* 1. Time Division Multiplexing.
* Each user is statically allocated time slot, and if the user does not use the given time slot, it just lies fallow.
* 2. Frequency Division Multiplexing.
* Number of users are fixed.
* Multi access channel ( Multiple transmitters and multiple receivers )
* Delay Time for the new users. New users will wait while channel is already in use.
* Time consumption. Reduced efficiency.
* Number of users are fixed.
* If the spectrum Is cut into N portions and the number of users are less
* than N; then a large piece of spectrum is wasted.
* If more than N users want to communicate, some of them will be denied
* permission for the lack of bandwidth.

Conclusion

* Fixed Channel Assignment (FCA)
* Low computational cost
* Used as a reference in Performance Comparison.
* Not flexible, poor utilization
* High blocking rate for non-uniform traffic
* Requires complex frequency planning
* Not desirable in micro-cell architectures
* Dynamic Channel Assignment (DCA)
* High utilization of channels
* High computational complexity
* Suitable for non-uniform traffic and micro-cell  
  architectures
* Hybrid Channel Assignment (HCA)
* Combination of FCA and DCA
* Converges to FCA performance under heavy traffic

1. Dynamic channel allocation Channel not pre-divided into the number of users. Dynamic channel allocation. A mapping can be established when a new station appears, and the mapping can be removed when the station disappears. KEY ASSUMPTIONS:- Broadcast Network Station Model – The model consists of N independent stations ( computers, telephones, personal communicators ), each with a program or user that generates frames for transmission. Once a frame has been generated, the station is blocked till it has been fully transmitted. 2. Single channel – A single channel is available for all communication. All stations can transmit on it and all can receive from it. Multiple users working on same channel Multiple transmitter and multiple

2. Collision – When 2 frames are transmitted simultaneously, they overlap in time and the resulting signal is garbled. Slotted Time – Fixed time slots. Transmission begins only at start of a slot. Carrier Sense – Station can tell if the channel is already in use or not. Time division multiplexing Here we fix a discrete time interval for dynamic allocation and new allocations will be there only when first have executed their data. If 4 users come channel is divided into 4 parts. Next time when for new 7 users channel is divided into 7 parts but only when next dynamic allocation will be done. FOR EXAMPLE :- The set of cell phones that are operating in the range of a given cell tower varies constantly. Dynamic channel allocation