SICS Swedish Institute of Computer Science

Spontaneous and Ad Hoc Networks: Issues and Applications

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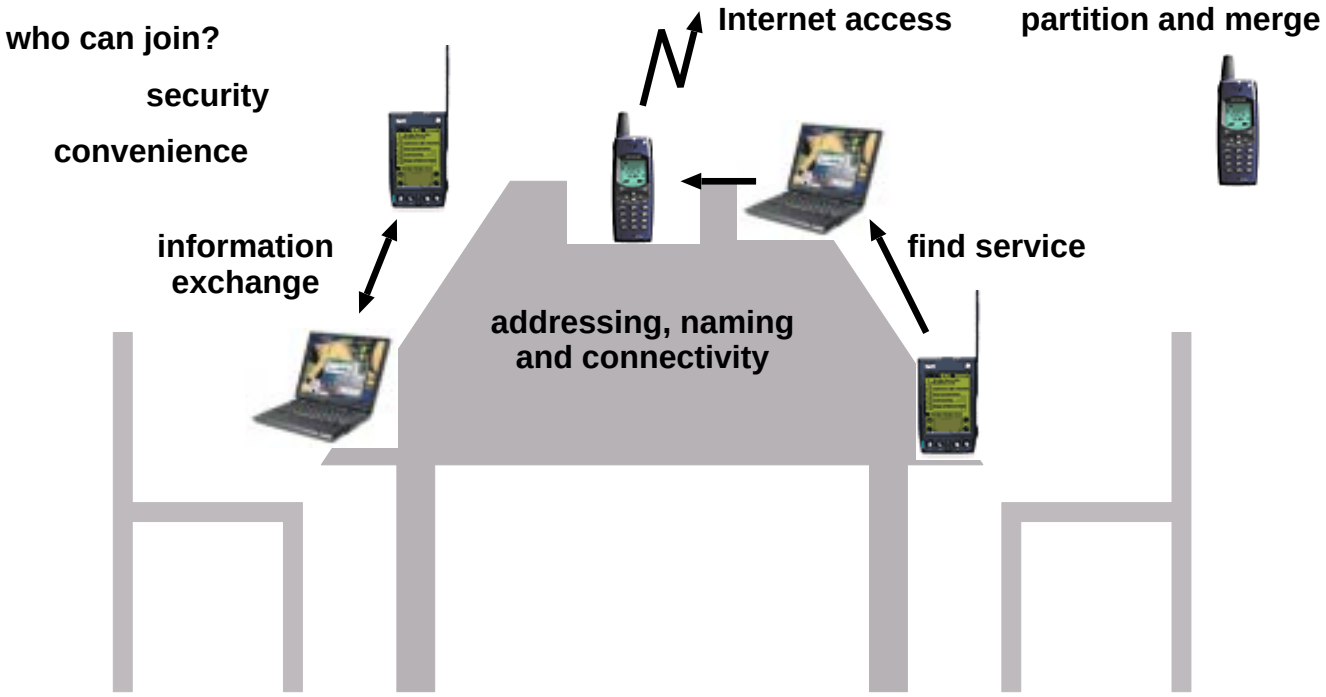
Ad-hoc networks

- self-organizing, multi-hop wireless network, independent of infrastructure
- research focused on "7 hops or more"-performance

focus on **concrete office or domestic applications** highlights other issues

Relevant: **less hops**, primarily for **bridging between technologies** (e.g., WLAN – Bluetooth)!

Meeting room scenario



Spontaneous networking

- Driven by needs of concrete office and domestic applications
- Not necessarily multi-hop wireless (ad-hoc) – physically close

What do we need for spontaneous collaboration?

- autoconfiguration
- naming
- group membership – partition and merge – security
- convenience

Work in progress

- Spontnet testbed
- based on **IPv6** and a **simplified DSR** routing protocol
- small example **collaborative application** such as meeting minutes or shared whiteboard
- **simple** and **convenient** group security mechanism based on short range IR