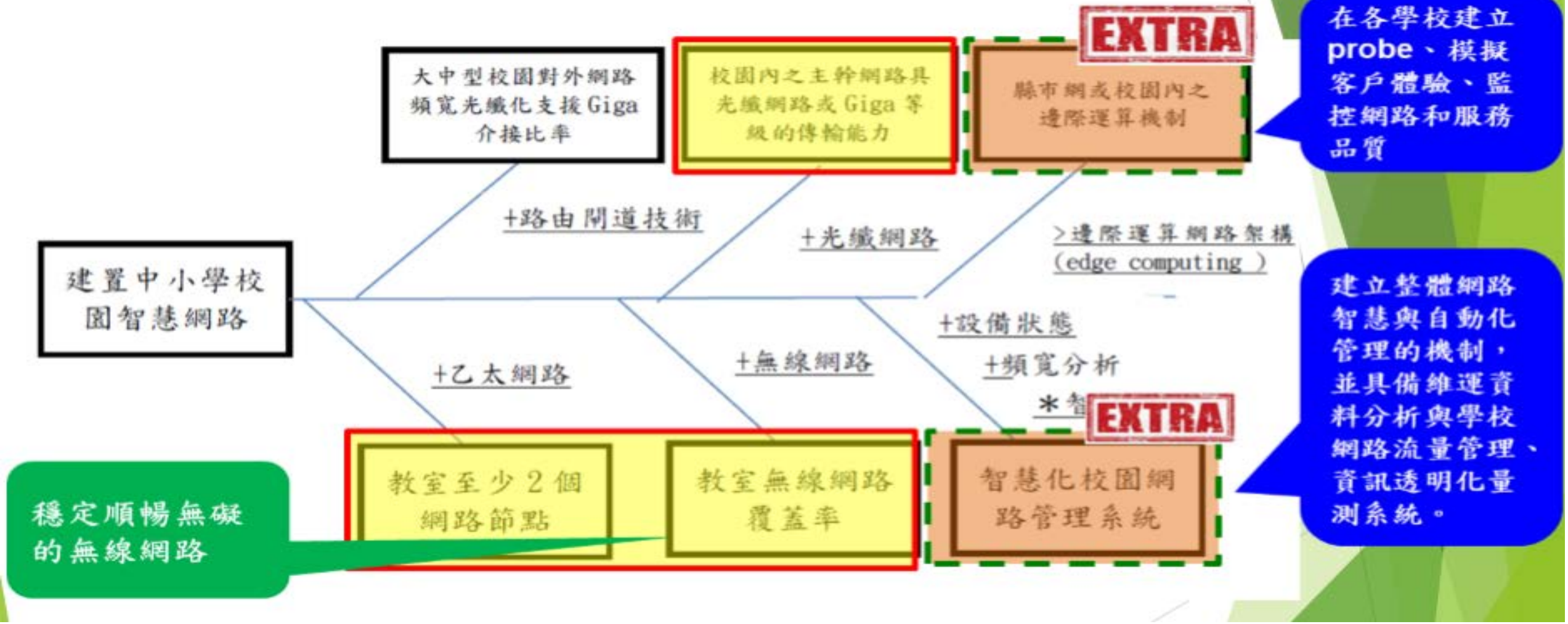
校園無線網路暨網路基礎建設

智慧網路管理系統

資安稽核、證照考試經驗

新北市政府 教育局
Education Department, New Taipei City Government

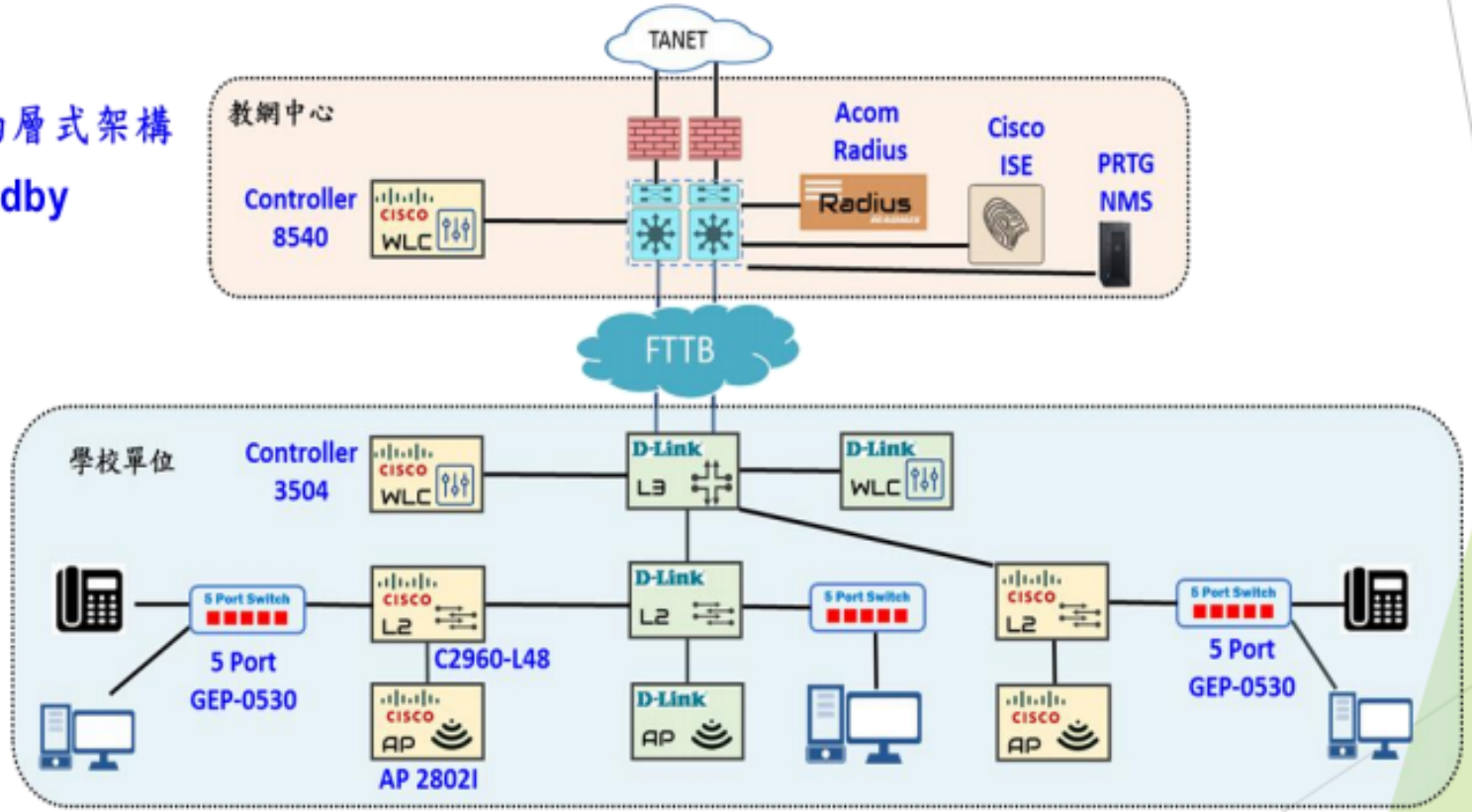
校園智慧網路重要技術關聯



智慧網路管理、骨幹網路架構及概況

- 整體系統架構圖

- Controller兩層式架構
- Active-Standby



107-110工程重點：

1、教室線路備援。

2、無線支援漫遊

TANetRoaming

eduroam

i-Taiwan

NTPC-Mobile

3、骨幹若為cat6 up to 2G

單模up to 10G

4、教室實體線路x2

教室可用 1G poe portx5

5、Acom radius server

6、PRTG and Siraya NMS

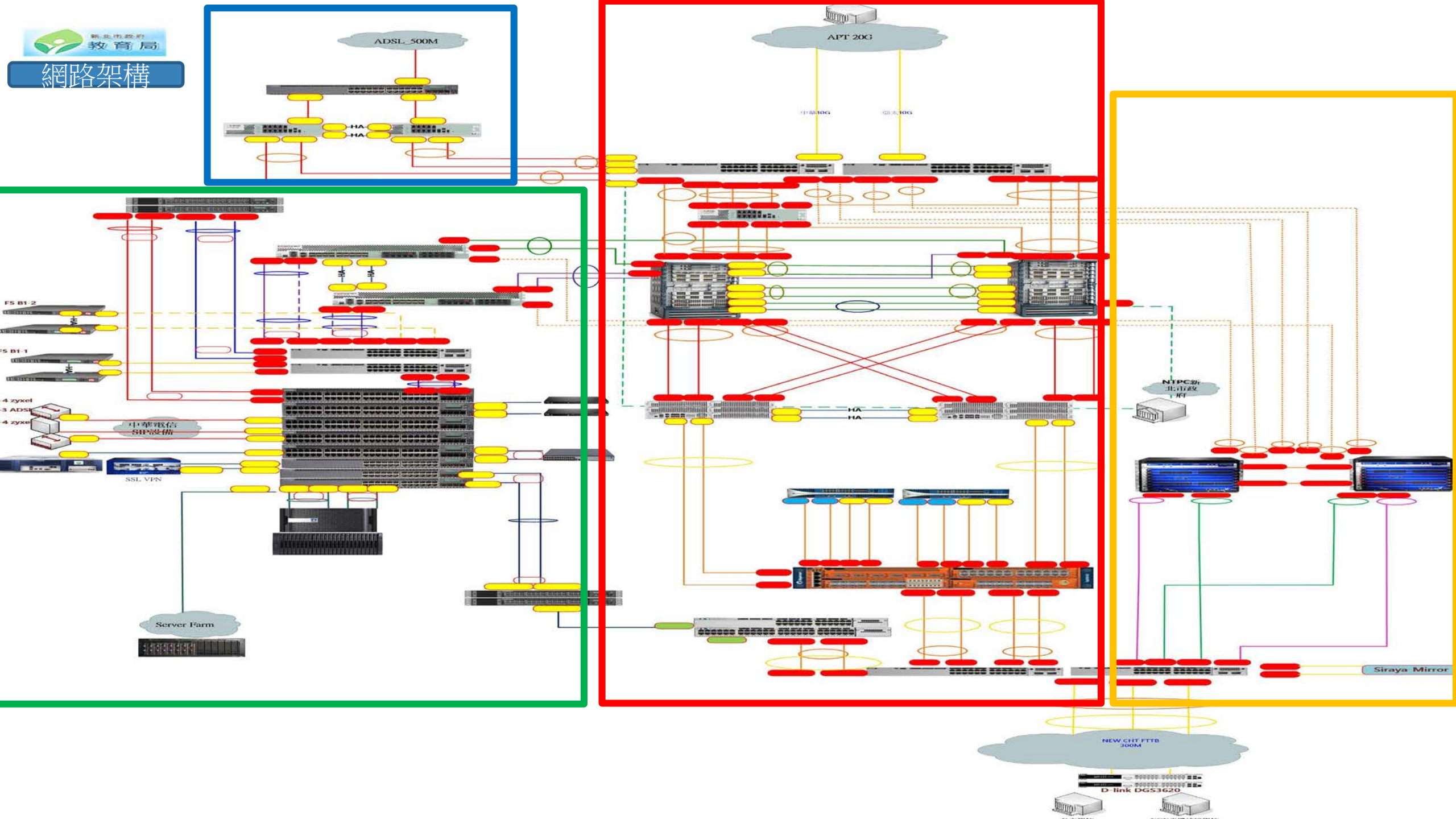
7、A-S Controller

8、PVC施作品質

新北市政府 教育局
Education Department, New Taipei City Government

新北市教育局

網路架構

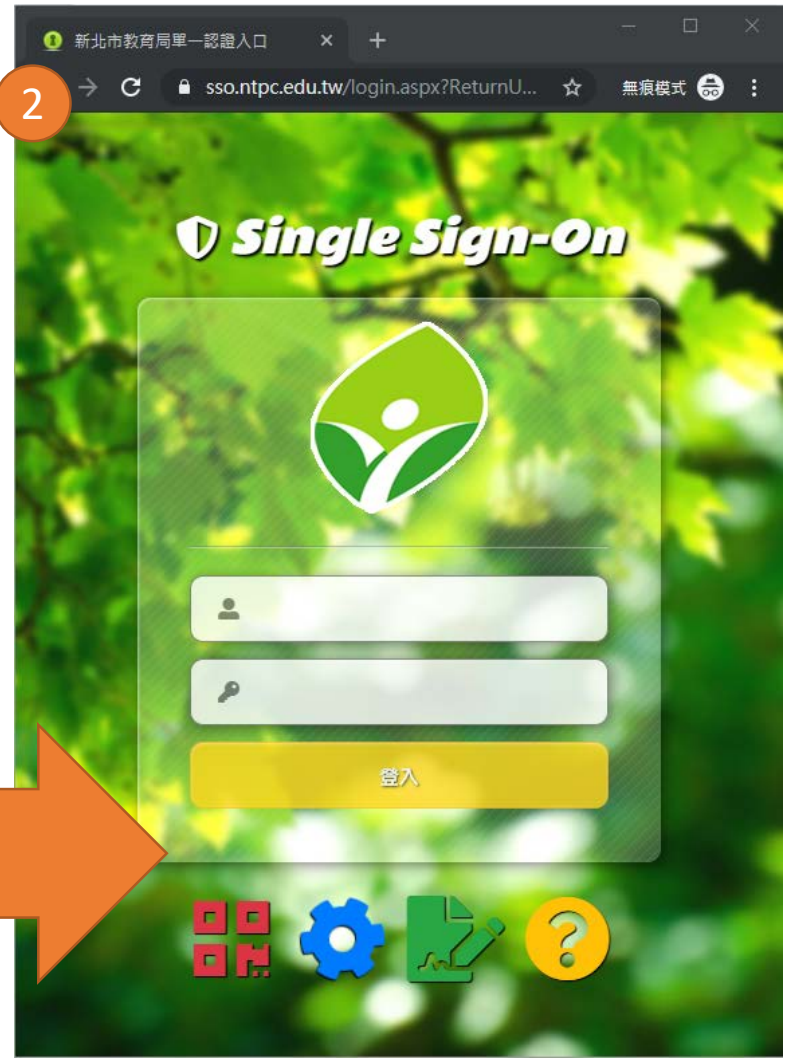

ADSL_500M
HA
HA
APT 20G
HA
HA
F5 B1-2
F5 B1-1
4 zyxel
3 ADSL
4 zyxel
中華電信
SIP設備
SSL VPN
Server Farm
NTPC新北市政府
Siraya Mirror
NEW CHT FTTB 300M
D-link DGS3620

校園網路管理應具備的能力

1. 熟悉校園與各棟樓層與教室環境(樓名、教室編號)
2. 瞭解學校網路佈線方式：中繼點或交換器位置
3. 學校網路架構圖與實體放置地點對照表.
4. 識別各網段用途與連接的設備.
5. 會查找IP 所對應的交換器埠號及簡易故障排除.
6. 作業系統網卡：IP,通訊閘,子網路遮罩,DNS 指定.
7. 電腦、手機、平板 mac address 、IP 查找.
8. 學會打電話給中心駐點工程師.

智慧網管

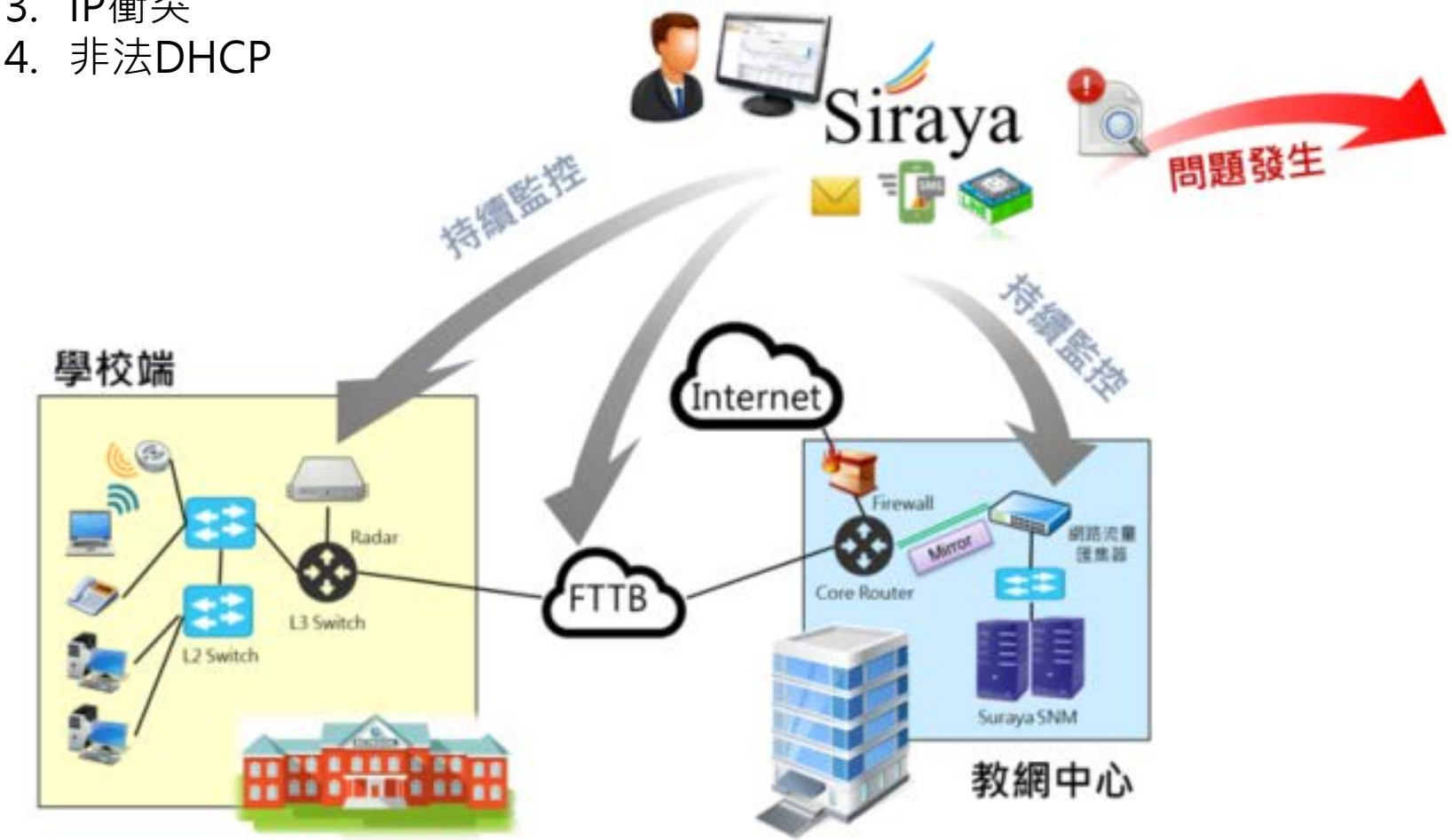
網址：https://nms.ntpc.edu.tw/

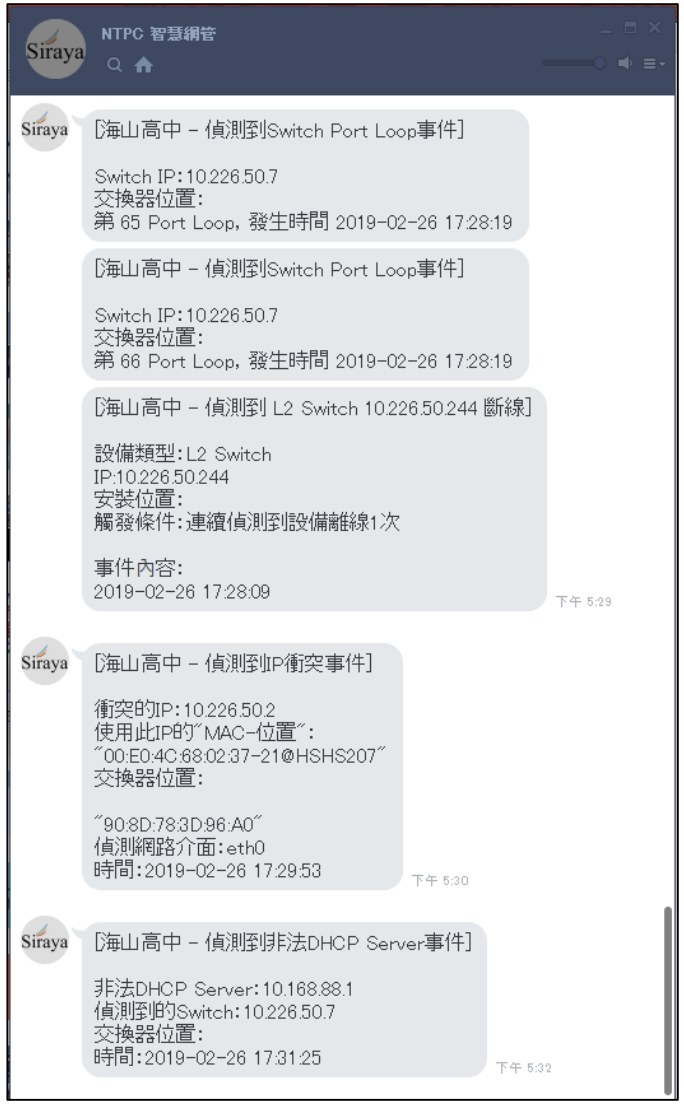


新北市政府 教育局
Education Department, New Taipei City Government

智慧網管偵測問題產生告警

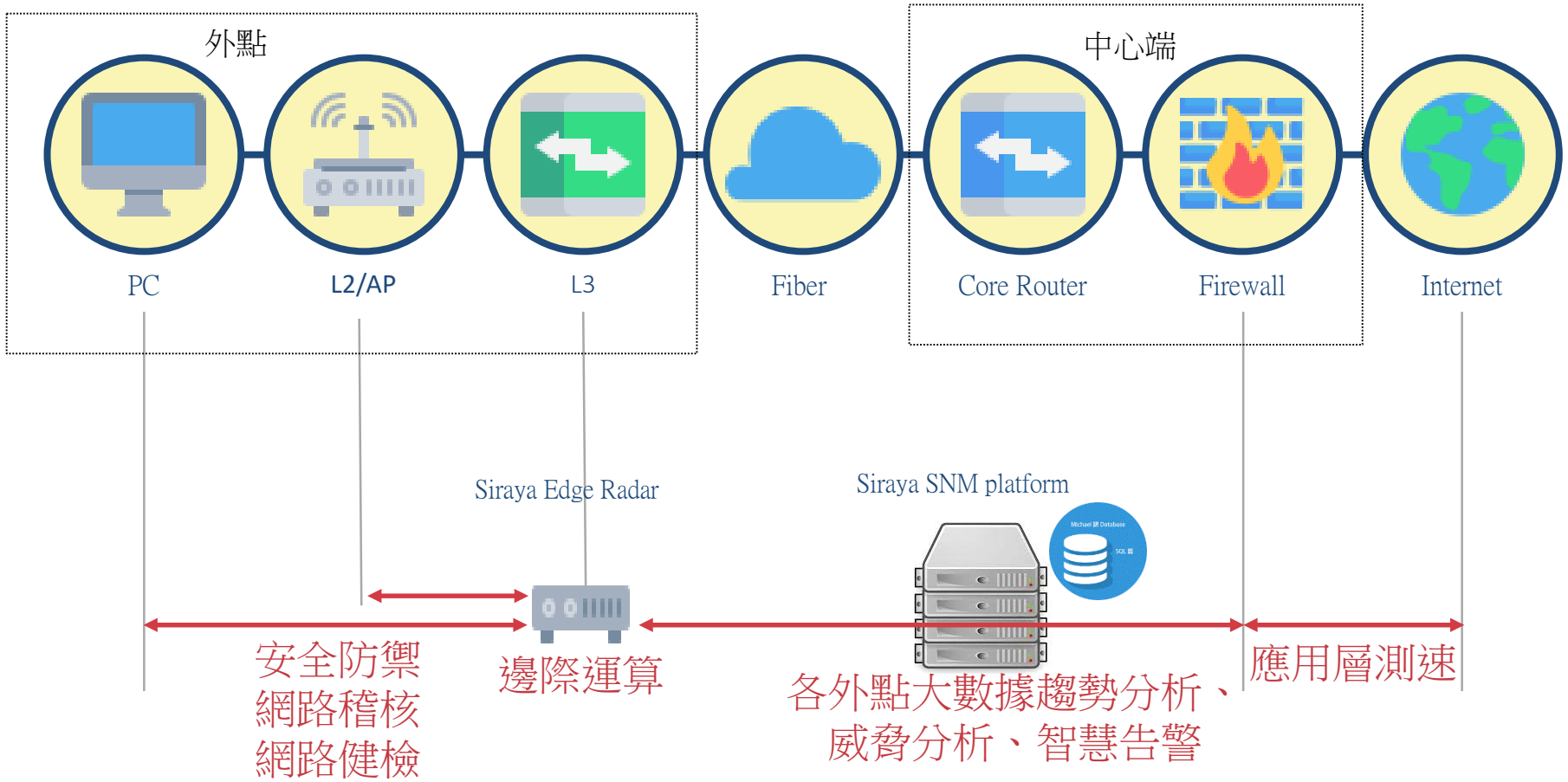
1. Port loop
2. 設備離線
3. IP衝突
4. 非法DHCP





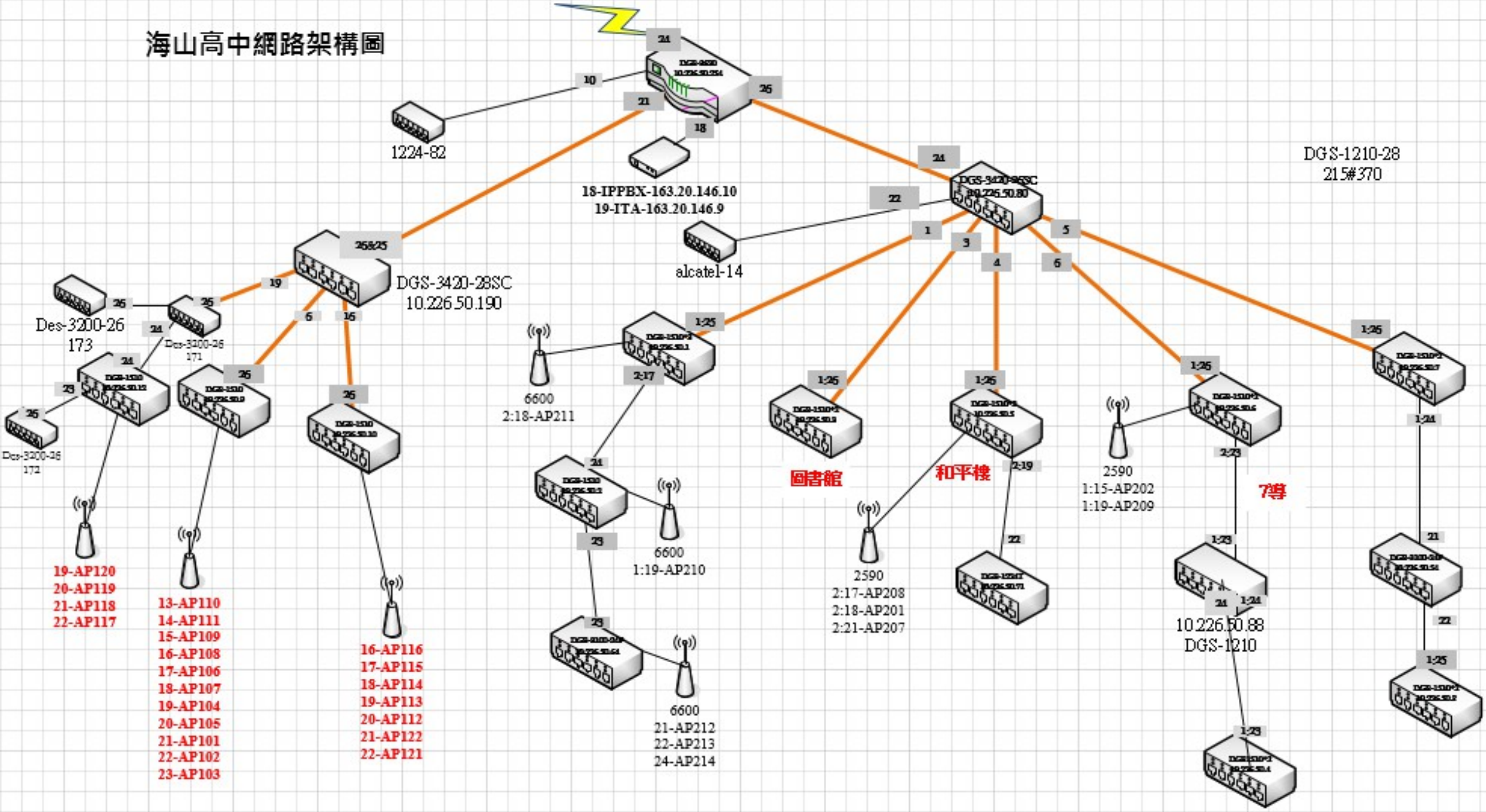
新北市政府 教育局
Education Department, New Taipei City Government

智慧網管整體架構

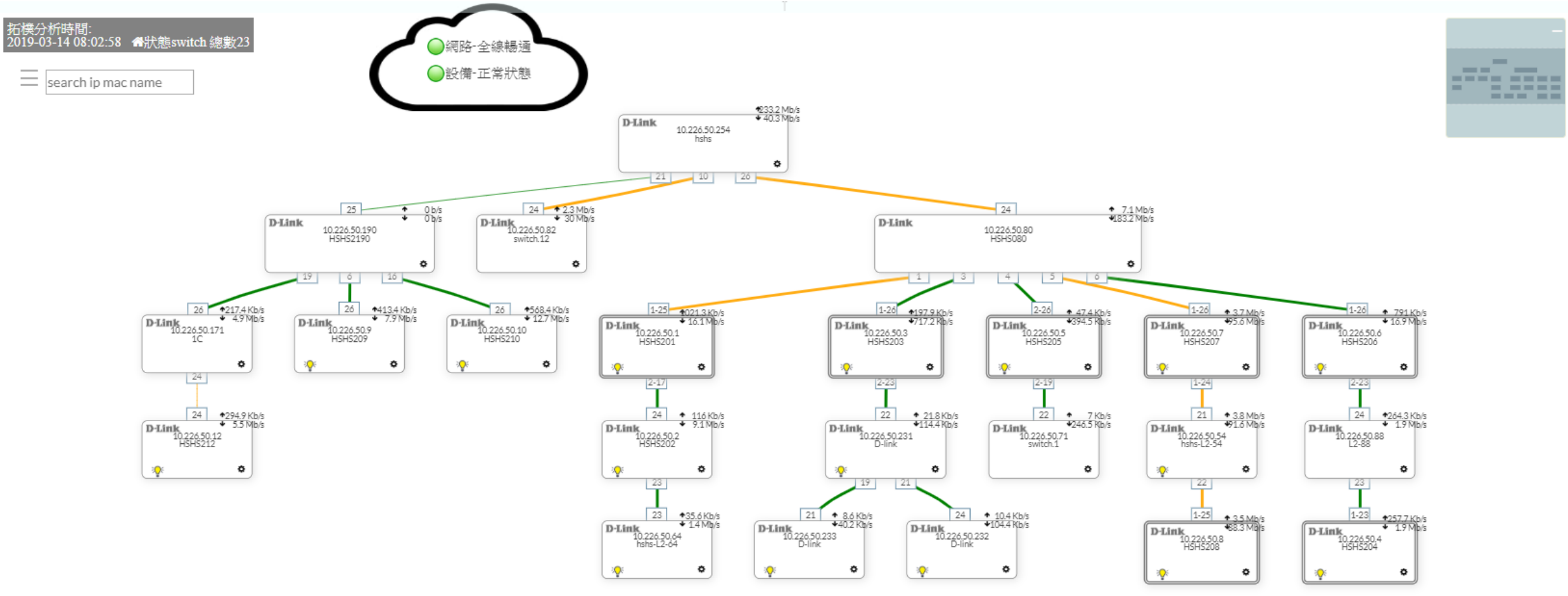


新北市政府 教育局
Education Department, New Taipei City Government

海山高中網路架構圖


1224-82
18-IPPBX-163.20.146.10
19-ITA-163.20.146.9
alcatel-14
DGS-3420-28SC
10.226.50.190
DGS-1210-28
215#370
Des-3200-26
173
Des-3200-26
171
Des-3200-26
172
6600
2:18-AP211
6600
1:19-AP210
6600
21-AP212
22-AP213
24-AP214
圖書館
和平樓
2590
2:17-AP208
2:18-AP201
2:21-AP207
2590
1:15-AP202
1:19-AP209
7尊
10.226.50.88
DGS-1210
19-AP120
20-AP119
21-AP118
22-AP117
13-AP110
14-AP111
15-AP109
16-AP108
17-AP106
18-AP107
19-AP104
20-AP105
21-AP101
22-AP102
23-AP103
16-AP116
17-AP115
18-AP114
19-AP113
20-AP112
21-AP122
22-AP121

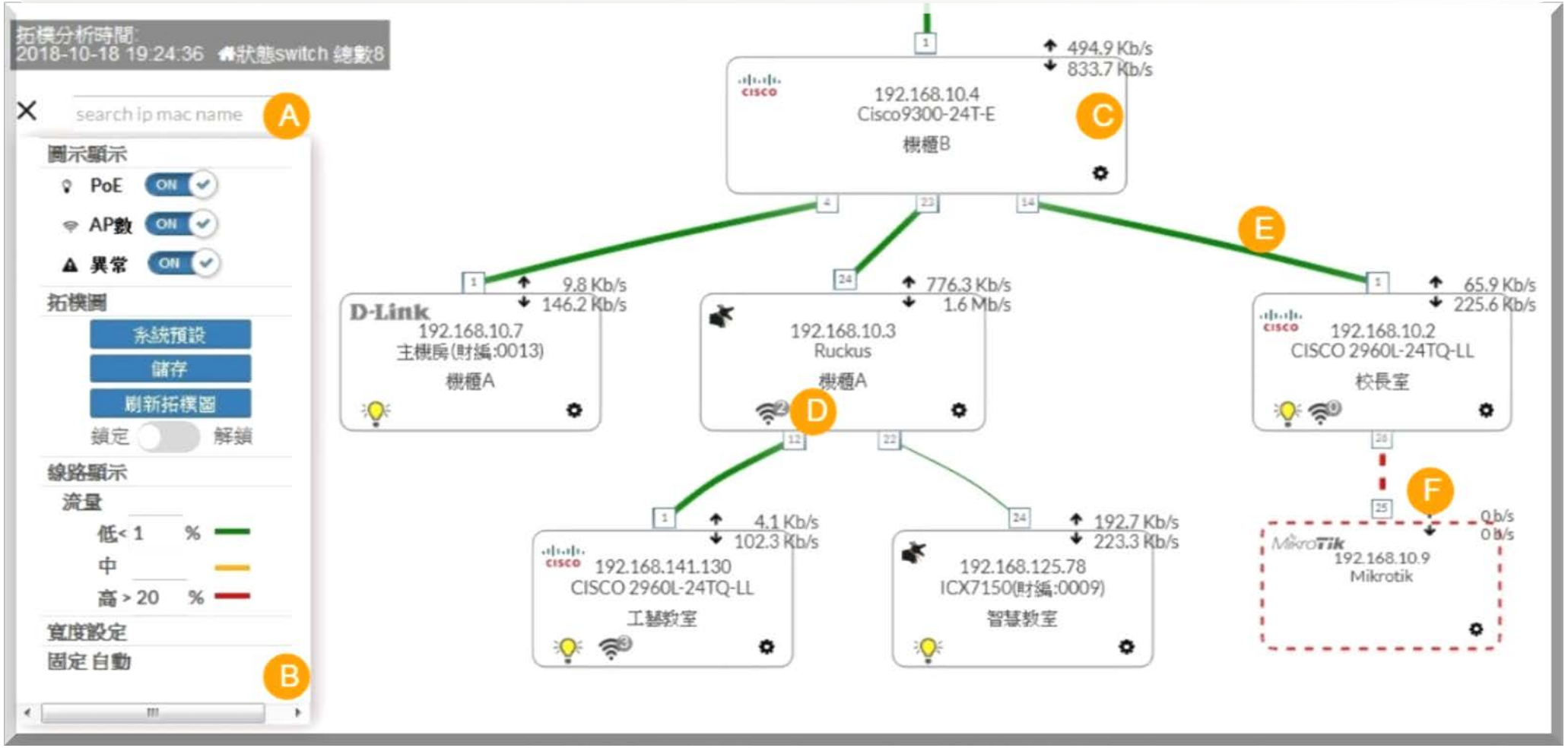
智慧網管自動拓譜網路架構



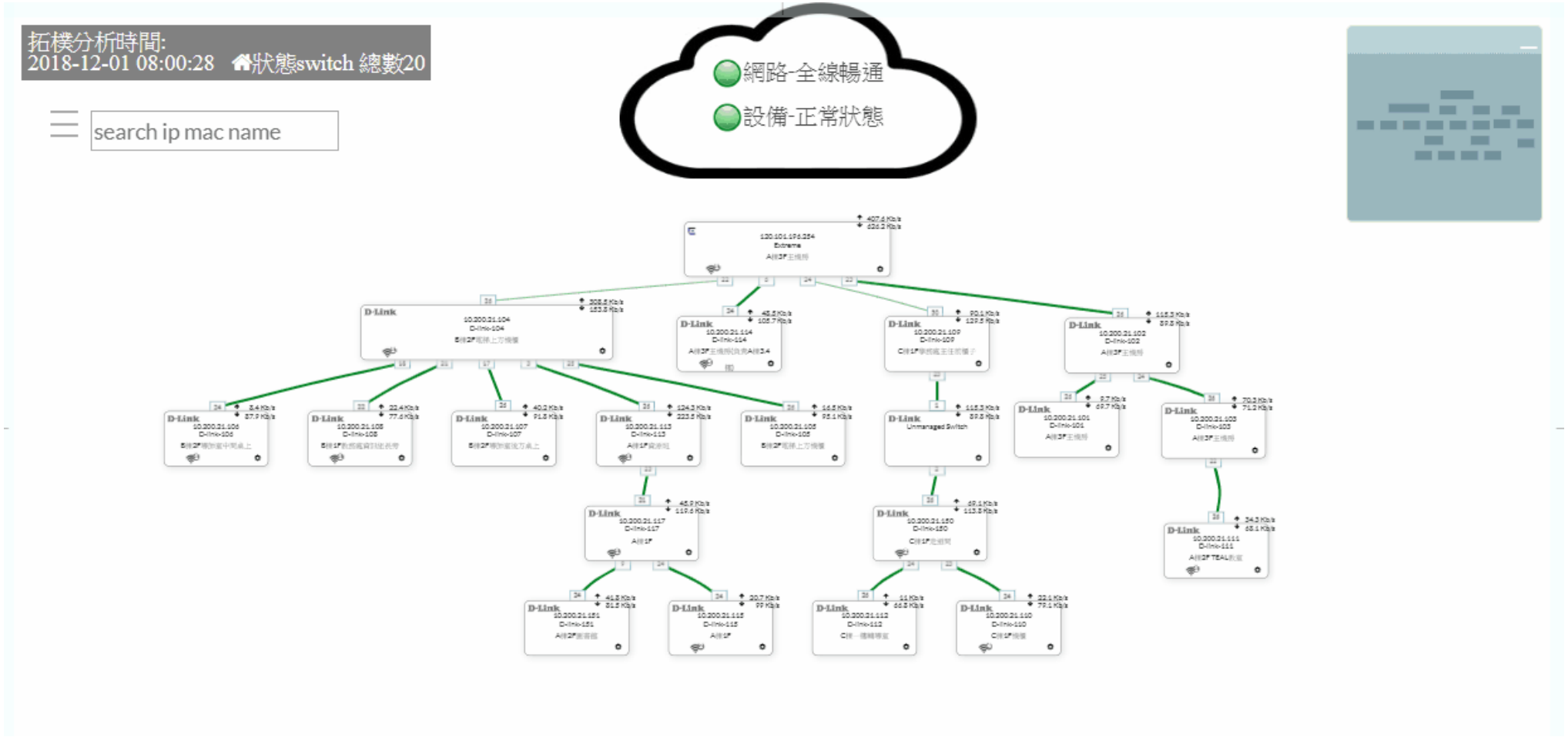
新北市政府 教育局
Education Department, New Taipei City Government

自動網路拓樸

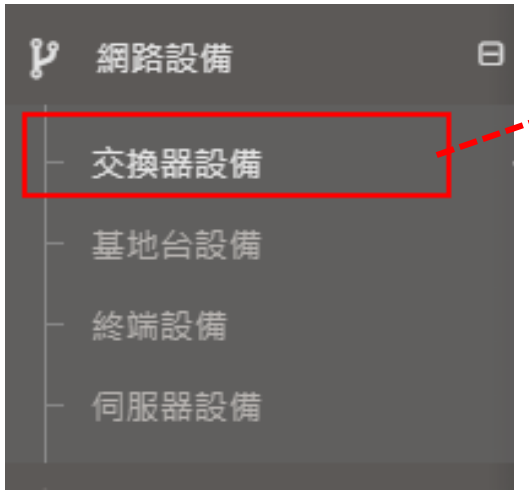
直覺化管理介面，簡單上手，輕鬆管理網路設備



網路拓撲圖 – 可拖移

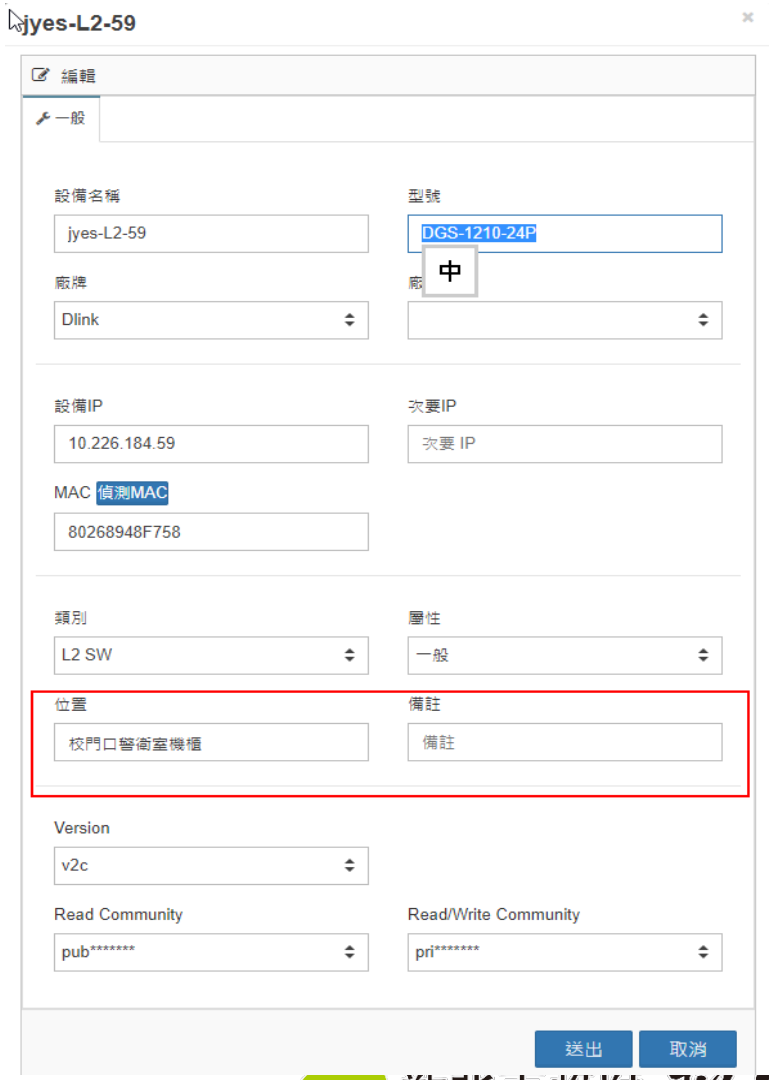

拓樸分析時間:
2018-12-01 08:00:28
狀態switch 總數20
search ip mac name
網路-全線暢通
設備-正常狀態

財產管理–平台註記交換器



點選交換器

輸入放置位置:



現在有哪些設備在使用中

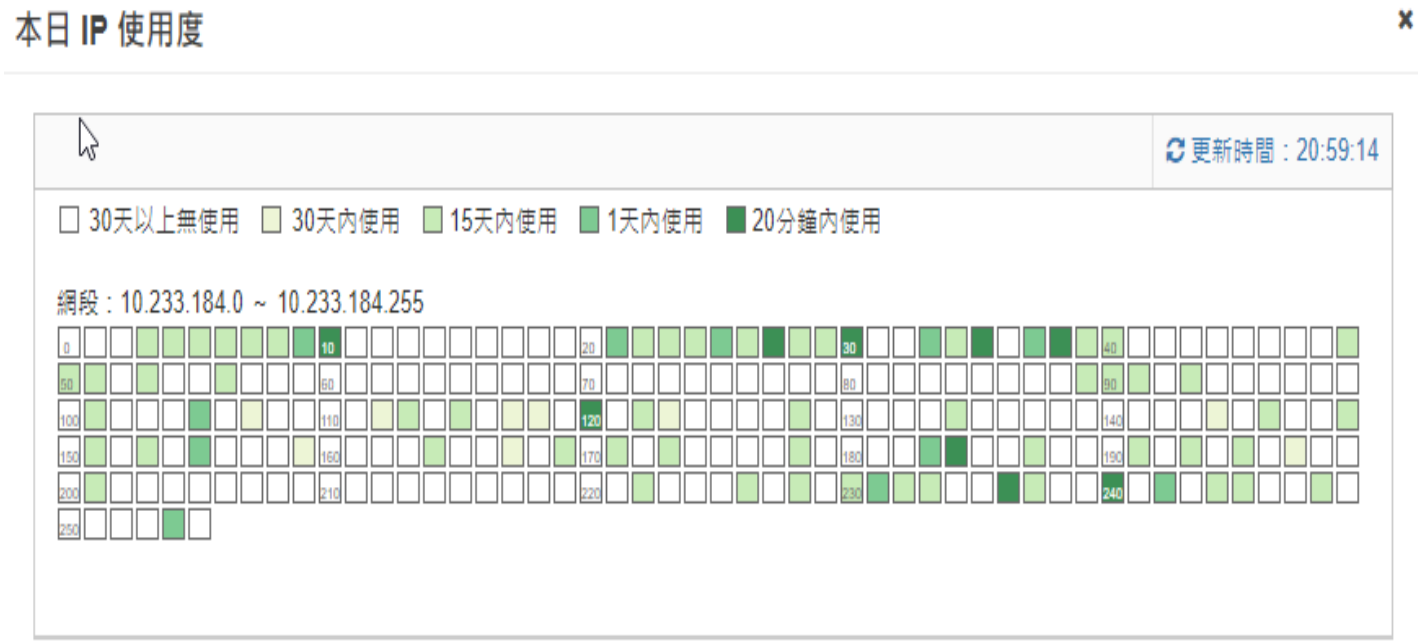
利用即時數據，可得知目前網路設備現況

校內有哪些網段，網段使用情形是如何

透過IPAM->網段使用狀況，可得知各網段使用情形。

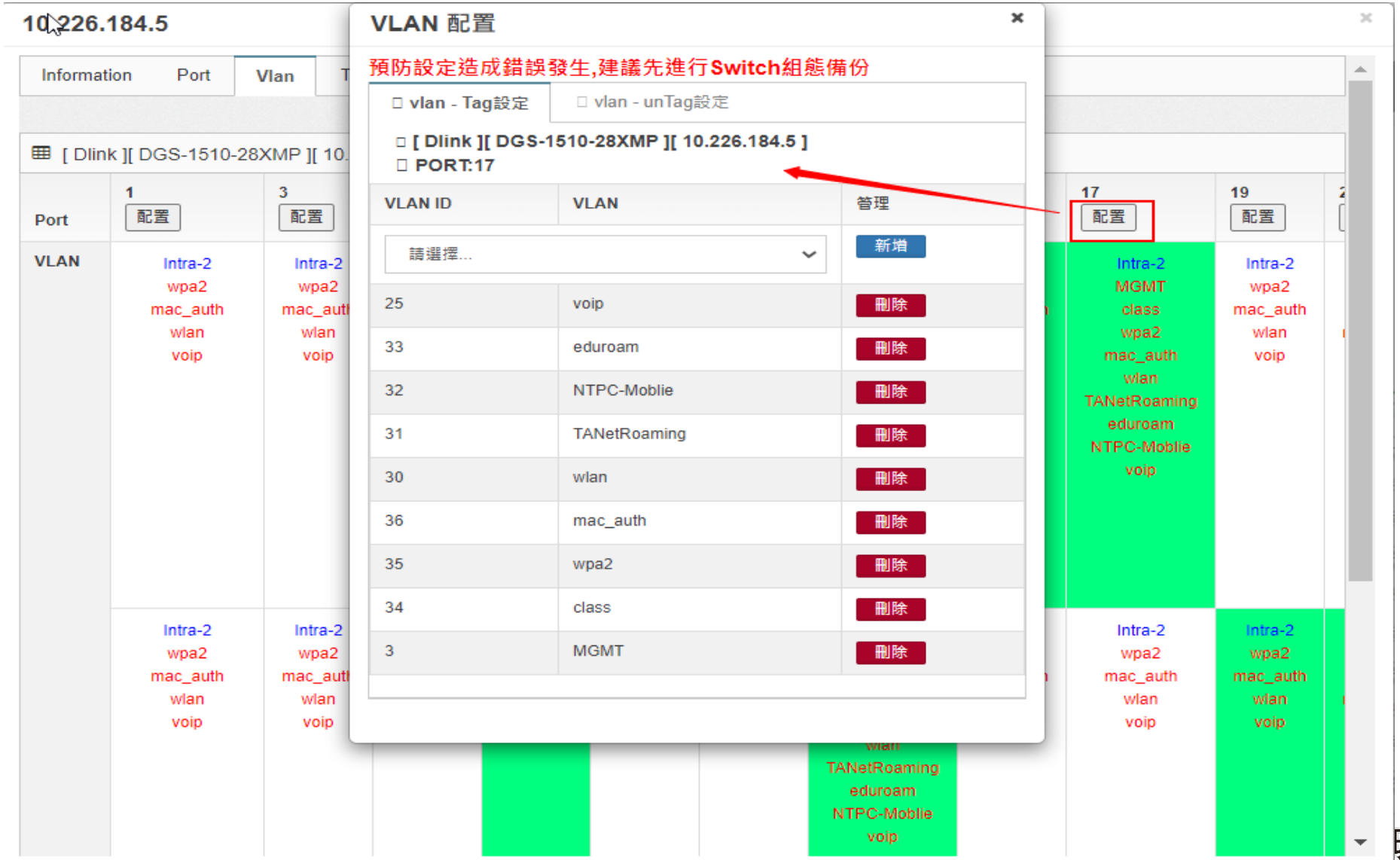
163.20.X.X : 學校實體網段
10.241.X.X : 班級教室網段
10.231.X.X : 電腦教室網段

10.226.X.X : 大同的交換器
10.228.X.X : 華電的交換器



新北市政府 教育局
Education Department, New Taipei City Government

交換器 Vlan 設定情形



交換器可以獲得ROUTE TABLE AND ARP TABLE相關資訊

10.226.184.254

Information | Port | Vlan | Traffic | Client

Information

Switch Name : Dlink

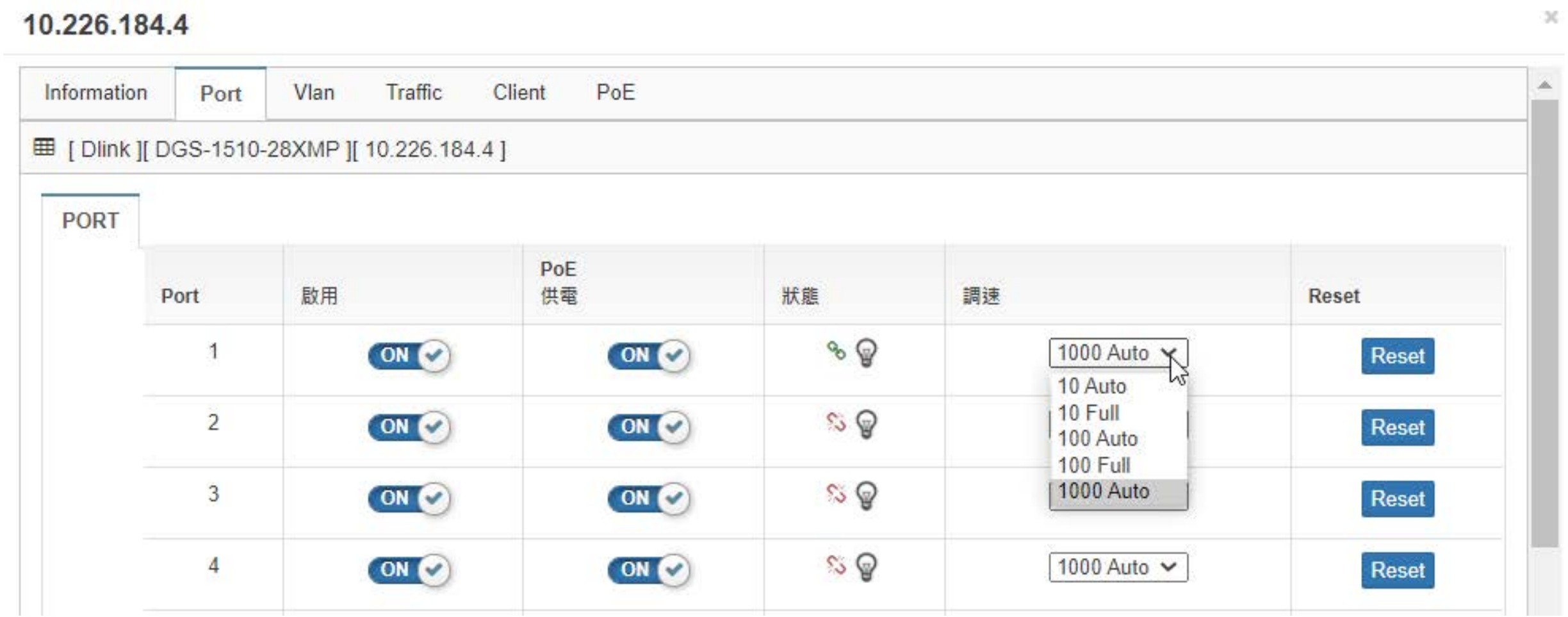
運作時間：38 days, 18:40:25.26

Model : DGS-3620-28TC

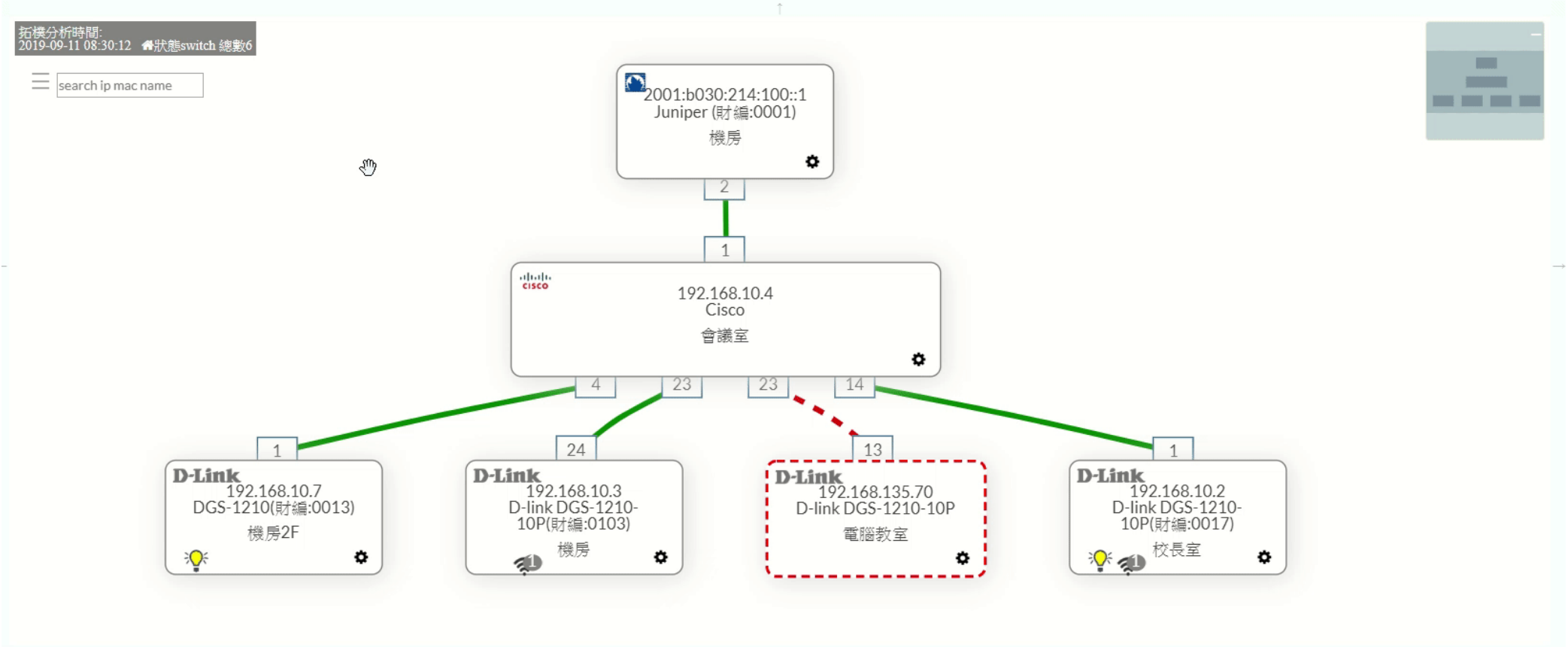
IP(s) :
10.226.184.254/24
10.217.184.254/24
10.247.184.254/24
163.20.85.126/25
192.168.1.254/24
10.90.90.254/24
10.211.184.254/24
10.228.184.254/24
10.231.184.254/24
10.239.184.254/24
10.245.184.254/24
10.233.184.254/24
10.241.184.254/24
10.243.184.254/24
10.253.184.254/24
163.20.206.185/29
10.213.184.254/24
10.215.184.254/24

綁定的I P

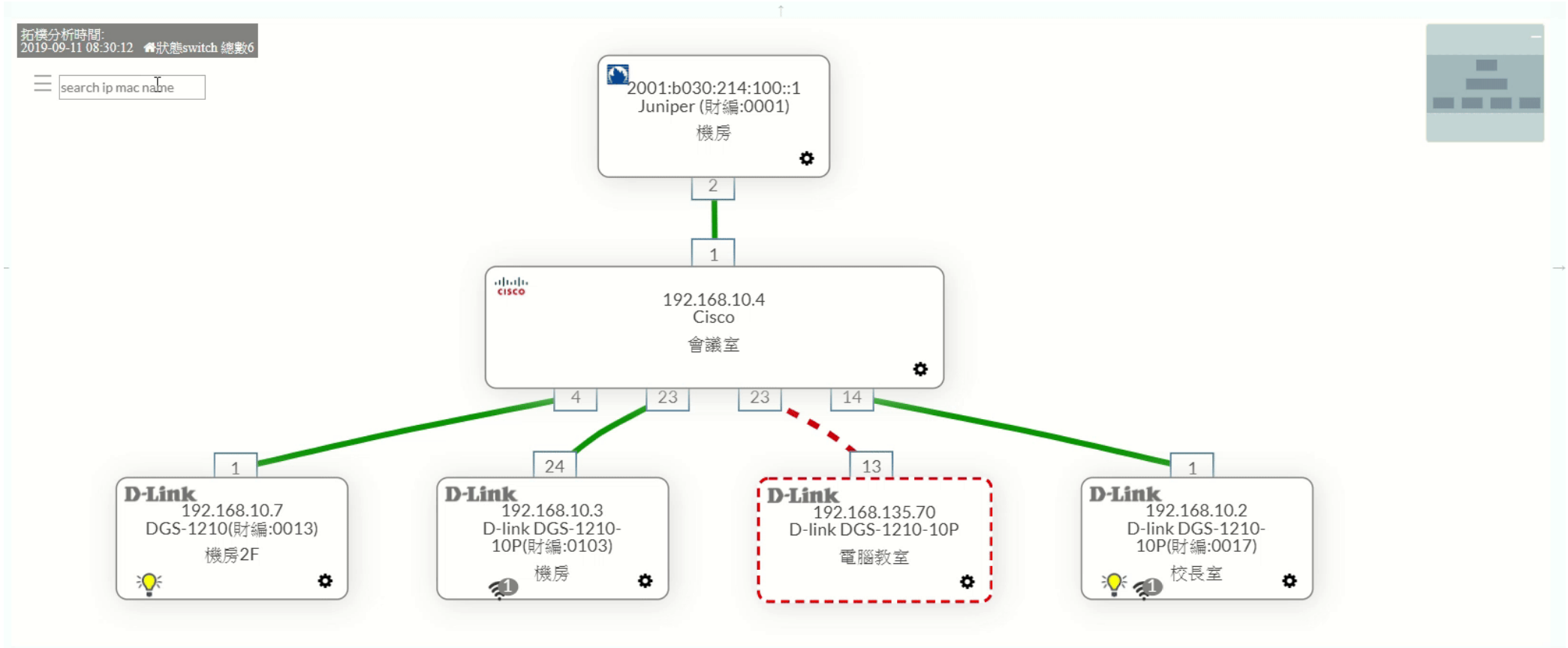
交換器各埠資訊及功能



搜尋功能-設備IP


拓樸分析時間:
2019-09-11 08:30:12 狀態switch 總數6
search ip mac name
2001:b030:214:100::1
Juniper (財編:0001)
機房
2
1
192.168.10.4
Cisco
會議室
4
23
23
14
1
24
13
1
D-Link
192.168.10.7
DGS-1210(財編:0013)
機房2F
D-Link
192.168.10.3
D-link DGS-1210-10P(財編:0103)
機房
D-Link
192.168.135.70
D-link DGS-1210-10P
電腦教室
D-Link
192.168.10.2
D-link DGS-1210-10P(財編:0017)
校長室

搜尋功能-設備MAC

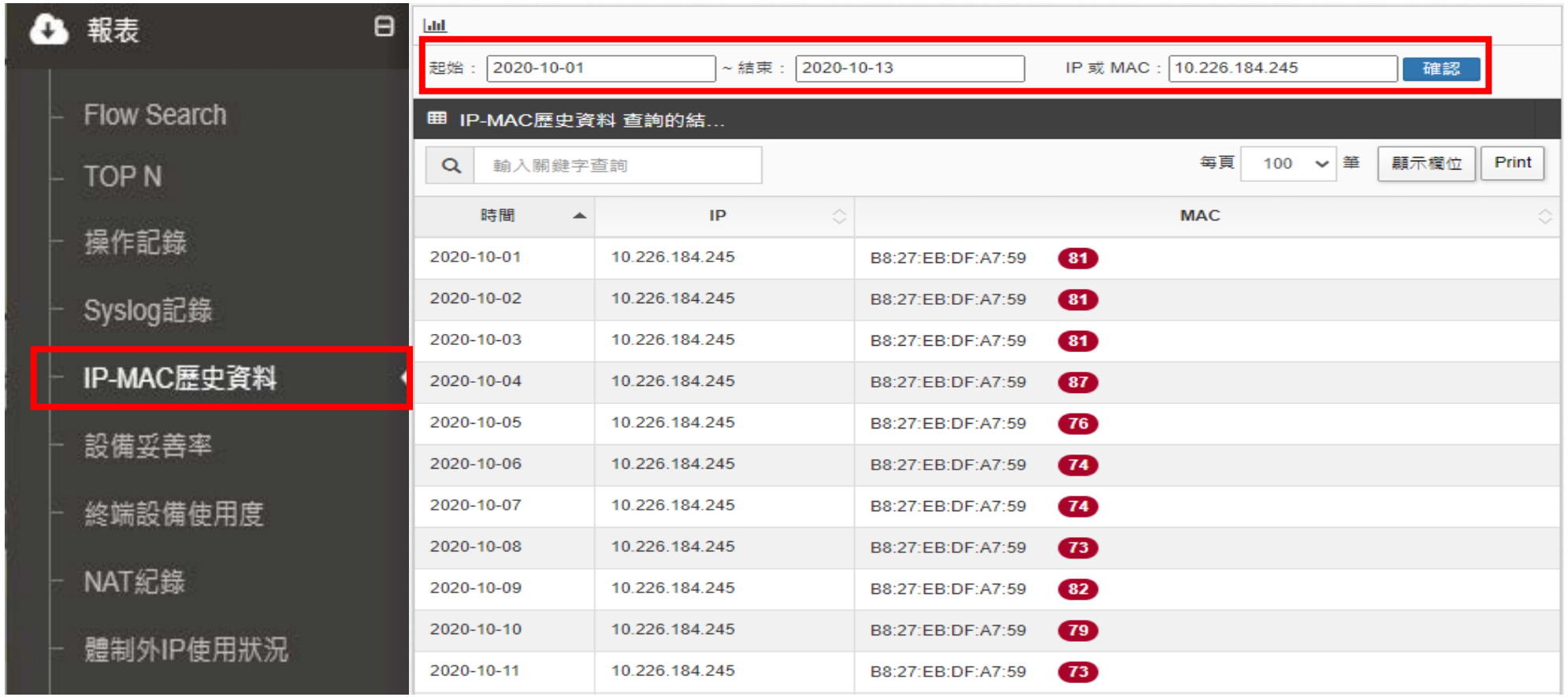


輸入格式：001234abcdef　/ 001234ABCDEF
00:12:34:ab:cd:ef / 00:12:34AB:CD:EF

IP-MAC歷史資料

報表 ➔ IP-MAC歷史資料

自定義時間區間，想查找的IP或MAC，進行資料搜尋。

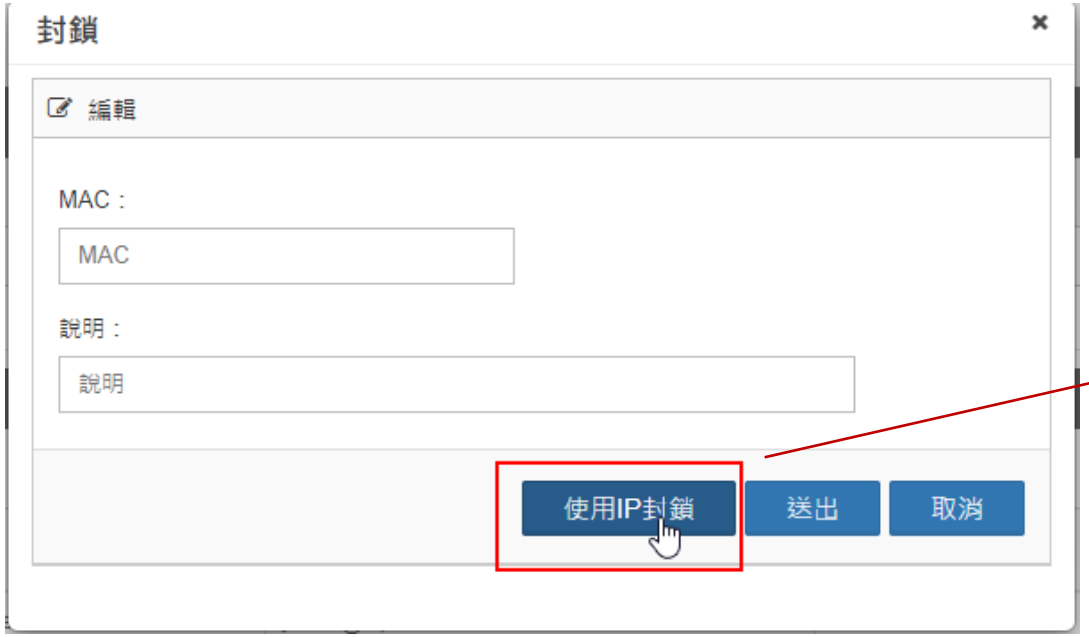


10-2.透過IP封鎖

Ans:

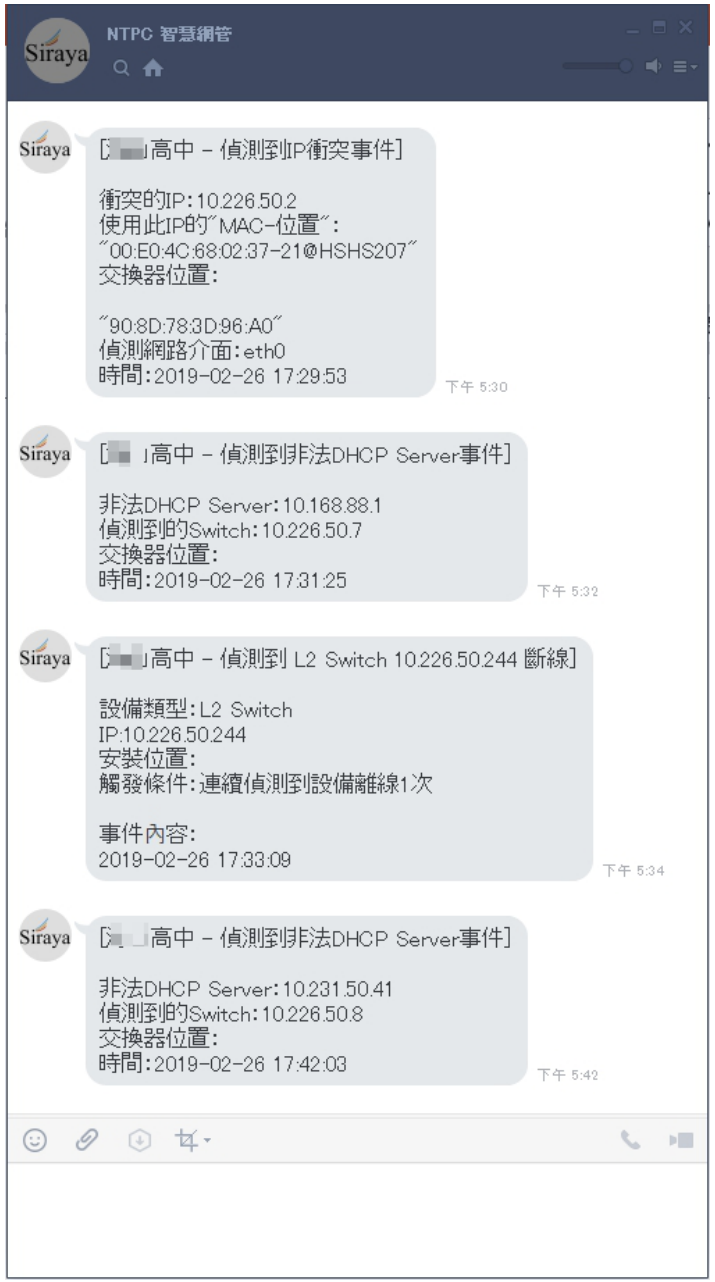
(1) 確認IP後,進入智慧網管-> 封鎖清單，[新增]。

(3) 將該電腦重新還原，並安裝防毒與windows update



新北市政府 教育局
Education Department, New Taipei City Government

告警通報



新北市政府 教育局
Education Department, New Taipei City Government

告警訊息-交換器斷線

[正德國中 - 偵測到交換器 10.226.202.5 斷線]

設備類型:交換器
設備IP:10.226.202.5
安裝位置:未設定
觸發條件:連續偵測到設備離線2次

時間:
2019-08-30 11:23:09
2019-08-30 11:18:09

建議處理方式:請網管人員至現場確認設備狀況

告警訊息-IP衝突

Siraya

[正德國中 - 偵測到IP衝突事件]

衝突的IP:10.231.202.110
時間:2019-09-03 15:58:25
使用此IP的"MAC資訊":

MAC:00:23:24:D3:91:BE
MAC別名:未設定
交換器IP:10.226.202.254
交換器:JDJH 第 17 Port
交換器位置:未設定

MAC:B8:27:EB:AE:A6:34
MAC別名:未設定
交換器IP:10.226.202.254
交換器:JDJH 第 2 Port
交換器位置:未設定

建議處理方式:請網管人員登入網管系統排除問題

新北市政府 教育局
Education Department, New Taipei City Government

告警訊息-非法DHCP

Siraya

[正德國中 - 偵測到非法DHCP Server事件]

非法DHCP Server:10.231.202.100
非法DHCP MAC:00:26:18:D7:A8:E9
交換器IP:10.226.202.254
交換器:JDJH 第 7 Port
交換器位置:
時間:2019-09-02 08:04:55

建議處理方式:請網管人員登入網管系統排除問題

新北市政府 教育局
Education Department, New Taipei City Government

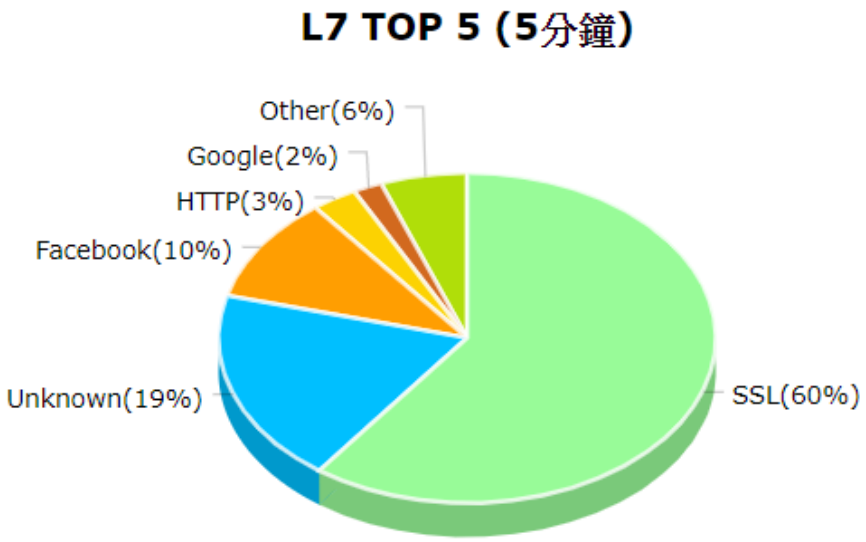
服務品質檢測

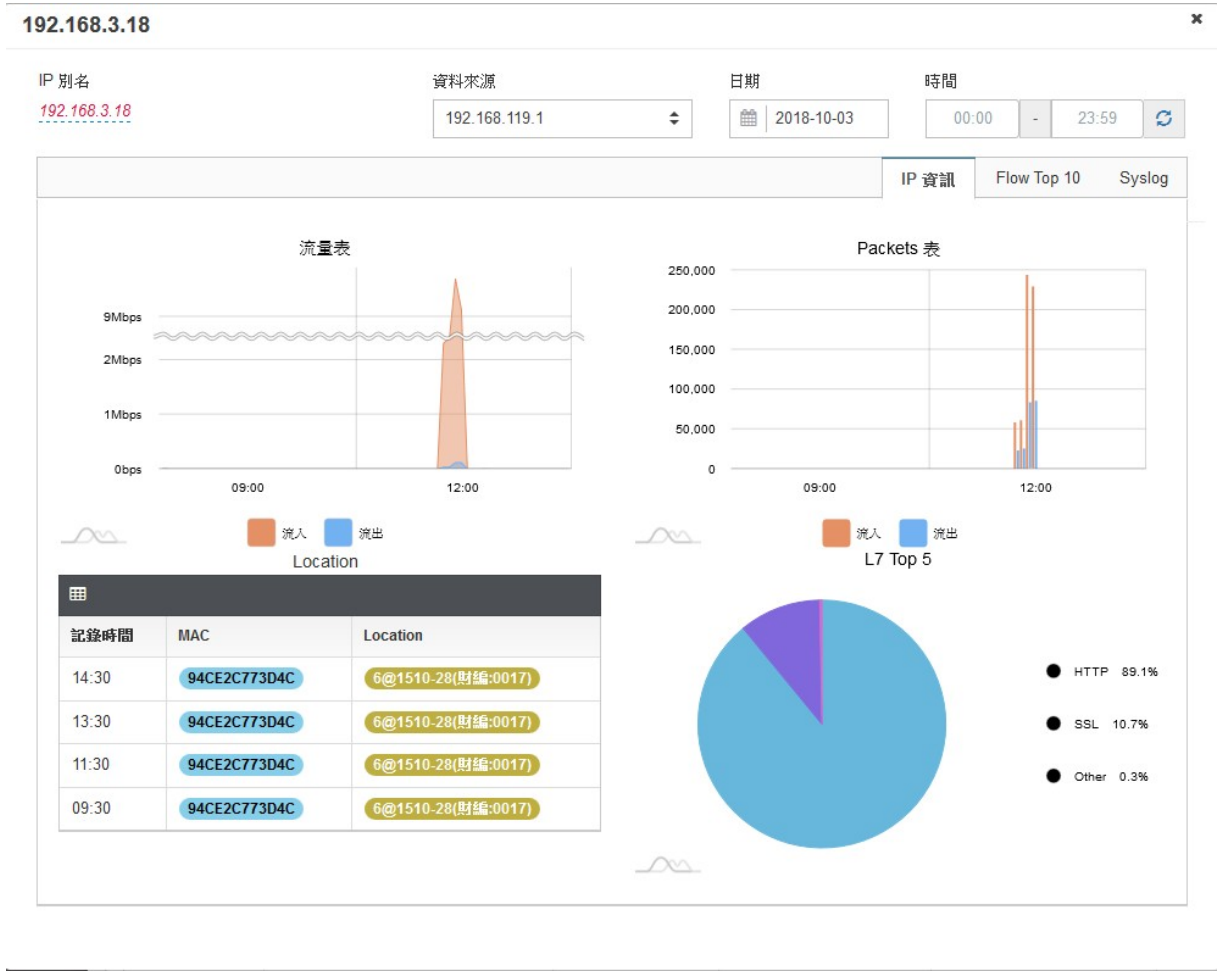
新北市政府 教育局
Education Department, New Taipei City Government

應用服務流量分析

校內單一IP分析

全校分析





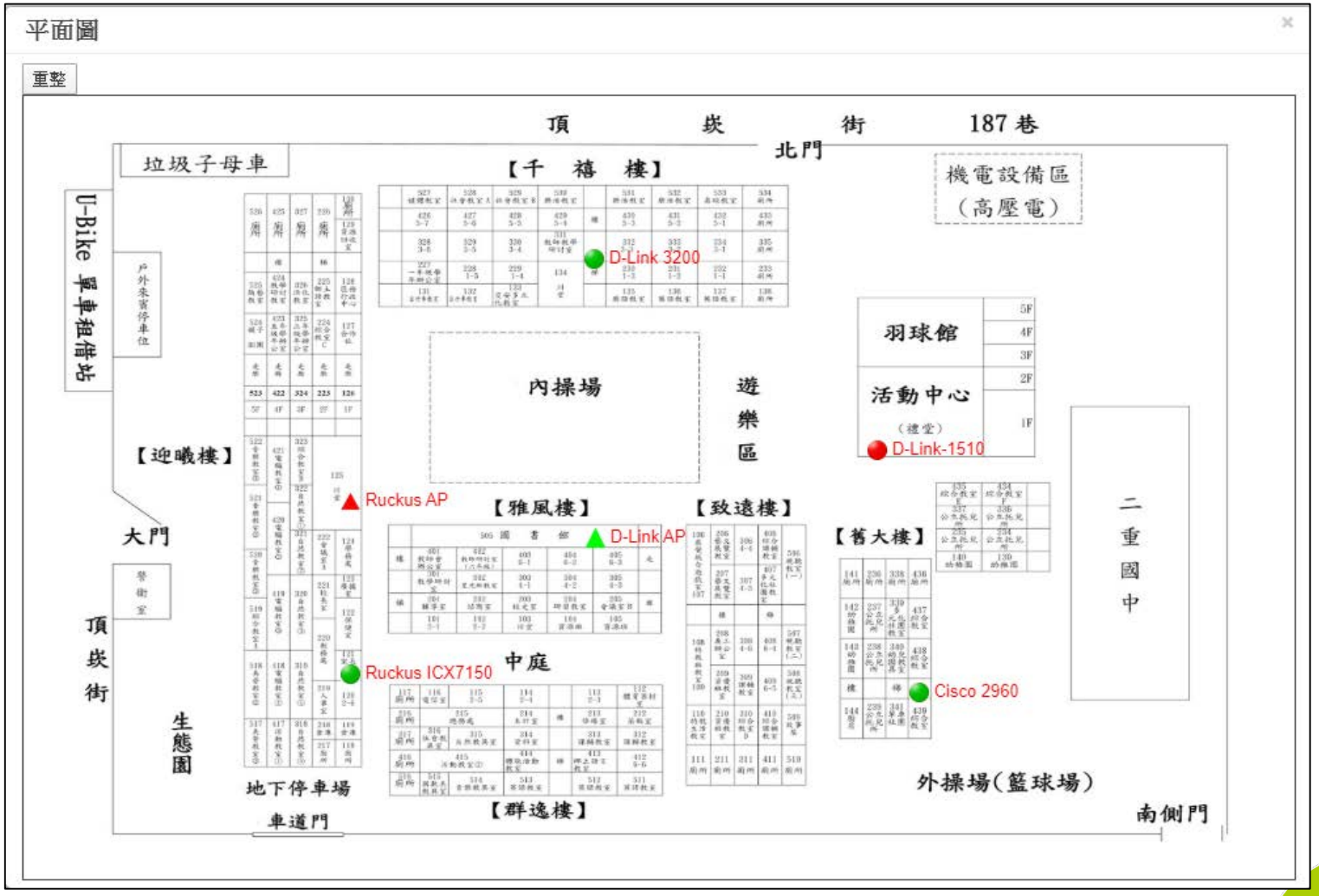
設備妥善率

自強國小AP妥善率:(不包含周六日)

設備名稱	設備IP	設備型號	妥善率
Cisco9300-24T-E	192.168.10.4	9300-24T-E	100.00%
CISCO	192.168.10.3	ICX7150	100.00%
主機房(財編:0013)	192.168.10.7	DGS-1210-10P	100.00%
DGS-1210(財編:0015)	192.168.125.30	DGS-1210-10P	99.96%
D-Link 1510	192.168.10.2	DGS-1510-28XMP	100.00%
MT_IPv6(財編:0001)	2001:b030:214:100::1	RB450G	100.00%
Dlink DGS-1510-28XMP	192.168.135.180	DGS-1510-28XMP	0.00%
D-link-1005	192.168.10.5	DES-3200-10	100.00%
D-link-1006	192.168.10.6	DES-3200-10	100.00%
Mikrotik-1008	192.168.10.8	CRS226-24G-2S+	100.00%
Extreme	192.168.141.91	X440-24p-10G	100.00%
Dlink DGS-3620-28TC	192.168.135.181	DGS-3620-28TC	0.00%
Zyxel GS1900-8	192.168.135.115	GS1900-8	0.00%

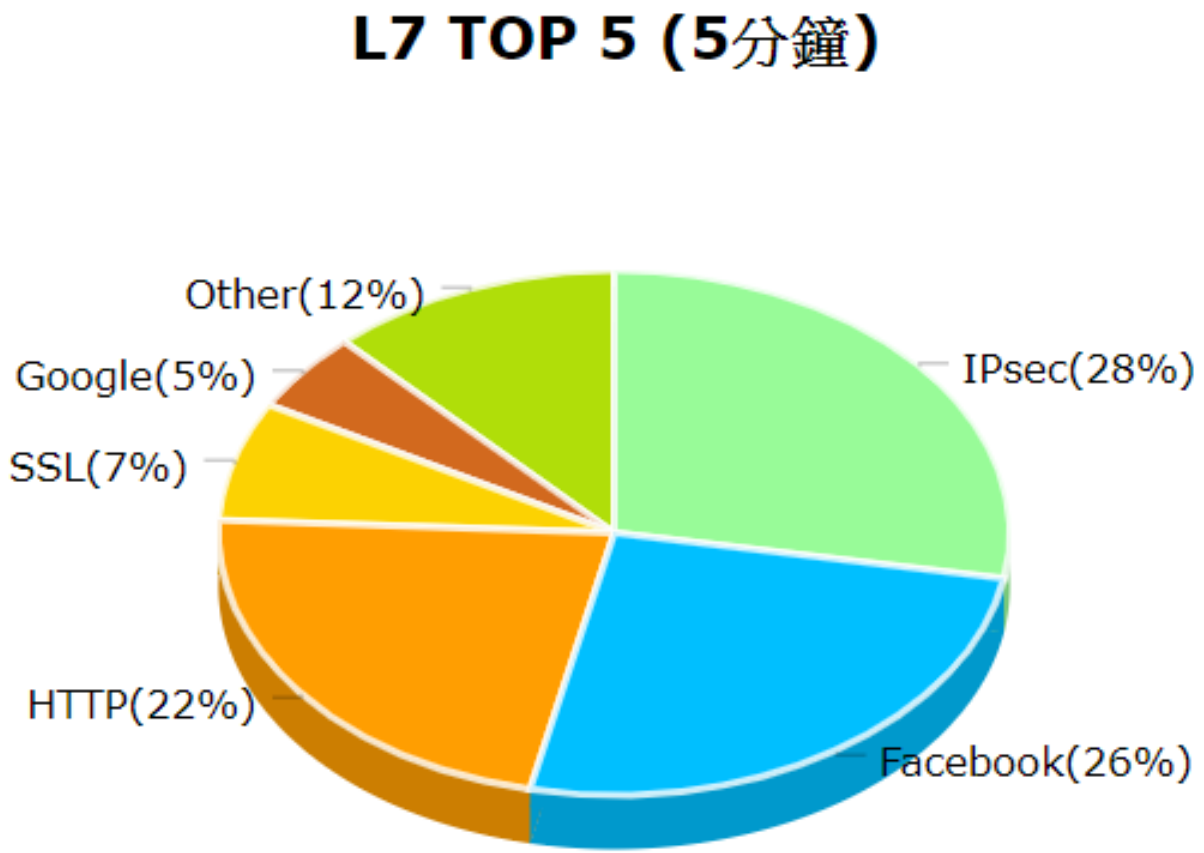
Map

設備顯示於平面圖上，清楚得知實際位置。



第七層前五名分析

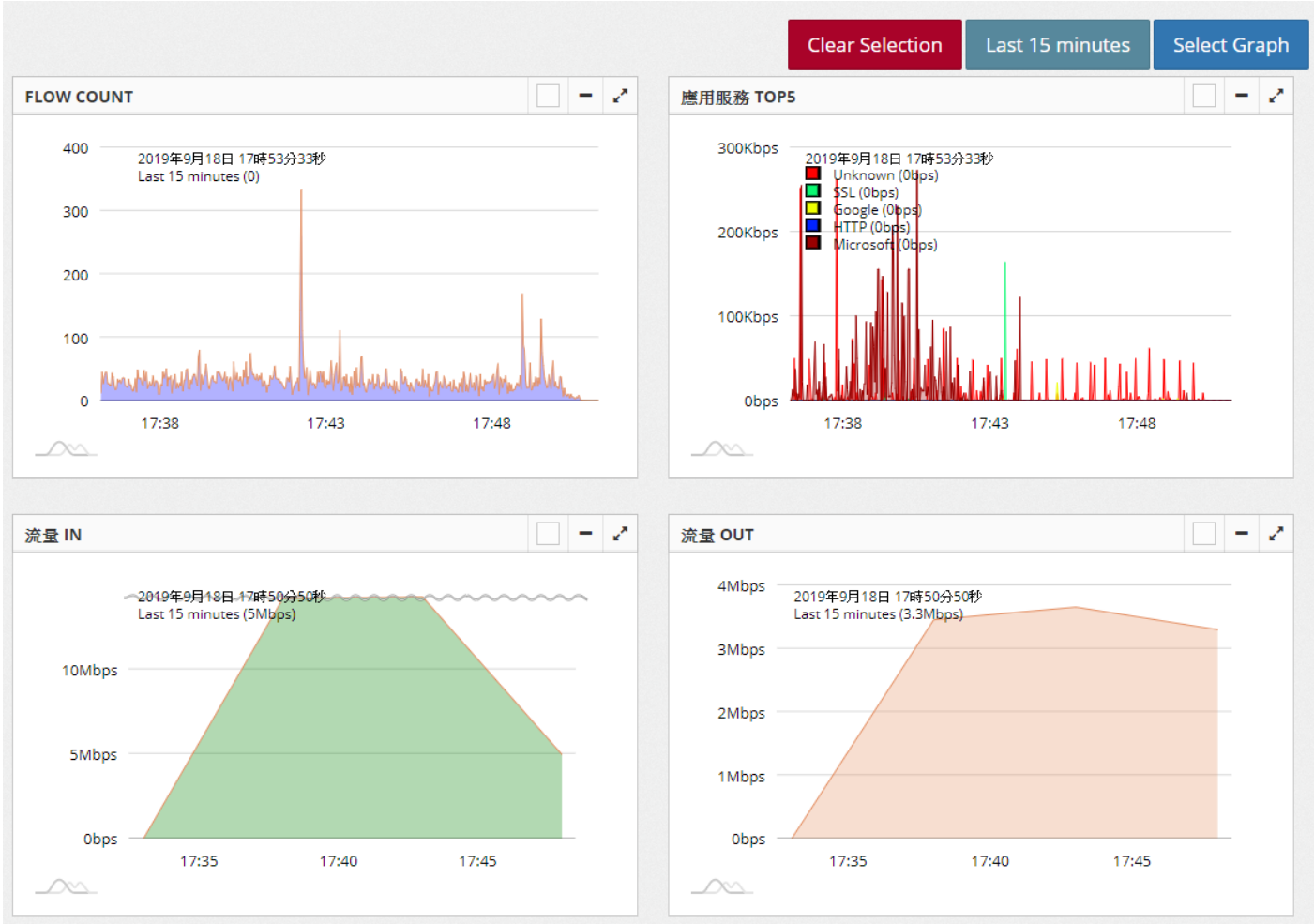
第七層服務前五名分析，針對整體流量進行第七層分析，並以圓餅圖呈現。



Flow分析

綜觀 ➔ Flow分析

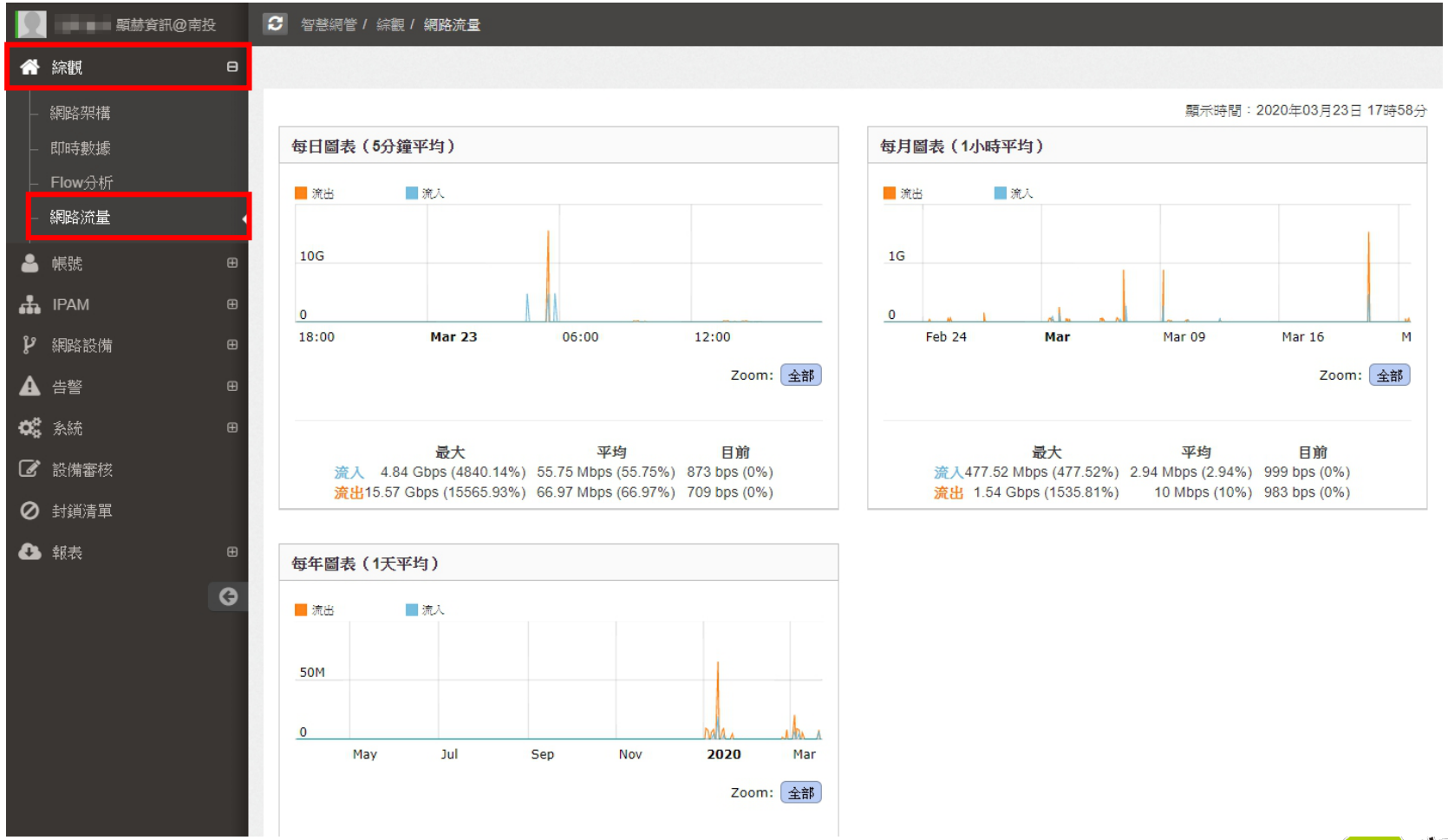
本校IP流量圖表分析總覽/流量資訊排名/圖表式佔比，圖表可作區間放大。



網路流量

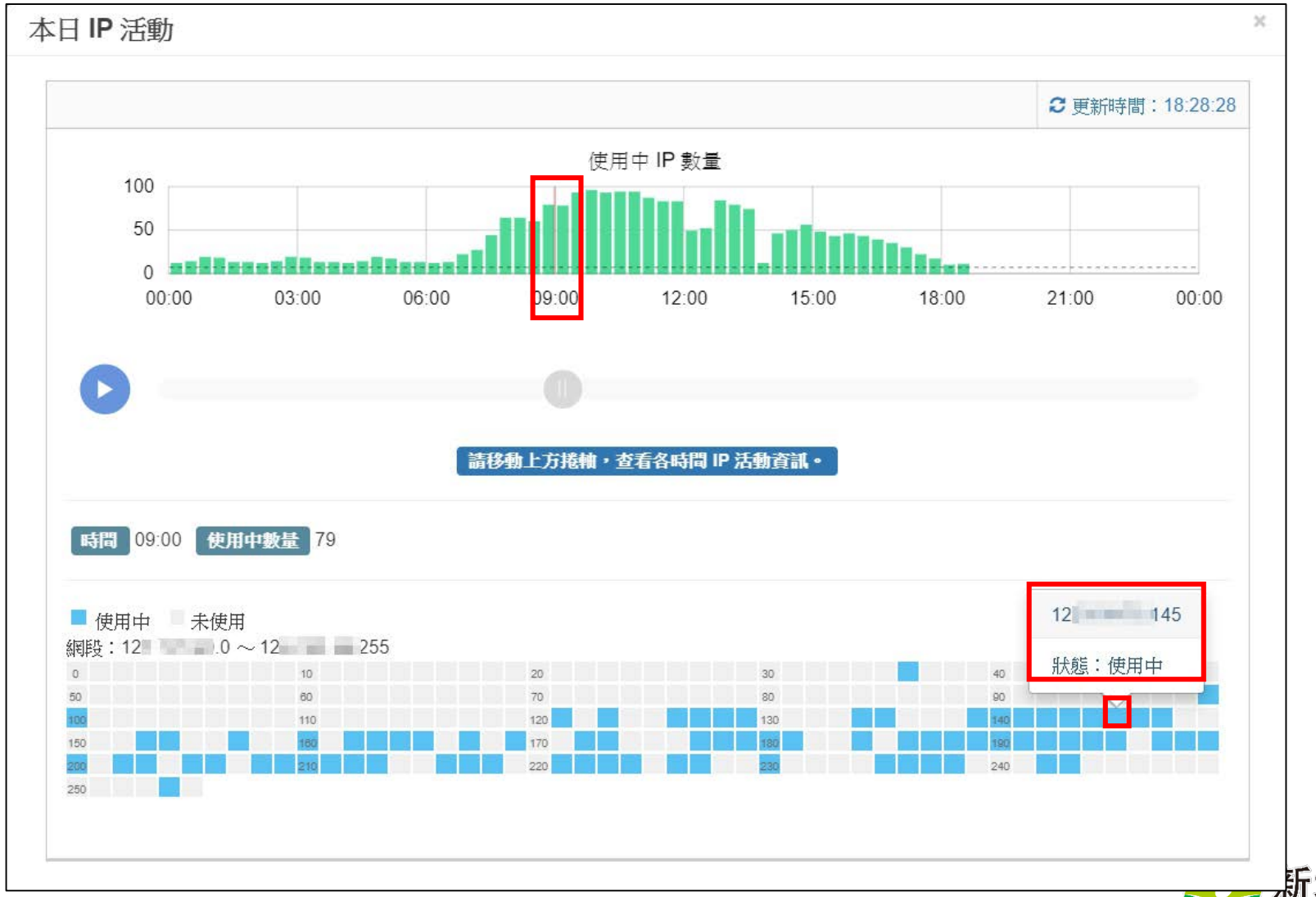
綜觀 ➔ 網路流量

本區顯示L3 up link port的流量圖表(日/月/年)。



IPAM

本日IP活動


本日 IP 活動
更新時間：18:28:28
使用中 IP 數量
100
50
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
00:00
請移動上方捲軸，查看各時間 IP 活動資訊。
時間 09:00
使用中數量 79
使用中
未使用
網段：12 .0 ～ 12 255
12 145
狀態：使用中

IP 資訊

針對單一 IP 分析資料，更可以進階drill down找出與此IP有連線紀錄的Top10 IP。

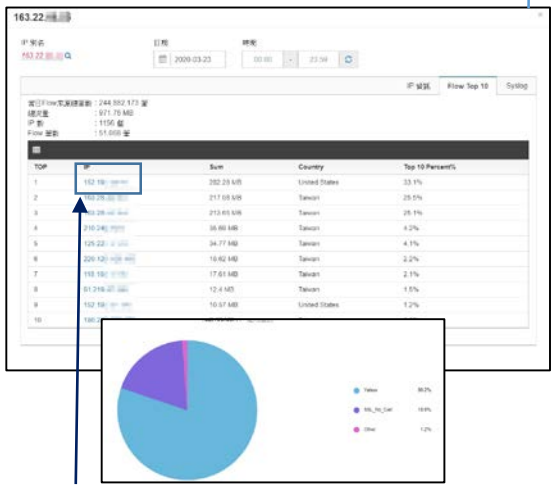
判斷IP危險程度

IP第七層分析

IP MAC
位於交換器埠

進階 drill down 分析關聯IP

IP 流量圖表



與此關連 IP 第七層分析

服務偵測

系統 ➔ 工具 ➔ 服務偵測

透過智慧網管去抓取偵測對象流量，來反應該服務的速度。

- Monitoring
  - Network Summary
    - Access Points
    - Clients
  - Rogues
    - Access Points
    - Clients
  - Interferers
  - Wireless Dashboard
    - AP Performance
    - Client Performance
  - Best Practices

GENERAL

User Name
Unknown

Host Name
Unknown

MAC Address	ac:15:f4:71:39:96 Deauthenticate
Uptime	Associated since 18 Days 34 Minutes
SSID	class
AP Name	3F-MIS_MeetingRoom (Ch 100)
Nearest APs	
Device Type	Unclassified
Performance	Signal Strength: -64 dBm Signal Quality: 28 dB Connection Speed: 1300 Mbps Channel Width: 80 MHz
Capabilities	802.11ac (5GHz) Spatial Stream: 3
Cisco Compatible	Not Supported
Connection Score	100%

CONNECTIVITY

Start — Association — Authentication — DHCP — Online

TOP APPLICATIONS

Name	Usage	% Usage

No Data Available!

MOBILITY STATE

WLC (LOCAL)	Wired (CAPWAP)	AP (FlexConnect)	Wireless (802.11ac (5GHz))	Client (VLAN44)
WLC637		3F-MIS_MeetingRoom		Unknown

ACCESS POINT VIEW

GENERAL

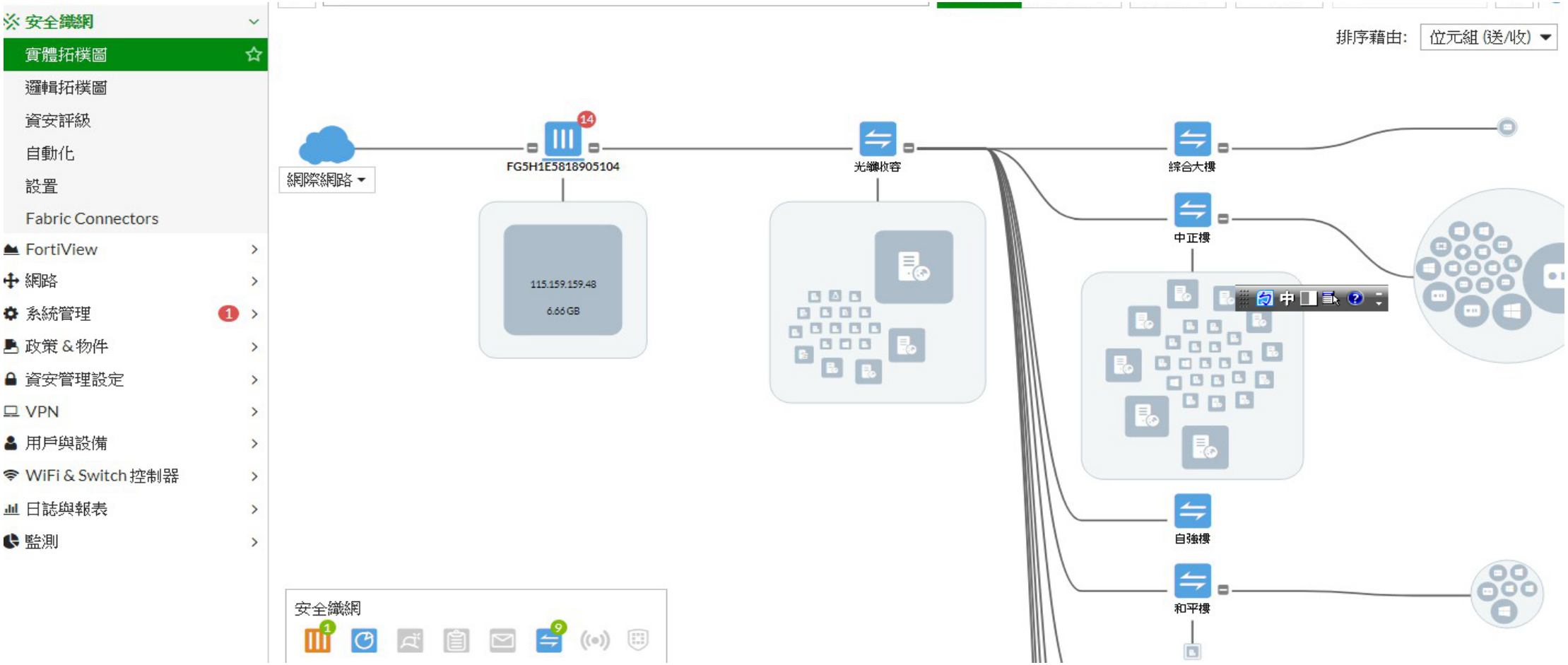
AP Name
3F-MIS_MeetingRoom

Location
default location

MAC Address	a0:b4:39:88:72:68
IP Address	10.228.56.12
CDP / LLDP	3F-Blue_MeetingRoom, GigabitEthernet0
Ethernet Speed	1000 Mbps
Model / Domain	AIR-AP2802I-T-K9 / 802.11bg:-A 802.11a:-T
Power status	Power injector / Full Power
Serial Number	FJC2409M8W3
Groups	AP Group: default-group, 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	61	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	96.1 GB	0
Throughput	0	17.2 KB	0
Transmit Power	20 dBm	17 dBm	0 dBm
Noise	Not Available	-96 -97 -97 -97	Not Available
Channel Utilization	0%	3%	0%
Interference	0%	0%	0%
Traffic	0%	3%	0%
Air Quality	-	-	-
Admin Status	Disabled	Enabled	Enabled
Clean Air Status	Down	Down	Not applicable

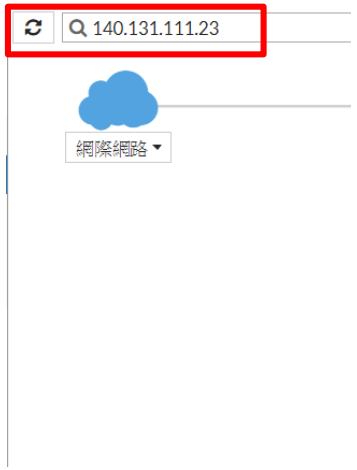


新北市政府 教育局
Education Department, New Taipei City Government

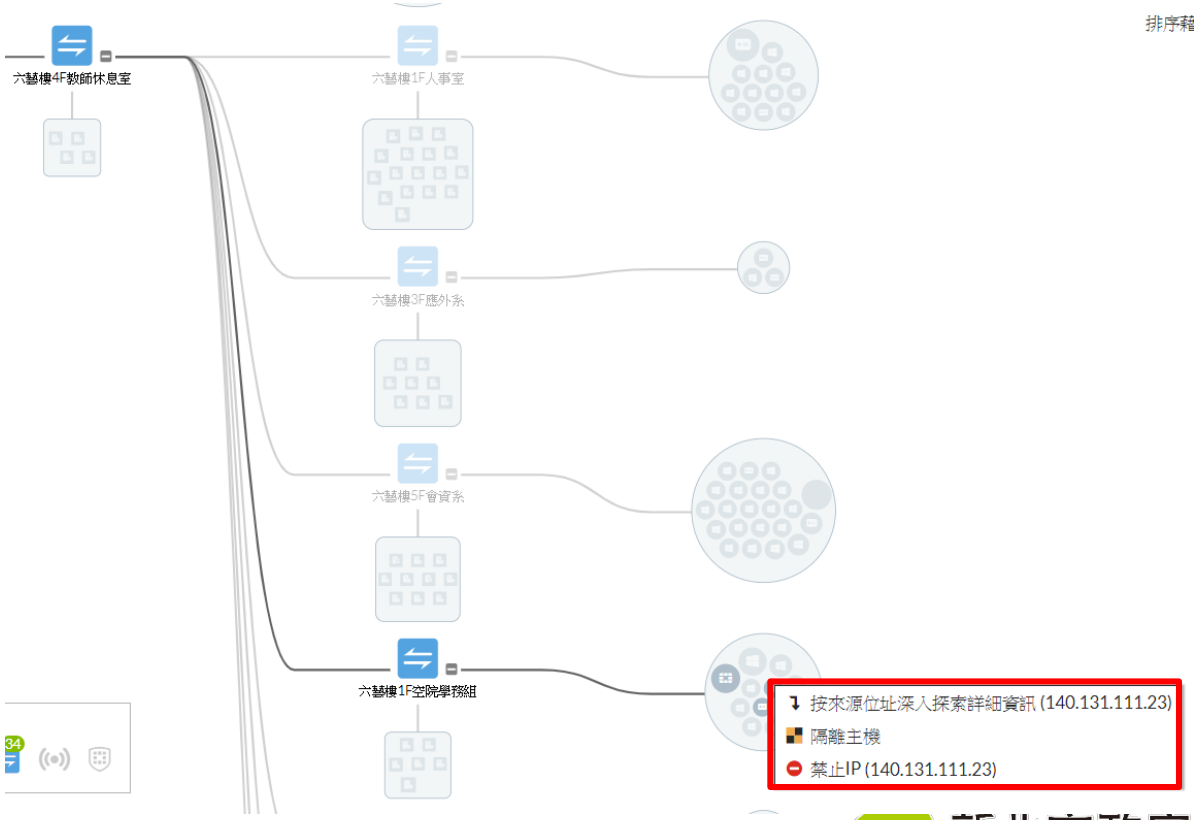
封鎖異常使用者在網路交換器上

1. 點選實體拓樸圖

2. 輸入要查找IP位置



3. 找到使用者設備裝置後點選滑鼠右鍵進行封鎖

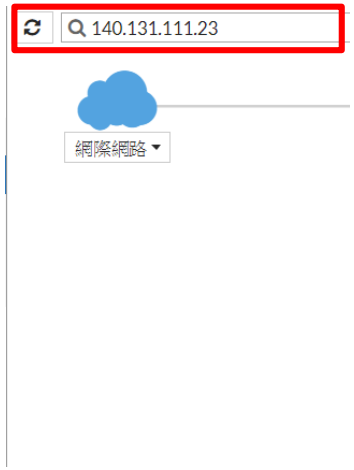


新北市政府 教育局
Education Department, New Taipei City Government

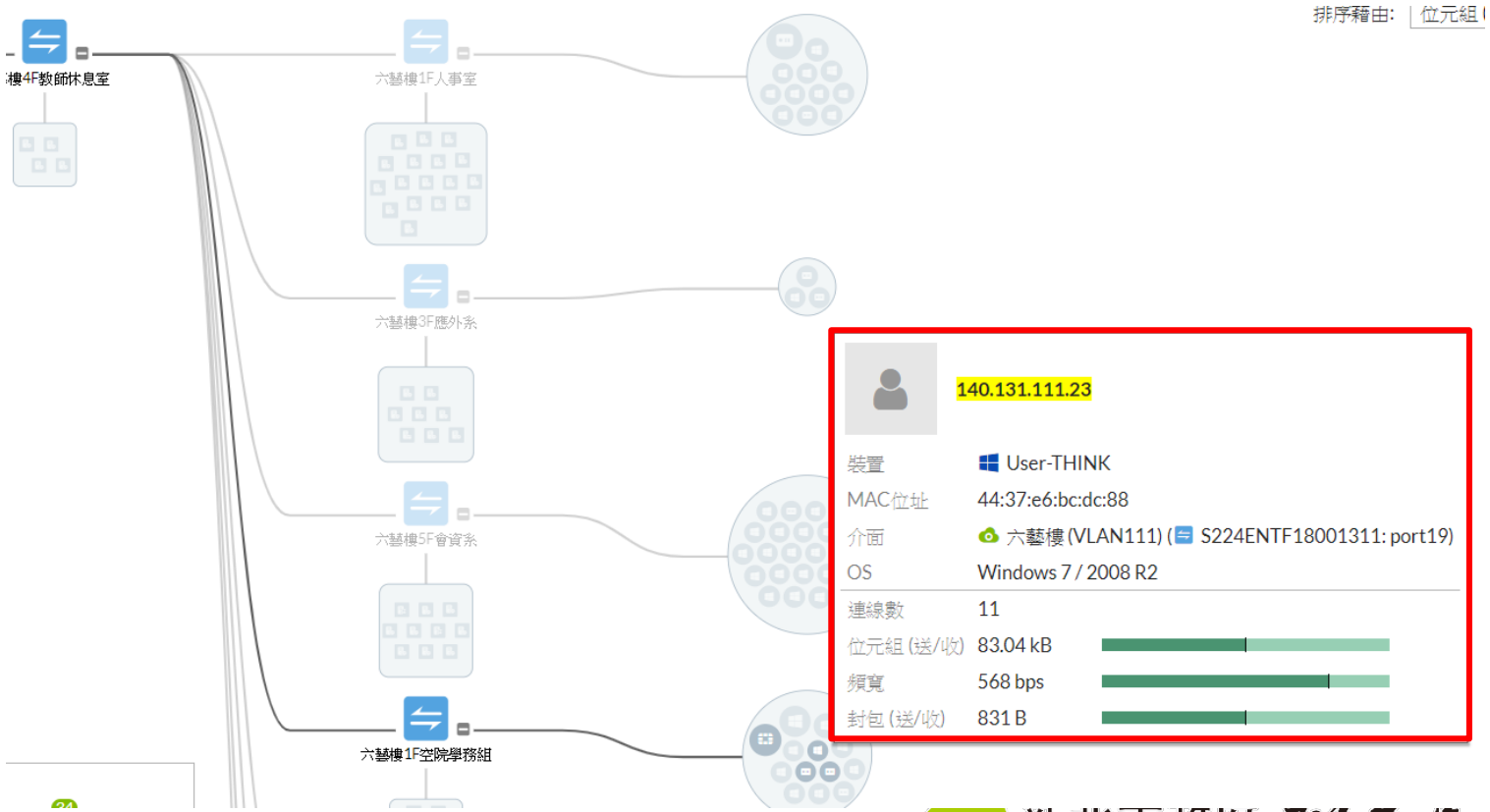
確認來源IP位置在哪個網路交換器埠上

1. 點選實體拓樸圖

2. 輸入要查找IP位置



3. 可呈現這個IP位置完整資訊



新北市政府 Education Department, New Taipei City Government 教育局

智慧網管功能分析

- 智慧網管可以呈現校園網路狀態
- 管理者可以透過警訊通知即時了解可能問題
- 對於使用者應用數據分析可以有初步的了解
- 對於基礎問題排查有基本的助益
- 組長須具備網路基礎相關知識
- 有利於網管工作分工
- 設備妥善率可以提升

相關網路資安證照說明
考試心得分享

資安鑑識調查

資訊安全證照

個資證照

資安職能相關證照

技術檢核相關證照

思科專業證照

思科網路證照

思科筆試認證

封包分析

新北市政府 教育局
Education Department, New Taipei City Government

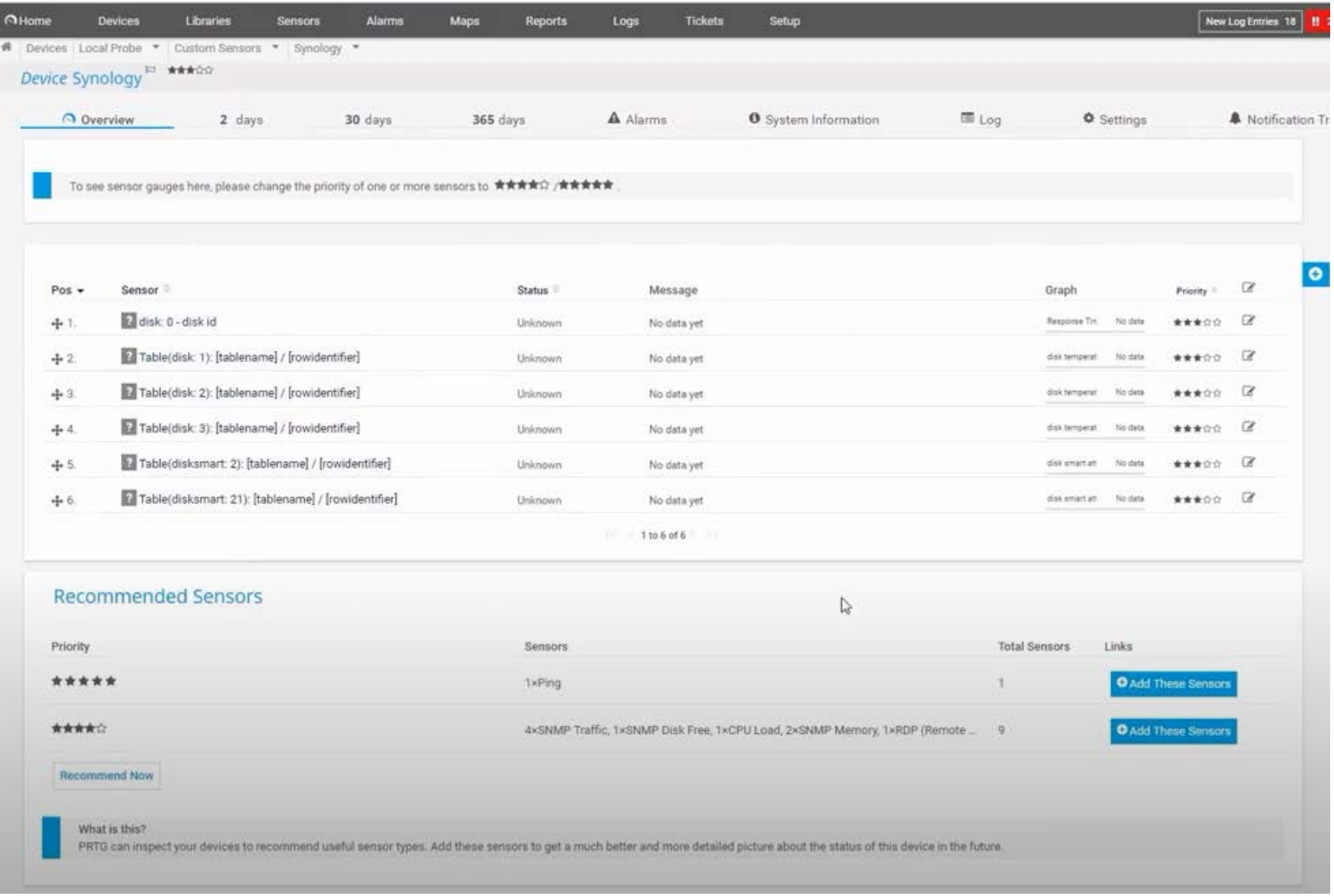
網路管理建置經驗分享
PRTG NETWORK MONITOR

設計一個手機監控智慧網管

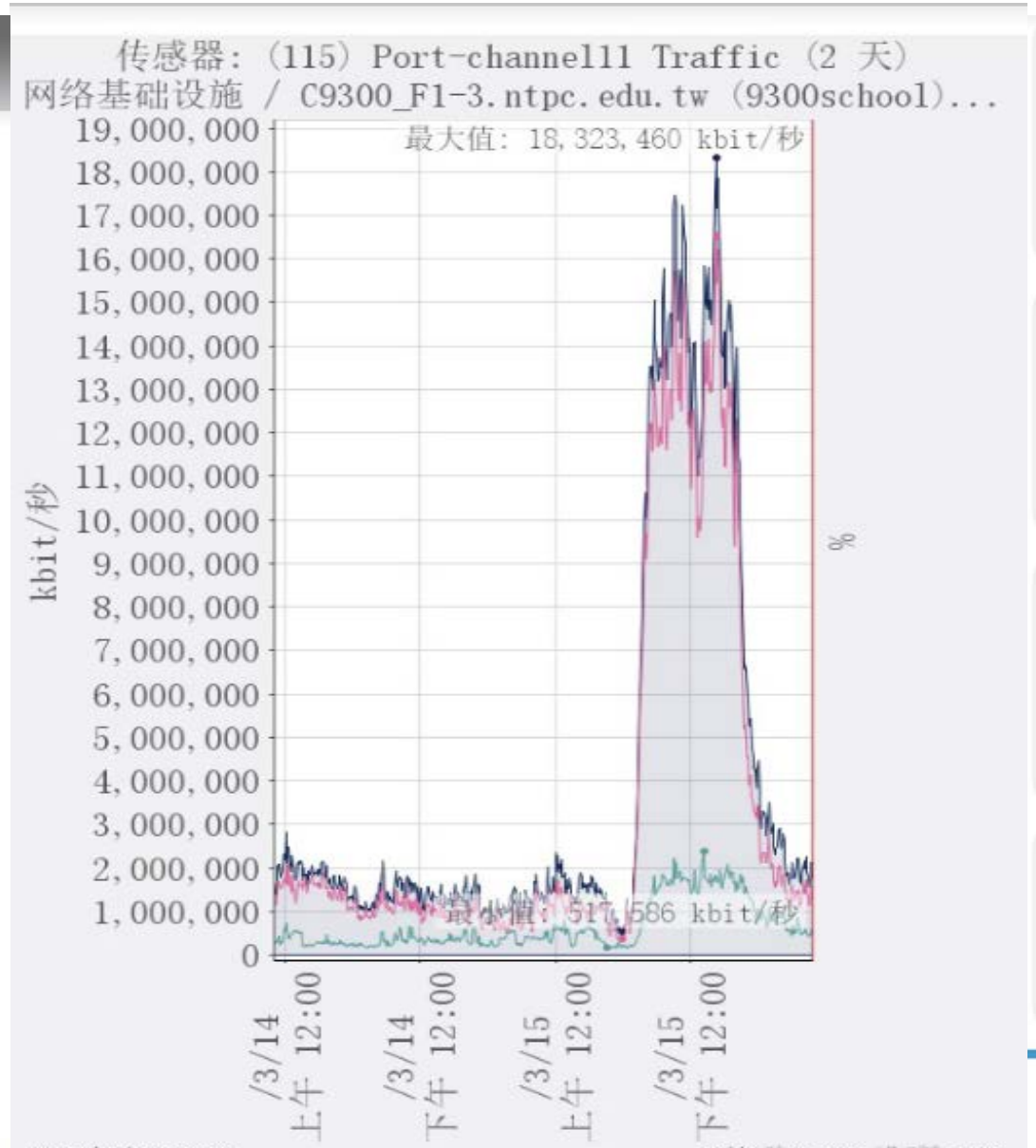
Alfred

新北市政府 教育局
Education Department, New Taipei City Government

加減sensor


Home
Devices
Libraries
Sensors
Alarms
Maps
Reports
Logs
Tickets
Setup
New Log Entries 18
Devices
Local Probe
Custom Sensors
Synology
Device Synology
Overview
2 days
30 days
365 days
Alarms
System Information
Log
Settings
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
2. Table(disk: 1): [tablename] / [rowidentifier]
Unknown
No data yet
3. Table(disk: 2): [tablename] / [rowidentifier]
Unknown
No data yet
4. Table(disk: 3): [tablename] / [rowidentifier]
Unknown
No data yet
5. Table(disksmart: 2): [tablename] / [rowidentifier]
Unknown
No data yet
6. Table(disksmart: 21): [tablename] / [rowidentifier]
Unknown
No data yet
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.

手機監控



(101) TenGigabitEthernet2/1/1 Traffic

確定

Last Value: 575,332 kbit/秒

(102) TenGigabitEthernet2/1/2 Traffic

確定

Last Value: 304,412 kbit/秒

(103) TenGigabitEthernet2/1/3 Traffic

確定

Last Value: 284,344 kbit/秒

(115) Port-channel11 Traffic

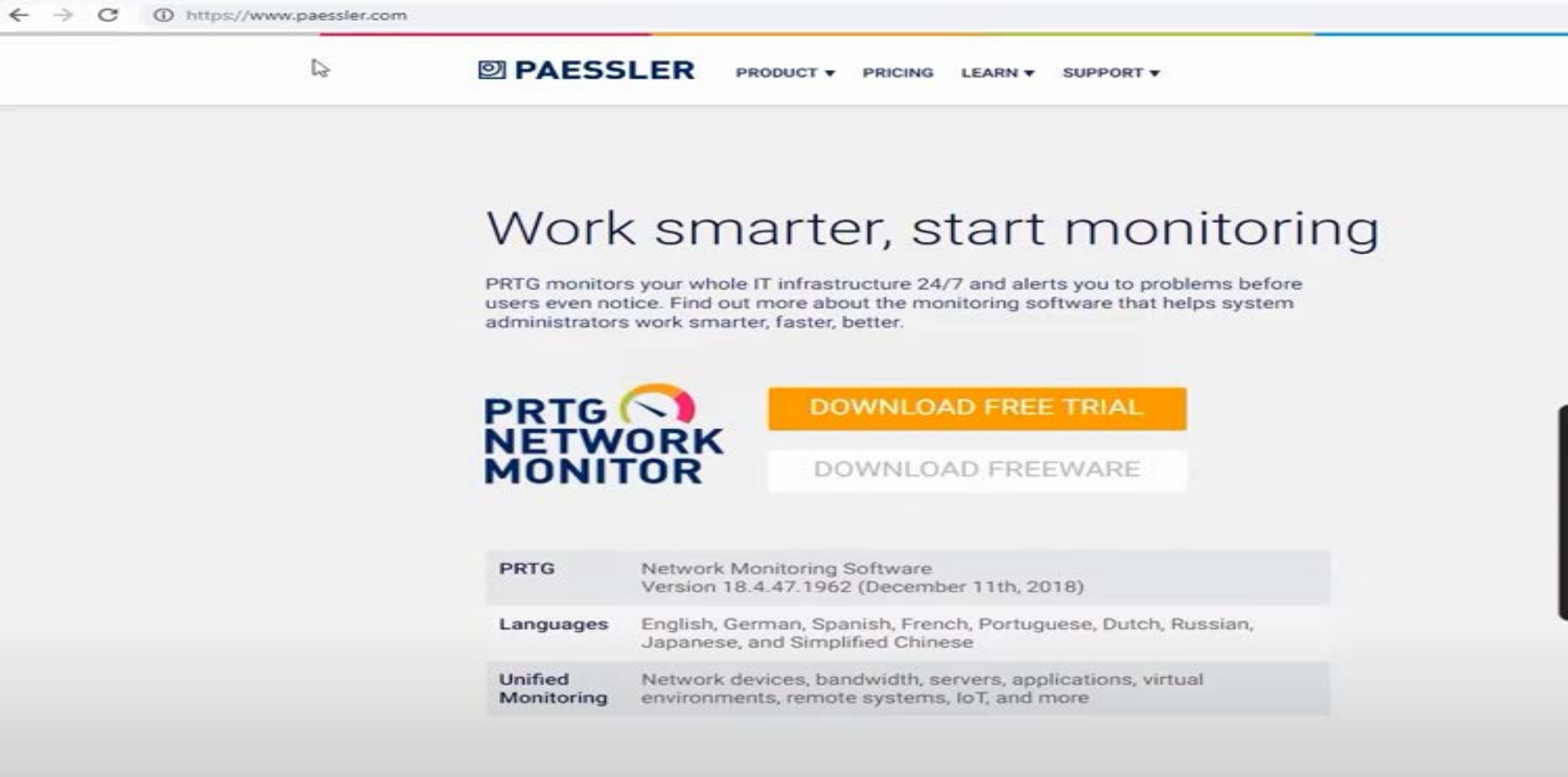
確定

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/download/prtg-download?download=1

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

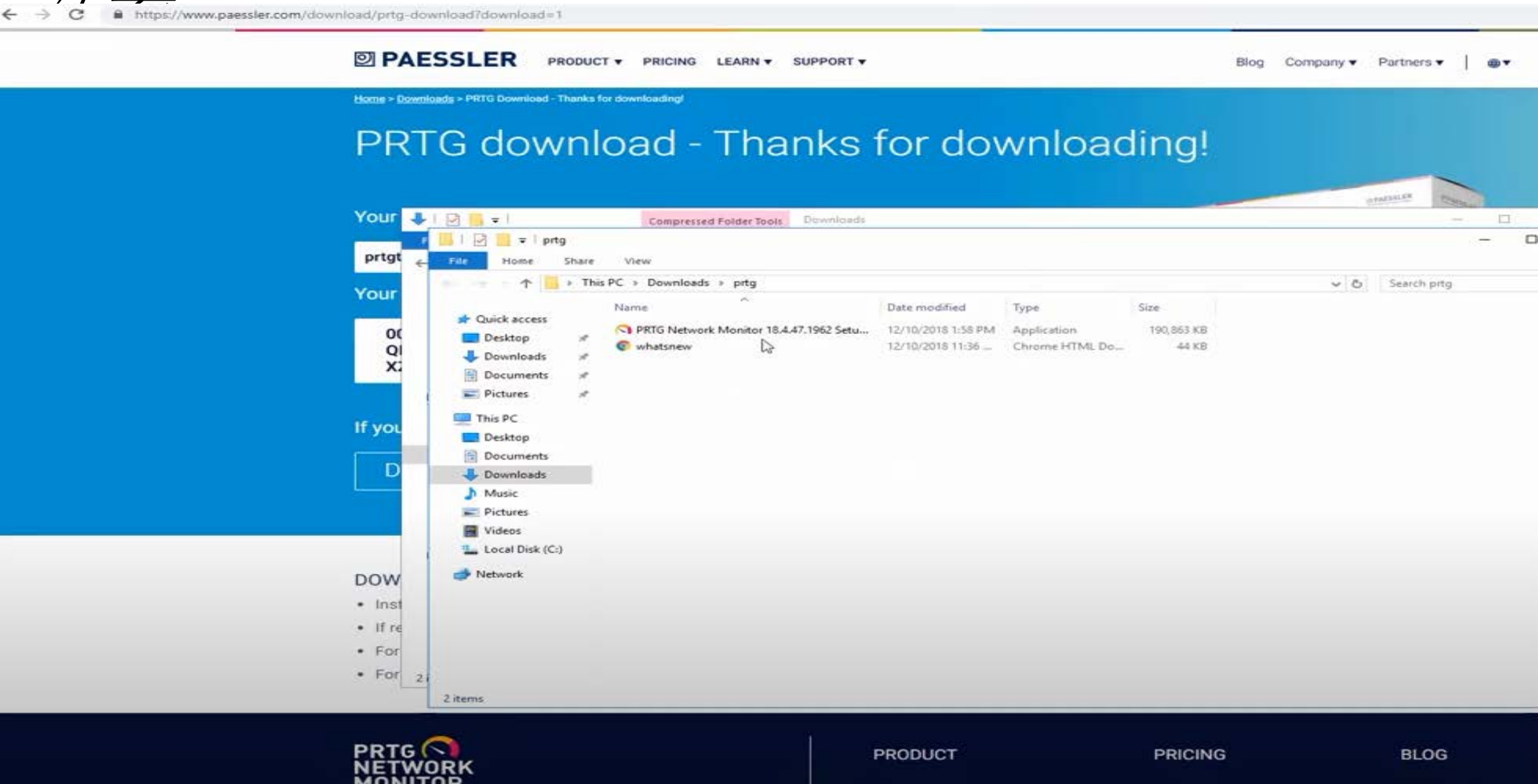
Your PRTG License Key

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

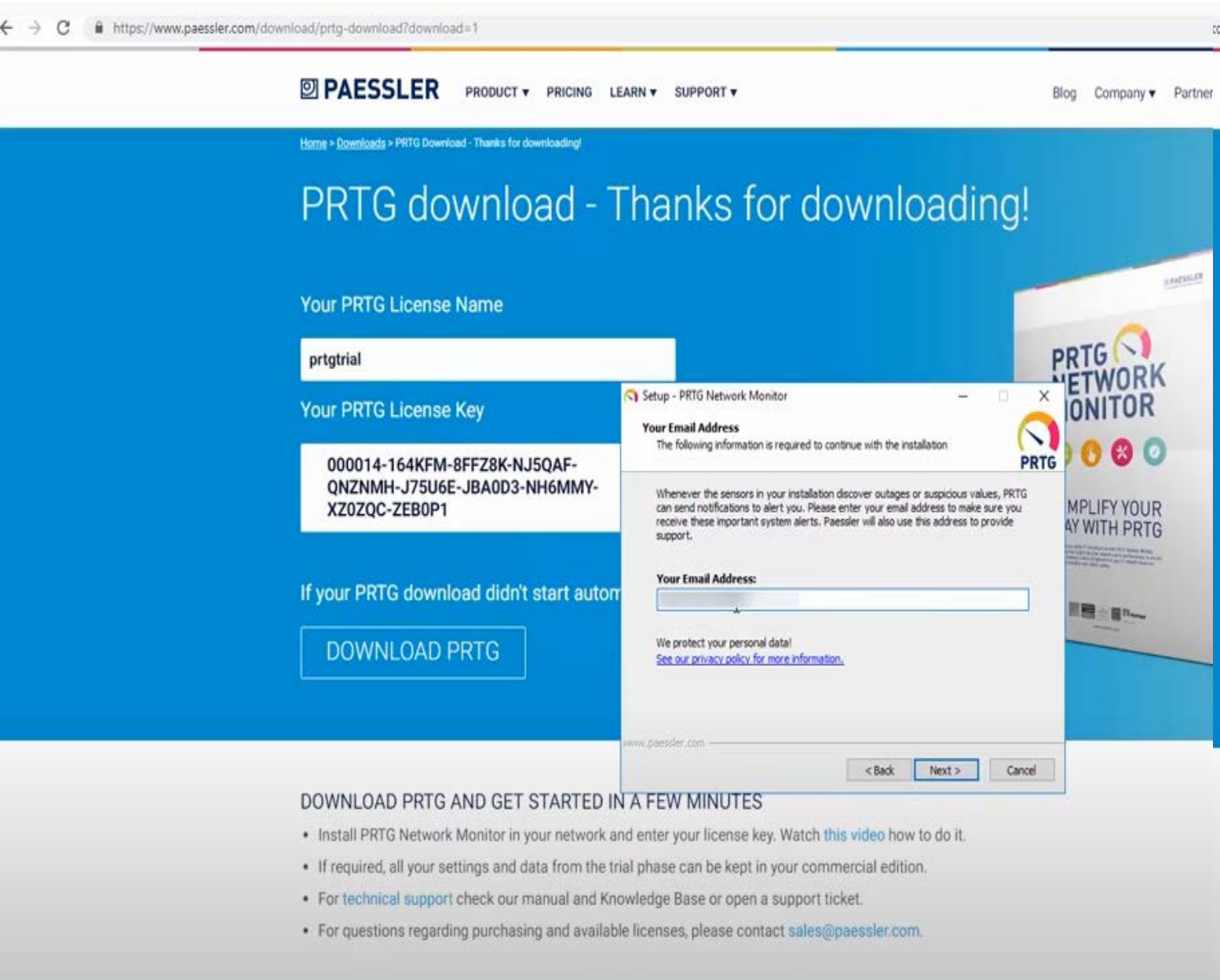
If your PRTG download didn't start automatically:

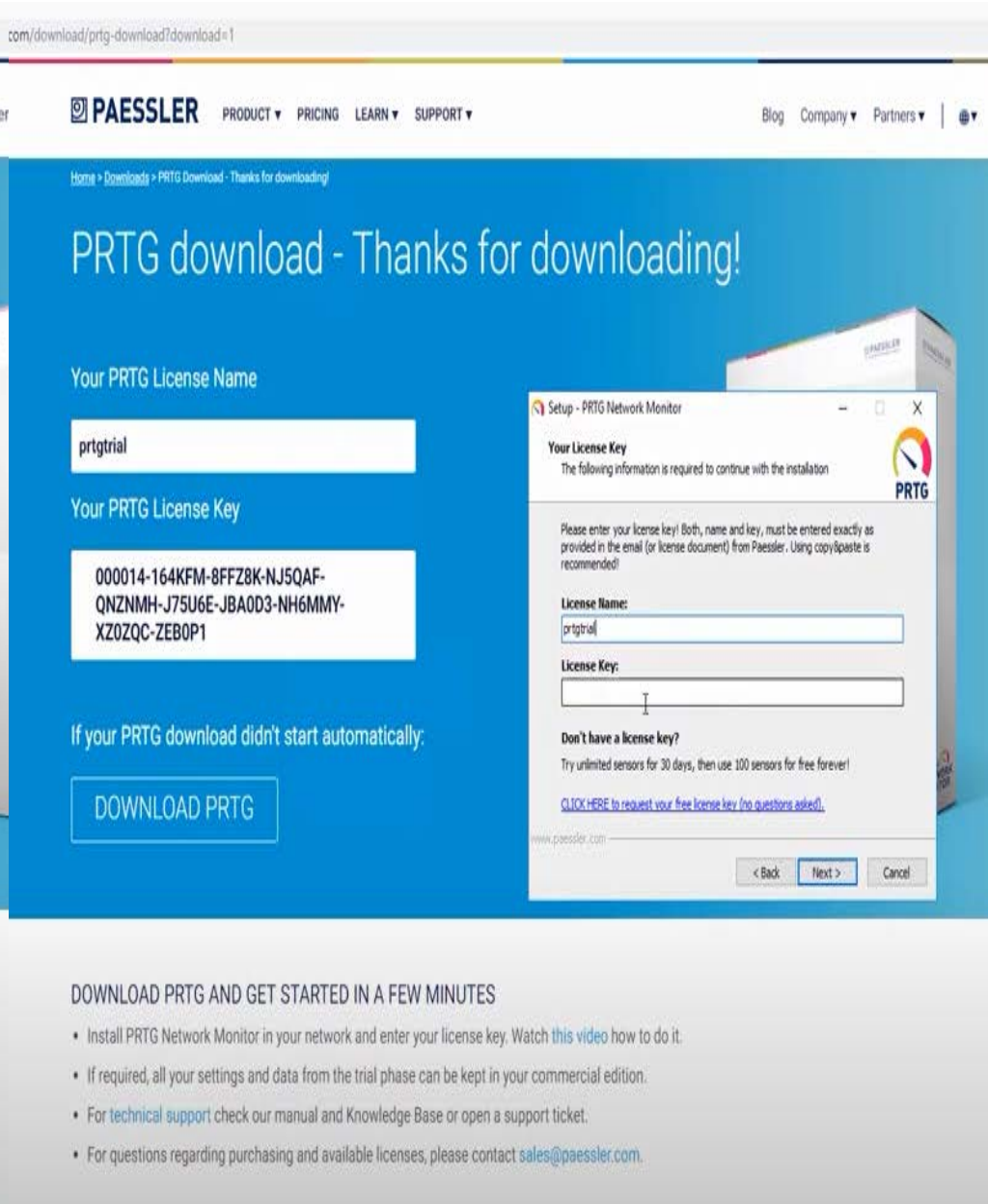
DOWNLOAD PRTG

安装

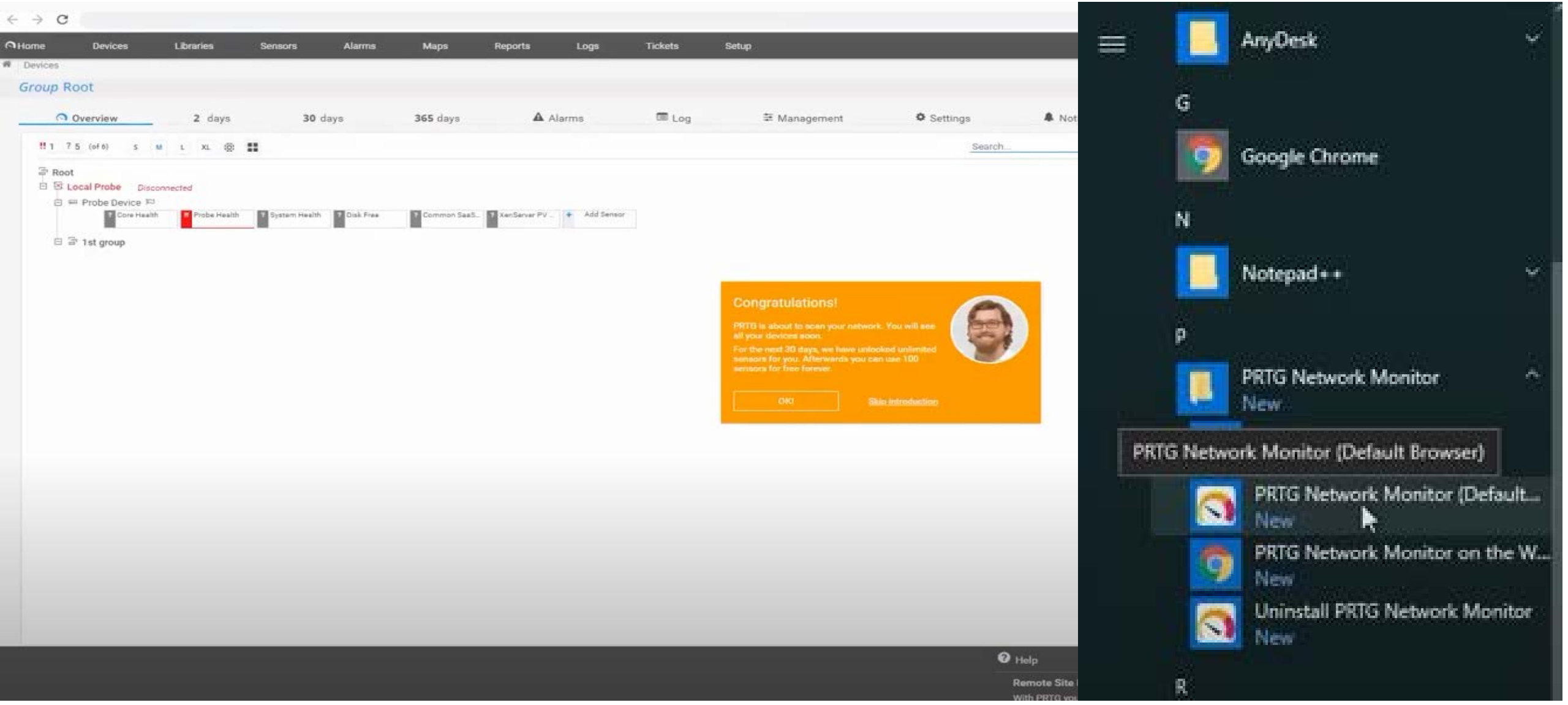

https://www.paessler.com/download/prtg-download?download=1
PAESSLER
PRODUCT
PRICING
LEARN
SUPPORT
Blog
Company
Partners
Home > Downloads > PRTG Download - Thanks for downloading!
PRTG download - Thanks for downloading!
Your
Your
If you
DOW
Compressed Folder Tools
Downloads
prtg
File
Home
Share
View
This PC > Downloads > prtg
Search prtg
Quick access
Desktop
Downloads
Documents
Pictures
This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Network
Name
Date modified
Type
Size
PRTG Network Monitor 18.4.47.1962 Setu...
12/10/2018 1:58 PM
Application
190,863 KB
whatsnew
12/10/2018 11:36 ...
Chrome HTML Do...
44 KB
2 items
PRTG NETWORK MONITOR
PRODUCT
PRICING
BLOG

E-mail and license key

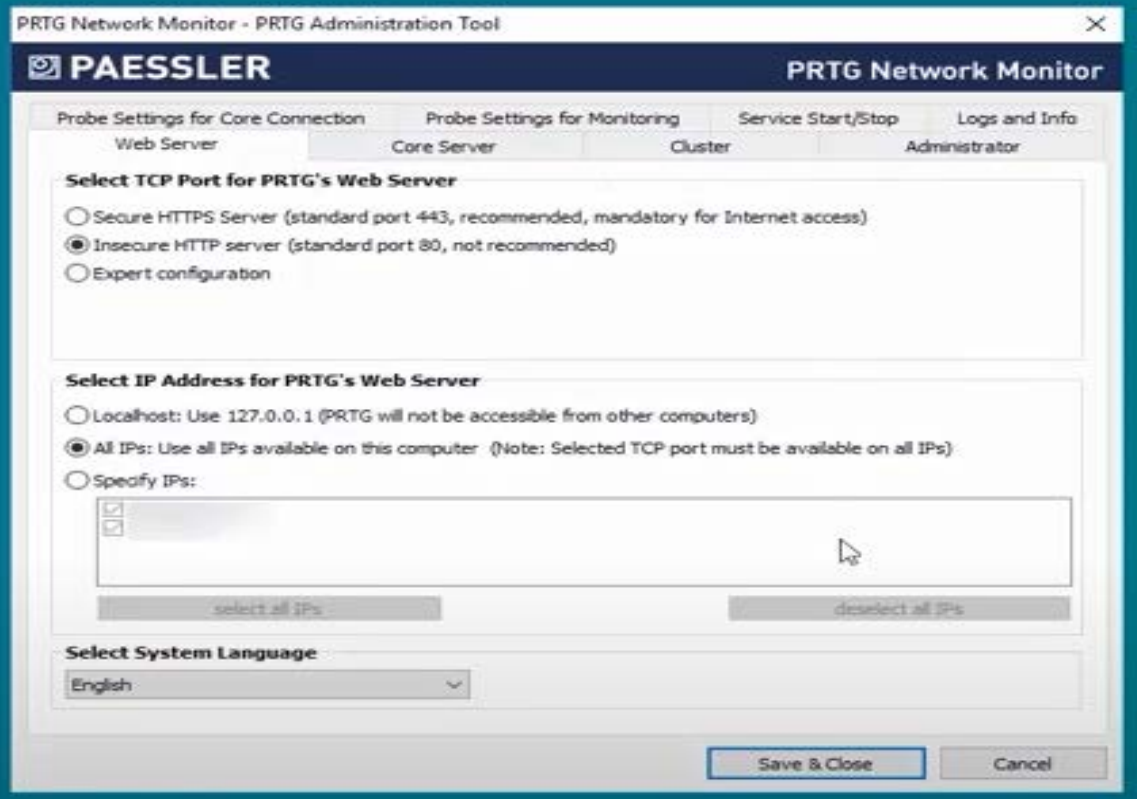




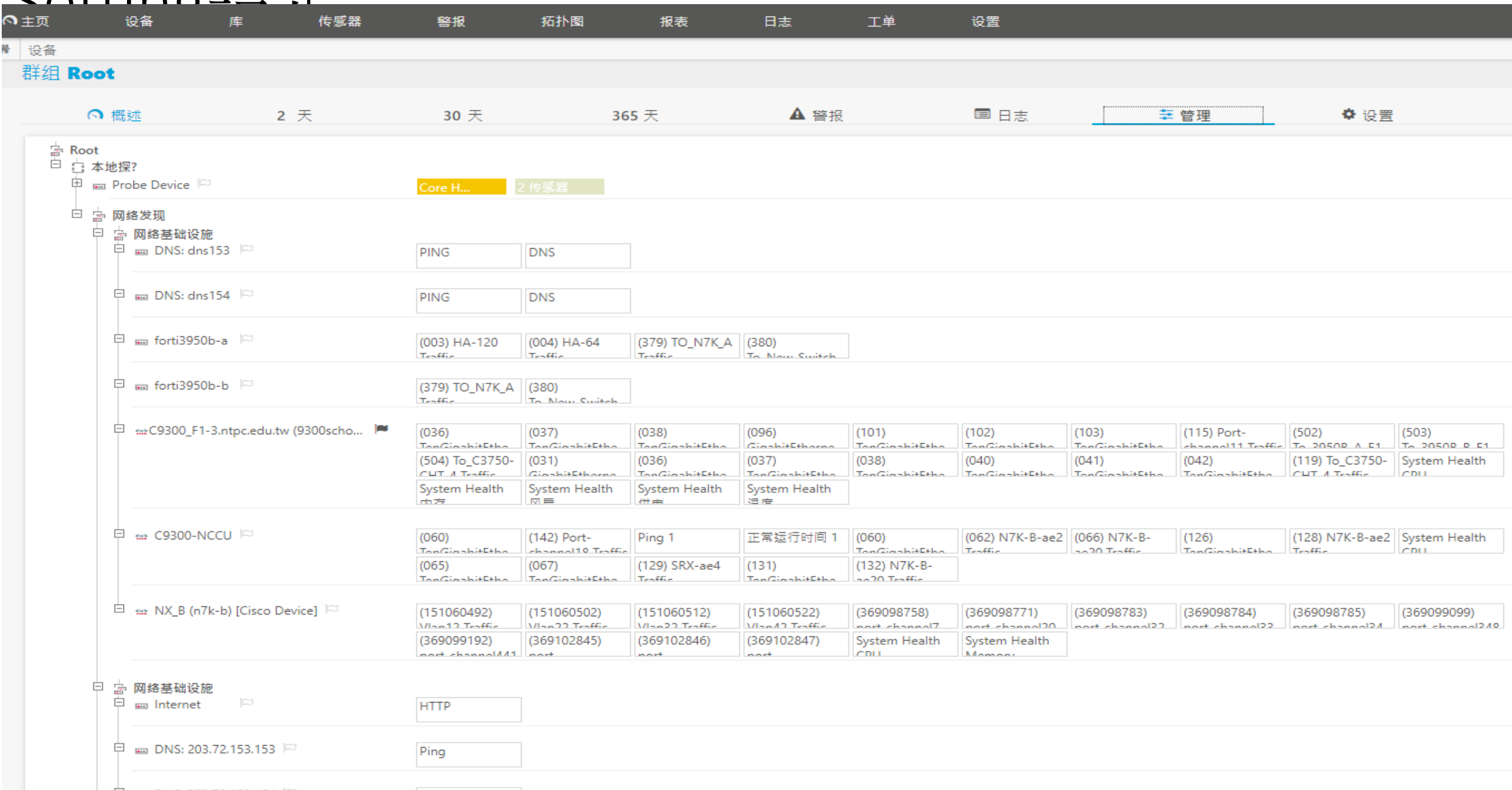
進入網頁設定(管理)
程式集



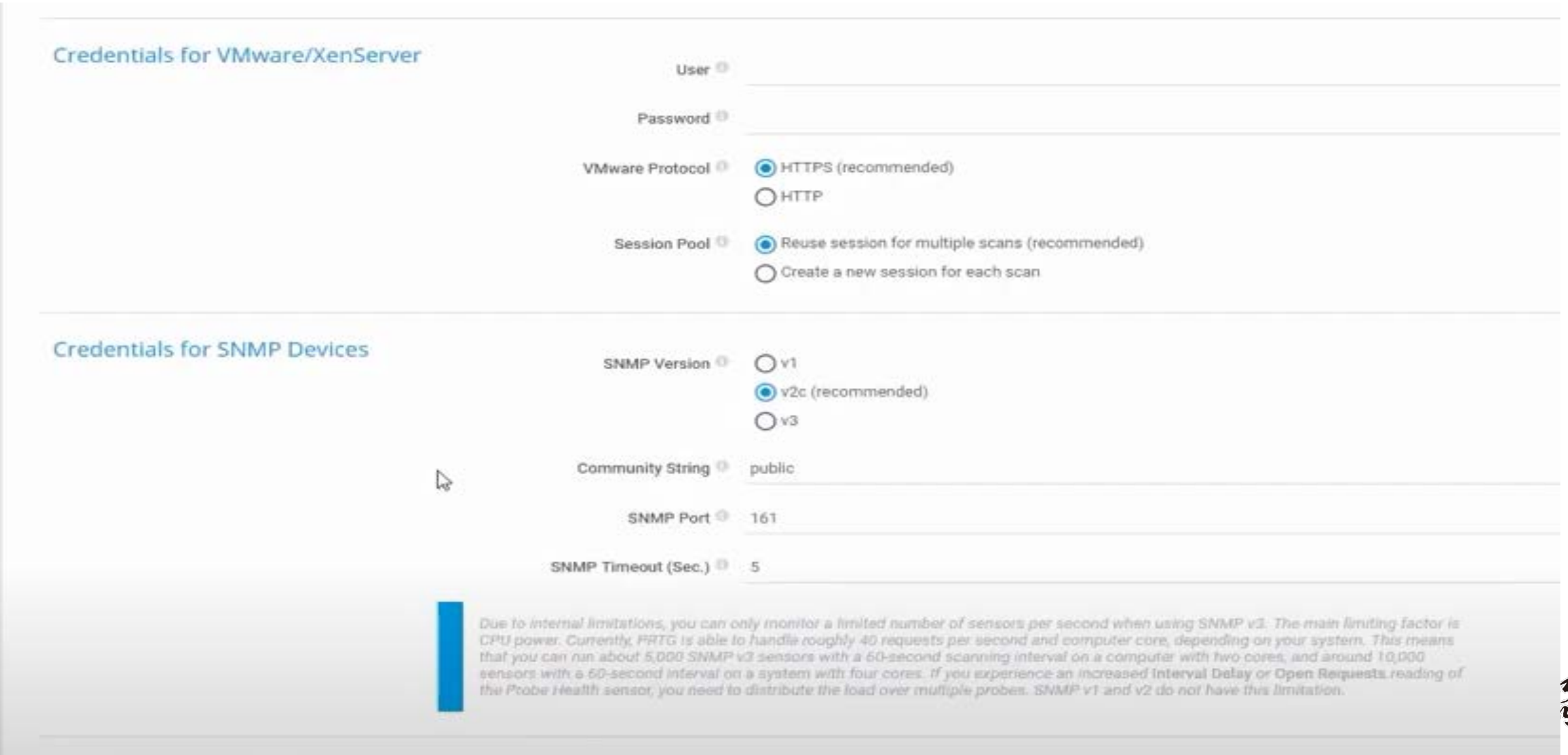
PRTG Monitor後台，新密碼!(很重要)



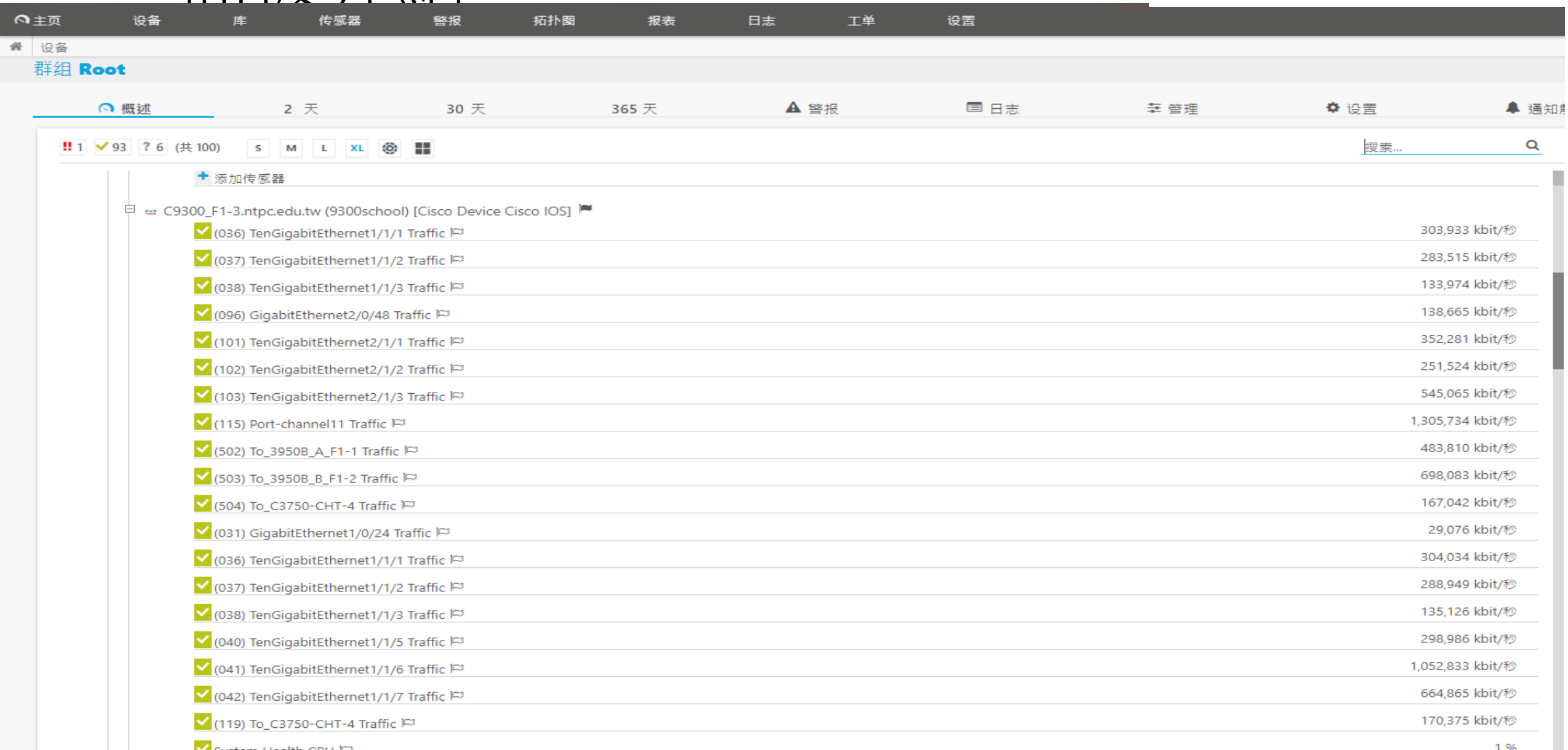
Setting設定


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
Root
本地探?
Probe Device
Core H...
2 传感器
网络发现
网络基础设施
DNS: dns153
PING
DNS
DNS: dns154
PING
DNS
forti3950b-a
(003) HA-120
(004) HA-64
(379) TO_N7K_A
(380)
forti3950b-b
(379) TO_N7K_A
(380)
C9300_F1-3.ntpc.edu.tw (9300scho...
(036)
(037)
(038)
(096)
(101)
(102)
(103)
(115) Port-
(502)
(503)
(504) To_C3750-
(031)
(036)
(037)
(038)
(040)
(041)
(042)
(119) To_C3750-
System Health
System Health
System Health
System Health
C9300-NCCU
(060)
(142) Port-
Ping 1
正常运行时间 1
(060)
(062) N7K-B-ae2
(066) N7K-B-
(126)
(128) N7K-B-ae2
System Health
(065)
(067)
(129) SRX-ae4
(131)
(132) N7K-B-
NX_B (n7k-b) [Cisco Device]
(151060492)
(151060502)
(151060512)
(151060522)
(369098758)
(369098771)
(369098783)
(369098784)
(369098785)
(369099099)
(369099192)
(369102845)
(369102846)
(369102847)
System Health
System Health
网络基础设施
Internet
HTTP
DNS: 203.72.153.153
Ping

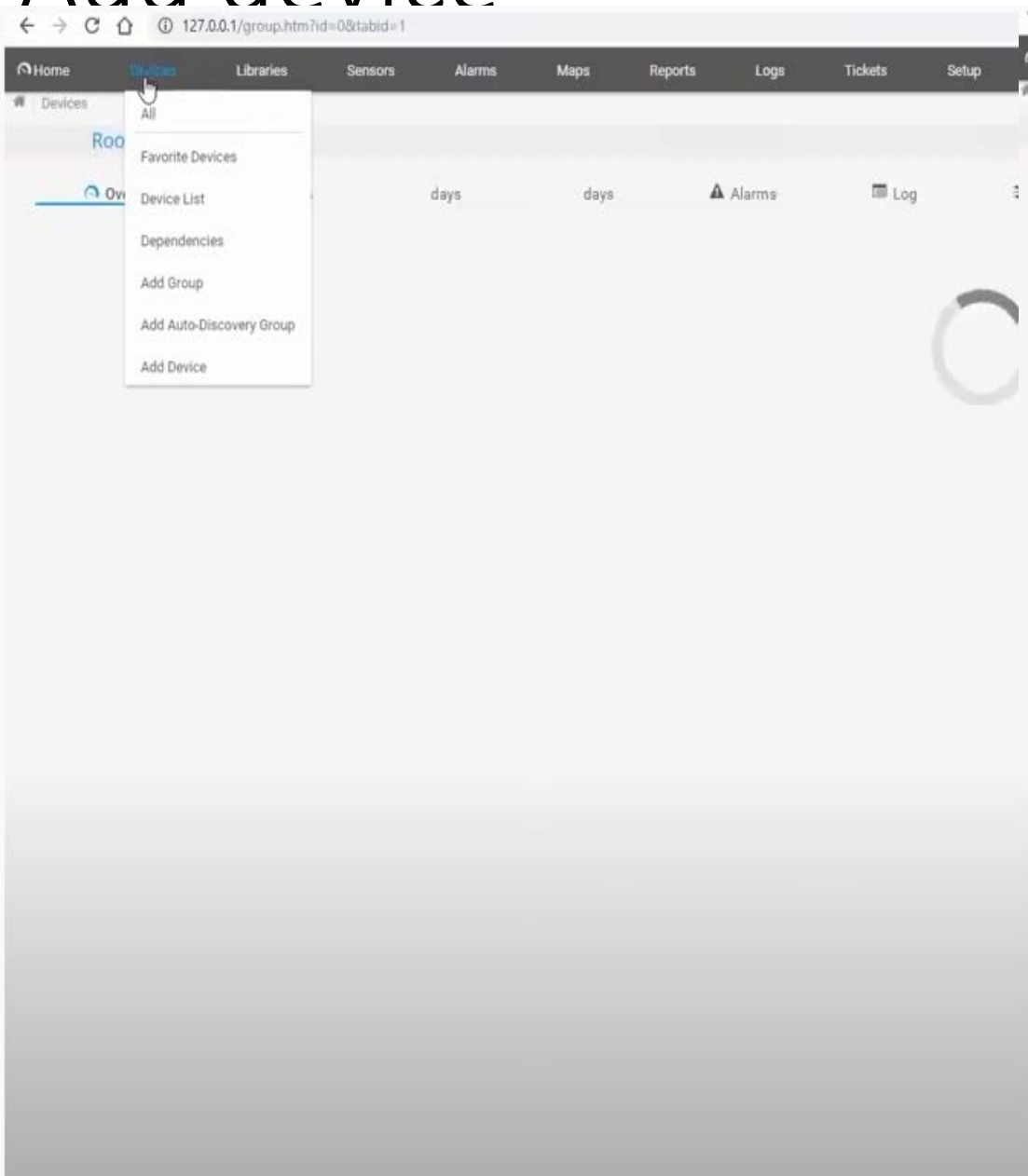
SNMP

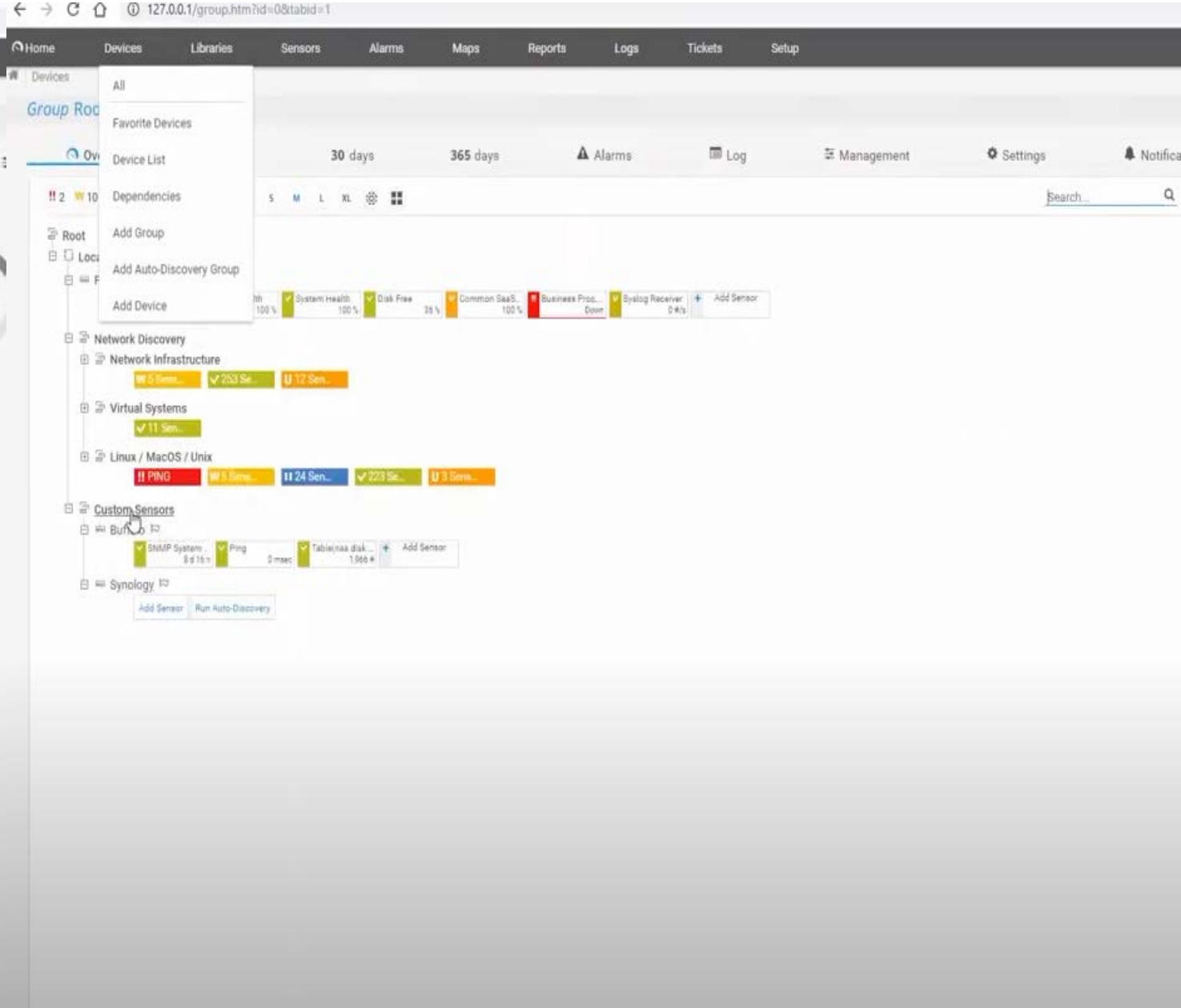

Credentials for VMware/XenServer
User
Password
VMware Protocol
HTTPS (recommended)
HTTP
Session Pool
Reuse session for multiple scans (recommended)
Create a new session for each scan
Credentials for SNMP Devices
SNMP Version
v1
v2c (recommended)
v3
Community String
public
SNMP Port
161
SNMP Timeout (Sec.)
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.

面板介紹


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
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


127.0.0.1/group.htm?id=0&tabid=1
Home
Devices
Libraries
Sensors
Alarms
Maps
Reports
Logs
Tickets
Setup
All
Favorite Devices
Device List
Dependencies
Add Group
Add Auto-Discovery Group
Add Device
days
days
Alarms
Log


127.0.0.1/group.htm?id=0&tabid=1
Home
Devices
Libraries
Sensors
Alarms
Maps
Reports
Logs
Tickets
Setup
All
Favorite Devices
Device List
Dependencies
Add Group
Add Auto-Discovery Group
Add Device
30 days
365 days
Alarms
Log
Management
Settings
Root
Network Discovery
Network Infrastructure
Virtual Systems
Linux / MacOS / Unix
PING
Custom Sensors
Synology
Add Sensor
Run Auto-Discovery

将设备添加到群组 网络发现

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

将设备添加到群组 网络发现

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)

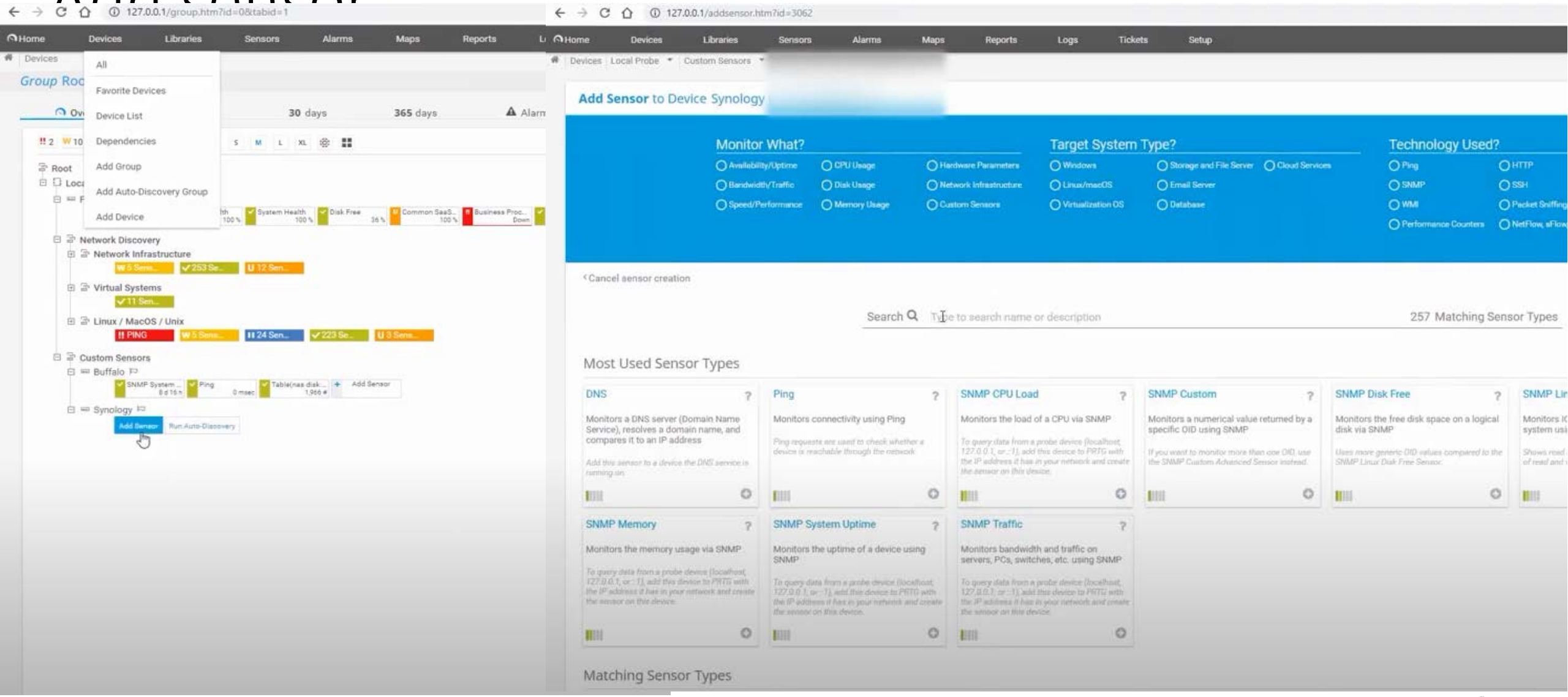
AWS 的凭据

继承自 网络发现

Credentials for Dell EMC

取消　确定

Add sensor



添加传感器到设备 C9300_F1-3.ntpc.edu.tw (9300school) [Cisco Device Cisco IOS] [163.20.250.252]

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
- PowerS
- SNMP
- SSH
- 推送消息
- WMI
- 数据包嗅探
- PRTG C
- 性能计数器
- xFlow

‹ 取消传感器创建

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 NetAp
存储系统的卷

在探针系统上需要 .NET
cDOT 版本 8.3 及更高版
ONTAP 版本 9.0 及更高

Ping

通过 PING 操作监控连接性

PING 请求用于检查设备是否可以通过网络抵达。

POP3

使用 POP3 监控电子邮件服务器

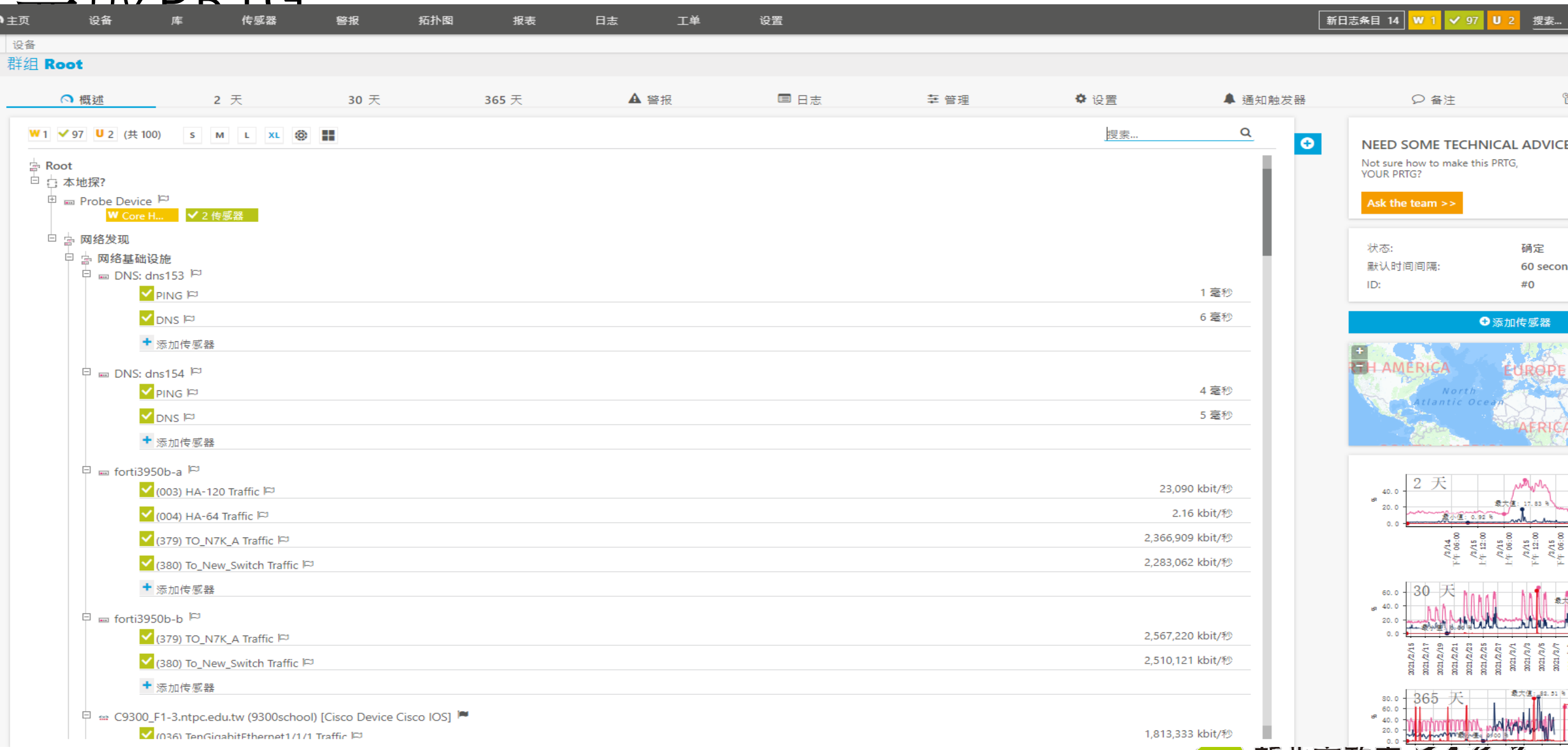
显示服务器的响应时间。

SNMP 流量

监控在使用 SNMP 的服务器、个人计算机、交换机等设备上的带宽与流量

要从探针设备（本地主机，127.0.0.1 或 ::1）查询数据，请将此设备添加到您网络中具有该 IP 地址的 PRTG，并在此设备上创建传感器。

完成PRTG

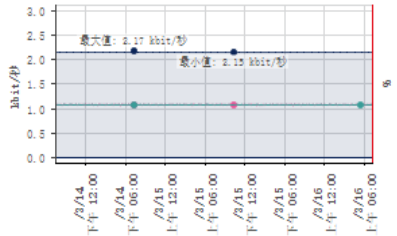


新北市政府 教育局
Education Department, New Taipei City Government

監看

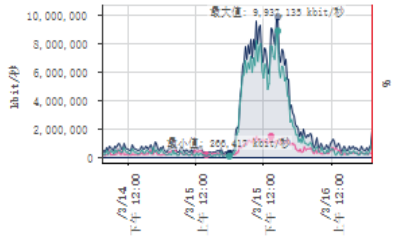
主页 | 设备 | 库 | 传感器 | 警报 | 拓扑图 | 报表 | 日志 | 工单 | 设置 | 新日志条目 14 | W 1 | 97 | U 2 | 搜索...

(004) HA-64 Traffic



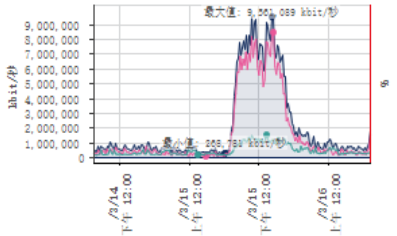
停机时间 (%) 流量合计 (kbit/秒)
入站流量 (kbit/秒) 出站流量 (kbit/秒)

(379) TO_N7K_A Traffic



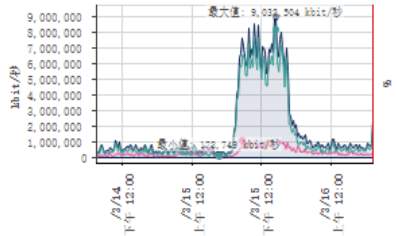
停机时间 (%) 流量合计 (kbit/秒)
入站流量 (kbit/秒) 出站流量 (kbit/秒)

(380) To_New_Switch Traffic



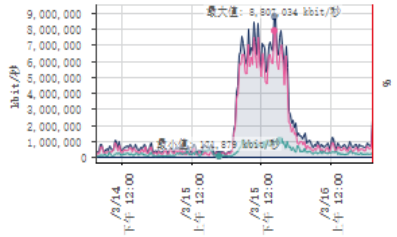
停机时间 (%) 流量合计 (kbit/秒)
入站流量 (kbit/秒) 出站流量 (kbit/秒)

(379) TO_N7K_A Traffic



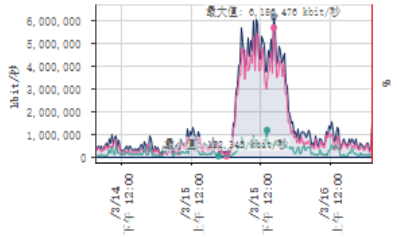
停机时间 (%) 流量合计 (kbit/秒)
入站流量 (kbit/秒) 出站流量 (kbit/秒)

(380) To_New_Switch Traffic



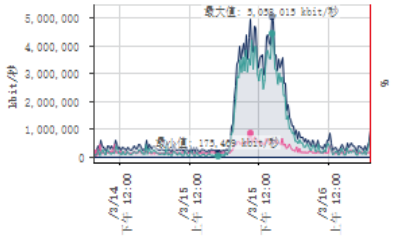
停机时间 (%) 流量合计 (kbit/秒)
入站流量 (kbit/秒) 出站流量 (kbit/秒)

(036) TenGigabitEthernet1/1/1 Traffic



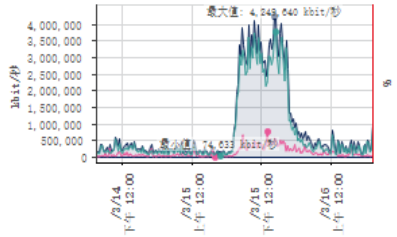
停机时间 (%) Traffic Total (kbit/秒)
Traffic In (kbit/秒) Traffic Out (kbit/秒)

(037) TenGigabitEthernet1/1/2 Traffic



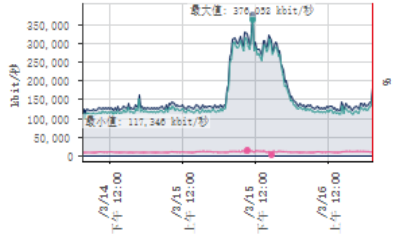
停机时间 (%) Traffic Total (kbit/秒)
Traffic In (kbit/秒) Traffic Out (kbit/秒)

(038) TenGigabitEthernet1/1/3 Traffic



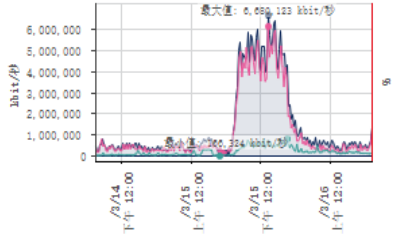
停机时间 (%) Traffic Total (kbit/秒)
Traffic In (kbit/秒) Traffic Out (kbit/秒)

(096) GigabitEthernet2/0/48 Traffic



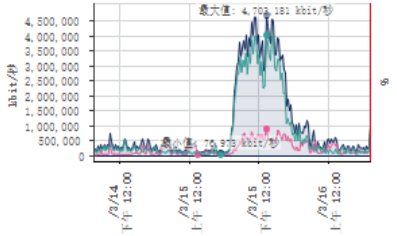
停机时间 (%) Traffic Total (kbit/秒)

(101) TenGigabitEthernet2/1/1 Traffic



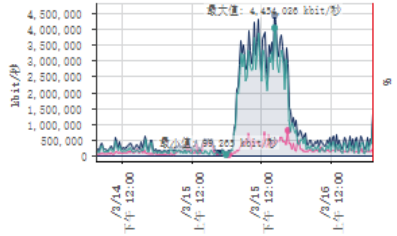
停机时间 (%) Traffic Total (kbit/秒)

(102) TenGigabitEthernet2/1/2 Traffic



Downtime (%) Traffic Total (kbit/秒)

(103) TenGigabitEthernet2/1/3 Traffic



停机时间 (%) Traffic Total (kbit/秒)