

MECHANISMS FOR ENSURING QUALITY OF SERVICE IN IPTV

IPTV

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: IPTV,

Abstract – The aim of this paper is to provide an overview the most common mechanisms to ensure quality of service in IPTV. Typically, service providers do not implement all the techniques in their network and using a combination of several. Discussed in details are architecture of differentiated services and virtual LANs. Finally it's indicated techniques for manage IP address space.

IPTV.

IP

1.

Internet Protocol Television (IPTV - IP

(Quality of Service - QoS)

QoS

2.

(Differentiated services DiffServ)

IP . DiffServ

QoS

- (best-effort)

[2].

IPTV.

Point - DSCP)

IPTV . DSCP

(Differentiated Services Code

6

(Explicit Congestion Notification
(Type of Service - TOS) IPv4

- ECN)

[3].

DSCP

6-
(forwarding treatment) 64.

(per-hop behavior – PHB).

1.

PHB,

IETF [4]

PHB	
Best Effort (BE)	IP PHB
(Expedited Forwarding - EF)	

(Assured Forwarding - AF)	IPTV VoD
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DiffServ

3.

(virtual LANs - VLANs)

802.1Q.
IP . VLAN

IPTV

VLAN
IPTV

IP

3.1

IPTV

IP

-

VoIP

Set-Top Box-

IP

3.2

(MAC)

3.3

IP

IP

(Source)

(Destination)

IP
IPTV

3.4

VoIP

3.5

TCP UDP

4. IP

4 IP (IPv4)

IPTV

IP

2. IPv4

[5]

IP	
10.0.0.0 - 10.255.255.255	16,777,216
172.16.0.0 - 172.31.255.255	1,048,576
192.168.0.0 - 192.168.255.255	65,536

Dynamic Host Configuration Protocol (DHCP)

IPTV VoIP)

5.

IPTV

IPTV

QoS

QoS

6.

-2012 .

7.

[1] G. O' Driscoll, Next Generation IPTV Services and Technologies, John Wiley & Sons, 2008
 [2] http://en.wikipedia.org/wiki/Differentiated_services
 [3] [RFC 3260](#)
 [4] [RFC 2474](#)
 [5] [RFC 1918](#)