

University of Diyala

Telecom Switching Systems

Lecture 12

4th Stage

Communication department / Engineering collage

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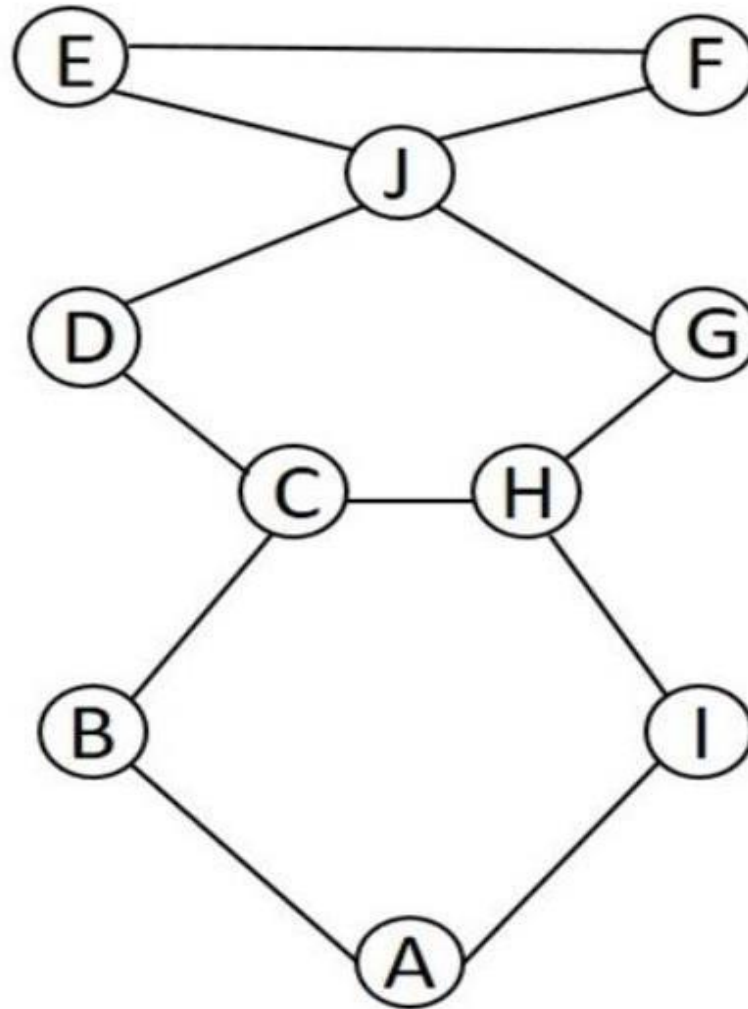


Multi-Exchange Network

In a Multi exchange network, the routes used to establish a connection with a particular subscriber differs from time to time.

In the Strowger exchange following the Multi-exchange network, the subscriber has to be more concerned with the routing. A subscriber should have the details of all the numbers of exchanges present in the route. There may arise situations where a subscriber may be required to establish a connection on other routes; this becomes hard at times.





The following figure is an example of the topology of a Multi-exchange network



Disadvantages of implementing Multi-Exchange network

There are many disadvantages of implementing Multi-Exchange network in switching are:

- The subscriber identity number is changed depending on the calling route.
- The user must have knowledge on the topology of the network and the numbers of the exchanges present in it.
- The number and size of the called subscriber varies depending upon the exchange from where the call originates.

In order to overcome these problems, the common control subsystem was introduced.



Common control

In order to avoid the complication and to make it easier for a subscriber to place a call, two main ideas were implemented by the Common Control Subsystem. The ideas are:

- 1.The routing of the call should be done by the exchange, but not by the numbers dialled.

- 2.A Unique Identification Number (UIN) should be allotted to the subscriber. The UIN contains the number of the exchange of the subscriber and the number indicating the line of the subscriber.



Common control cont.

The following figure shows the diagram of the Common Control Subsystem, which contains:

- Call Processing Sub system
- Charging Circuits
- Operation Control
- Maintenance Control
- Event Monitor.



