

Internet configuration

Broadband connection configuration

Connection: VDSL
TYPE : ATM
Mode: Routing
Encapsulation PPPoE
IPv mode: IPv4 only
IPaddress: Obtain automatically
PPPoE credentials: filled in, auto connect
Vlan: Enabled
802.1p: 0
802.1q: 6
IGMP proxy: Enabled
NAT: Enabled
Default gateway: Enabled
DNS: Dynamic by ISP
IPv6 off

Interface group

Name: Internet
802.1p: 0
802.1q: 6
Member: Lan1 (trunked)
Lan2, Tagged
Lan3, Tagged
Lan4, Tagged
Lan5(SFP) , Tagged

LAN for group name "Internet"

Zone: Lan
IPaddress: 192.168.2.1
Subnet: 255.255.255.0
IGMP snooping: Enabled
IGMP mode: Standard
DHCP: Enabled
IP lease begin: 192.168.2.2
IP lease end: 192.168.2.255
DNS: Dynamic

IPTV configuration

Broadband connection configuration

Connection: VDSL
TYPE : ATM
Mode: Routing
Encapsulation PPPoE
IPv mode: IPv4 only
IPaddress: Obtain automatically
PPPoE credentials: filled in, auto connect
Vlan: Enabled
802.1p: 0
802.1q: 4
IGMP proxy: Enabled
NAT: Enabled
Default gateway: **Disabled**
DNS: Dynamic by ISP
IPv6 off

Interface group

Name: IPTV
802.1p: 0
802.1q: 4
Member: Lan1 , Tagged
Lan2, Tagged
Lan3, Tagged
Lan4, Tagged
Lan5(SFP) , Tagged

LAN for group name "IPTV"

Zone: Lan
IPaddress: 192.168.1.1
Subnet: 255.255.255.0
IGMP snooping: Enabled
IGMP mode: Standard
DHCP: Enabled
IP lease begin: 192.168.1.2
IP lease end: 192.168.1.255
DNS: Dynamic

ISP description for IPTV:

The router also makes (in addition to the normal internet connection via a PPP connection) a (bridged, RFC1483) connection for the TV.

- For VDSL and FTTH via (802.1q) VLAN 4

An IP address (v4 only) is retrieved via DHCP. The DHCP request must contain the following options:

- 55 (parameter-request-list), contains at least 1, 3, 28 and 121
- 60 (Vendor Class Identifier), contains the string IPTV_RG

The DHCP response contains (in option 121, see RFC3442) one or more static routes, which dynamically indicates which traffic should not be routed via the PPP connection but via the iTV connection. In option 121 no more than a few routes are transmitted, a maximum of 16.

Note, in that DHCP response there is also a name server, which must be ignored.

The STB is provided (via DHCP on the LAN) with a normal ip on the LAN, there is nothing special in it.

Because the customer router functions as an end device from the TV platform, an IGMP proxy must be active (IGMPv2).

All live TV streams as well as guide information and STB updates are multicast based. Any switch part must implement IGMP snooping.

IGMP fast leave is necessary to cut off unnecessary streams (zapping from channel to channel).

Video-on-demand functionality goes via unicast, for which no special functionality is needed, other than the static route as indicated via DHCP.

'MoreTV' functionality is done via the normal internet connection