

# Applications of Adhoc wld network

## Military Application

- Communicate group of soldiers for tactical operations.
- Coordination of military objects moving at high speed such as fleets of air planes or warships.
- secure and reliable multimedia multicasting
- The leaders of a group of soldiers may want to give an order to all the soldiers

## Collaborative and Distributing Computing.

- eg: Group of researchers to share research paper among themselves

→ no need security

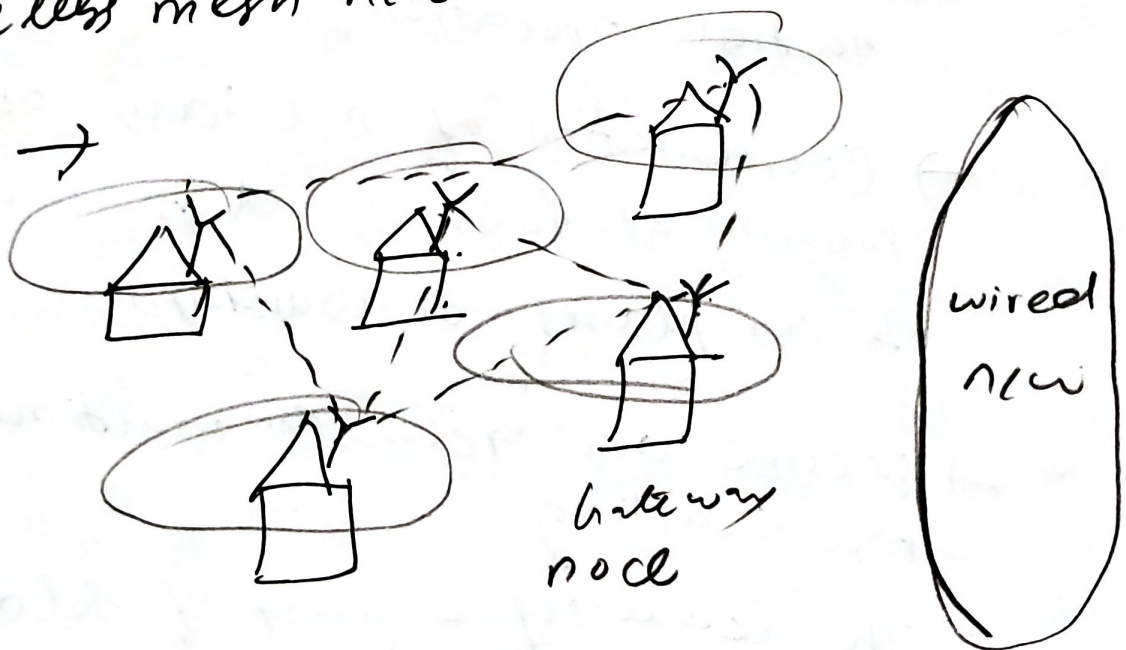
→ Eg: a node that is part of an ad hoc wll network, distribute file to other n/w.

→ Eg: streaming of multimedia objects among the participating node.

Emergency operations.

→ Application: Rescue, crowd control, Commando operations.

wireless mesh n/w



→ The investment required in wll mesh n/w is much less than cellular n/w.

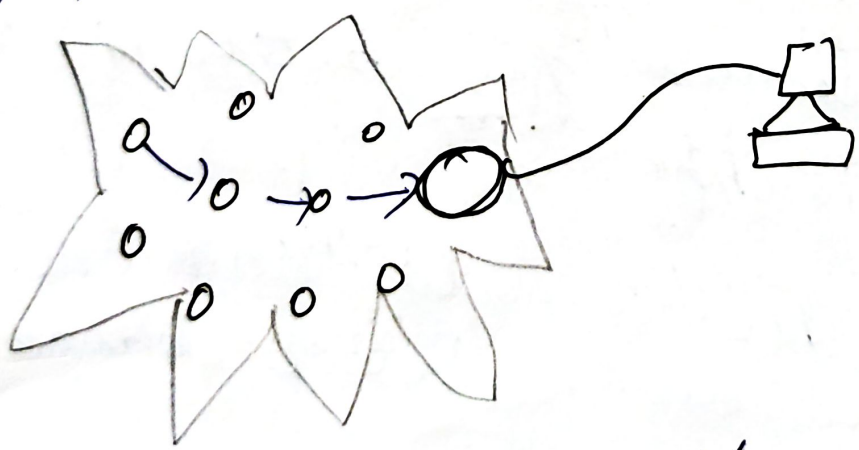
→ Eg: Residential zone (where broadband connectivity required)

→ Highway (where communication facility for moving automobiles required)

- Business zone (alternate comm. system to cellular now is required)
- Important civilian (high degree of service availability required)
- Operate at licence-free ISM band
- High availability

wireless sensor network

→ sensor nodes are tiny devices that have capability of sensing physical parameters processing the data gathered & communication to the monitoring system.



→ The issue in wireless ad-hoc networks, mobility of nodes → mobility of nodes is not a mandatory requirement in sensor network.



Size of the n/w  $\rightarrow$  no of nodes larger.  
Density of Deployment  $\rightarrow$  density of nodes in  
sensor n/w varies with domain of appl.

power constraint  
Data / Information fusion  
Traffic Distribution.

Hybrid wireless network.

$\rightarrow$  Multihop cellular n/w & Integrated  
Cellular Adhoc Relay [ICAR]

$\rightarrow$  Geographical channel reuse.

$\rightarrow$  Increased flexibility & reliability  
in routing.

$\rightarrow$  Higher capacity than cellular  
n/w due to better channel  
reuse.