

Supplementary Notes on **Quality of Service at CityU**

Implementing DiffServ at CityU

Classify people into classes

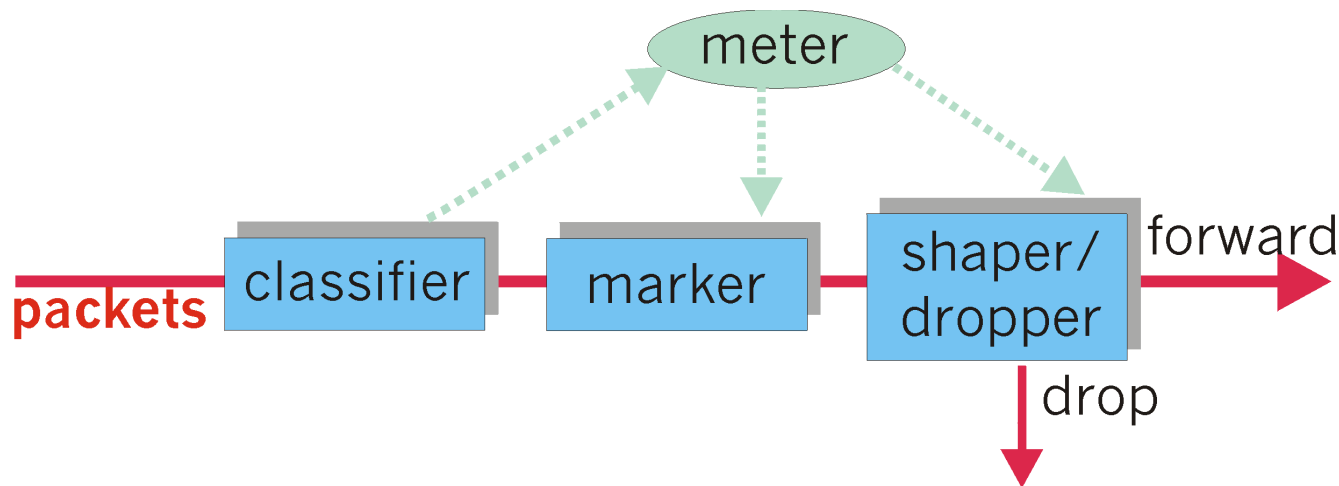
- **Expedited Forwarding (EF):**
 - Academic Staff
- **Assured Forwarding (AF):**
 - Platinum/Premium - Year 4 students
 - Gold - Year 3 students
 - Silver - Year 2 students
 - Bronze - Year 1 students

Three drop priorities: having classes, activities, or the others

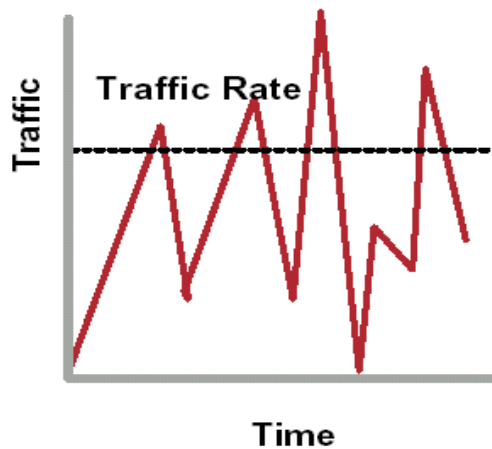
- **Best effort**
 - Non-CityU people

Implementing Traffic Conditioner Block at the entrance of CityU

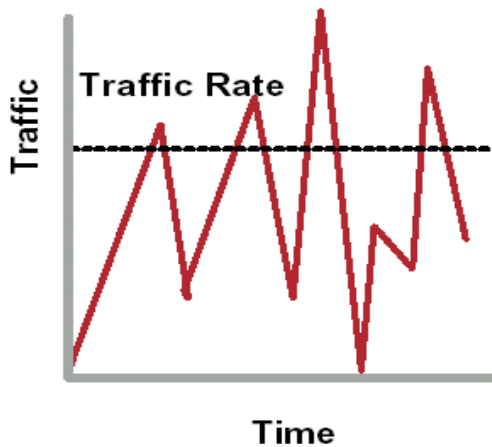
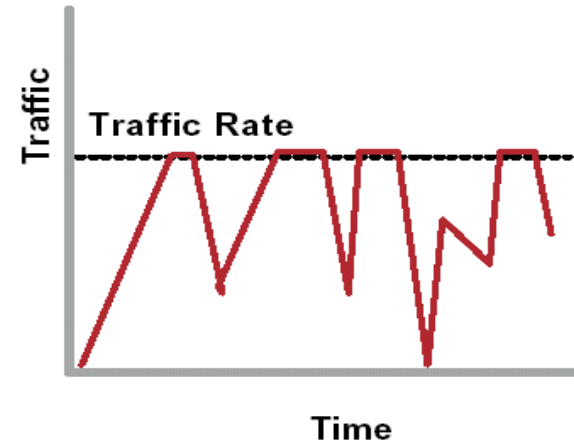
- 1) Classify the people into 'Classes'
- 2) Mark/label the people for purposes of classification in CityU
- 3) Meter a class
- 4) Remark out-of-profile people
- 4) Delay and/or drop/reject out-of-profile people entering CityU



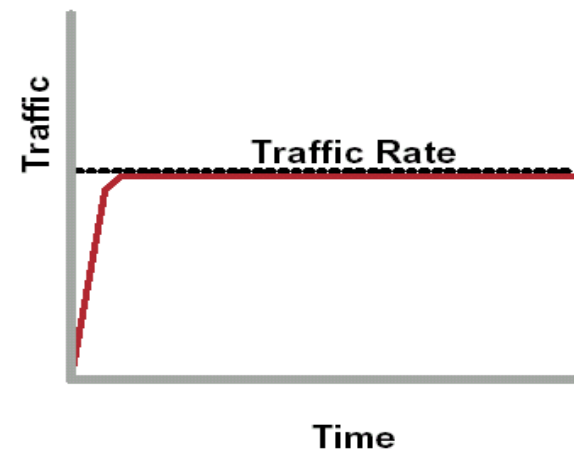
Metering $\rightarrow$ Policing (Dropping)/Shaping



Policing



Shaping

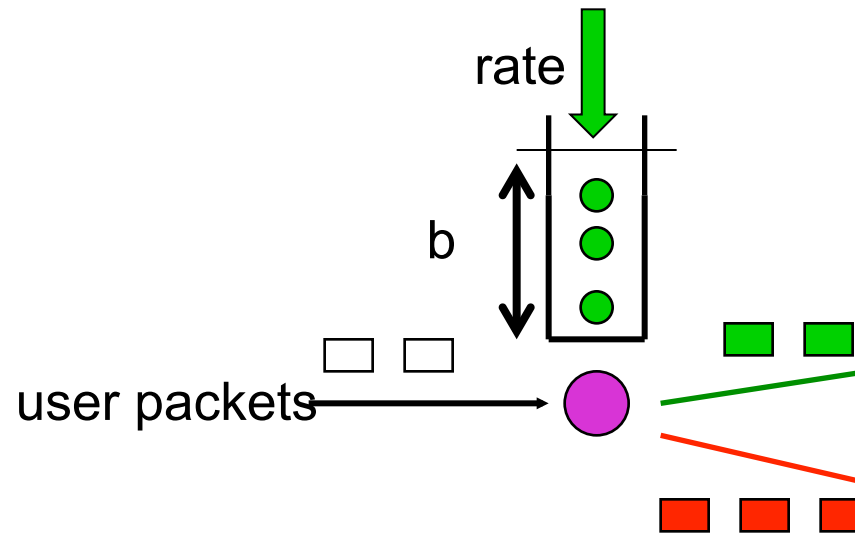


More on Policing...

- Policing is used not only to drop/reject out-of-profile people, but also to **re-mark** them, and indicate to dropping/rejecting mechanisms inside CityU that they should be dropped/rejected ahead of the in-profile people!

CityU entrance people marking

- ❖ *profile*: pre-negotiated rate r , bucket size b
- ❖ people marking at entrance based on *per-flow* profile



possible use of marking:

- ❖ class-based marking: people of different classes marked differently
- ❖ intra-class marking: marks people as **in-profile** and **out-profile**

Implementing Various PHBs in student canteen at CityU

- **Expedited Forwarding (EF):**
 - Academic Staff: low delay
- **Assured Forwarding (AF):**
 - Students: assured service
 - Three drop priorities for each AF class:
 - 1) drop students without class and activity first,
 - 2) drop students with activity second,
 - 3) drop students with class last.
- **Best effort:**
 - Drop non-CityU people ahead of academic staff and students

The DiffServ Architecture

