

20PW32 - Sanjith T
Mobile Computing Assignment Presentation

BLANK PAGING VS SEQUENTIAL PAGING

	BLANKET	SEQUENTIAL
PAGING COST	LARGE	SMALL
PAGING DELAY	SMALL	LARGE

*Sequential group paging may be used if there is a constraint on paging delay

Paging Cost refers to the amount of signaling traffic generated by the network to locate a mobile device when there is an incoming call or message.

Paging delay is the time it takes for the network to locate a mobile device when there is an incoming call or message.

SEQUENTIAL GROUP PAGING

Sequential group paging is a technique used in cellular networks to locate a target mobile device within a large coverage area. It is a variation of the sequential paging technique, which involves paging each cell in a specific sequence until the target device is located. However, in sequential group paging, the network divides the cells in the coverage area into groups based on their location or other characteristics, and pages each group in a specific sequence until the target device is found. The main advantage of sequential group paging is that it reduces the paging cost compared to sequential paging.

To implement sequential group paging, the network first divides the cells in the coverage area into groups. The grouping can be based on the geographic proximity of the cells, the network topology, or other factors such as the traffic load or the service requirements. Each group is then assigned a specific paging sequence, which determines the order in which the cells in the group are paged. The paging sequence can be optimized to reduce the paging overhead and the paging delay.

When a mobile device needs to be located, the network initiates the paging procedure by sending a paging message to the cells in the first group in the paging sequence. If the mobile device is not located in the cells in the first group, the network sends a paging message to the cells in the next group in the sequence, and so on, until the mobile device is located or all groups have been paged.

DATABASE MANAGEMENT INTRODUCTION

In a cellular system, the location database is a central repository that stores information about the current location of each subscriber in the network. The location database plays a critical role in the proper functioning of the cellular network, as it enables the network to locate a subscriber's current location and route calls and other network functions to them efficiently.

There are two main operations:

- Location Update
 - It involves updating the location databases with the current location of a mobile terminal. When a mobile terminal moves to a new location area, it informs the system of its current location through a location update procedure.
- Call Delivery
 - It involves querying the location databases to find a particular user. When a call is initiated from a mobile terminal, the mobile switching center sends a location request to the home location register of the called mobile terminal.

The cost can be very high if the mobile terminal is located far away from its home database

Sequential Group Paging

