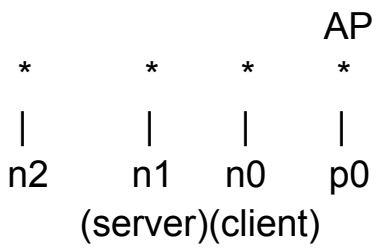
EXPERIMENT - 10

Network Topology



Working

Wifi Access Point p0 is fixed at (100,100). There are three base stations n0, n1 and n2 as shown in the above figure. I am using n1 as the server and n0 as the client. n1 is fixed at (110,100). Now iam running a loop and in each iteration postion of n0 (initially at (130,100)) is incremented like (131,100), (132,100), ……

Compiling:

```
ismail@ismail-VirtualBox:~/Downloads/ns-allinone-3.33/ns-3.33$ ./waf --run scratch/exp10
Waf: Entering directory `/home/ismail/Downloads/ns-allinone-3.33/ns-3.33/build'
[2743/2790] Compiling scratch/exp10.cc
[2751/2790] Linking build/scratch/exp10
Waf: Leaving directory `/home/ismail/Downloads/ns-allinone-3.33/ns-3.33/build'
Build commands will be stored in build/compile_commands.json
'build' finished successfully (5.668s)

AP = 100:100:0
Node 0 = 130:100:0
Node 1 = 110:100:0
At time +2s client sent 1024 bytes to 10.1.3.3 port 9
At time +2.00493s server received 1024 bytes from 10.1.3.2 port 49153
At time +2.00493s server sent 1024 bytes to 10.1.3.2 port 49153
At time +2.01391s client received 1024 bytes from 10.1.3.3 port 9
Node 2 = 115:100:0
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

AP = 100:100:0
Node 0 = 131:100:0
Node 1 = 110:100:0
At time +2s client sent 1024 bytes to 10.1.3.3 port 9
At time +2.00704s server received 1024 bytes from 10.1.3.2 port 49153
At time +2.00704s server sent 1024 bytes to 10.1.3.2 port 49153
At time +2.01802s client received 1024 bytes from 10.1.3.3 port 9
Node 2 = 115:100:0
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

Output:

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

AP = 100:100:0
Node 0 = 149:100:0
Node 1 = 110:100:0
At time +2s client sent 1024 bytes to 10.1.3.3 port 9
At time +2.00798s server received 1024 bytes from 10.1.3.2 port 49153
At time +2.00798s server sent 1024 bytes to 10.1.3.2 port 49153
At time +2.01593s client received 1024 bytes from 10.1.3.3 port 9
Node 2 = 115:100:0
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

AP = 100:100:0
Node 0 = 150:100:0
Node 1 = 110:100:0
At time +2s client sent 1024 bytes to 10.1.3.3 port 9
At time +2.0101s server received 1024 bytes from 10.1.3.2 port 49153
At time +2.0101s server sent 1024 bytes to 10.1.3.2 port 49153
At time +2.01515s client received 1024 bytes from 10.1.3.3 port 9
Node 2 = 115:100:0
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

AP = 100:100:0
Node 0 = 151:100:0
Node 1 = 110:100:0
At time +2s client sent 1024 bytes to 10.1.3.3 port 9
Node 2 = 115:100:0
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

Result:

Here we can see that beyond position (150,100), client(n0) is not able to receive a reply from the server(n1) which means that the range of wifi access point is 50 m.