DiffServ Management Information Base

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Why?

• configure the “boxes”;  
• service verification;  
• problem isolation (in case of service failure);  
• long term traffic engineering and planning...
What do we need to keep track?

That is, what is needed to fully capture and characterize forwarding behavior without tying things too closely to a specific implementation.
Expedited Forwarding PHB

- maximum rate (or token bucket);
- queue’s weight
- incoming In/Out profile;
- number of outgoing packets/bytes;
- number of dropped packets/bytes;
- jitter/delay (??);
- ...

Assured Forwarding PHB

• For each class and precedence:
  – rate, token-bucket, weight, etc.
  – incoming traffic profile;
  – outgoing traffic profile;
  – number of outgoing packets/bytes;
  – number of dropped packets/bytes;

• For each class:
  – number of packet/byte being reassigned;

• ...
Tables

- queue table;
- control attributes;
- traffic;
- interface.
Table 1: Interface Queue Table

- Queue Number
- Rate
- Weight)
Table 2: Control Attributes Table

- Code Point
- Queue Number
- Min. Dropping Threshold
- Mid. Dropping Threshold
- Max. Dropping Threshold
Table 3: Traffic Attributes Table

- Code Point
- Rx/Tx Packets
- Rx/Tx Bytes
- Rx/Tx Out-Profile Packets
- Ingress Dropped Packets
- Egress Dropped Packets
Table 4: Interface Attributes

- Interface Status (DiffServ enabled?)
- EF Status
- AF Status
- Max. EF Rate
- Max. AF Rate