IPTV & MIKROTIK

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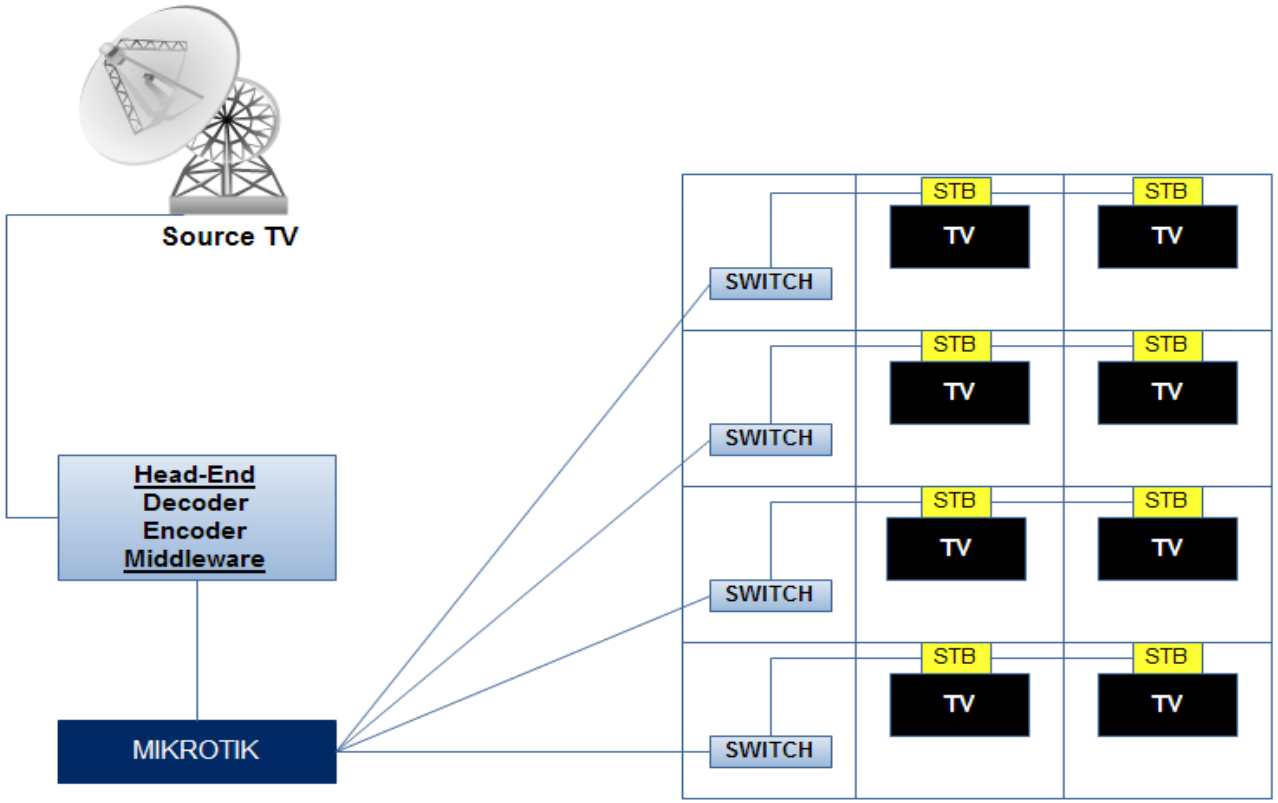
Introducing

- *IPTV is a multimedia service as television, video, audio, text and data which sent through the network and managed by IP which provides a quality of service, experience, security, interactivity and reliability*

- *In general, IPTV services are as follows :*
- *Broadcast Service (e.g . Broadcast TV)*
- *On Demand Service (e.g. Video On Demand, Music On Demand)*
- *Interactive Service (e.g. T-Information, T-Commerce)*
- *Portal Service (e.g. Data Portal)*

NETWORK IPTV



- *Content live TV can come from local content or from satellite, which in the Head End device will be encoded and sent it to Middleware. and Middleware will manage based on database to send to End User over IP Network*

- *Head End consist of IRD (Integrated Receiver Decoder) that serves as TV Channel receiver through the satellite, end Encoder that serves to change the video format into MPEG4/H246 to get through the IP network*

- *Middleware is main controler for IPTV Service and integrated with VOD server, Content Management System/Delivery System (CMS/CDS), End User Terminal and NMS.*

Can Mikrotik Manage the Multicast Traffic?

- *What's Unicast , Broadcast and Multicast ?*
- *Unicast is the term to describe communication where a piece of information is sent from one point to another point. In this case there is one sender and one receiver.*
- *Broadcast is the term to describe communication where a piece of information is sent from one point to all other points. In this case there is just one sender, but the information is sent to all connected receiver.*
- *Multicast is the term to describe communication where a piece of information is sent from one or more point to set of other points*

Can Mikrotik Manage the Multicast Traffic?

-Internet Group Management Protocol (IGMP) proxy can be used to implement multicast routing. It is forwarding IGMP frames and commonly is used when there is no need for more advanced protocol like PIM

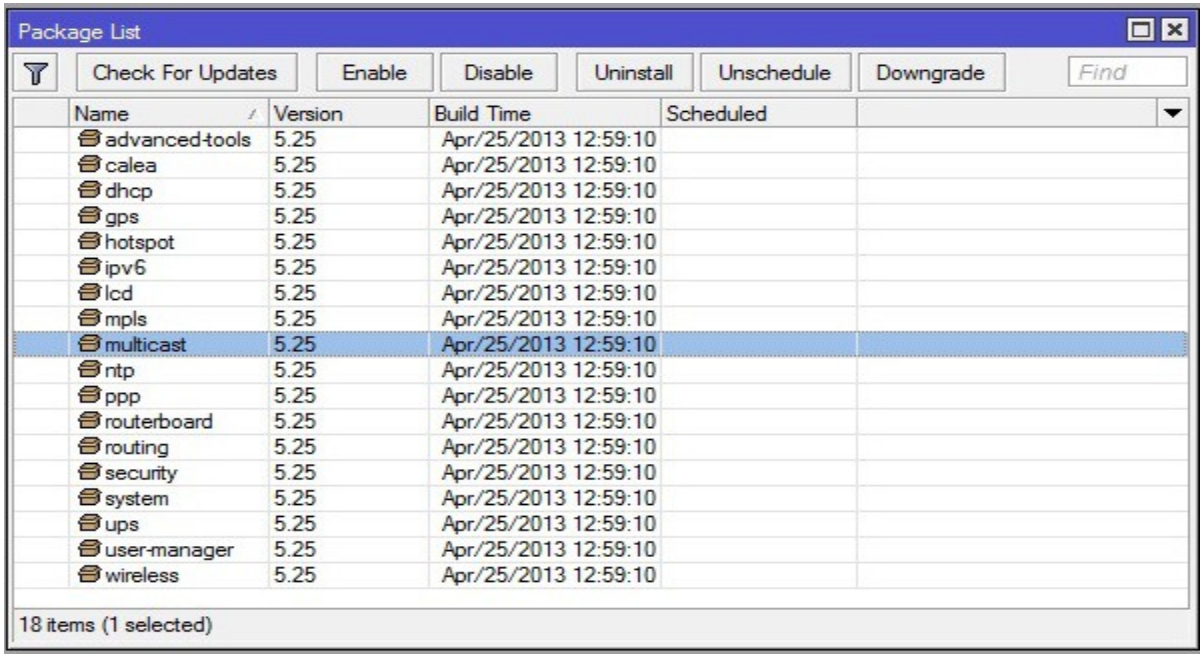
-IGMP-Proxy doesn't support more than one upstream interface and routing loops are not detected or avoided

- Protocol Independent Multicast – Sparse Mode enables routerOS to support multicast streaming over network area where routers have pim set up. Several configured pim routers together will make multicast cloud where client device can use IGMP to manage subscriptions to streams.

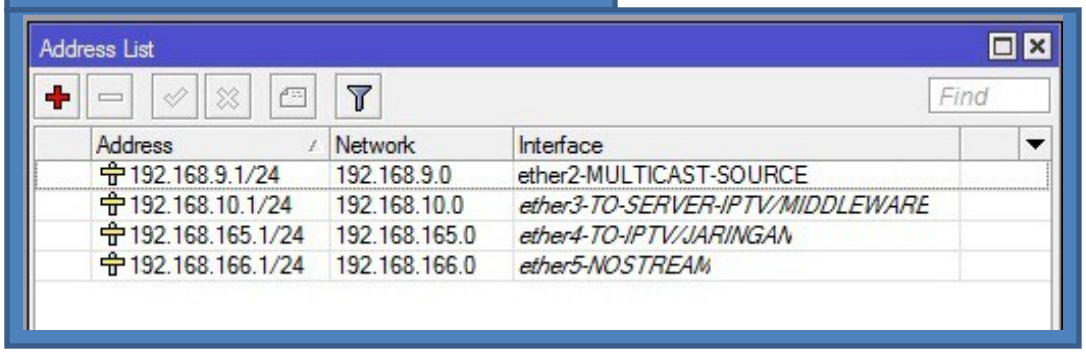
- PIM Should be used when network topology is complex or stream sources are connected to multicast cloud

Router Configuration

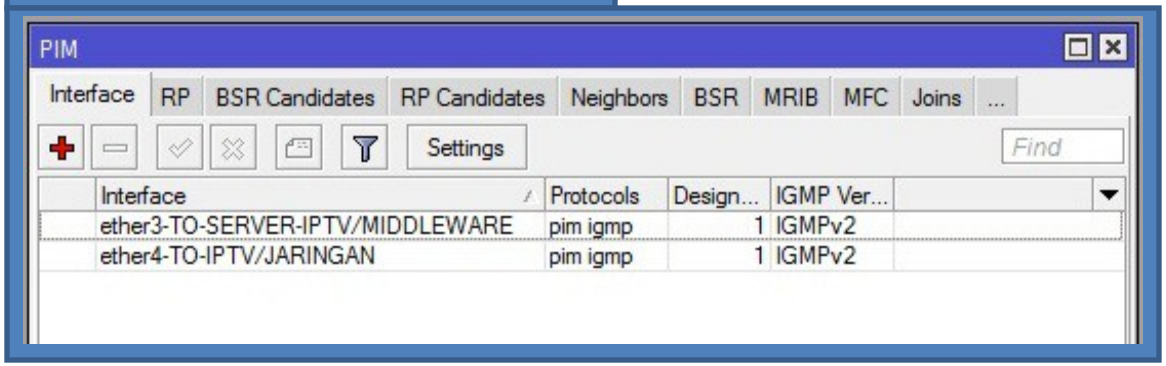
ETHER2 : 192.168.9.1/24 (Upstream Interface)
ETHER3 : 192.168.10.1/24 (To Middleware)
ETHER4 : 192.168.165.1/24 (To IPTV Network)
ETHER5 : 192.168.166.1/24 (No Stream)



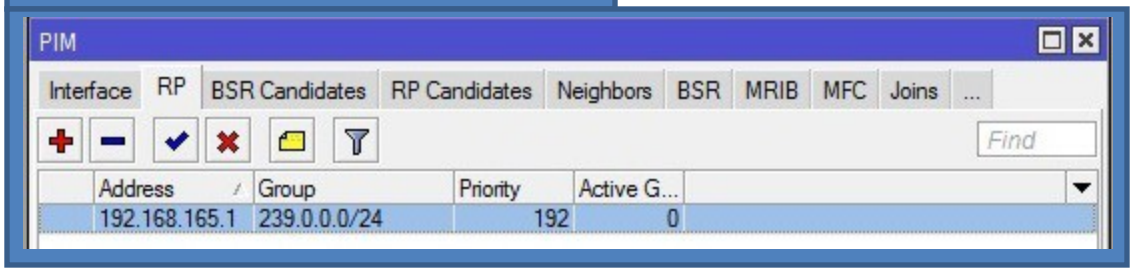
SET UP THE IP ADDRESS



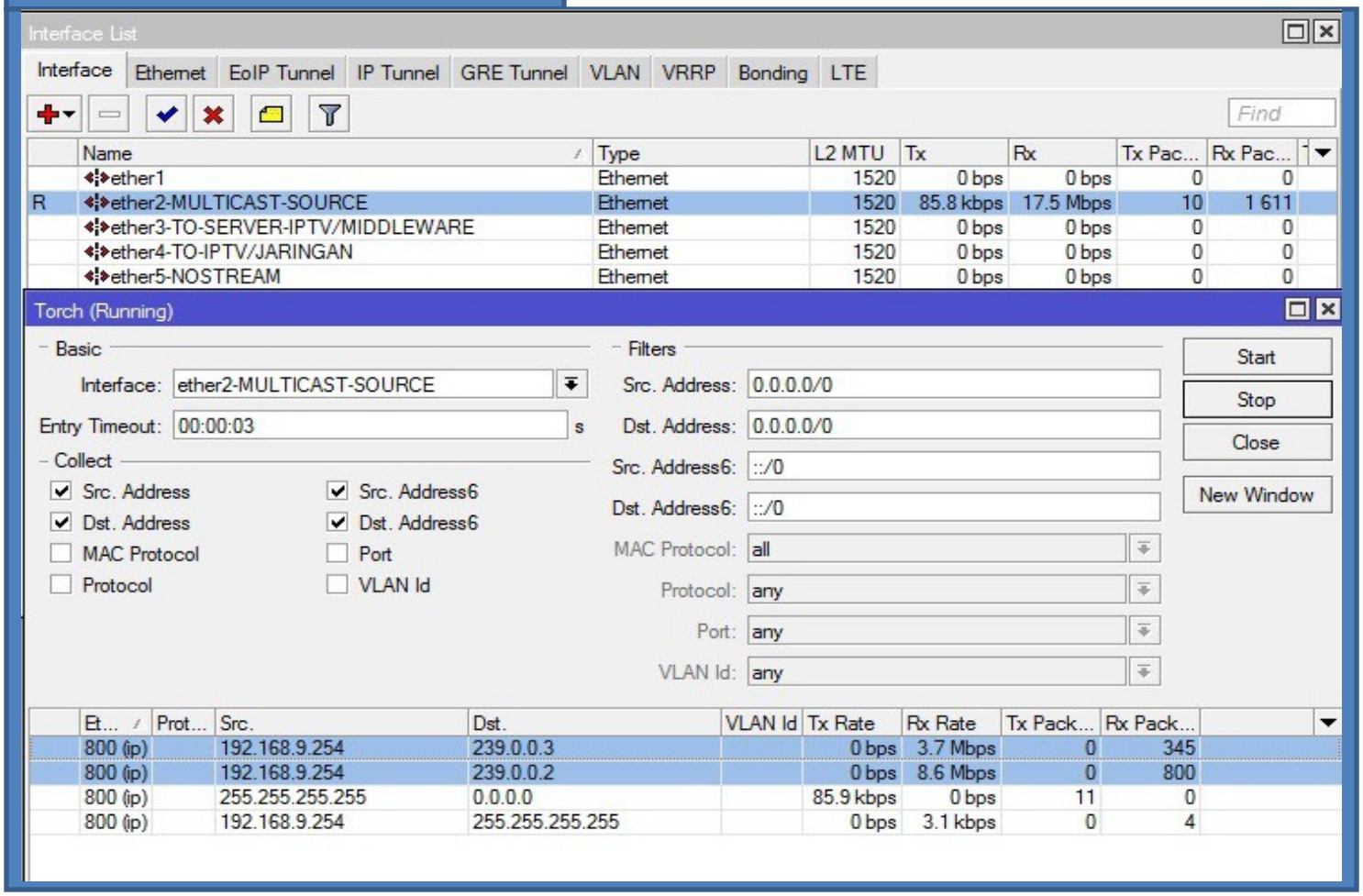
SET UP PIM



SET UP PIM-RP



Runing your multicast traffic



Thank You