

# Vigor

## 產品整合及應用



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# Agenda



1

路由器整合方向

2

Vigor2952P

3

Switch 中央管理功能

4

M9000 M2M Router

# Vigor 路由器整合方向



目標

遠端達成網路管理

# *Vigor* 路由器主要整合



- Router
- AP
- Switch
- VPN



# Vigor 路由器整合功能



- 4G LTE Dongle
- 溫度計
- 側錄軟體
- iOS App
- PoE 功能
- 印表機伺服器
- 飯店式無線登入



# 整合架構 - 網路只有一種管理



**DrayTek**

Auto Logout ▾ IPv6

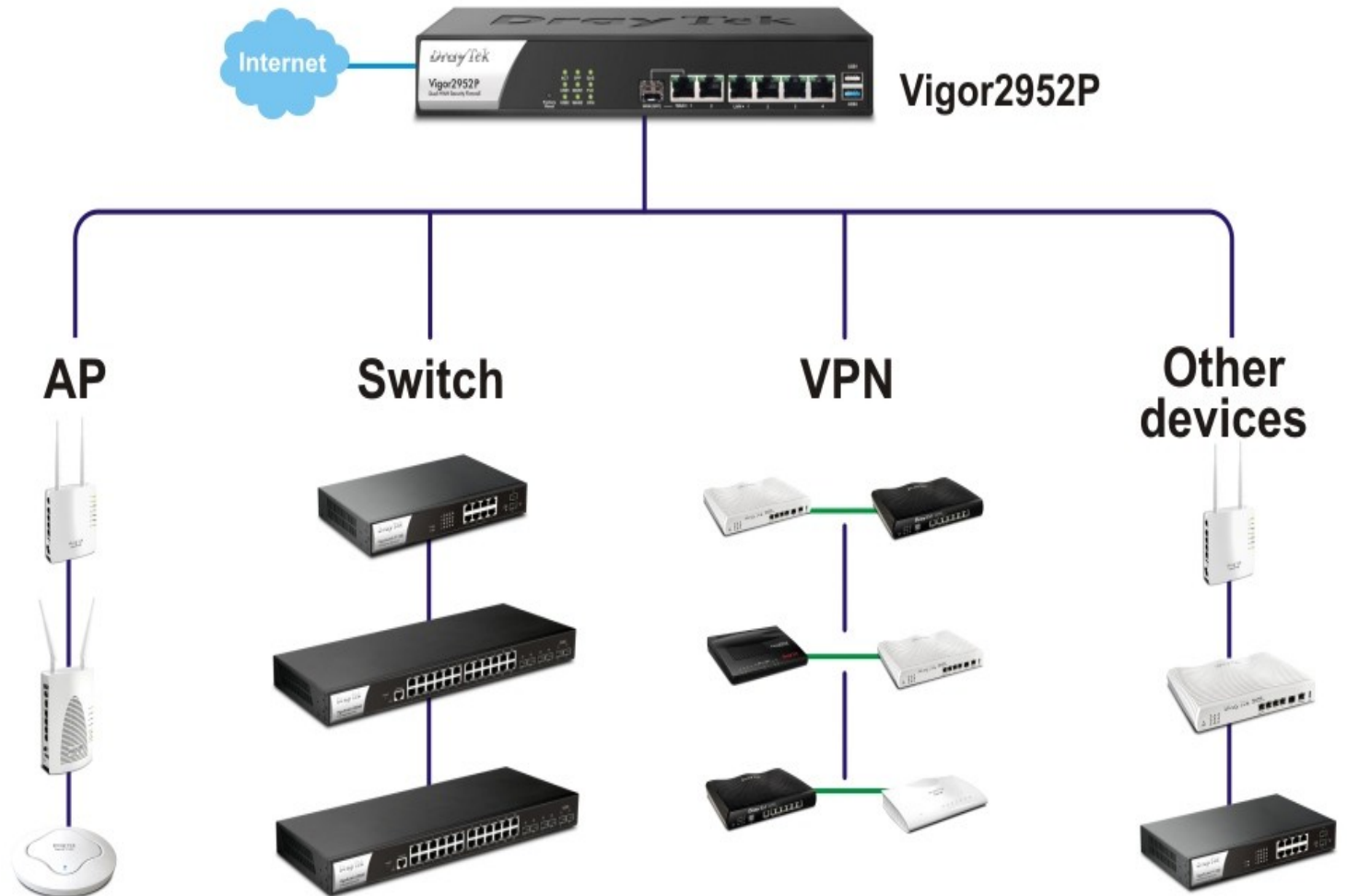
- User Management
- Objects Setting
- CSM
- Bandwidth Management
- Applications
- VPN and Remote Access
- Certificate Management
- SSL VPN
- USB Application
- System Maintenance
- Diagnostics

**Central Management**

- VPN
- AP
- Switch
- External Devices

Support Area  
Product Registration

All Rights Reserved.



# 整合架構 - APM



## Pre-install Tool

VigorAPM 0.9.7

DrayTek

### AP Floor Map

Start planning your environment AP signal distribution

Home > Tools > AP Floor Map

London office

Add New

### Unread Events



0

Loss Connection



0

Profile Setting Error



0

Firmware Upgrade Failure



0

Reboot Error

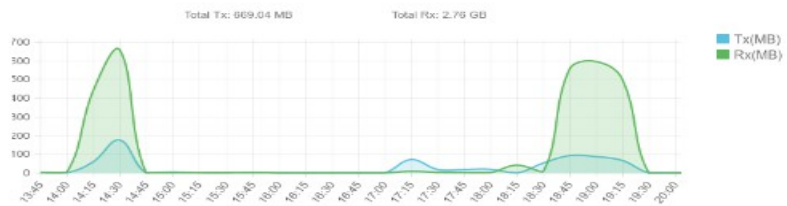
### Access Points



### Rogue APs



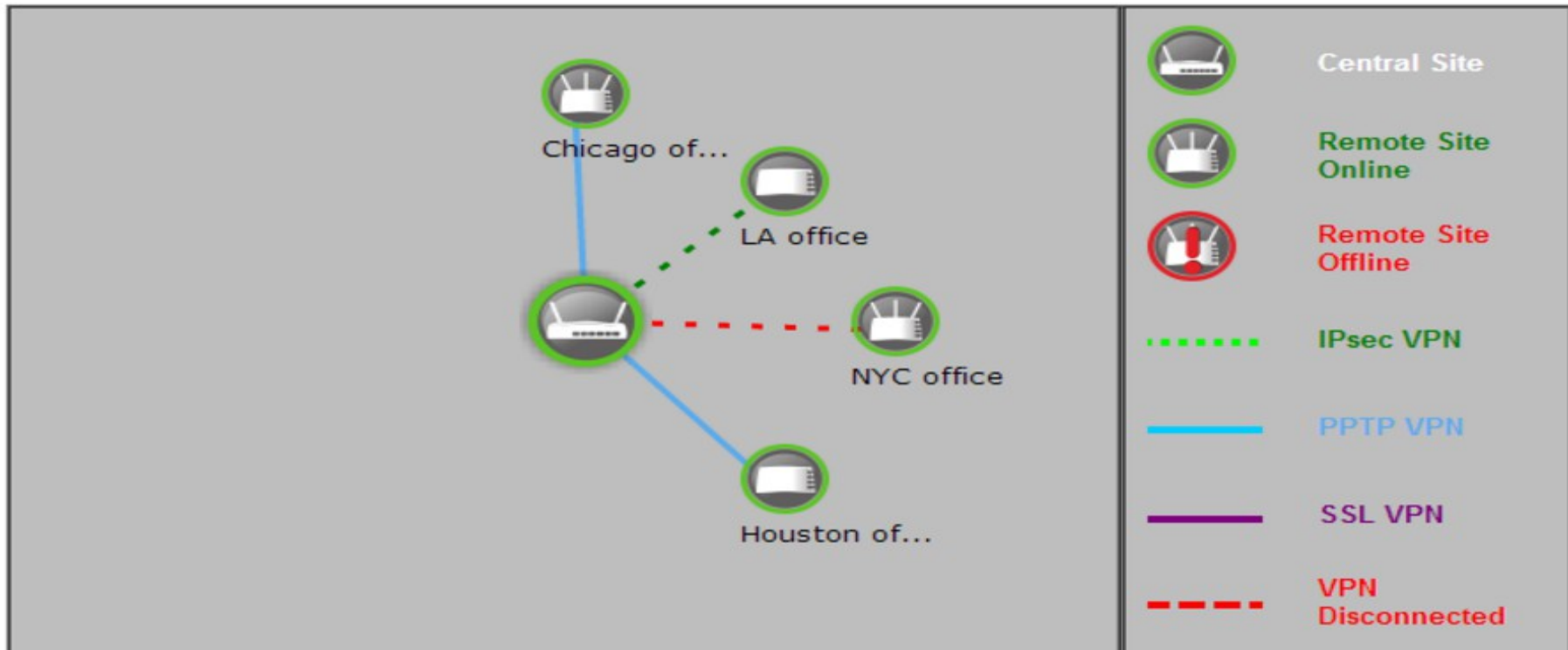
### Traffic



### Wireless Clients



# 整合架構 - CVM



CPE VPN Connection List

VPN	Type	Remote IP	Virtual Network	Tx Pkts	Tx Rate(Bps)	Rx Pkts	Rx Rate(Bps)	Up Time
1 (cvm_83DCB4)	IPsec Tunnel AES-SHA1 Auth	111.231.100.132 via WAN2	192.168.29.1/24	0	0	1	3	0:23:24
2 (cvm_B385B8)	SSL Tunnel	111.231.100.132 via WAN-2	192.168.1.1/24	122	11	1	3	0:23:27
3 (cvm_84B47C)	PPTP/MPPE	111.231.100.132 via WAN2	192.168.200.1/24	0	0	135	21	0:23:22
4 (cvm_7B8318)	PPTP/MPPE	111.231.100.132 via WAN2	192.168.2.1/24	0	0	0	0	0:22:49

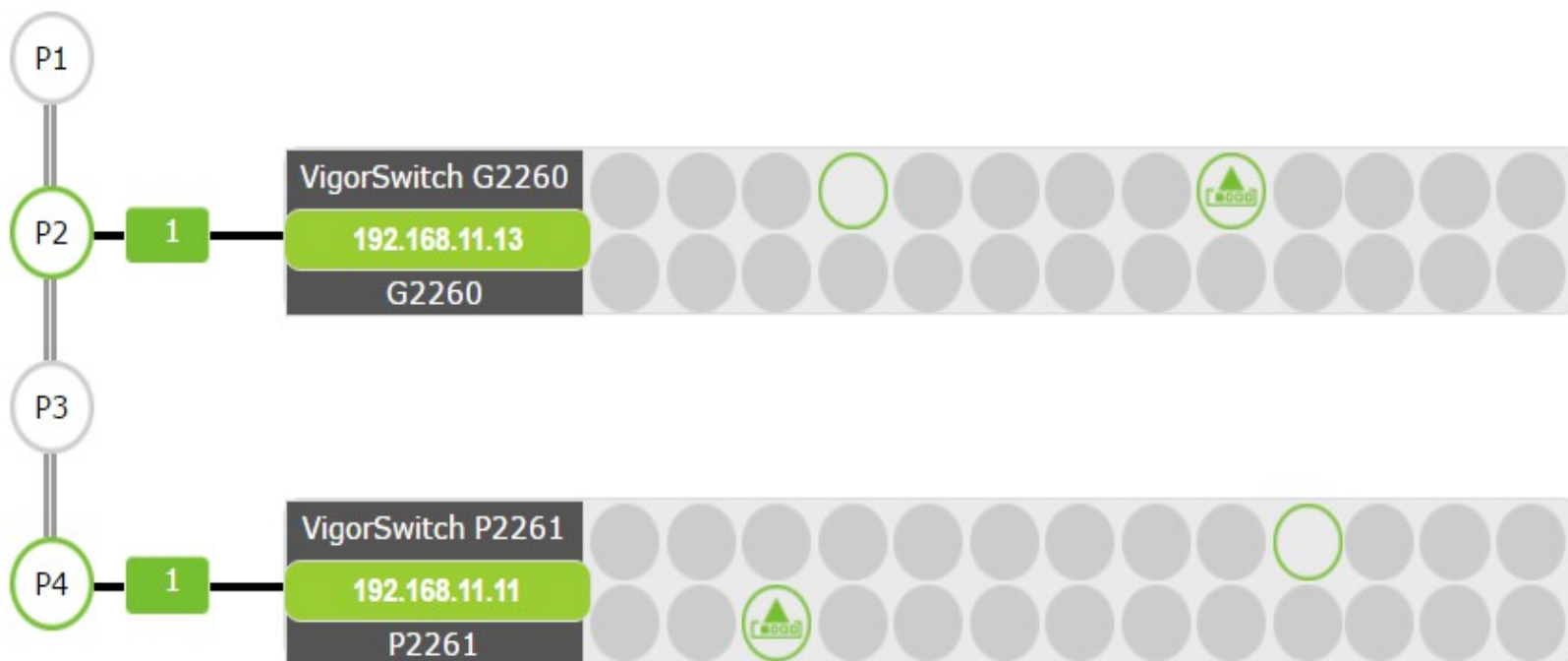


# 整合架構 - SWM



Central Management >> Switch >> Status

Switch Status	Switch Hierarchy
---------------	------------------





2

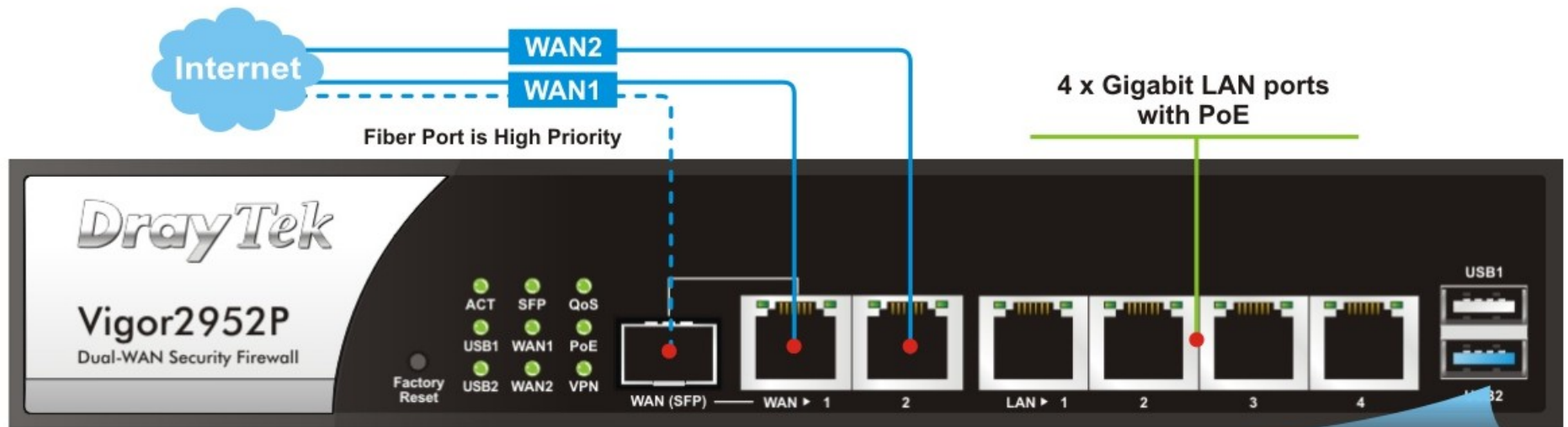
## Vigor2952P 產品規格

# Vigor2952P



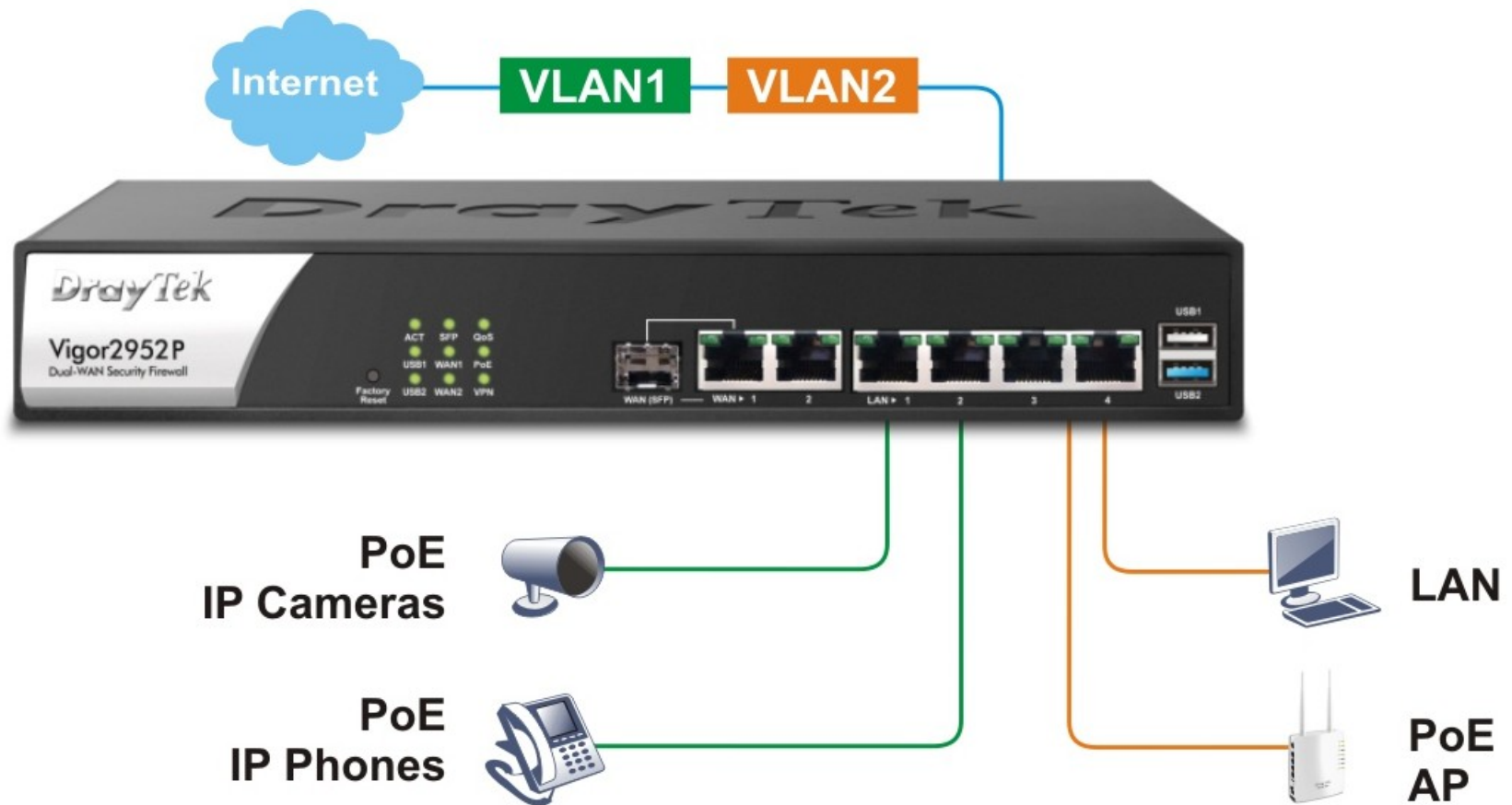
1. Two WAN, 4 Lan, 2 USB, 1 SFP(WAN1)
2. 60,000 sessions, 100 VPN tunnels , 10 subnets.
3. APM, CVM, SWM, Hotspot web portal,
4. PoE, total 60w, 35w/port
5. HA,IPv6 HA, DNSsec, PPPoE Server

# Vigor2952P



- 3G/4G LTE USB mobile**
- Printer**
- File Sharing**

# Vigor2952P



# Vigor2952P



**DrayTek**

Vigor2952 Series



Auto Logout ▾



Dashboard  
Wizards  
Online Status

WAN  
LAN  
PoE

General Setup

**Device Check**

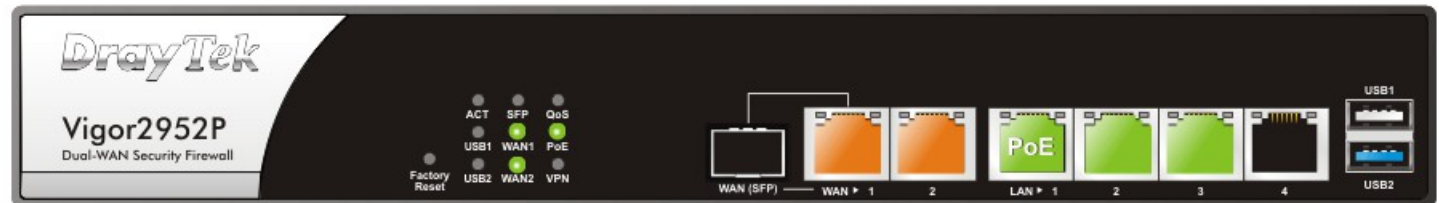
Status

Load-Balance/Route Policy  
NAT  
Hardware Acceleration  
Firewall  
User Management  
Objects Setting  
CSM  
Bandwidth Management  
Applications  
VPN and Remote Access  
Certificate Management  
SSL VPN  
USB Application  
System Maintenance  
Diagnostics

Central Management  
VPN  
AP

Admin mode  
Status: Settings Saved

## Dashboard



### System Information

Model Name	Vigor2952P	System Up Time	15:36:31
Router Name	DrayTek	Current Time	2016 Oct 12 Wed 1:52:36
Firmware Version	3.8.4_RC4	Build Date/Time	Sep 9 2016 15:07:47
LAN MAC Address	00-1D-AA-FD-F8-E8		

### IPv4 Internet Access

	Line / Mode	IP Address	MAC Address	Up Time
<b>WAN1</b>	Ethernet / PPPoE	114.37.143.6	00-1D-AA-FD-F8-E9	0:02:57
<b>WAN2</b>	Ethernet / DHCP Client	LAN 5 and WAN have the same IP subnet, Click <a href="#">here</a> to change LAN 5 IP subnet.	00-1D-AA-FD-F8-EA	0:03:01
<b>WAN3</b>	USB / ---	Disconnected	00-1D-AA-FD-F8-EB	00:00:00
<b>WAN4</b>	USB / ---	Disconnected	00-1D-AA-FD-F8-EC	00:00:00

### Interface

WAN	Connected : 2, <span style="color: green;">●</span> WAN1 <span style="color: green;">●</span> WAN2 <span style="color: gray;">●</span> WAN3 <span style="color: gray;">●</span> WAN4
-----	--

### Quick Access

<a href="#">System Status</a>
<a href="#">Dynamic DNS</a>
<a href="#">TR-069</a>
<a href="#">User Management</a>
<a href="#">IM/P2P Block</a>
<a href="#">Schedule</a>
<a href="#">SysLog / Mail Alert</a>
<a href="#">LDAP</a>
<a href="#">RADIUS</a>
<a href="#">Firewall Object Setting</a>
<a href="#">Data Flow Monitor</a>

### PoE Status

PoE Mode: <b>Auto</b>
Total Power: 60 Watt
Used: 3.6 Watt
Usage: 5%
Port1: 3.6 Watt
Port2: 0.0 Watt

# WAN-Budget 總量管制



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Auto Logout ▾

IPv6

Dashboard  
Wizards  
Online Status

WAN

General Setup  
Internet Access  
Multi-VLAN

WAN Budget

LAN  
PoE  
Load-Balance/Route Policy  
NAT  
Hardware Acceleration  
Firewall  
User Management  
Objects Setting  
CSM  
Bandwidth Management  
Applications  
VPN and Remote Access

WAN >> WAN Budget

WAN 3

Enable

Criterion and Action

Quota Limit:  GB ▾

When quota exceeded :  Shutdown WAN interface  
Using **Notification Object**  ▾

Set **Mail Alert** or **SMS message**.

Monthly

Custom

Select the day of a month when your (cellular) data resets.

Data quota resets on day  ▾ at  ▾

Note:

1. Please make sure the **Time and Date** of the router is configured.
2. SMS message and mail will be sent when the usage reaches 95% and 100% of quota.

# WAN- Mirror port



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Off ▾

IPv6

Dashboard  
Wizards  
Online Status

WAN  
LAN  
General Setup  
Static Route  
VLAN  
Bind IP to MAC

**LAN Port Mirror**

Wired 802.1X  
Web Portal Setup  
PPPoE Server

LAN >> LAN Port Mirror

LAN Port Mirror

Port Mirror:

Enable  Disable

	Port1	Port2	Port3	Port4	WAN1	WAN2
Mirror Port		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
Mirrored Tx Port	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mirrored Rx Port	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Note:**

Mirroring WAN1 or WAN2 is done by software mirror, so it will lead to a substantial decline in performance.



# 10 個網段



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## LAN >> General Setup

### General Setup

Index	Status	DHCP	IP Address		
LAN 1	V	V	192.168.11.1	<a href="#">Details Page</a>	IPv6
LAN 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.2.1	<a href="#">Details Page</a>	IPv6
LAN 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.3.1	<a href="#">Details Page</a>	IPv6
LAN 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.4.1	<a href="#">Details Page</a>	IPv6
LAN 5	<input type="checkbox"/>	<input type="checkbox"/>	192.168.55.1	<a href="#">Details Page</a>	IPv6
LAN 6	<input type="checkbox"/>	<input type="checkbox"/>	192.168.6.1	<a href="#">Details Page</a>	IPv6
LAN 7	<input type="checkbox"/>	<input type="checkbox"/>	192.168.7.1	<a href="#">Details Page</a>	IPv6
LAN 8	<input type="checkbox"/>	<input type="checkbox"/>	192.168.8.1	<a href="#">Details Page</a>	IPv6
DMZ Port	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.9.1	<a href="#">Details Page</a>	IPv6
IP Routed Subnet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.0.1	<a href="#">Details Page</a>	

[Advanced](#) You can configure DHCP options here.

### Inter-LAN Routing

Subnet	LAN 1	LAN 2	LAN 3	LAN 4	LAN 5	LAN 6	LAN 7	LAN 8	DMZ Port
LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LAN 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Off  IPv6

Dashboard  
Wizards  
Online Status

WAN  
LAN

**General Setup**

Static Route

VLAN

Bind IP to MAC

LAN Port Mirror

Wired 802.1X

Web Portal Setup

PPPoE Server

PoE

Load-Balance/Route Policy

NAT

Hardware Acceleration

Firewall

User Management

Objects Setting

CSM

Bandwidth Management

Applications

Admin mode  
Status: Ready

# 多 IPv6



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Vigor2952 Series



Auto Logout ▾

IPv6

## LAN >> General Setup

### General Setup

Index	Status	DHCP	IP Address		
LAN 1	V	V	192.168.11.1	Details Page	IPv6
LAN 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.2.1	Details Page	IPv6
LAN 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.3.1	Details Page	IPv6
LAN 4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.4.1	Details Page	IPv6
LAN 5	<input type="checkbox"/>	<input type="checkbox"/>	192.168.55.1	Details Page	IPv6
LAN 6	<input type="checkbox"/>	<input type="checkbox"/>	192.168.6.1	Details Page	IPv6
LAN 7	<input type="checkbox"/>	<input type="checkbox"/>	192.168.7.1	Details Page	IPv6
LAN 8	<input type="checkbox"/>	<input type="checkbox"/>	192.168.8.1	Details Page	IPv6
DMZ Port	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.9.1	Details Page	IPv6
IP Routed Subnet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	192.168.0.1	Details Page	

Advanced You can configure DHCP options here.

### Inter-LAN Routing

Subnet	LAN 1	LAN 2	LAN 3	LAN 4	LAN 5	LAN 6	LAN 7	LAN 8	DMZ Port
LAN 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LAN 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LAN 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Dashboard  
Wizards  
Online Status

WAN  
LAN

General Setup

Static Route

VLAN

Bind IP to MAC

LAN Port Mirror

Wired 802.1X

Web Portal Setup

PPPoE Server

PoE

Load-Balance/Route Policy

NAT

Hardware Acceleration

Firewall

User Management

Objects Setting

CSM

Bandwidth Management

Applications

Admin mode  
Status: Ready

# 可匯出 / 匯入 IP 綁 MAC



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Vigor2952 Series



Auto Logout ▾

IPv6

Dashboard  
Wizards  
Online Status

WAN  
LAN

General Setup

Static Route

VLAN

**Bind IP to MAC**

LAN Port Mirror

Wired 802.1X

Web Portal Setup

PPPoE Server

PoE

Load-Balance/Route Policy

NAT

Hardware Acceleration

Firewall

User Management

Objects Setting

CSM

Bandwidth Management

Applications

IP Bind List ( Limit: 300 entries )

| [Select All](#) | [Sort](#) |

Index	IP Address	Mac Address	Host ID	Comment
-------	------------	-------------	---------	---------

**Note:**

1. IP-MAC binding presets DHCP Allocations.
2. If you select Strict Bind, unspecified LAN clients cannot access the Internet.

OK

Backup IP Bind List :

Upload From File:  未選擇任何檔案

Admin mode  
Status: Ready

# 防火牆 - 規則追蹤



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Vigor2952 Series



Auto Logout IPv6

Firewall >> Diagnose

- Dashboard
- Wizards
- Online Status
- WAN
- LAN
- PoE
- Load-Balance/Route Policy
- NAT
- Hardware Acceleration
- Firewall
  - General Setup
  - Filter Setup
  - DoS Defense
  - Diagnose**
- User Management
- Objects Setting
- CSM
- Bandwidth Management
- Applications
- VPN and Remote Access
- Certificate Management
- SSL VPN
- USB Application

Mode  
 ICMP  UDP  TCP IPv4

Direction  
From LAN

Test View



Src IP

Src MAC

Dst IP

Packet & Payload

Packet	Enable	Direction	Protocol
1	<input checked="" type="checkbox"/>	A->B	ICMP:Customize
2	<input type="checkbox"/>	A->B	ICMP:Customize

# PoE – 功率分配



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Off ▾

IR6

PoE >> General Setup

[Set to Factory Default](#)

- Dashboard
- Wizards
- Online Status
- WAN
- LAN
- PoE
  - General Setup**
  - Device Check
  - Status
- Load-Balance/Route Policy
- NAT
- Hardware Acceleration
- Firewall
- User Management
- Objects Setting
- CSM
- Bandwidth Management
- Applications
- VPN and Remote Access

Mode:  ▾

Syslog:  Enable

Total Power = 60 Watt

Port	Enable	Power Limit(Watt)	Schedule(1-15)	
1	<input checked="" type="checkbox"/>	15 ▾	1	6
2	<input checked="" type="checkbox"/>	30 ▾	2	7
3	<input checked="" type="checkbox"/>	15 ▾	3	9
4	<input checked="" type="checkbox"/>	30 ▾	5	

Notice: If there is any change in config, PoE will apply power cycle.

Warning: The priority is Port 1 (highest) to Port 4 (lowest).

If the power requirements of connected devices exceed the total power, then the power of the lowest priority port will be shut off first.

OK

Clear All

# PoE – 自動偵測及重啓



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Vigor2952 Series



Off

IPv6

Dashboard  
Wizards  
Online Status

WAN  
LAN  
PoE  
General Setup  
**Device Check**  
Status  
Load-Balance/Route Policy  
NAT  
Hardware Acceleration

PoE >> Device Check

Port	<input checked="" type="checkbox"/> Enable	Ping IP Address	Ping Interval (Seconds)	Retry (Time)	Failure Action
1	<input checked="" type="checkbox"/>	192.168.1.100	120 ▼	1 ▼	Power Cycle ▼
2	<input checked="" type="checkbox"/>	192.168.1.111	30 ▼	3 ▼	Power Off ▼
3	<input type="checkbox"/>	0.0.0.0	60 ▼	5 ▼	Power Cycle ▼
4	<input type="checkbox"/>	0.0.0.0	10 ▼	1 ▼	Power Cycle ▼

OK

Clear All



3

## Switch 中央管理功能

# Switch Management (SWM)



Central Management >> Switch >> Status

Switch Status

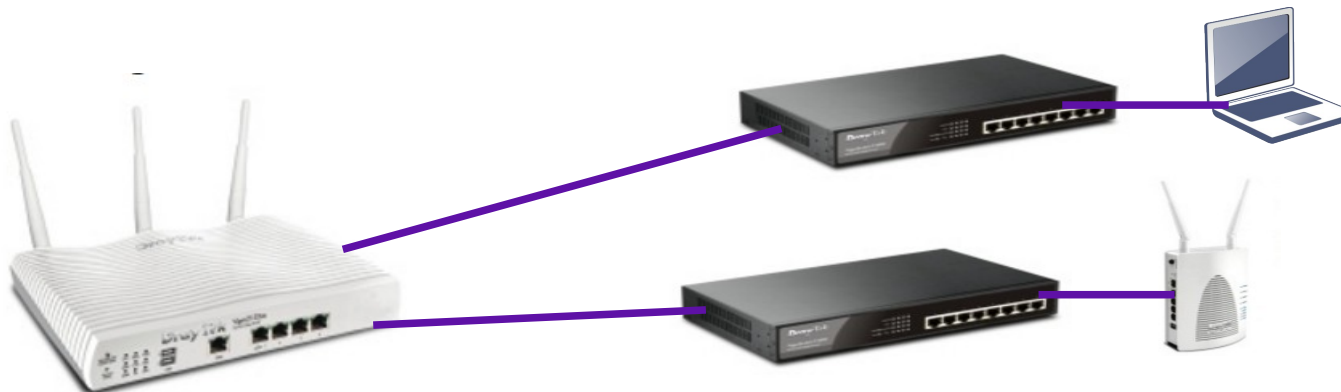
Switch Hierarchy

[Refresh](#)

View Group:

Status

Group	Switch Name	IP Address	Model	System Up Time	Port in Use	Clients	Firmware Version
<b>Default</b>	<b>P2261</b>	<a href="#">192.168.11.11</a>	P2261	0:49:32	2/26	1	v3.11
	<b>G2260</b>	<a href="#">192.168.11.13</a>	G2260	0:12:09	2/26	1	v3.11





# Switch Management (SWM)



DrayTek

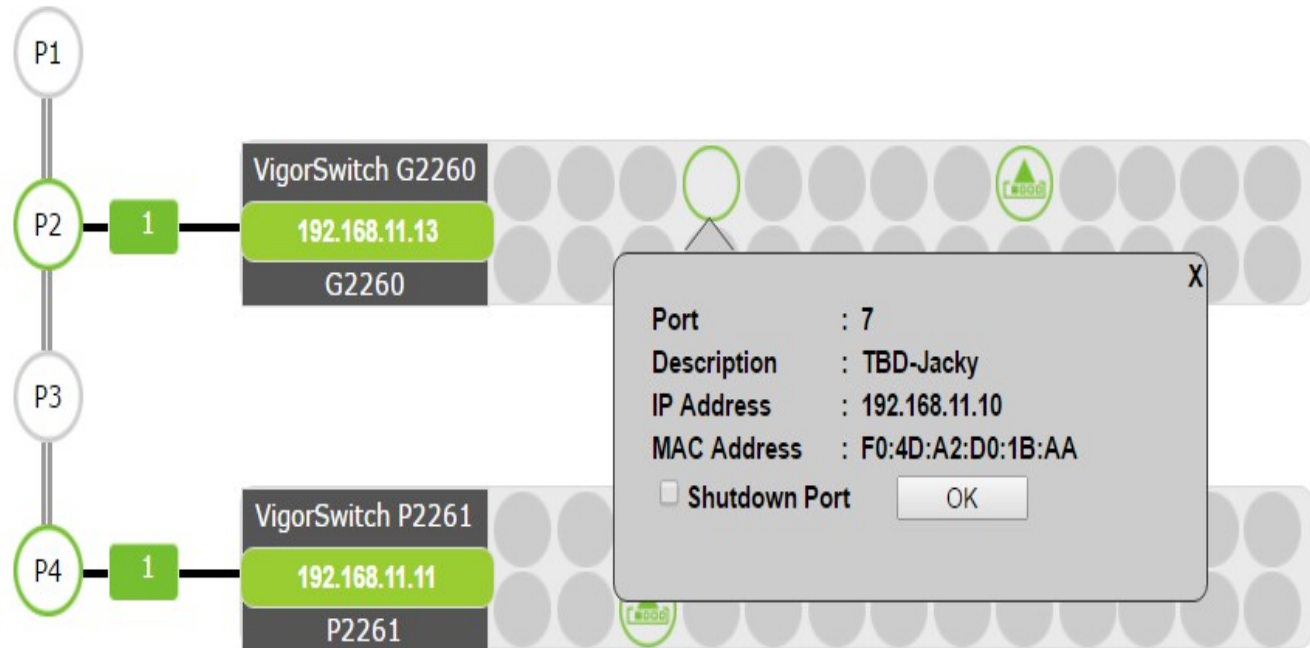
Vigor2952 Series



- Off IP6
- VPN and Remote Access
- Certificate Management
- SSL VPN
- USB Application
- System Maintenance
- Diagnostics
  
- Central Management
- VPN
- AP
- Switch
- Status**
- Profile
- Group
- Maintenance
- Support List
- External Devices
  
- Support Area
- Product Registration

Central Management >> Switch >> Status

Switch Status      Switch Hierarchy      [Refresh](#)



All Rights Reserved.

Admin mode

# Switch Management (SWM)



**DrayTek**

Vigor2952 Series



Auto Logout ▾ IP6

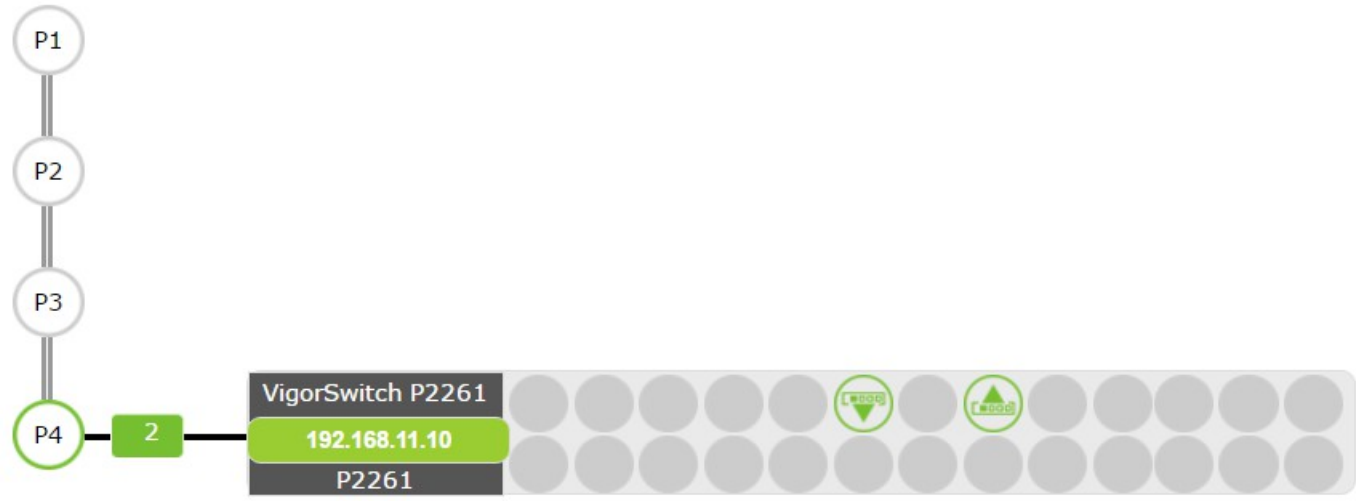
- SSL VPN
- USB Application
- System Maintenance
- Diagnostics

- Central Management
- VPN
- AP
- Switch
- Status**
- Profile
- Group
- Maintenance
- Support List
- External Devices

- Support Area
  - Product Registration
- All Rights Reserved.

Central Management >> Switch >> Status

- Switch Status
- Switch Hierarchy



# Switch Management (SWM)



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Vigor2952 Series



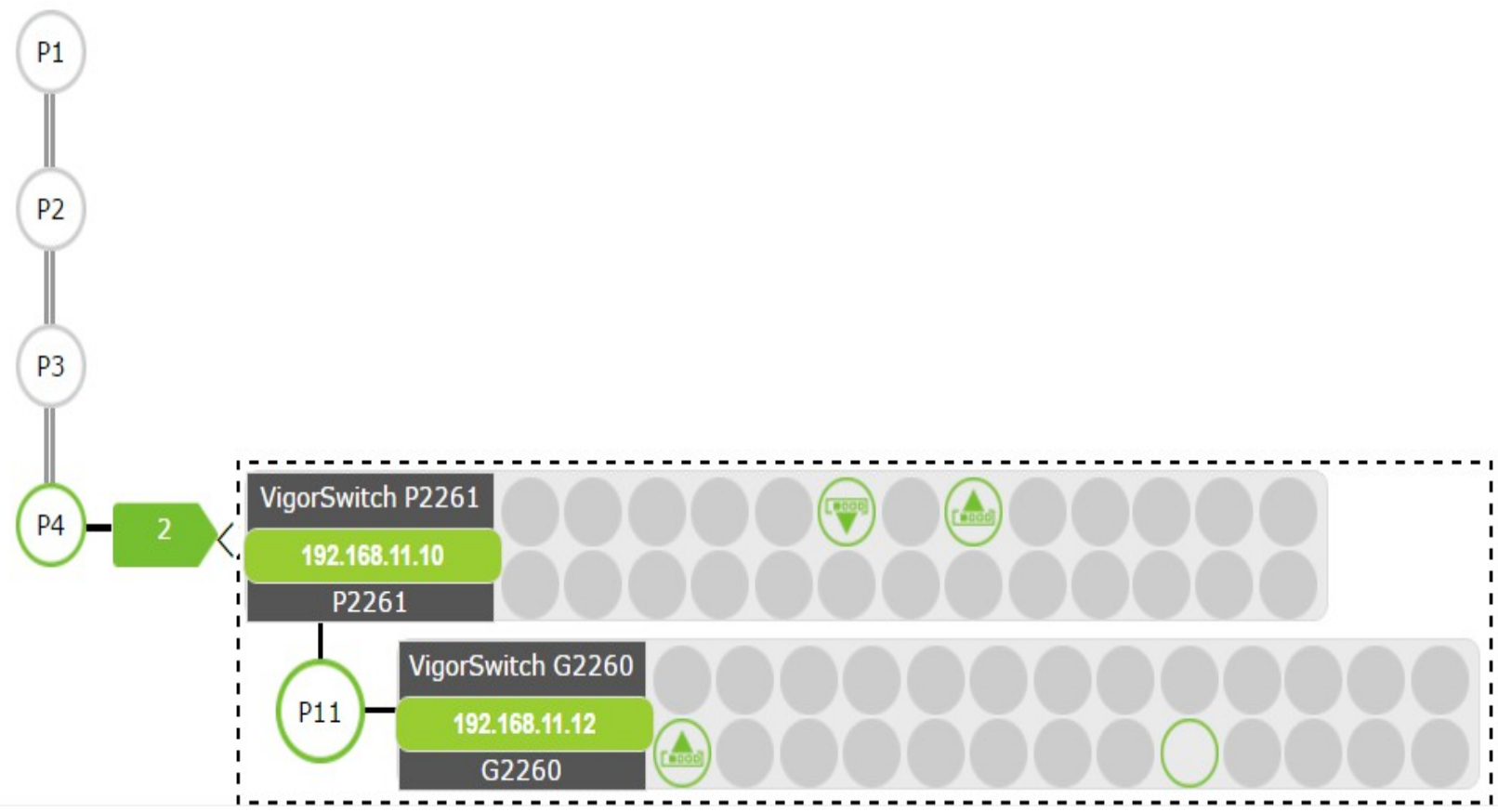
Auto Logout IPV6

Switch Status

Switch Hierarchy

[Refresh](#)

- SSL VPN
- USB Application
- System Maintenance
- Diagnostics
  
- Central Management
- VPN
- AP
- Switch
- Status**
- Profile
- Group
- Maintenance
- Support List
- External Devices
  
- Support Area
- Product Registration
  
- All Rights Reserved.



Admin mode

# Switch Management (SWM)



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Vigor2952 Series

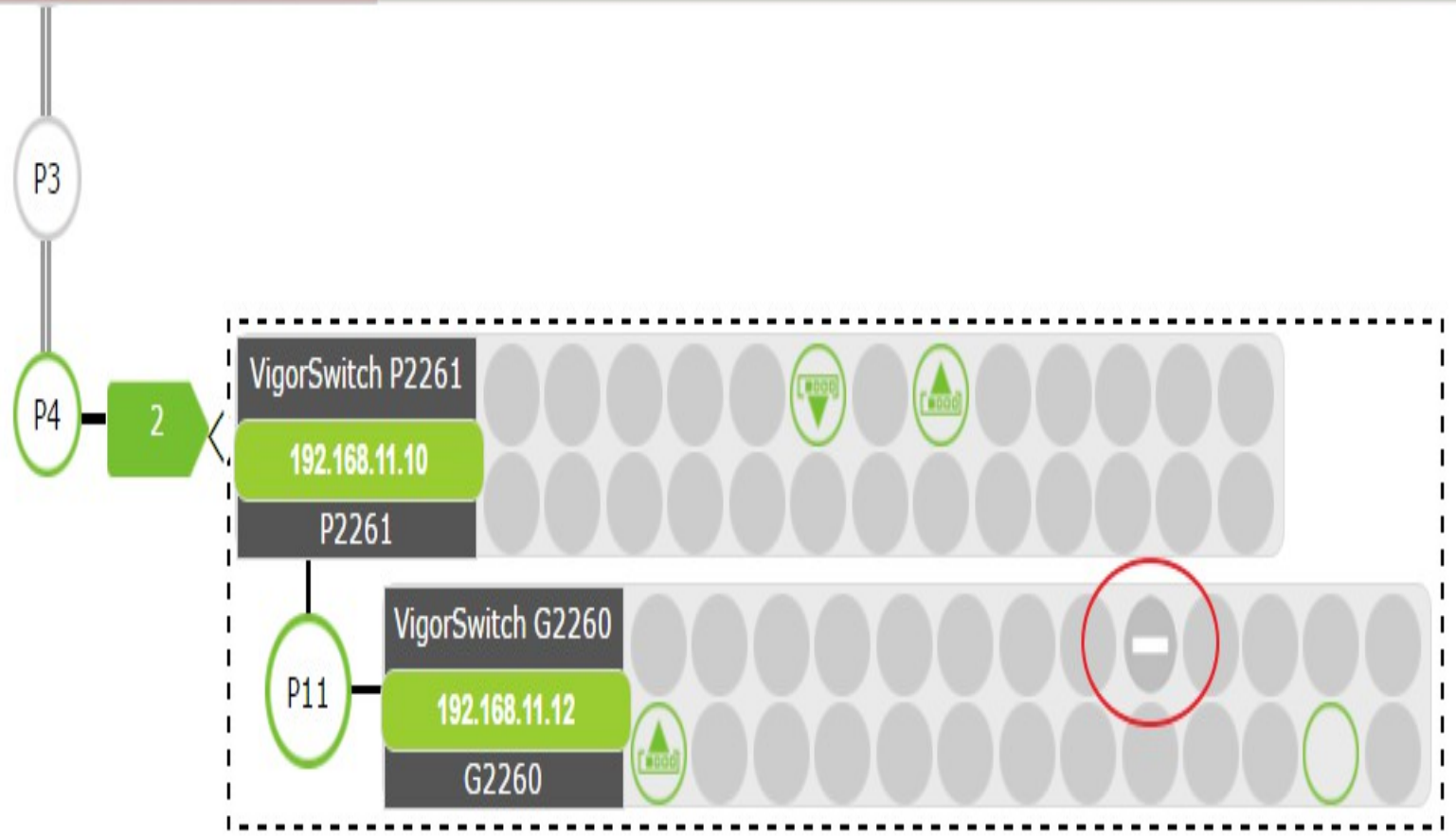


Auto Logout ▾ IP<sub>v</sub>6

- SSL VPN
- USB Application
- System Maintenance
- Diagnostics

- Central Management
- VPN
- AP
- Switch

- Status**
- Profile
- Group
- Maintenance
- Support List
- External Devices



# SWM- profile



DrayTek

Vigor2952 Series



Off



firewall

- User Management
- Objects Setting
- CSM
- Bandwidth Management
- Applications
- VPN and Remote Access
- Certificate Management
- SSL VPN
- USB Application
- System Maintenance
- Diagnostics

- Central Management
- VPN
- AP
- Switch
- Status
- Profile**
- Group
- Maintenance
- Device List

Central Management >> Switch >> Profile

Switch Profile 1

[Get Setting from External Switch](#)

General    VLAN    Port

[Set to Factory Default](#)

Switch Name	<input type="text" value="P2261"/>
Comment	<input type="text"/>
<input type="checkbox"/> Copy configuration from:	<input type="text" value="None"/>
Login Password	<input type="text"/>
IP Address	DHCP <a href="#">192.168.11.11</a>

Note: The router configuration will be updated when getting profile settings from external switch

OK    Cancel    Send to Device

# SWM- 可每埠命名



DrayTek

Vigor2952 Series



Auto Logout ▾

IPv6

- Objects Setting
- CSM
- Bandwidth Management
- Applications
- VPN and Remote Access
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- SSL VPN
- USB Application
- System Maintenance
- Diagnostics

- Central Management
- VPN
- AP
- Switch
- Status
- Profile**
- Group
- Maintenance
- Support List
- External Devices

Central Management >> Switch >> Profile

Switch Profile 1 P2261

[Get Setting from External Switch](#)

[Set to Factory Default](#)

- General
- VLAN
- Port

Port	Description	Shutdown Port	
		Shutdown	Schedule
1	GM-110	<input type="checkbox"/>	0 , 0
2	Sales-210	<input type="checkbox"/>	0 , 0
3	Sales-M-222	<input type="checkbox"/>	0 , 0
4	PQC-Wang-391	<input type="checkbox"/>	0 , 0
5		<input type="checkbox"/>	0 , 0
6		<input type="checkbox"/>	0 , 0
7		<input type="checkbox"/>	0 , 0
8		<input type="checkbox"/>	0 , 0
9		<input type="checkbox"/>	0 , 0

# SWM- 備份



DrayTek

Vigor2952 Series



Off  IPv6

- VPN and Remote Access
- Certificate Management
- SSL VPN
- USB Application
- System Maintenance
- Diagnostics

- Central Management
- VPN
- AP
- Switch
- Status
- Profile
- Group
- Maintenance**
- Support List
- External Devices

- Support Area
- Product Registration

All Rights Reserved.

Central Management >> Switch >> Maintenance

### Select Action

Action Type:

Config Backup ▾

File/Path:

選擇檔案 未選擇任何檔案

### Select Device

Existing Device

Switch Name	MAC Address	IP Address
P2261	00:50:7E:f0:c3:3d	192.168.11.11
G2260	00:50:7E:f0:c4:62	192.168.11.13

Selected Device

Switch Name	MAC Address	IP Address
-------------	-------------	------------

>>

<<

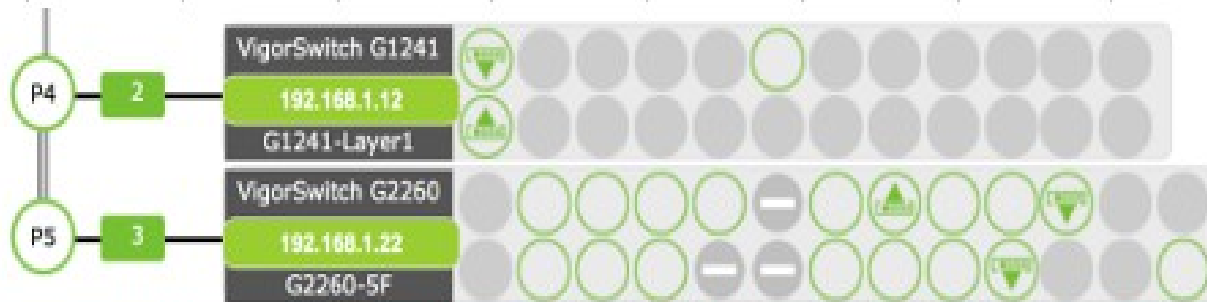
OK

Cancel





# SWM – Advance Search



✓ User  
IP  
MAC

Search

IP

192.168.20

Search

Uplink Switch	Port	IP	MAC	Name / Description
G2260-5F	<u>12</u>	192.168.20.101	00:11:22:DF:12:33	
G2260-5F	<u>22</u>	192.168.20.102	00:11:22:DF:12:34	
P2261-5F	<u>13</u>	192.168.20.103	00:11:22:AB:CD:EF	Kyle PC
P2261-5F	<u>14</u>	192.168.20.104	00:11:22:DF:12:34	Iris PC

# SWM- 支援列表



**DrayTek**

**Vigor2952 Series**

Auto Logout ▾

IPv6

Bandwidth Management  
Applications  
VPN and Remote Access  
Certificate Management  
SSL VPN  
USB Application  
System Maintenance  
Diagnostics

Central Management  
VPN  
AP  
Switch  
Status  
Profile  
Group  
Maintenance  
**Support List**  
External Devices

Central Management >> Switch >> Support List

Model	Status	Firmware Version
Vigor Switch P2261	V	v3.11
Vigor Switch G2260	V	v3.11
Vigor Switch G1241	V	2.1.0.Beta2
Vigor Switch P1100	V	2.1.0RC3a

# M9000 工業路由器 - 戶外型



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M9000 M2M Router

# M9000 工業路由器 - 戶外型



- High Performance Firewall Router
- Ideal for Cellular & telecoms backhaul applications
- Synchronous Ethernet (SyncE Phase 2) on WAN2 (slave/relay)
- IEEE1588 v2 Precision Time Protocol (PTP)
- PoE Powered or AC or DC (Option)
- Ruggedised:
  - IP66 Outdoor Rated
  - Operating Range : -10°C - 60°C
- Multiple IP Subnets
- 802.1ad Q-in-Q
- Up to 200 VPN Tunnels (IPSec/PPTP)
- VLAN based Bandwidth control
- 802.1p QoS (up to 4 Queues)
- WAN Connectivity (to order):
  - WAN1: Gigabit Ethernet or SFP or 3G/4G/LTE Cellular
  - WAN2: Gigabit Ethernet (RJ-45)
  - VDSL2 / ADSL2+ (To order)
- LAN Connectivity (to order):
  - 2 X Gigabit Ethernet (RJ-45)
  - 802.11n or 802.11ac (option)
- IPv4/IPv6 Dual Stack
- 500Mb/s Firewall Performance
- **Availability:** Special (Project) Order Only (see below)

# Q & A

