



## Configuring the dedicated Ethernet WAN port

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**Abstract:** This application note provides technical information on the dedicated Ethernet WAN port and the possible scenarios for the Thomson Gateway to work on Ethernet and/or ATM as physical WAN connection. The practical realizations of the scenarios are described using CLI commands.

**Applicability:** This application note applies to the following Thomson Gateway product with a dedicated Ethernet WAN port:

- ▶ THOMSON TG784

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## 1 Dedicated Ethernet WAN port

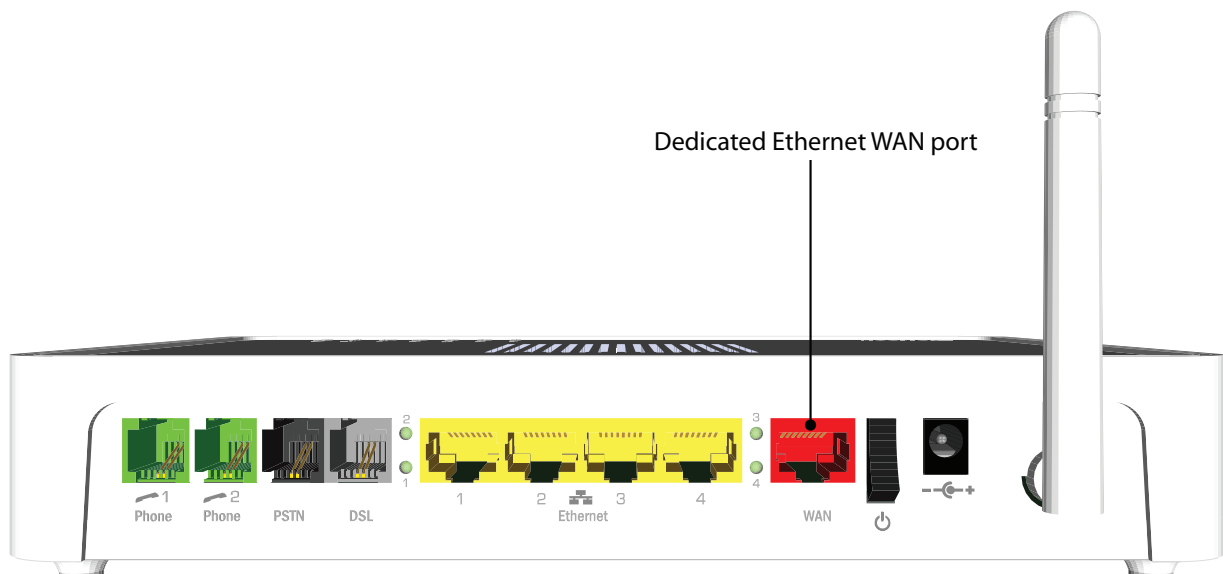
### Introduction

The dedicated Ethernet WAN port, identified by the Thomson Gateway as ethif5, introduces a Ethernet port reserved for WAN traffic. This has the following advantages:

- The DSL configuration can still be used on the Thomson Gateway but now it is also possible and easy to use Ethernet as WAN connection. This decision depends on the availability of an ATM backbone and/or an Ethernet backbone.
- Before the dedicated Ethernet WAN port was introduced, the need for a Ethernet WAN connection had to be fulfilled by occupying and reconfiguring one of the Ethernet LAN ports on the Thomson Gateway. Now these ports can be used exclusively for LAN traffic.

### Illustration

The following illustration shows the dedicated WAN port on a THOMSON TG784 which is a 100 Mb/s Ethernet port.



### IS\_NOT\_DSL\_DEVICE

With the parameter `IS_NOT_DSL_DEVICE` you can set whether the Ethernet WAN connection or the DSL connection is shown in the broadband connection section of the GUI:

*When `IS_NOT_DSL_DEVICE` is set to 1, the Ethernet WAN connection is shown in the broadband connection section of the GUI.*

```
=>:env set var=IS_NOT_DSL_DEVICE value=1
```

*When `IS_NOT_DSL_DEVICE` is set to 0, the DSL connection is shown in the broadband connection section of the GUI.*

```
=>:env set var=IS_NOT_DSL_DEVICE value=0
```



If the parameter `IS_NOT_DSL_DEVICE = 1`, no messages are shown if the DSL line is down.

## Scenarios

The following scenarios for the dedicated Ethernet WAN port are described in this document:

- Configuring the Dedicated Ethernet WAN Port with IP Routing for Triple Play
- Configuring the Dedicated Ethernet WAN Port as Backup for the Main PPP Session
- Configuring the Dedicated Ethernet WAN Port for PPP using the Bridge

## 2 Configuring the Dedicated Ethernet WAN Port with IP Routing for Triple Play

### 2.1 Scenario

#### Overview

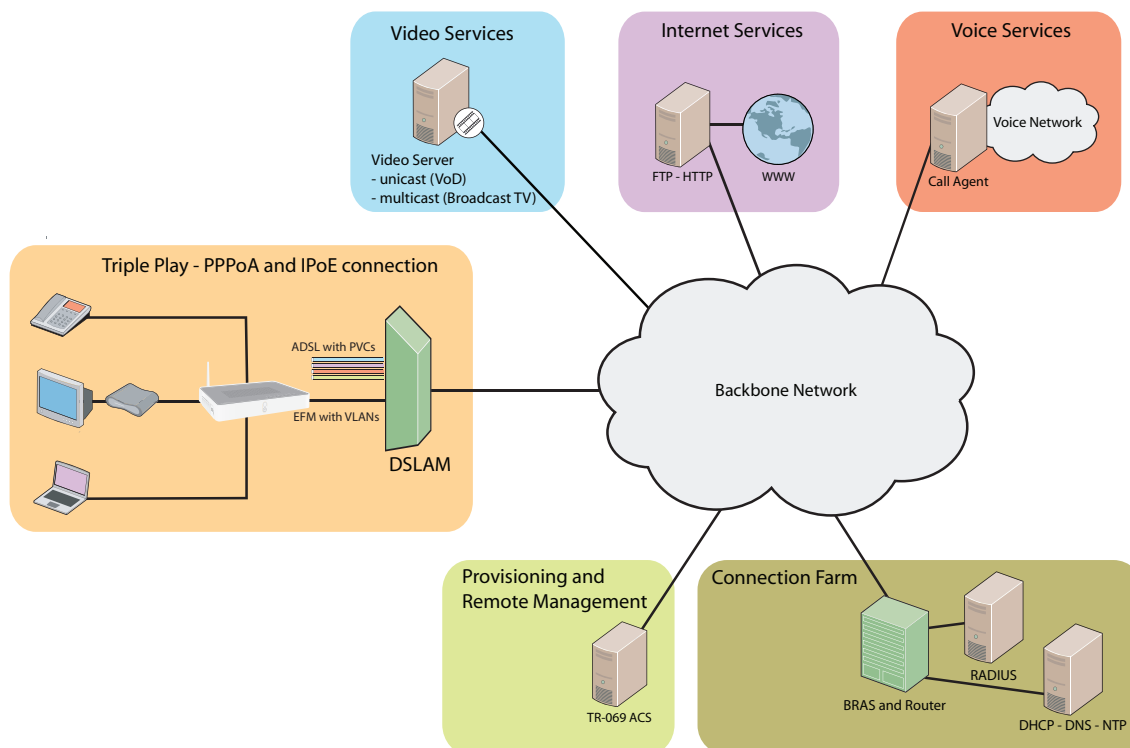
With this scenario you can configure the THOMSON TG784 to set up the dedicated Ethernet WAN port and the ADSL port to act as physical WAN connection. The active physical connection selection can be done by static Ethernet configuration or auto-WAN-sensing. Both connections are IP routed and use four traffic types:

- **Internet:** This traffic must be untagged for basic Internet connectivity. This makes it possible for Ethernet customers to just plug in a PC (without a gateway) or connect the PC on the LAN of the gateway (public IP and address translation in the gateway).
- **Management:** This connection is used to manage the Thomson Gateway with TR-069 (Telnet and HTTP are also possible). This is a closed 10.x.x.x network and no address translation applied.
- **Video:** This connection is used for TV and Video on Demand (VoD) traffic (public IP and address translation applied).
- **Voice over IP (VoIP):** This connection is used for voice traffic (public IP address and address translation applied).



If IP phones are used, in case of congestion pause frames will also be sent to IP devices causing delay.

The following illustration shows the network configuration of this scenario:



The LAN traffic will use VLANs which are translated to PVCs (ATM connection) and VLAN tagged traffic (EFM connection) on the WAN side:

VLAN		PVC	
Vid	Name	Name	Address
1	default	pvc_internet	8.35
834	mgmt	pvc_mgmt	8.34
845	video	pvc_video	8.45
855	voip	pvc_voip	8.55

## 2.2 Practical Realization

### Configuration

The practical realization of this scenario is done via Telnet CLI session. Following configuration steps have to be performed to configure the Thomson Gateway for this scenario:

- 1 Configuring the ATM Interfaces
- 2 Configuring the Logical Ethernet Interfaces
- 3 Configuring the IP Interfaces
- 4 Setting Up the IP Forwarding Rules
- 5 Configuring the IGMP Interfaces for Multicast Video

### Before you start

Before you start configuring the Thomson Gateway, make the following preparations:

- Reset the Thomson Gateway to the factory defaults and reboot the device.
- Make sure the Telnet CLI session with the Thomson Gateway never times out.
- Remove the factory default interfaces and settings that are not used for this configuration.
- Make these changes permanent.

```
=>:system reset factory=yes proceed=yes

=>:env set var=SESSIONTIMEOUT value=0

=>:ppp relay flush
=>:ppp flush
=>:eth flush
=>:atm flush
=>:atm phonebook flush
=>:ip ipdelete addr=10.0.0.138

=>:saveall
```

Now you can start your new configuration.

## 2.2.1 Configuring the ATM Interfaces

### ATM phone book

The ATM phone book contains the addresses of the PVCs. Create the following PVCs (the VPI/VCI values are indicative):

- 8.34 for management
- 8.35 for internet
- 8.45 for video
- 8.55 for VoIP

```
=>:atm phonebook add name=pvc_mgmt addr=8*34
=>:atm phonebook add name=pvc_internet addr=8*35
=>:atm phonebook add name=pvc_video addr=8*45
=>:atm phonebook add name=pvc_voip addr=8*55
```

### QoS for ATM interfaces

Create, next to the default connection traffic descriptor, two new connection traffic descriptors which will be used for ATM QoS. Both will be used to transmit VBR traffic. For VoIP, the traffic must also be transmitted in real-time (higher priority):

```
=>:atm qosbook ctdadd name=VBR-nrt conformance=VBR peakrate=256 sustrate=128 maxburst=528
framediscard=enabled
=>:atm qosbook ctdadd name=VBR-rt conformance=VBR peakrate=320 sustrate=319 maxburst=672
realtime=enabled framediscard=enabled
```

You can check your configuration of the connection traffic descriptors with the following command:

```
=>:atm qosbook ctdlist
```

Name	Ref	Conf	Peak (Kbits)	Sust (Kbits)	Burst (bytes)	Minrate (Kbits)	Frame (bytes)	Cdvt	RT	FD
default	4	UBR	linerate	0	0	0	0	0	disabled	disabled
VBR-nrt	1	VBR	256	128	528	0	0	0	disabled	enabled
VBR-rt	1	VBR	320	319	672	0	0	0	enabled	enabled

Create, using the previously made connection traffic descriptors, two ATM QoS profiles:

- Video: for video and management traffic
- VoIP: for VoIP traffic

```
=>:atm qosbook add name=Video txctd=VBR-nrt rxctd=default
=>:atm qosbook add name=VoIP txctd=VBR-rt rxctd=default
```

Enable IP QoS for the PVC which will handle Internet traffic. As a result, this ATM PVC will have six IP QoS queues:

```
=>:ipqos config dest=pvc_internet state=enabled maxbytes=128
```

## ATM interfaces

The ATM interfaces are created on top of the phone book entries. The upper layer protocol for these ATM interfaces are set to MAC (Ethernet). Their destinations are the appropriate PVCs:

```
=>:atm ifadd intf=atm_internet
=>:atm ifconfig intf=atm_internet dest=pvc_internet ulp=mac
=>:atm ifattach intf=atm_internet

=>:atm ifadd intf=atm_video
=>:atm ifconfig intf=atm_video dest=pvc_video qos=Video ulp=mac
=>:atm ifattach intf=atm_video

=>:atm ifadd intf=atm_voip
=>:atm ifconfig intf=atm_voip dest=pvc_voip qos=VoIP ulp=mac
=>:atm ifattach intf=atm_voip

=>:atm ifadd intf=atm_mgmt
=>:atm ifconfig intf=atm_mgmt dest=pvc_mgmt qos=Video ulp=mac
=>:atm ifattach intf=atm_mgmt
```

## 2.2.2 Configuring the Logical Ethernet Interfaces

### VLANs

Create the following VLANs:

- **mgmt** voor management traffic
- **video** for video traffic
- **voip** for VoIP traffic

```
=>:eth vlan add name=mgmt vid=834 addrule=disabled
=>:eth vlan add name=video vid=845 addrule=disabled
=>:eth vlan add name=voip vid=855 addrule=disabled
```

### Logical Ethernet interfaces for ATM port

Create the following logical Ethernet interfaces for the ATM port and attach them to the appropriate ATM interfaces:

```
=>:eth ifadd intf=eth_internet
=>:eth ifconfig intf=eth_internet dest=atm_internet vlan=default wan=enabled priotag=disabled
=>:eth ifattach intf=eth_internet

=>:eth ifadd intf=eth_video
=>:eth ifconfig intf=eth_video dest=atm_video vlan=default wan=enabled priotag=disabled
=>:eth ifattach intf=eth_video

=>:eth ifadd intf=eth_voip
=>:eth ifconfig intf=eth_voip dest=atm_voip vlan=default wan=enabled priotag=disabled
=>:eth ifattach intf=eth_voip

=>:eth ifadd intf=eth_mgmt
=>:eth ifconfig intf=eth_mgmt dest=atm_mgmt vlan=default wan=enabled priotag=disabled
=>:eth ifattach intf=eth_mgmt
```

### Logical Ethernet interfaces for dedicated Ethernet WAN port

Create the following logical Ethernet interface for default Internet traffic and attach it to the dedicated Ethernet WAN port (ethif5):

```
=>:eth ifadd intf=eth_wan
=>:eth ifconfig intf=eth_wan dest=ethif5 vlan=default wan=disabled priotag=disabled
=>:eth ifattach intf=eth_wan
```

All other Ethernet WAN traffic (video, VoIP and management) must also pass through the eth\_wan interface but first they must be properly tagged with their corresponding VLAN tag. This is done in the eth\_video\_5, eth\_voip\_5 and eth\_mgmt\_5 interfaces:

```
=>:eth ifadd intf=eth_video_5
=>:eth ifconfig intf=eth_video_5 dest=eth_wan vlan=video wan=enabled priotag=disabled
=>:eth ifattach intf=eth_video_5

=>:eth ifadd intf=eth_voip_5
=>:eth ifconfig intf=eth_voip_5 dest=eth_wan vlan=voip wan=enabled priotag=disabled
=>:eth ifattach intf=eth_voip_5

=>:eth ifadd intf=eth_mgmt_5
=>:eth ifconfig intf=eth_mgmt_5 dest=eth_wan vlan=mgmt wan=enabled priotag=disabled
=>:eth ifattach intf=eth_mgmt_5
```

### 2.2.3 Configuring the IP Interfaces

Create the following IP interfaces for both the ATM port and the dedicated Ethernet WAN port:

```
For the ATM port
=>:ip ifadd intf=Internet dest=eth_internet
=>:ip ifconfig intf=Internet mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=Internet

=>:ip ifadd intf=Video dest=eth_video
=>:ip ifconfig intf=Video mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=Video

=>:ip ifadd intf=VoIP dest=eth_voip
=>:ip ifconfig intf=VoIP mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=VoIP

=>:ip ifadd intf=Mgmt dest=eth_mgmt
=>:ip ifconfig intf=Mgmt mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=Mgmt

For the dedicated Ethernet WAN port
=>:ip ifadd intf=Video_5 dest=eth_video_5
=>:ip ifconfig intf=Video_5 mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=Video_5

=>:ip ifadd intf=VoIP_5 dest=eth_voip_5
=>:ip ifconfig intf=VoIP_5 mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=VoIP_5

=>:ip ifadd intf=Mgmt_5 dest=eth_mgmt_5
=>:ip ifconfig intf=Mgmt_5 mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=Mgmt_5

=>:ip ifadd intf=Internet_5 dest=eth_wan
=>:ip ifconfig intf=Internet_5 mtu=1500 group=wan linksensing=enabled
=>:ip ifattach intf=Internet_5
```

Enable Network Address and Port Translation (NAPT) on the created IP interfaces:

```
=>:nat ifconfig intf=Internet translation=enabled
=>:nat ifconfig intf=Video translation=enabled
=>:nat ifconfig intf=VoIP translation=enabled
=>:nat ifconfig intf=Video_5 translation=enabled
=>:nat ifconfig intf=VoIP_5 translation=enabled
=>:nat ifconfig intf=Internet_5 translation=enabled
```

## 2.2.4 Setting Up the IP Forwarding Rules

### Labels

Create the following labels. These will be used by the IP forwarding rules (14 = highest priority):

```
=>:label add name=Mgmt_only
=>:label add name=Video_only
=>:label add name=Voip_only
=>:label modify name=Mgmt_only classification=overwrite defclass=14 ackclass=14
=>:label modify name=Video_only classification=overwrite defclass=14 ackclass=14
=>:label modify name=Voip_only classification=overwrite defclass=14 ackclass=14
inheritance=enabled
=>:label modify name=default classification=increase defclass=default ackclass=prioritize
```

You can view the list of all labels in your Thomson Gateway with the following command:

```
=>:label list
Name      Class    Def      Ack      Bidirect Inherit  Tosmark  Type      Value  Use
Trace
-----
DSCP      overwrite dscp     prioritize disabled disabled disabled tos      0      1
disabled
Interactive increase  8        6        disabled disabled disabled tos      0      14
disabled
Management increase  12       12       disabled disabled disabled tos      0      4
disabled
Mgmt_only overwrite  14       14       disabled disabled disabled tos      0      0
disabled
Video     increase  10       10       disabled disabled disabled tos      0      2
disabled
Video_only overwrite  14       14       disabled disabled disabled tos      0      0
disabled
VoIP-RTP  overwrite  14       14       enabled  disabled disabled tos      0      2
disabled
VoIP-Signal overwrite  12       12       enabled  disabled disabled tos      0      2
disabled
Voip_only overwrite  14       14       disabled enabled  disabled tos      0      0
disabled
default   increase  default  prioritize disabled disabled disabled tos      0      1
disabled
```

## IP forwarding rules

The IP forwarding rules are used to assign a label to traffic. Traffic coming from a dedicated server or service is labeled according to the IP forwarding rules. Labeled entries in the routing table are only used for traffic with the matching label:

```
=>:label rule add chain=rt_default_labels index=1 srcintf=local serv=sip log=disabled
state=enabled label=Voip_only
=>:label rule rule add chain=rt_default_labels index=2 dstip=VoIP_proxy serv=voice
log=disabled state=enabled label=Voip_only
=>:label rule rule add chain=rt_default_labels index=3 dstip=VoIP_proxy serv=stun
log=disabled state=enabled label=Voip_only
=>:label rule rule add chain=rt_default_labels index=4 dstip=Video_server log=disabled
state=enabled label=Video_only
=>:label rule rule add chain=rt_default_labels index=5 srcintf=local serv=ConnectionRequest
log=disabled state=enabled label=Mgmt_only
=>:label rule rule add chain=rt_default_labels index=6 srcintf=local dstip=Mgmt_server
log=disabled state=enabled label=Mgmt_only
```



Note that the following values used in the configuration above are examples and must be replaced by the correct names/IP addresses in your specific configuration:

- VoIP\_proxy
- Video\_server
- Mgmt\_server

## 2.2.5 Configuring DHCP

### ATM port

Create the following Dynamic Host Control Protocol (DHCP) clients for the IP interfaces used for the ATM connection and configure the Parameter Request List (PRL) for each client:

```

=>:dhcp client ifadd intf=VoIP
=>:dhcp client ifconfig intf=VoIP label=Voip_only metric=10 dnsmetric=10 broadcast=enabled
serverroute=disabled followlabel=enabled
=>:dhcp client roptions add intf=VoIP option=dhcp-lease-time
=>:dhcp client roptions add intf=VoIP option=dhcp-renewal-time
=>:dhcp client roptions add intf=VoIP option=dhcp-rebinding-time
=>:dhcp client roptions add intf=VoIP option=subnet-mask
=>:dhcp client roptions add intf=VoIP option=default-routers
=>:dhcp client roptions add intf=VoIP option=domain-name-servers
=>:dhcp client ifattach intf=VoIP

=>:dhcp client ifadd intf=Video
=>:dhcp client ifconfig intf=Video label=Video_only metric=10 dnsmetric=10 broadcast=enabled
serverroute=disabled followlabel=enabled
=>:dhcp client roptions add intf=Video option=dhcp-lease-time
=>:dhcp client roptions add intf=Video option=dhcp-renewal-time
=>:dhcp client roptions add intf=Video option=dhcp-rebinding-time
=>:dhcp client roptions add intf=Video option=subnet-mask
=>:dhcp client roptions add intf=Video option=default-routers
=>:dhcp client roptions add intf=Video option=domain-name-servers
=>:dhcp client ifattach intf=Video

=>:dhcp client ifadd intf=Internet
=>:dhcp client ifconfig intf=Internet metric=1 dnsmetric=1 broadcast=enabled
serverroute=disabled followlabel=disabled
=>:dhcp client roptions add intf=Internet option=dhcp-lease-time
=>:dhcp client roptions add intf=Internet option=dhcp-renewal-time
=>:dhcp client roptions add intf=Internet option=dhcp-rebinding-time
=>:dhcp client roptions add intf=Internet option=subnet-mask
=>:dhcp client roptions add intf=Internet option=default-routers
=>:dhcp client roptions add intf=Internet option=domain-name-servers
=>:dhcp client ifattach intf=Internet

=>:dhcp client ifadd intf=Mgmt
=>:dhcp client ifconfig intf=Mgmt label=Mgmt_only metric=10 dnsmetric=10 broadcast=enabled
serverroute=disabled followlabel=enabled
=>:dhcp client roptions add intf=Mgmt option=dhcp-lease-time
=>:dhcp client roptions add intf=Mgmt option=dhcp-renewal-time
=>:dhcp client roptions add intf=Mgmt option=dhcp-rebinding-time
=>:dhcp client roptions add intf=Mgmt option=subnet-mask
=>:dhcp client roptions add intf=Mgmt option=default-routers
=>:dhcp client roptions add intf=Mgmt option=domain-name-servers
=>:dhcp client ifattach intf=Mgmt

```

### Dedicated Ethernet WAN port

Create the following DHCP clients for the IP interfaces used for the dedicated Ethernet WAN port and configure the PRL for each client:



Note that the created DHCP clients (per traffic type) of the ATM port and the dedicated Ethernet WAN port have the same metric parameters. Video LAN traffic for example, will be routed to `Video` or `Video_5`, depending on which one is the highest entry in the routing table. The metric parameters of both are the same so there is no classification there.

```
=>:dhcp client ifadd intf=VoIP_5
=>:dhcp client ifconfig intf=VoIP_5 label=Voip_only metric=10 dnsmetric=10 broadcast=enabled
serverroute=disabled followlabel=enabled
=>:dhcp client roptions add intf=VoIP_5 option=dhcp-lease-time
=>:dhcp client roptions add intf=VoIP_5 option=dhcp-renewal-time
=>:dhcp client roptions add intf=VoIP_5 option=dhcp-rebinding-time
=>:dhcp client roptions add intf=VoIP_5 option=subnet-mask
=>:dhcp client roptions add intf=VoIP_5 option=default-routers
=>:dhcp client roptions add intf=VoIP_5 option=domain-name-servers
=>:dhcp client ifattach intf=VoIP_5

=>:dhcp client ifadd intf=Video_5
=>:dhcp client ifconfig intf=Video_5 label=Video_only metric=10 dnsmetric=10
broadcast=enabled serverroute=disabled followlabel=enabled
=>:dhcp client roptions add intf=Video_5 option=dhcp-lease-time
=>:dhcp client roptions add intf=Video_5 option=dhcp-renewal-time
=>:dhcp client roptions add intf=Video_5 option=dhcp-rebinding-time
=>:dhcp client roptions add intf=Video_5 option=subnet-mask
=>:dhcp client roptions add intf=Video_5 option=default-routers
=>:dhcp client roptions add intf=Video_5 option=domain-name-servers
=>:dhcp client ifattach intf=Video_5

=>:dhcp client ifadd intf=Internet_5
=>:dhcp client ifconfig intf=Internet_5 metric=1 dnsmetric=1 broadcast=enabled
serverroute=disabled followlabel=disabled
=>:dhcp client roptions add intf=Internet_5 option=dhcp-lease-time
=>:dhcp client roptions add intf=Internet_5 option=dhcp-renewal-time
=>:dhcp client roptions add intf=Internet_5 option=dhcp-rebinding-time
=>:dhcp client roptions add intf=Internet_5 option=subnet-mask
=>:dhcp client roptions add intf=Internet_5 option=default-routers
=>:dhcp client roptions add intf=Internet_5 option=domain-name-servers
=>:dhcp client ifattach intf=Internet_5

=>:dhcp client ifadd intf=Mgmt_5
=>:dhcp client ifconfig intf=Mgmt_5 label=Mgmt_only metric=10 dnsmetric=10 broadcast=enabled
serverroute=disabled followlabel=enabled
=>:dhcp client roptions add intf=Mgmt_5 option=dhcp-lease-time
=>:dhcp client roptions add intf=Mgmt_5 option=dhcp-renewal-time
=>:dhcp client roptions add intf=Mgmt_5 option=dhcp-rebinding-time
=>:dhcp client roptions add intf=Mgmt_5 option=subnet-mask
=>:dhcp client roptions add intf=Mgmt_5 option=default-routers
=>:dhcp client roptions add intf=Mgmt_5 option=domain-name-servers
=>:dhcp client ifattach intf=Mgmt_5
```

### 2.2.6 Configuring the IGMP Interfaces for Multicast Video

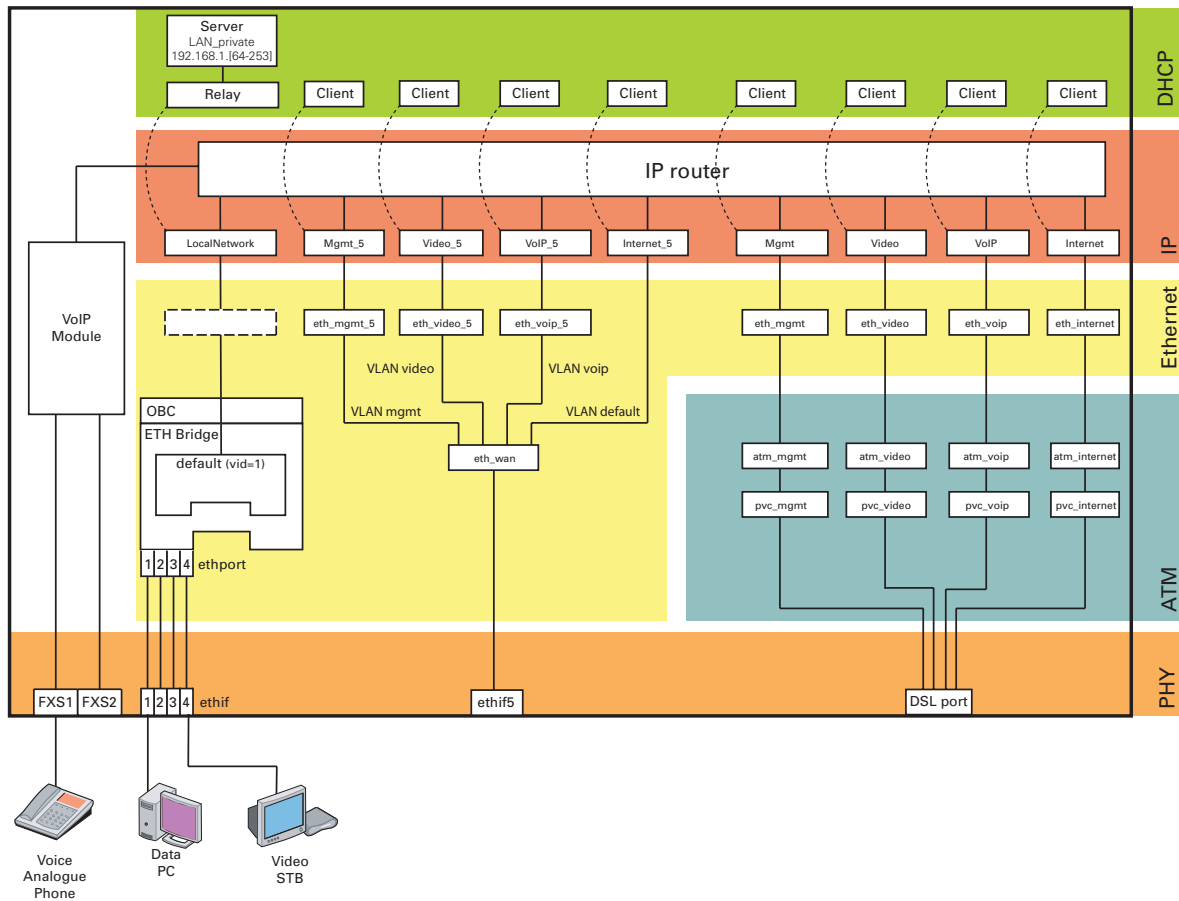
By default IGMP proxy is already enabled and the IGMP proxy interface `LocalNetwork` is already configured for downstream traffic. To complete the set-up for video multicast, you must configure the IGMP proxy interfaces `Video` and `Video_5`, which are created automatically, for upstream traffic:

```
=>:igmp proxy ifconfig intf=Video_5 state=upstream
=>:igmp proxy ifconfig intf=Video state=upstream
```

## 2.3 Result

### Illustration

The following illustration shows the expected result of the scenario above:



## 3 Configuring the Dedicated Ethernet WAN Port as Backup for the Main PPP Session

### Scenario

This scenario is a simplified version of the previous one:

- The dedicated Ethernet WAN port is still IP routed.
- Triple Play is not considered.
- The dedicated Ethernet WAN port only functions as backup WAN connection in case the PPP session on DSL is going down.

### Before your start

This scenario can be performed using the factory settings on your Thomson Gateway (Telnet CLI session):

```
=>:system reset factory=yes proceed=yes  
  
=>:env set var=SESSIONTIMEOUT value=0  
  
=>:saveall
```

### Practical Realisation

The practical realization of this scenario is done via Telnet CLI session. Identify the logical Ethernet interface of the dedicated Ethernet WAN port as WAN interface:

```
=>:eth ifconfig intf=eth-wan wan=enabled priotag=disabled
```

Create an IP interface with the logical Ethernet interface of the dedicated Ethernet WAN port as destination and enable address translation on this IP interface:

```
=>:ip ifadd intf=ip-wan dest=eth-wan  
=>:nat ifconfig intf=ip-wan translation=enabled  
=>:ip ifattach intf=ip-wan
```

Create a DHCP client for this IP interface and configure the metric parameters so that this interface is selected as secondary interface:

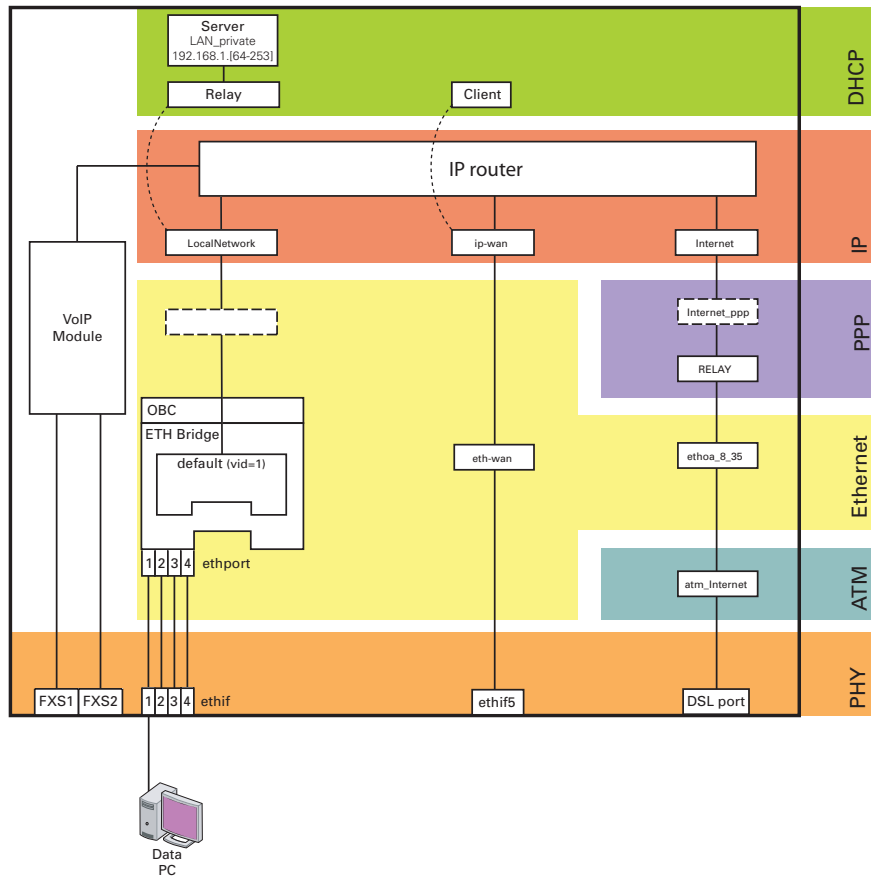
```
=>:dhcp client ifadd intf=ip-wan  
=>:dhcp client ifconfig intf=ip-wan metric=20 dnsmetric=20 broadcast=enabled  
serverroute=disabled followlabel=disabled  
=>:dhcp client roptions add intf=ip-wan option=default-routers  
=>:dhcp client roptions add intf=ip-wan option=subnet-mask  
=>:dhcp client ifattach intf=ip-wan
```



The default PPP interface on DSL has by default route metric= 10 and DNS metric= 10.

## Result

The following illustration shows the expected result of the scenario above:



## 4 Configuring the Dedicated Ethernet WAN Port for PPP using the Bridge

### Scenario

This scenario gives you the basic configuration to attach the dedicated Ethernet WAN port to the bridge of the Thomson Gateway where it will act as WAN interface for PPP sessions. Triple Play is not considered here.

### Before you start

This scenario can be performed via using the factory settings on your Thomson Gateway (Telnet CLI session):

```
=>:system reset factory=yes proceed=yes  
=>:env set var=SESSIONTIMEOUT value=0  
=>:saveall
```

### Practical Realisation

The practical realization of this scenario is done via Telnet CLI session. Before adding an Ethernet interface for the dedicated Ethernet WAN port to the bridge remove the default `eth-wan` interface:

```
=>:eth ifdelete intf=eth-wan
```

Add an Ethernet bridge port to the bridge for the dedicated Ethernet WAN port:

```
=>:eth bridge ifadd intf=eth-wan
```

Configure this Ethernet bridge port for WAN traffic and attach it to the dedicated Ethernet WAN port (`ethif5`):

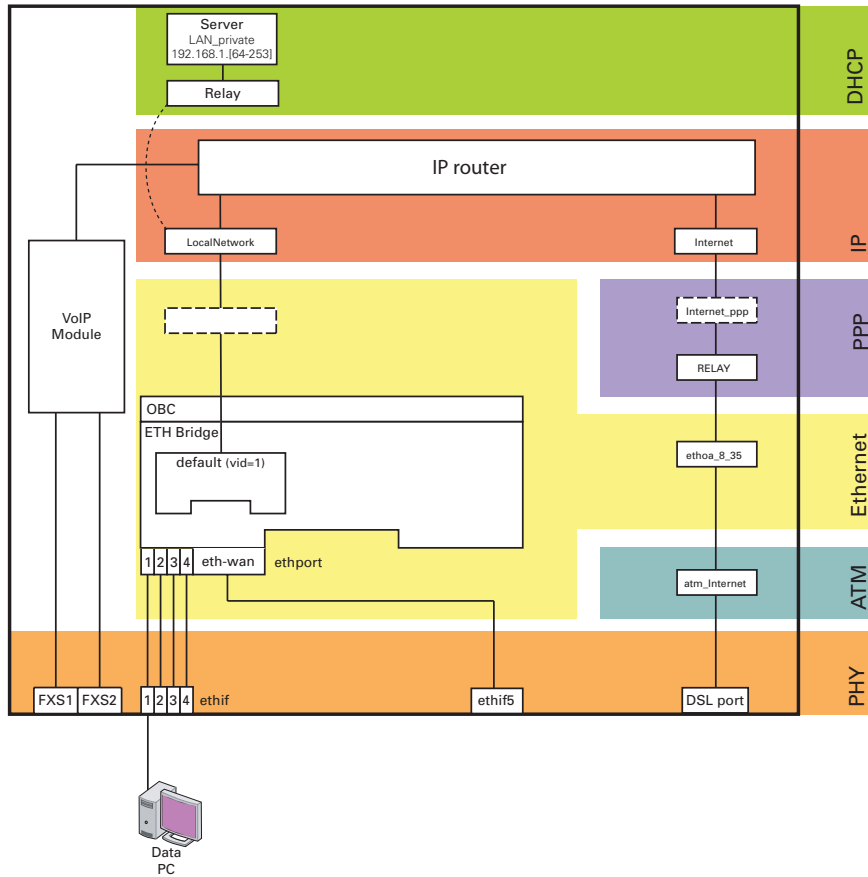
```
=>:eth bridge ifconfig intf=eth-wan dest=ethif5 wan=enabled  
=>:eth bridge ifattach intf=eth-wan
```

Finally, configure the bridge to allow Point-to-Point Protocol over Ethernet (PPPoE) over the `eth-wan` interface by setting the no WAN broadcast filter to `none` so all traffic can pass through:

```
=>:eth bridge config brname=bridge filter=none
```

## Result

The following illustration shows the expected result of the scenario above:



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B-2650 Edegem  
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