

Unit -01

Wednesday, March 1, 2023 9:32 PM

Mobile computing provides a variety of wireless devices that have mobility to connect with the internet. It provides the wireless transmission to access data & information from the locations they are stored.

- Issues in Mobile Computing,
- Fundamentals of cellular systems,
- Cellular system infrastructure,
- Bluetooth Technology,
- Wireless Multiple Access Protocols,
- Channel Allocation in Cellular Systems.

Mobile Computing → ① Mobile Communication
→ ② Mobile Hardware
→ ③ Mobile Software

Issues in Mobile Computing

{ Confidentiality, Integrity, Availability, Legitimate, Accountability }

→ Wireless Security Issues → DOS Attacks → Eavesdropping
→ Traffic Analysis → Interception & Modification
→ Spoofing → Replay

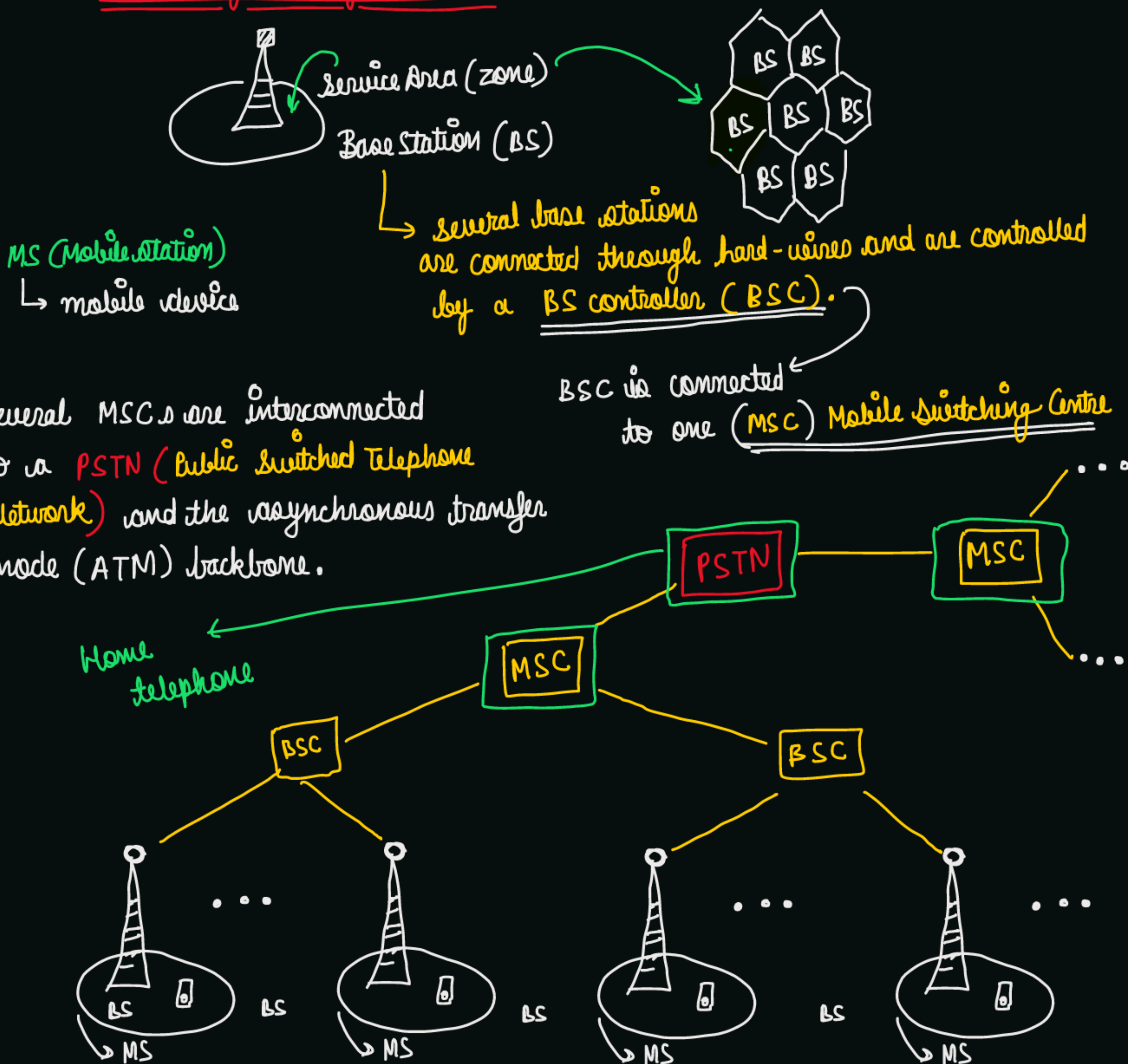
Device Security Issues

→ Push Attack (outgoing) → Multi-protocol communication
→ Pull Attack (incoming) → Mobility
→ Forced De-authentication → Disconnections

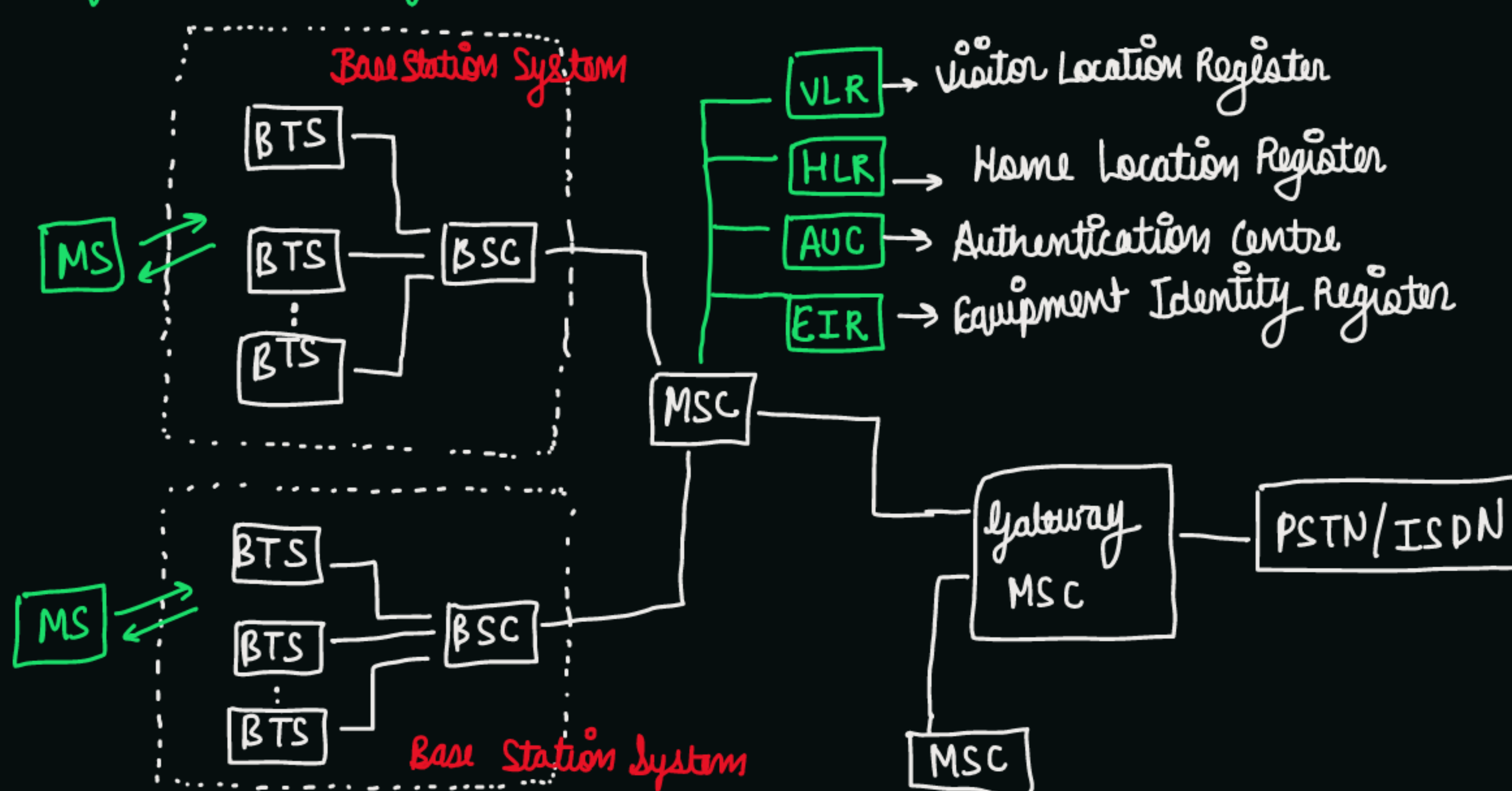
Personnel Security / Insider Issues

↳ non technical attacks, employees ki Bakhodi !!

Cellular System Infrastructure



Generic Block diagram



Base Station

→ Base Transceiver System (BTS) → antenna + tower
→ Base Station Controller (BSC) → associated electronics

can be stand alone

AUC → authentication + encryption + user confidentiality

EIR → database of information about identity of mobile equipment

can be integrated "AUC/EIR"

VLR → current location of MS

HLR → initial location of MS while first registration

