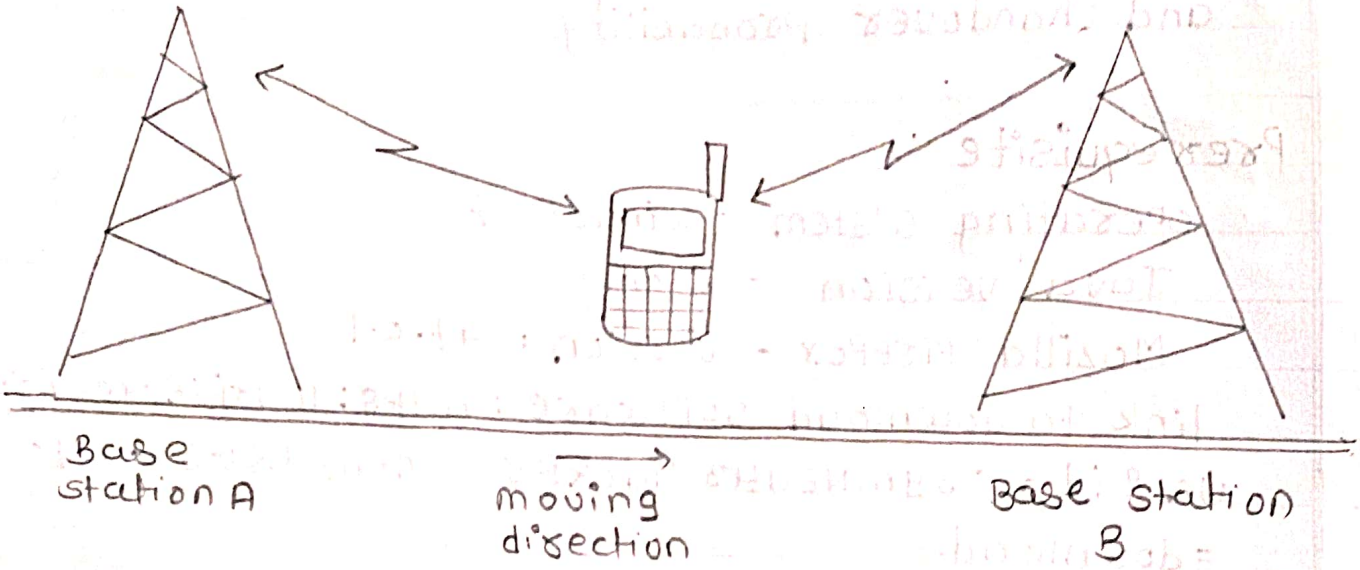
Aim :- To understand the handover mechanism

objective :- To study the effect of handover threshold and margin on SNR and call drop probability and handover probability

Prerequisite :-
operating system - window 7
Java version - 6 only
Mozilla firefox - version : 47.0.1
link to download software : https://drive.google.com/uc?id=0B9mNeU43UidckFVTlnenPIRGS&export=download.

Theory :
Handoff
consider the fig. below initially say the mobile M is quite close to base station A and hence receives signal strength from A $P_{Arx} > P_{Brx}$. As mobile move away from base station A and goes towards B then signal strength from A keep falling. Let there be minimum sensibility level P_{orxo} for the mobile If the signal from the B.S to which the mobile is connected falls below P_{orxo} then the call drop In order to prevent call mobile monitor receive signal strength from the neighboring 3-6 B.S.


Base station A
moving direction
Base station B

These neighboring B-6. B.5 also monitor Rx signal strength from M.S.

The mobile should get connected to B.S which has highest signal strength. However if M.S continuously attaches itself to B.S with instantaneous height signal strength then hlo rate may every high server condition. Thus some hysteris condition is used for h.IF PIrr (T= Target B.S)> Phrxh higher hlo threshold and - Pcr x - cc = current B.S) < phrxh minimum hlo threshold the execute hlo to B.S ST from B.SC. Thus it is threshold impeditive to study in part of the hand off Process.

$$\Delta\gamma = Phrx - Plrx\Delta = h$$

A successful handoff is one where the call get from and continuous without call or in or other word the h occurs before hlo Pcrx becomes <Porx <0. If Pcrx< Porx 0 then call drop event occurs one would like to minimize call drop Probability. The experiment provide opportunity to study inherent of there three parameter on hlo.

students conducting the experiment is expected to study the impact of these on hlo. He is encouraged to respect the experiment for several sets of value of Parameter these draw conclusion

Instruction :-

Follow the instruction given below to perform experiments

1) starting the experiments

step 1 - click on START button to start expt

step2 - Enter your name then click on button

step 3 - Select the parameters

step 4 - click on START button and observe No of calldrops & No. of handoffs.

step 5 - Enter your observation in observation box & click on SUBMIT button.

step 6 - Finally click on Report to generate PDF report of the expt.

step 7 - After PDF report generation you will get following message

step 8 - PDF report will appear like this

step 9 - To redo expt click on RESET button

conclusion -

The handover mechanism is a critical aspect of mobile communication network, enabling smooth transitions betn different cell or base station as mobile device move which the network coverage area.