Mobile Communication — An overview

Lesson 09

Data Dissemination, Synchronization and Mobility management
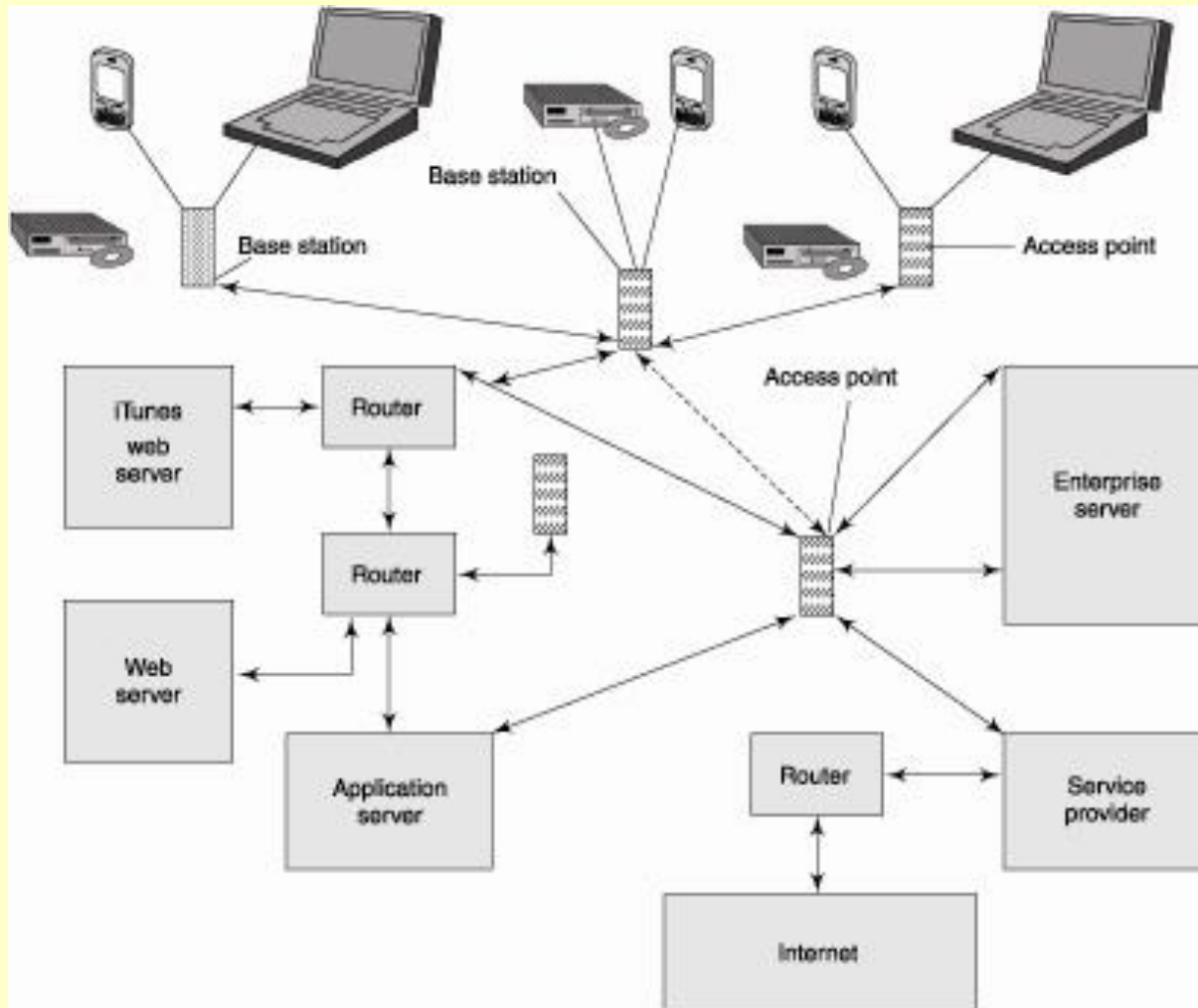
1

Data Dissemination

- Mobile phone also acts as a data access device for obtaining information from the service provider's server

- Smartphones in enterprise networks work as enterprise data access devices

- An enterprise server disseminating the data to the enterprise mobile device

2

Data Dissemination

- iPhone a data access device for accessing music or video

- Links up to download files which can then be saved and played

- Students also use the iPhone for replaying faculty lectures and retrieving e-learning material disseminated from University server

3

DATA DISSEMINATION BY SERVERS THROUGH BASE STATIONS AND ACCESS POINTS
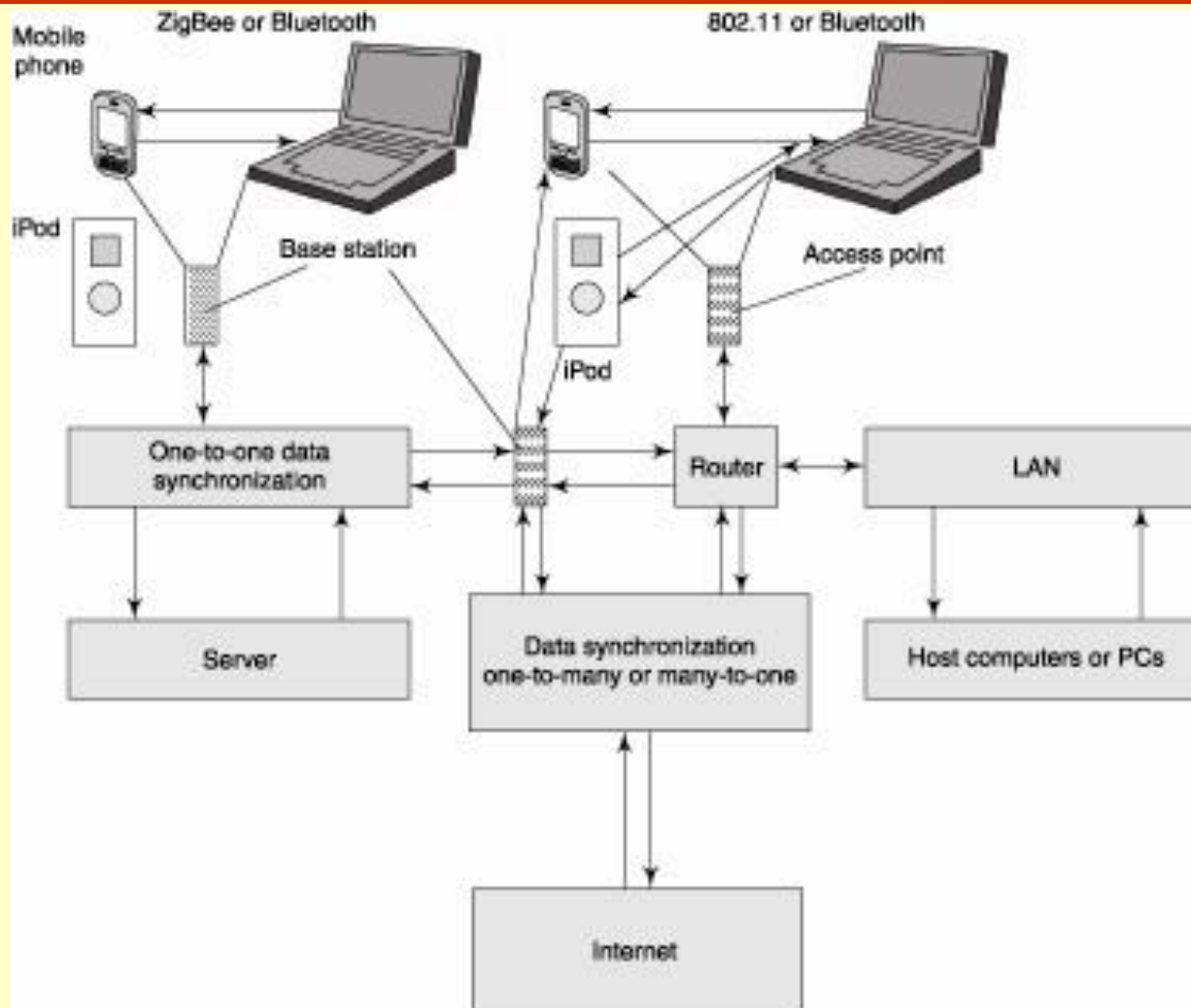
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Data Synchronization Example

- A new popular ringtone added to one of the servers of a mobile service provider

- *Data synchronization* means that all the servers of the service provider get identical sets of ringtones

5

Data Synchronization Example

- All the devices connected to the server should be updated about the availability of any new data

- Ringtone databases available to all the mobile phones include a copy of the title of that tone

7

Data Synchronization

- One to One Synchronization
- One to Many Synchronization
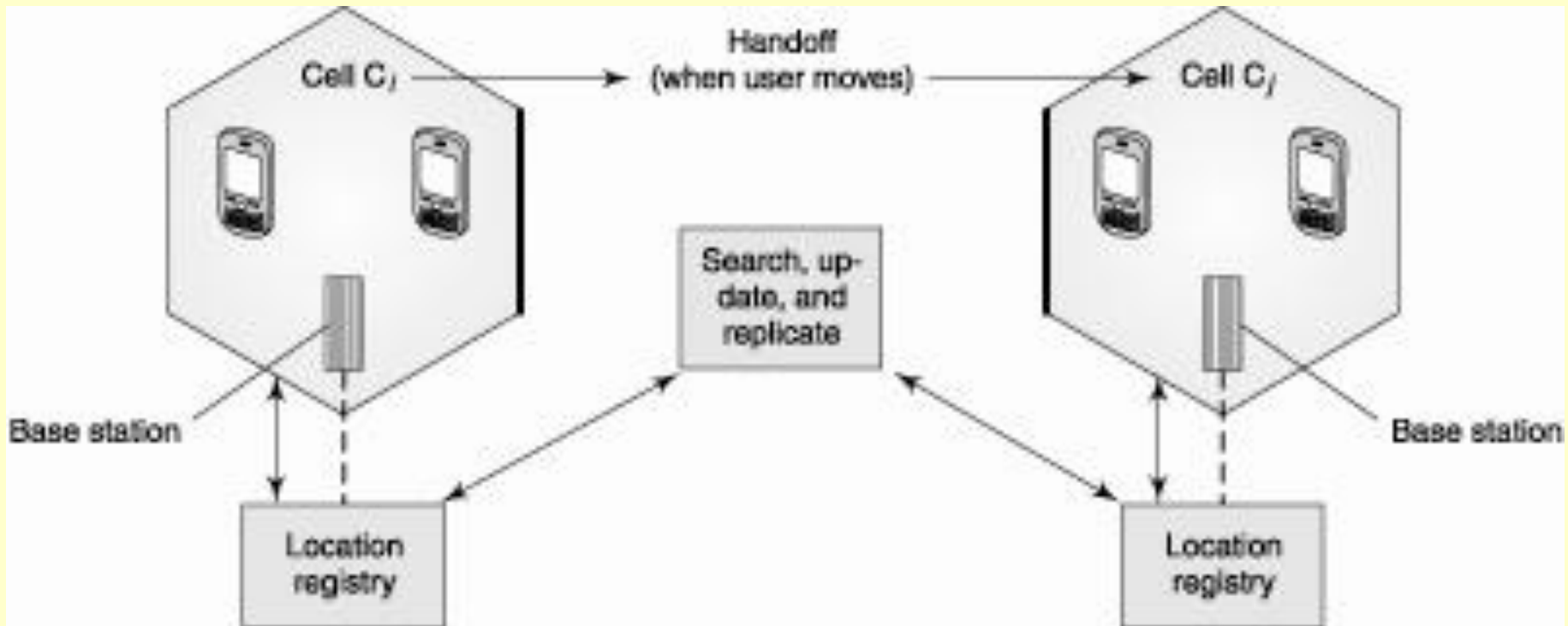- Many to Many Synchronization

8

Mobility Management

- Means maintaining uninterrupted (seamless) signal connectivity when a mobile device changes location from within a cell C_i or network N_i to a cell C_j or network N_j

- Infrastructure management for installation and maintenance of the infrastructure that connects cell C_i to C_j or network N_i to N_j.

9

Mobility Management

- Location management and registration management *by handoff* for cell transfer when a mobile device's connection with the ith cell is transferred

10

Mobility Management

11

Summary

- Data dissemination from server to mobile systems

- Data synchronization between one to one or one to many or many to many

- Mobility Management

End of Lesson 05

Data Dissemination, Synchronization and Mobility management

13