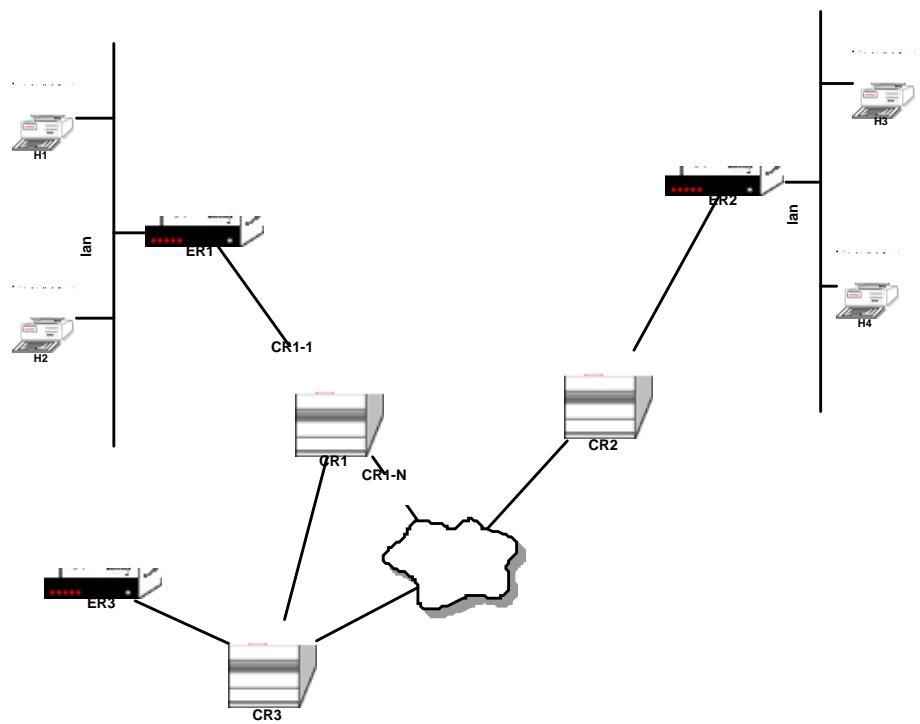


QoS peerings

D.Horton

Views

FIGURE 1. peering reference model



Views

- VIEW 1** Physical counts of packets/bytes on a per port basis. (e.g. from MIB-II). e.g. on port CR1-1
- $\#routers \times \#ports^a$
- This doesn't give a view of flows, but can detect overutilization.
- VIEW 2** Bridging associations. Frames passing from one port to another, e.g. from CR1-1 to CR1-N. (no identified MIB)
- $\#routers \times \#ports^2$
- Again this doesn't give a good view of end-end flows.
- VIEW 3** Route associations. The number of frames using each route table entry. e.g. `cisco::lip-RoutingTable`. (Bytes would also be useful). e.g. CR1 may have routes to the lan off ER2, or perhaps the domains through CR2.
- $\#routers \times route_table_size^b$
- This gives a slightly better view of where traffic is destined at relatively little cost in collection and storage, but expensive to analyse.
- VIEW 4** end-end associations. This is tracking all the packets sent between source/destination pairs. e.g. `cisco::lipAccountingTable^c`. So at CR1, this would count all packets from H1 to H3.
- The possible size is huge: $\#hosts^2$
- This is giving perfect view of flows.
- VIEW 5** Count of frames to a particular destination (or perhaps from a certain source), e.g. CR1 would keep a count of packets destined for H3
- Again the size is large: $\#hosts$
- This would give a good indication flows if collected at egress routers.

a. neighbours.

b. $\log(\#routers)$?

c. Not sure if this is for all forwarded traffic, specific pairs, or locally originated/terminated packets. Probably the first from the look of the MIB.

QoS controls

FIGURE 2. QoS priority queuing

