

# Triple Play Setting

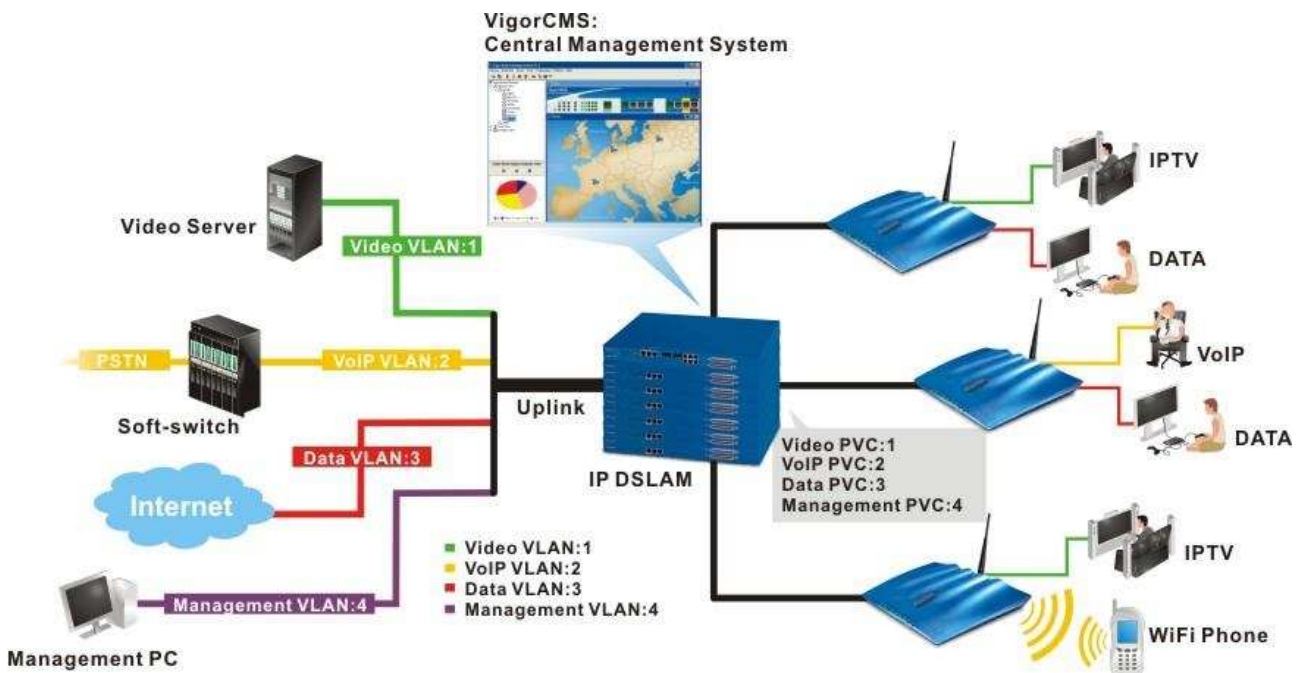
## 7.1 Introduction

Triple-Play service is the service that integrates data, voice and video services on IP network.

More and more ISPs are preparing this service for home users.

For adapting the trend, Draytek provides the solutions on Vigor2700, Vigor2820, Vigor2110 and Vigor2910 series (with special firmware).

Below is the figure displaying the triple play environment.



Users can use Internet, IPTV and VoIP services through the same adsl line that ISP offered at the same time.

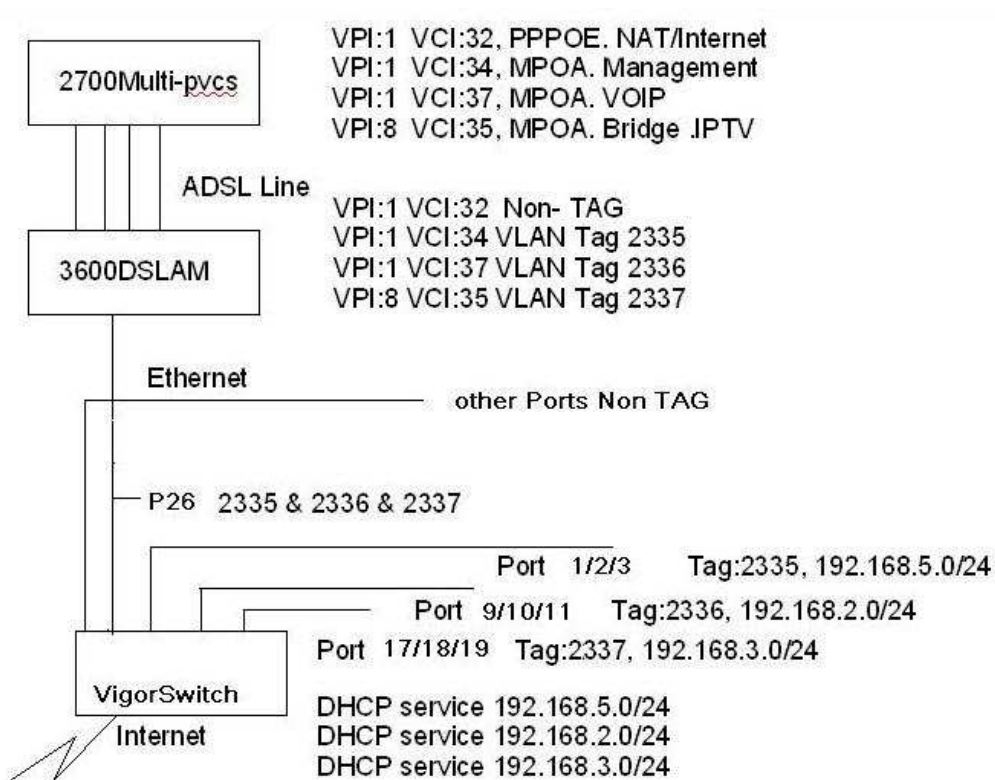
CPE sends the IPTV, Data and VoIP packets through specific PVCs.

Then IPDSLAM tag the packets with different VLAN IDs to the switch that all servers connected.

And the switch will separate and untagged the packets to the specifics port that server connected by the VLAN settings.

We'll take Vigor2700, VigorAccess and VigorSwitchP2260 as an example to configure triple-play environment in this document.

Below are the PVC and VLAN settings.



## 7.2 Configure CPE

### 1. Configure Multi-PVC.

Different services are going through different PVC, so DSLAM can separate the traffics.

In this example,

Data/Internet service will go through PVC 1/32.

VoIP service will go through PVC 1/37.

Management (TR069) service will go through PVC 1/34.

IPTV service will go through PVC 8/35.

The PVC and access mode(PPPoE or MPoA) settings are decided by ISP.

(1) Go to WAN>Multi-PVCs page, configure Channel 1 for Internet Access.

## WAN >> Multi-PVCs

### Multi-PVCs

General		ATM QoS		Port-based Bridge		
Channel	Enable	VPI	VCI	QoS Type	Protocol	Encapsulation
1.	<input checked="" type="checkbox"/>	1	32	UBR	PPPoE	LLC/SNAP
2.	<input type="checkbox"/>	1	88	UBR	MPoA	1483 Bridged IP LLC
3.	<input checked="" type="checkbox"/>	1	34	UBR	MPoA	1483 Bridged IP LLC
4.	<input type="checkbox"/>	1	44	UBR	PPPoA	VC MUX
5.	<input checked="" type="checkbox"/>	1	37	UBR	MPoA	1483 Bridged IP LLC
6.	<input type="checkbox"/>	1	46	UBR	PPPoA	VC MUX
7.	<input checked="" type="checkbox"/>	8	35	UBR	MPoA	1483 Bridged IP LLC
8.	<input type="checkbox"/>	1	48	UBR	PPPoA	VC MUX

Note: VPI/VCI must be unique for each channel!

## Internet Access >> PPPoE / PPPoA

### PPPoE / PPPoA Client Mode

<b>PPPoE/PPPoA Client</b> <input checked="" type="radio"/> Enable <input type="radio"/> Disable		<b>ISP Access Setup</b>	
<b>DSL Modem Settings</b>		ISP Name: <input type="text"/>	
Multi-PVC channel	<input type="text" value="Channel 1"/>	Username: <input type="text" value="123"/>	
VPI	<input type="text" value="0"/>	Password: <input type="text" value="..."/>	
VCI	<input type="text" value="33"/>	PPP Authentication: <input type="text" value="PAP or CHAP"/>	
Encapsulating Type	<input type="text" value="LLC/SNAP"/>	<input checked="" type="checkbox"/> Always On	
Protocol	<input type="text" value="PPPoE"/>	Idle Timeout: <input type="text" value="-1"/> second(s)	
Modulation	<input type="text" value="Multimode"/>	<b>IP Address From ISP</b> <input type="button" value="WAN IP Alias"/>	
<b>PPPoE Pass-through</b>		Fixed IP: <input type="radio"/> Yes <input checked="" type="radio"/> No (Dynamic IP)	
<input type="checkbox"/> For Wired LAN <input type="checkbox"/> For Wireless LAN		Fixed IP Address: <input type="text"/>	
<b>ISDN Dial Backup Setup</b>		<input checked="" type="radio"/> Default MAC Address <input type="radio"/> Specify a MAC Address	
Dial Backup Mode	<input type="text" value="None"/>	MAC Address: <input type="text" value="00"/> . <input type="text" value="50"/> . <input type="text" value="7F"/> . <input type="text" value="B0"/> . <input type="text" value="37"/> . <input type="text" value="E1"/>	
		Index(1-15) in <a href="#">Schedule Setup</a> : => <input type="text"/> , <input type="text"/> , <input type="text"/> , <input type="text"/>	

(2) Select Channe5/WAN5 then configure the PVC for VoIP service.

WAN for Router-borne Application: VoIP

Enable  Disable

#### DSL Modem Settings

VPI: 1

QoS Type: UBR

VCI: 37

Protocol: MPoA

Encapsulation: 1483 Bridged IP LLC

#### PPPoE/PPPoA Client

##### ISP Access Setup

ISP Name:

Username:

Password:

PPP Authentication: PAP or CHAP

Always On

Idle Timeout: -1 second(s)

##### IP Address From ISP

Fixed IP:  Yes  No (Dynamic IP)

Fixed IP Address:

#### MPoA (RFC1483/2684)

Obtain an IP address automatically

Router Name:  \*

Domain Name:  \*

\*: Required for some ISPs

Specify an IP address

IP Address: 192.168.2.11

Subnet Mask: 255.255.255.0

Gateway IP Address: 192.168.2.1

#### DNS Server IP Address

Primary IP Address:

Secondary IP Address:

(3) Select Channe3/WAN3 then configure the PVC for Management service.

WAN for Router-borne Application: Management

Enable  Disable

#### DSL Modem Settings

VPI: 1 QoS Type: UBR  
VCI: 34 Protocol: MPoA  
Encapsulation: 1483 Bridged IP LLC

#### PPPoE/PPPoA Client

##### ISP Access Setup

ISP Name:   
Username:   
Password:   
PPP Authentication: PAP or CHAP  
 Always On  
Idle Timeout: 60 second(s)

##### IP Address From ISP

Fixed IP:  Yes  No (Dynamic IP)  
Fixed IP Address:

#### MPoA (RFC1483/2684)

Obtain an IP address automatically

Router Name:  \*  
Domain Name:  \*  
\*: Required for some ISPs

Specify an IP address

IP Address: 192.168.5.23  
Subnet Mask: 255.255.255.0  
Gateway IP Address: 192.168.5.1

#### DNS Server IP Address

Primary IP Address:   
Secondary IP Address:

Note: while using VigorACS server to manage Vigor2700, there are still two configurations should be enabled, one is to specify the URL for VigorACS server and the user name/password for authentication.

### System Maintenance >> TR-069 Setting

#### ACS and CPE Settings

ACS Server On: PVC

**ACS Server**  
URL: http://192.168.5.15:8080/ACSServer/services/ACSServlet  
Username: acs  
Password: .....

**CPE Client**  
URL: http://192.168.5.23/cwm/CRN.html  
Port: 80  
Username: vigor  
Password: .....

The other is to enable the Remote management ability in Vigor2700.



## System Maintenance >> Management

### Management Setup

Management Access Control	Management Port Setup
<input checked="" type="checkbox"/> Allow management from the Internet	<input checked="" type="radio"/> User Define Ports <input type="radio"/> Default Ports
<input checked="" type="checkbox"/> FTP Server	Telnet Port: <input type="text" value="23"/> (Default: 23)
<input checked="" type="checkbox"/> HTTP Server	HTTP Port: <input type="text" value="80"/> (Default: 80)
<input checked="" type="checkbox"/> HTTPS Server	HTTPS Port: <input type="text" value="443"/> (Default: 443)
<input checked="" type="checkbox"/> Telnet Server	FTP Port: <input type="text" value="21"/> (Default: 21)
<input type="checkbox"/> SSH Server	SSH Port: <input type="text" value="22"/> (Default: 22)
<input checked="" type="checkbox"/> Disable PING from the Internet	

(4)Configure one PVC for IPTV service then map the PVC to one LAN port of Vigor2700.

### WAN >> Multi-PVCs

#### Multi-PVCs

General	ATM QoS	Port-based Bridge				Service Type	Add Tag
Channel	Enable	P1	P2	P3	P4		
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text" value="0"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text" value="0"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text" value="0"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text" value="0"/>
7.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text" value="0"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Normal	<input type="checkbox"/> <input type="text" value="0"/>

Note: 1.Channel 1 to 2 are reserved for Nat/Route use.  
2.P1 is reserved for Nat/Route use.

When the above settings are configured well, we can check the connection status via Online Status page.

Internet, VoIP and Management services' status can be checked via Online Status because they are the services that Vigor2700 provides itself.

For IPTV service, we have to turn on the setop box to check if the IPTV packets are bridged to ISP without problems.

## Online Status

System Status						System Uptime: 43:41:41
Primary		Secondary				
<b>LAN Status</b>		Primary DNS: 168.95.1.1		Secondary DNS: 168.95.1.1		
IP Address		TX Packets		RX Packets		
192.168.1.1		381327		39360		
<b>WAN 1 Status</b> <span style="float: right;">&gt;&gt; <a href="#">Drop PPPoE</a></span>						
Enable	Line	Name	Mode	Up Time		
Yes	ADSL		PPPoE	32:23:13		
IP	GW IP	TX Packets	TX Rate(Bps)	RX Packets	RX Rate(Bps)	
202.211.100.171	202.211.100.170	23659	7	25065	10	
<b>ADSL Information</b> (ADSL Firmware Version: 1311302_B)						
<b>ATM Statistics</b>	<b>TX Blocks</b>	<b>RX Blocks</b>	<b>Corrected Blocks</b>	<b>Uncorrected Blocks</b>		
	360209	9799015	0	27175		
<b>ADSL Status</b>	<b>Mode</b>	<b>State</b>	<b>Up Speed</b>	<b>Down Speed</b>	<b>SNR Margin</b>	<b>Loop Att.</b>
	ADSL2+ (G.992.5)	SHOWTIME	1020000	23992000	12	0

## Online Status

System Status						System Uptime: 43:42:5
Primary		Secondary				
<b>WAN 3 Status</b>						
Enable	Line	Name	Mode	Up Time	Application	
Yes	ADSL		DHCP Client	43:41:18	Management	
IP	GW IP	TX Packets	TX Rate(Bps)	RX Packets	RX Rate(Bps)	
192.168.5.23	192.168.5.1	23111	1248	15263	579	
<b>WAN 4 Status</b>						
Enable	Line	Name	Mode	Up Time	Application	
Yes	ADSL		---	00:00:00	Management	
IP	GW IP	TX Packets	TX Rate(Bps)	RX Packets	RX Rate(Bps)	
---	---	0	0	0	0	
<b>WAN 5 Status</b>						
Enable	Line	Name	Mode	Up Time	Application	
Yes	ADSL		DHCP Client	43:41:18	VoIP	
IP	GW IP	TX Packets	TX Rate(Bps)	RX Packets	RX Rate(Bps)	
192.168.2.11	192.168.2.1	0	0	0	0	

## 7.3 Configure IPDSLAM

### 1. Scenario Introduction

When user completes configuration in IPDSLAM device, user needs to configure four PVC groups on CPE side. The values of VPI and VCI must be mapped with IPDSLAM side.

For example, if user would like to manage IPDSLAM device, the management traffics would be sent to IPDSLAM with VLAN tag vid 2335. Then, IPDSLAM would parse the traffics as for management function.

If user would like to use Video application, when Video server gets the video request from user client, it would send out video traffics to IPDSLAM with VLAN tag vid 2337. IPDSLAM would parse the traffics as for video application and send traffics to video client.

The other two applications are as same as the way. However, the most important point is priority function within these four applications. If user runs Video, VoIP, Internet and management at the same time, these four kinds of traffics would follow priority to ensure the best quality and reliability for special application like Video and VoIP.

If the priority of Video is set as "Highest", this kind of traffics would get the first priority to be sent on a single high-capacity digital circuit at the same time.

## 2. Scenario Description and Environment

There are three VLAN groups as below -

**VLAN1(Vid 2335) as Management**

**VLAN2(Vid 2336) as VoIP PBX**

**VLAN3(Vid 2337) as Video Server**

There are four PVC groups which are mapped to each VLAN group as below -

**PVC1(vpi 1, vci 32) is for PPPoE as Internet traffic (mapped to default VLAN)**

**PVC2(vpi 1, vci 37) is for VoIP PBX (mapped to VLAN2)**

**PVC3(vpi 1, vci 34) is for management (mapped to VLAN1)**

**PVC4(vpi 8, vci 35) is for Video Server (mapped to VLAN3)**

## 3. Configuration Steps

### 3.1 Configure PVC groups in one DSL port

Add new four PVC groups (1:32; 1:34; 1:37, 8:35) in single DSL port sequentially via PVC Create page. Remember to click "Apply" to finish the configuration.

#### PVC CREATE

DSL Port:	1
PVC:	1
VPI:	1 (0-255)
VCI:	32 (0-65535)
MPOA:	llcMux
Channel:	Interleaved
Mode:	Bridge
Mac Profile:	1

Apply

#### PVC CREATE

DSL Port:	1
PVC:	2
VPI:	1 (0-255)
VCI:	34 (0-65535)
MPOA:	llcMux
Channel:	Interleaved
Mode:	Bridge
Mac Profile:	1

Apply



## PVC CREATE

DSL Port:	1
PVC:	9
VPI:	1 (0-255)
VCI:	37 (0-65535)
MPOA:	llcMux
Channel:	Interleaved
Mode:	Bridge
Mac Profile:	1

## PVC CREATE

DSL Port:	1
PVC:	4
VPI:	8 (0-255)
VCI:	35 (0-65535)
MPOA:	llcMux
Channel:	Interleaved
Mode:	Bridge
Mac Profile:	1

Finally, please check four PVC groups as below –

four PVC groups created in DSL port1.

- PVC1 (1:32)**
- PVC2 (1:34)**
- PVC3 (1:37)**
- PVC4 (8:35)**

### 3.2 Create three VLAN groups configuration

Add a new VLAN including VLAN id and VLAN name.

**For example, we create a VLAN1 with Vid 2335.**

For VLAN1, egress port includes PVC 1-2/ 25 (the second PVC of the first DSL port) and uplink interface in IPDSLAM. DSL port must be as untagged mode. Uplink interface must be as tagged mode. Remember to click “Apply” to finish the configuration.

## DSL - VLAN - CREATE

Vlan ID:	2335 (1..4094)
Vlan Name:	2335_management
Bridge Mode:	Residential
Egress Port:	<input type="checkbox"/> 1-1 <input type="checkbox"/> 2-1 <input type="checkbox"/> 3-1 <input type="checkbox"/> 4-1 <input type="checkbox"/> 5-1 <input type="checkbox"/> 6-1 <input type="checkbox"/> 7-1 <input type="checkbox"/> 8-1 <input type="checkbox"/> 9-1 <input type="checkbox"/> 10-1 <input type="checkbox"/> 11-1 <input type="checkbox"/> 12-1 <input type="checkbox"/> 13-1 <input type="checkbox"/> 14-1 <input type="checkbox"/> 15-1 <input type="checkbox"/> 16-1 <input type="checkbox"/> 17-1 <input type="checkbox"/> 18-1 <input type="checkbox"/> 19-1 <input type="checkbox"/> 20-1 <input type="checkbox"/> 21-1 <input type="checkbox"/> 22-1 <input type="checkbox"/> 23-1 <input type="checkbox"/> 24-1 <input checked="" type="checkbox"/> 1-2 <input type="checkbox"/> 4-2 <input type="checkbox"/> 7-2 <input type="checkbox"/> 8-2 <input type="checkbox"/> 1-3 <input type="checkbox"/> 4-3 <input type="checkbox"/> 1-4 <input type="checkbox"/> 4-4 <input checked="" type="checkbox"/> uplink
Untag Port:	<input type="checkbox"/> 1-1 <input type="checkbox"/> 2-1 <input type="checkbox"/> 3-1 <input type="checkbox"/> 4-1 <input type="checkbox"/> 5-1 <input type="checkbox"/> 6-1 <input type="checkbox"/> 7-1 <input type="checkbox"/> 8-1 <input type="checkbox"/> 9-1 <input type="checkbox"/> 10-1 <input type="checkbox"/> 11-1 <input type="checkbox"/> 12-1 <input type="checkbox"/> 13-1 <input type="checkbox"/> 14-1 <input type="checkbox"/> 15-1 <input type="checkbox"/> 16-1 <input type="checkbox"/> 17-1 <input type="checkbox"/> 18-1 <input type="checkbox"/> 19-1 <input type="checkbox"/> 20-1 <input type="checkbox"/> 21-1 <input type="checkbox"/> 22-1 <input type="checkbox"/> 23-1 <input type="checkbox"/> 24-1 <input checked="" type="checkbox"/> 1-2 <input type="checkbox"/> 4-2 <input type="checkbox"/> 7-2 <input type="checkbox"/> 8-2 <input type="checkbox"/> 1-3 <input type="checkbox"/> 4-3 <input type="checkbox"/> 1-4 <input type="checkbox"/> 4-4 <input type="checkbox"/> uplink

Apply

Then, we create the other three VLAN groups (VLAN2 and VLAN3) one by one as the same way.

## DSL - VLAN - CREATE

Vlan ID :	<input type="text" value="2336"/> (1..4094)
Vlan Name :	<input type="text" value="2336_voip"/>
Bridge Mode :	<input type="text" value="Residential"/>
Egress Port :	<input type="checkbox"/> 1-1 <input type="checkbox"/> 2-1 <input type="checkbox"/> 3-1 <input type="checkbox"/> 4-1 <input type="checkbox"/> 5-1 <input type="checkbox"/> 6-1 <input type="checkbox"/> 7-1 <input type="checkbox"/> 8-1 <input type="checkbox"/> 9-1 <input type="checkbox"/> 10-1 <input type="checkbox"/> 11-1 <input type="checkbox"/> 12-1 <input type="checkbox"/> 13-1 <input type="checkbox"/> 14-1 <input type="checkbox"/> 15-1 <input type="checkbox"/> 16-1 <input type="checkbox"/> 17-1 <input type="checkbox"/> 18-1 <input type="checkbox"/> 19-1 <input type="checkbox"/> 20-1 <input type="checkbox"/> 21-1 <input type="checkbox"/> 22-1 <input type="checkbox"/> 23-1 <input type="checkbox"/> 24-1 <input type="checkbox"/> 1-2 <input type="checkbox"/> 4-2 <input type="checkbox"/> 7-2 <input type="checkbox"/> 8-2 <input checked="" type="checkbox"/> 1-3 <input type="checkbox"/> 4-3 <input type="checkbox"/> 1-4 <input type="checkbox"/> 4-4 <input checked="" type="checkbox"/> uplink
Untag Port :	<input type="checkbox"/> 1-1 <input type="checkbox"/> 2-1 <input type="checkbox"/> 3-1 <input type="checkbox"/> 4-1 <input type="checkbox"/> 5-1 <input type="checkbox"/> 6-1 <input type="checkbox"/> 7-1 <input type="checkbox"/> 8-1 <input type="checkbox"/> 9-1 <input type="checkbox"/> 10-1 <input type="checkbox"/> 11-1 <input type="checkbox"/> 12-1 <input type="checkbox"/> 13-1 <input type="checkbox"/> 14-1 <input type="checkbox"/> 15-1 <input type="checkbox"/> 16-1 <input type="checkbox"/> 17-1 <input type="checkbox"/> 18-1 <input type="checkbox"/> 19-1 <input type="checkbox"/> 20-1 <input type="checkbox"/> 21-1 <input type="checkbox"/> 22-1 <input type="checkbox"/> 23-1 <input type="checkbox"/> 24-1 <input type="checkbox"/> 1-2 <input type="checkbox"/> 4-2 <input type="checkbox"/> 7-2 <input type="checkbox"/> 8-2 <input checked="" type="checkbox"/> 1-3 <input type="checkbox"/> 4-3 <input type="checkbox"/> 1-4 <input type="checkbox"/> 4-4 <input type="checkbox"/> uplink

## DSL - VLAN - CREATE

Vlan ID :	<input type="text" value="2337"/> (1..4094)
Vlan Name :	<input type="text" value="2337_ipvtv"/>
Bridge Mode :	<input type="text" value="Residential"/>
Egress Port :	<input type="checkbox"/> 1-1 <input type="checkbox"/> 2-1 <input type="checkbox"/> 3-1 <input type="checkbox"/> 4-1 <input type="checkbox"/> 5-1 <input type="checkbox"/> 6-1 <input type="checkbox"/> 7-1 <input type="checkbox"/> 8-1 <input type="checkbox"/> 9-1 <input type="checkbox"/> 10-1 <input type="checkbox"/> 11-1 <input type="checkbox"/> 12-1 <input type="checkbox"/> 13-1 <input type="checkbox"/> 14-1 <input type="checkbox"/> 15-1 <input type="checkbox"/> 16-1 <input type="checkbox"/> 17-1 <input type="checkbox"/> 18-1 <input type="checkbox"/> 19-1 <input type="checkbox"/> 20-1 <input type="checkbox"/> 21-1 <input type="checkbox"/> 22-1 <input type="checkbox"/> 23-1 <input type="checkbox"/> 24-1 <input type="checkbox"/> 1-2 <input type="checkbox"/> 4-2 <input type="checkbox"/> 7-2 <input type="checkbox"/> 8-2 <input type="checkbox"/> 1-3 <input type="checkbox"/> 4-3 <input checked="" type="checkbox"/> 1-4 <input type="checkbox"/> 4-4 <input checked="" type="checkbox"/> uplink
Untag Port :	<input type="checkbox"/> 1-1 <input type="checkbox"/> 2-1 <input type="checkbox"/> 3-1 <input type="checkbox"/> 4-1 <input type="checkbox"/> 5-1 <input type="checkbox"/> 6-1 <input type="checkbox"/> 7-1 <input type="checkbox"/> 8-1 <input type="checkbox"/> 9-1 <input type="checkbox"/> 10-1 <input type="checkbox"/> 11-1 <input type="checkbox"/> 12-1 <input type="checkbox"/> 13-1 <input type="checkbox"/> 14-1 <input type="checkbox"/> 15-1 <input type="checkbox"/> 16-1 <input type="checkbox"/> 17-1 <input type="checkbox"/> 18-1 <input type="checkbox"/> 19-1 <input type="checkbox"/> 20-1 <input type="checkbox"/> 21-1 <input type="checkbox"/> 22-1 <input type="checkbox"/> 23-1 <input type="checkbox"/> 24-1 <input type="checkbox"/> 1-2 <input type="checkbox"/> 4-2 <input type="checkbox"/> 7-2 <input type="checkbox"/> 8-2 <input type="checkbox"/> 1-3 <input type="checkbox"/> 4-3 <input checked="" type="checkbox"/> 1-4 <input type="checkbox"/> 4-4 <input type="checkbox"/> uplink

There are four VLAN groups changed Egress Port and Untag Port automatically after we configure proprietary PVC mapped to the VLAN as below –

**PVC1-1 (1:32) Default VLAN**

**PVC1-2 (1:34) VLAN1 2335**

**PVC1-3 (1:37) VLAN2 2336**

**PVC1-4 (8:35) VLAN3 2337**

## 7.3 Configure VigorSwitchP2260

1. Configure VLAN mode to Tagged mode.

### VLAN Mode

<b>VLAN Mode</b>	<input type="text" value="Tag-based"/>
<b>Symmetric Vlan</b>	<input type="text" value="Disable"/>
<b>SVL</b>	<input type="text" value="Disable"/>
<b>Double Tag</b>	<input type="text" value="Disable"/>
<b>Up-Link Port</b>	<input type="text" value="26 Port"/>

**Apply**

- IPDSLAM uplink port connects to port 26.
- VigorACS server connects to port 1, 2 or 3.
- VoIP server connects to port 9, 10 or 11.

-Video server connects to port 17, 18 or 19.

-Internet Gateway/DHCP/PPP server connects to one of the rest ports.

Since port 26 receives all VLAN tagged packets, port 26 needs to configure as a member of each VLAN.

The servers in the test environment don't support VLAN tagged so we set p1/2/3, p9/10/11 and p17/18/19 as untagged.

While port 26 receives tagged packet with VLAN ID2335, it will untag it then send it to port 1/2/3.

While port 26 receives tagged packet with VLAN ID2336, it will untag it then send it to port 9/10/11.

While port 26 receives tagged packet with VLAN ID2337, it will untag it then send it to port 17/18/19.

## Tag-based VLAN

<b>VLAN name</b>	2335_manage							
<b>VID</b>	2335							
<b>Member</b>	1. <input checked="" type="checkbox"/>	2. <input checked="" type="checkbox"/>	3. <input checked="" type="checkbox"/>	4. <input type="checkbox"/>	5. <input type="checkbox"/>	6. <input type="checkbox"/>	7. <input type="checkbox"/>	8. <input type="checkbox"/>
	9. <input type="checkbox"/>	10. <input type="checkbox"/>	11. <input type="checkbox"/>	12. <input type="checkbox"/>	13. <input type="checkbox"/>	14. <input type="checkbox"/>	15. <input type="checkbox"/>	16. <input type="checkbox"/>
	17. <input type="checkbox"/>	18. <input type="checkbox"/>	19. <input type="checkbox"/>	20. <input type="checkbox"/>	21. <input type="checkbox"/>	22. <input type="checkbox"/>	23. <input type="checkbox"/>	24. <input type="checkbox"/>
	25. <input type="checkbox"/>	26. <input checked="" type="checkbox"/>						
<b>Untag</b>	1. <input checked="" type="checkbox"/>	2. <input checked="" type="checkbox"/>	3. <input checked="" type="checkbox"/>	4. <input type="checkbox"/>	5. <input type="checkbox"/>	6. <input type="checkbox"/>	7. <input type="checkbox"/>	8. <input type="checkbox"/>
	9. <input type="checkbox"/>	10. <input type="checkbox"/>	11. <input type="checkbox"/>	12. <input type="checkbox"/>	13. <input type="checkbox"/>	14. <input type="checkbox"/>	15. <input type="checkbox"/>	16. <input type="checkbox"/>
	17. <input type="checkbox"/>	18. <input type="checkbox"/>	19. <input type="checkbox"/>	20. <input type="checkbox"/>	21. <input type="checkbox"/>	22. <input type="checkbox"/>	23. <input type="checkbox"/>	24. <input type="checkbox"/>
	25. <input type="checkbox"/>	26. <input type="checkbox"/>						

**Apply**

## Tag-based VLAN

<b>VLAN name</b>	2336_voip							
<b>VID</b>	2336							
<b>Member</b>	1. <input type="checkbox"/>	2. <input type="checkbox"/>	3. <input type="checkbox"/>	4. <input type="checkbox"/>	5. <input type="checkbox"/>	6. <input type="checkbox"/>	7. <input type="checkbox"/>	8. <input type="checkbox"/>
	9. <input checked="" type="checkbox"/>	10. <input checked="" type="checkbox"/>	11. <input checked="" type="checkbox"/>	12. <input type="checkbox"/>	13. <input type="checkbox"/>	14. <input type="checkbox"/>	15. <input type="checkbox"/>	16. <input type="checkbox"/>
	17. <input type="checkbox"/>	18. <input type="checkbox"/>	19. <input type="checkbox"/>	20. <input type="checkbox"/>	21. <input type="checkbox"/>	22. <input type="checkbox"/>	23. <input type="checkbox"/>	24. <input type="checkbox"/>
	25. <input type="checkbox"/>	26. <input checked="" type="checkbox"/>						
<b>Untag</b>	1. <input type="checkbox"/>	2. <input type="checkbox"/>	3. <input type="checkbox"/>	4. <input type="checkbox"/>	5. <input type="checkbox"/>	6. <input type="checkbox"/>	7. <input type="checkbox"/>	8. <input type="checkbox"/>
	9. <input checked="" type="checkbox"/>	10. <input checked="" type="checkbox"/>	11. <input checked="" type="checkbox"/>	12. <input type="checkbox"/>	13. <input type="checkbox"/>	14. <input type="checkbox"/>	15. <input type="checkbox"/>	16. <input type="checkbox"/>
	17. <input type="checkbox"/>	18. <input type="checkbox"/>	19. <input type="checkbox"/>	20. <input type="checkbox"/>	21. <input type="checkbox"/>	22. <input type="checkbox"/>	23. <input type="checkbox"/>	24. <input type="checkbox"/>
	25. <input type="checkbox"/>	26. <input type="checkbox"/>						

## Tag-based VLAN

<b>VLAN name</b>	2337_iptv															
<b>VID</b>	2337															
<b>Member</b>	1.	<input type="checkbox"/>	2.	<input type="checkbox"/>	3.	<input type="checkbox"/>	4.	<input type="checkbox"/>	5.	<input type="checkbox"/>	6.	<input type="checkbox"/>	7.	<input type="checkbox"/>	8.	<input type="checkbox"/>
	9.	<input type="checkbox"/>	10.	<input type="checkbox"/>	11.	<input type="checkbox"/>	12.	<input type="checkbox"/>	13.	<input type="checkbox"/>	14.	<input type="checkbox"/>	15.	<input type="checkbox"/>	16.	<input type="checkbox"/>
	17.	<input checked="" type="checkbox"/>	18.	<input checked="" type="checkbox"/>	19.	<input checked="" type="checkbox"/>	20.	<input type="checkbox"/>	21.	<input type="checkbox"/>	22.	<input type="checkbox"/>	23.	<input type="checkbox"/>	24.	<input type="checkbox"/>
	25.	<input type="checkbox"/>	26.	<input checked="" type="checkbox"/>												
<b>Untag</b>	1.	<input type="checkbox"/>	2.	<input type="checkbox"/>	3.	<input type="checkbox"/>	4.	<input type="checkbox"/>	5.	<input type="checkbox"/>	6.	<input type="checkbox"/>	7.	<input type="checkbox"/>	8.	<input type="checkbox"/>
	9.	<input type="checkbox"/>	10.	<input type="checkbox"/>	11.	<input type="checkbox"/>	12.	<input type="checkbox"/>	13.	<input type="checkbox"/>	14.	<input type="checkbox"/>	15.	<input type="checkbox"/>	16.	<input type="checkbox"/>
	17.	<input checked="" type="checkbox"/>	18.	<input checked="" type="checkbox"/>	19.	<input checked="" type="checkbox"/>	20.	<input type="checkbox"/>	21.	<input type="checkbox"/>	22.	<input type="checkbox"/>	23.	<input type="checkbox"/>	24.	<input type="checkbox"/>
	25.	<input type="checkbox"/>	26.	<input type="checkbox"/>												

## Tag-based Group

No	VLAN NAME	VID
1	default	1
2	2335_manage	2335
3	2336_voip	2336
4	2337_iptv	2337

2. Set PVID for the mapped ports.

## PVID

Port No	PVID	Default Priority	Drop Untag
1	2335	0	Disable
2	2335	0	Disable
3	2335	0	Disable
4	1	0	Disable
5	1	0	Disable
6	1	0	Disable
7	1	0	Disable
8	1	0	Disable
9	2336	0	Disable
10	2336	0	Disable
11	2336	0	Disable
12	1	0	Disable
13	1	0	Disable
14	1	0	Disable
15	1	0	Disable

14	1	0	▼	Disable ▼
15	1	0	▼	Disable ▼
16	1	0	▼	Disable ▼
17	2337	0	▼	Disable ▼
18	2337	0	▼	Disable ▼
19	2337	0	▼	Disable ▼
20	1	0	▼	Disable ▼
21	1	0	▼	Disable ▼
22	1	0	▼	Disable ▼
23	1	0	▼	Disable ▼