

Expt: 5

```
# This script is created by NSG2 beta1
# <http://wushoupong.googlepages.com/nsg>
#=====

#   Simulation parameters setup
#=====

set val(stop) 50.0           ;# time of simulation end
#=====

#   Initialization
#=====

#Create a ns simulator
set ns [new Simulator]#Open the NS trace file
set tracefile [open expt5.tr w]
$ns trace-all $tracefile

#Open the NAM trace file
set namfile [open expt5.nam w]
$ns namtrace-all $namfile
#=====

#   Nodes Definition
#=====

#Create 8 nodes
set n0 [$ns node]
set n1 [$ns node]
set n2 [$ns node]
set n3 [$ns node]
set n4 [$ns node]
set n5 [$ns node]
set n6 [$ns node]
set n7 [$ns node]
#=====

#   Links Definition
```

#=====

#Createlinks between nodes

\$ns duplex-link \$n0 \$n2 100.0Mb 10ms DropTail

\$ns queue-limit \$n0 \$n2 50

\$ns duplex-link \$n1 \$n2 100.0Mb 10ms DropTail

\$ns queue-limit \$n1 \$n2 50

\$ns duplex-link \$n3 \$n5 100.0Mb 10ms DropTail

\$ns queue-limit \$n3 \$n5 50

\$ns duplex-link \$n4 \$n5 100.0Mb 10ms DropTail

\$ns queue-limit \$n4 \$n5 50

\$ns duplex-link \$n2 \$n6 100.0Mb 10ms DropTail

\$ns queue-limit \$n2 \$n6 50

\$ns duplex-link \$n5 \$n7 100.0Mb 10ms DropTail

\$ns queue-limit \$n5 \$n7 50

\$ns duplex-link \$n6 \$n7 100.0Mb 10ms DropTail

\$ns queue-limit \$n6 \$n7 50

#Give node position (for NAM)

\$ns duplex-link-op \$n0 \$n2 orient right-up

\$ns duplex-link-op \$n1 \$n2 orient left-up

\$ns duplex-link-op \$n3 \$n5 orient right-up

\$ns duplex-link-op \$n4 \$n5 orient left-up

\$ns duplex-link-op \$n2 \$n6 orient right-up

\$ns duplex-link-op \$n5 \$n7 orient left-up

\$ns duplex-link-op \$n6 \$n7 orient right

#=====

Agents Definition

#=====

#Setup a TCP connection

set tcp0 [new Agent/TCP]

\$ns attach-agent \$n0 \$tcp0

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set sink2 [new Agent/TCPSink]

$ns attach-agent $n4 $sink2

$ns connect $tcp0 $sink2

$tcp0 set packetSize_ 1500


#Setup a TCP connection

set tcp1 [new Agent/TCP]

$ns attach-agent $n3 $tcp1

set sink3 [new Agent/TCPSink]

$ns attach-agent $n1 $sink3

$ns connect $tcp1 $sink3

$tcp1 set packetSize_ 1500

#=====

#    Applications Definition

#=====

#Setup a FTP Application over TCP connection

set ftp0 [new Application/FTP]

$ftp0 attach-agent $tcp0

$ns at 1.0 "$ftp0 start"

$ns at 25.0 "$ftp0 stop"


#Setup a FTP Application over TCP connection

set ftp1 [new Application/FTP]

$ftp1 attach-agent $tcp1

$ns at 26.0 "$ftp1 start"

$ns at 49.0 "$ftp1 stop"

#=====

#    Termination

#=====

#Define a 'finish' procedure

proc finish {} {

```

```
global ns tracefile namfile

$ns flush-trace

close $tracefile

close $namfile

exec nam expt5.nam &

exit 0

}

$ns at $val(stop) "$ns nam-end-wireless $val(stop)"

$ns at $val(stop) "finish"

$ns at $val(stop) "puts \"done\" ; $ns halt"

$ns run
```