Quality of Service attributes for Diameter

draft-ietf-dime-qos-attributes-08.txt

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Overview

• Main changes from version 7 to 8
• Changes to be incorporated in the next version
• Issues
Main changes

• ETH option
  • ETH-Option ::= < AVP Header: XXX >
    { ETH-Proto-Type }
    * [ VLAN-ID-Range ]
    * [ ETH-Priority-Range ]
    * [ AVP ]
Main changes

● VLAN-ID-Range
  ● VLAN-ID-Range ::= < AVP Header: XXX >
    [ S-VID-Start ]
    [ S-VID-End ]
    [ C-VID-Start ]
    [ C-VID-End ]
    * [ AVP ]
● C-VID (single VLAN-ID (IEEE802.1Q))
● S-VID (Combination of customer and service VLAN-IDs (IEEE802.1ad))
Main changes - II

• Time-Of-Day-Condition
  • Time-Of-Day-Condition ::= < AVP Header: XXX >
    [ Time-Of-Day-Start ]
    [ Time-Of-Day-End ]
    [ Day-Of-Week-Mask ]
    [ Day-Of-Month-Mask ]
    [ Month-Of-Year-Mask ]
    [ Absolute-Start-Time ]
    [ Absolute-End-Time ]
    [ Timezone-Flag ]
  * [ AVP ]
Main changes - II

• For e.g. For example, a time window for 9am to 5pm (local time) from Monday to Friday would be expressed as:
  
  • Time-Of-Day-Condition = {
    Time-Of-Day-Start = 32400;
    Time-Of-Day-End = 61200;
    Day-Of-Week-Mask =
      ( MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY );
    Timezone-Flag = LOCAL;
  }
Changes in Next version

- Extended-QoS-Filter-Rule
- Extended-QoS-Filter-Rule ::= < AVP Header: XXX >

{ QoS-Semantics }
[ QoS-Profile-Template ]
[ QoS-Parameters ]
[ QoS-Rule-Precedence ]
[ Excess-Treatment ]
[ Classifier ]
* [ Time-Of-Day-Condition ]
* [ AVP ]
Changes in Next version - I

• Merge [ QoS-Profile-Template ] and [ Vendor-Specific-QoS-Profile-Template ] (vendor id = 0 for IETF )

  • QoS-Profile-Template ::= < AVP Header: XXX >
    { Vendor-Id }
    { QoS-Profile-Id }
    * [ AVP ]

  • Vendor-Id = 0 (=> IETF)

  • QoS-Profile-Id = 0 (=> default values for QoS parameters)
Changes in Next version - II

- ICMP-Type ::= < AVP Header: XXX >
  \([IP-version]\)
  \{ ICMP-Type-Type-Number \}
  * \[ ICMP-Code \]
  \[ Negated \]

- \([IP-version]\) = since types may overlap

  - ICMPv6 [http://tools.ietf.org/html/rfc4443],
Changes in Next version - III

- Shift the Excess-Treatment-Action (originally Excess parameter) from QoS-parameters to this document
Issues - I

• Shift the Excess-Treatment-Action (originally Excess parameter) from QoS-parameters to this document
  • Excess-Treatment ::= < AVP Header: XXX >
    { Excess-Treatment-Action }
    [ QoS-Profile-Template ]
    [ QoS-Parameters ]
    * [ AVP ]
Issues - I

• Excess-Treatment-Action
  • The Excess-Treatment-Action AVP (AVP Code TBD) is of type Enumerated and lists the actions on out-of-profile traffic.
    • 0: drop
    • 1: shape
    • 2: remark
    • 3: no metering or policing is permitted
Other Issues

- IPV6(IP-OPTION)
- Traffic classifiers currently address only TCP, UDP and not SCTP, DCCP etc.
Thank you

Questions ?
Extra slide

- Time-Of-Day-Start AVP (type Unsigned32, 0 to 86400, default = midnight)
- Day-Of-Week-Mask AVP (type Unsigned32) [similar for Day-Of-Month-Mask AVP, Month-Of-Year-Mask AVP]
  - 0 | SUNDAY
  - 1 | MONDAY
  - 2 | TUESDAY
  - 3 | WEDNESDAY
  - 4 | THURSDAY
  - 5 | FRIDAY
  - 6 | SATURDAY