



S-38.3180: Quality of Service in Internet

Exercise 2: Differentiated Services

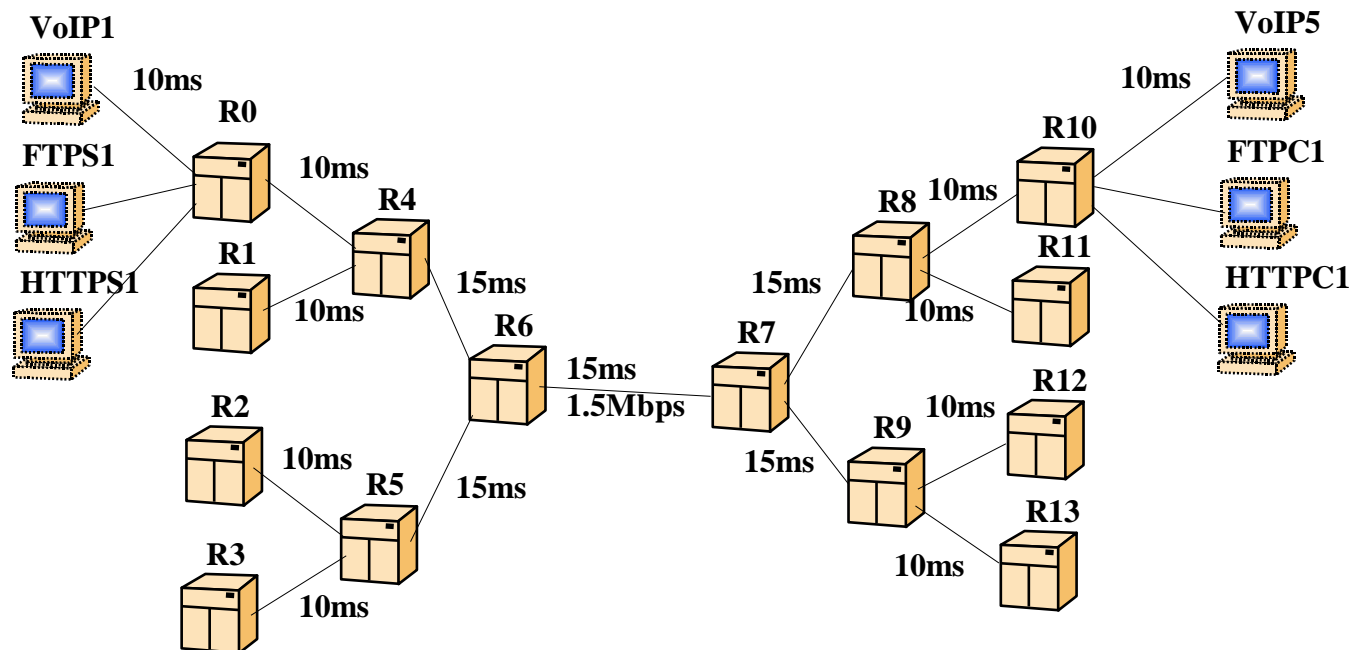


Exercise material

- Source files for the exercises can be downloaded from the web-server
 - www.netlab.tkk.fi/opetus/s383180/2007/
- Ns2 is activated into path by using
 - *'source /p/edu/s-38.180/use.{sh, csh}'*
 - depending on the shell you use
- Use scratch filesystem for executing simulations and store only results to your own home directory
 - *'use scratch'*
 - Creates symbolic link to your home directory for scratch filesystem



Topology





Task

- Simulate eight different differentiation scenarios
 - All BE
 - VoIP=EF, HTTP=AF, FTP=BE
 - VoIP=EF, HTTP=BE, FTP=AF
 - VoIP=EF, HTTP=BE&AF, FTP=BE&AF
 - VoIP=EF, HTTP=AF, FTP=AF (one BE)
 - VoIP=EF&AF, HTTP=EF&AF, FTP=EF&AF
 - All EF
 - All AF



Task

- Using two different scheduling algorithms
 - Priority scheduling (PRI)
 - Weighted Round Robin scheduling (WRR)
- Change this in the 2q2p.tcl
 - # Set scheduler (and queue weights)
 - `$q($a$b) setSchedulerMode WRR ;# Options: RR, WRR, WIRR, PRI`



Documentation

- Write a report where you present you justify your opinion on the ability to control delivered quality with DiffServ functionalities
 - Consider that you have provisioned the network to work on some of the differentiation schemes and other simulation cases are errors that are caused by misclassification at the ingress
 - Consider also the different scheduling algorithms and their influence to the delivered service
- Your report should not exceed 2 pages
- Return it before 27.11.2007 / 1600
 - Course locker in G2-wing