

# DiffServ Management Information Base

Ping Pan (Bell Labs)

Roch Guerin (U Penn)

Fred Baker (Cisco)

# 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