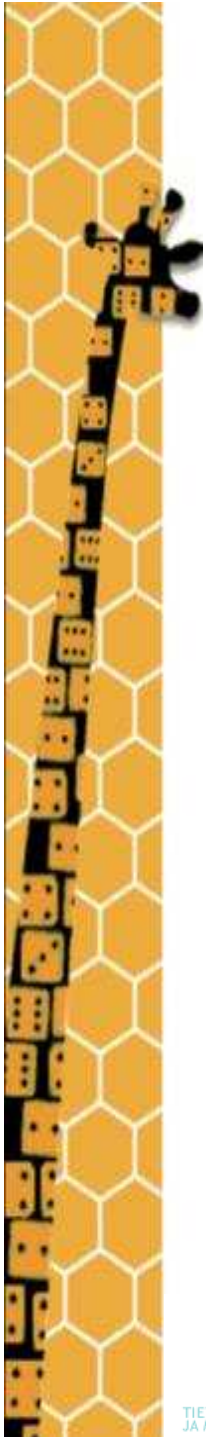


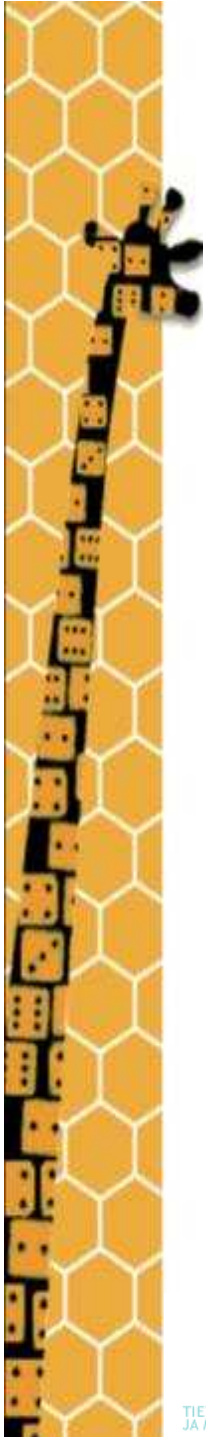
Group Communication using ID/Loc Split

Mousa Al-Mohammed

Helsinki University of Technology
Telecommunication Software and
Multimedia Laboratory

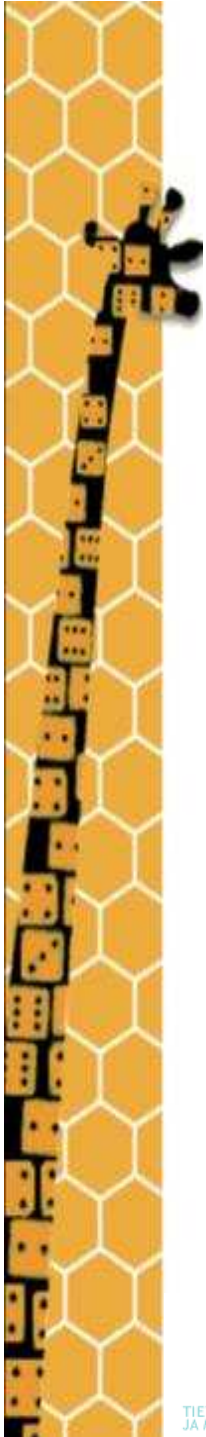
T-110.557, Autumn 2004





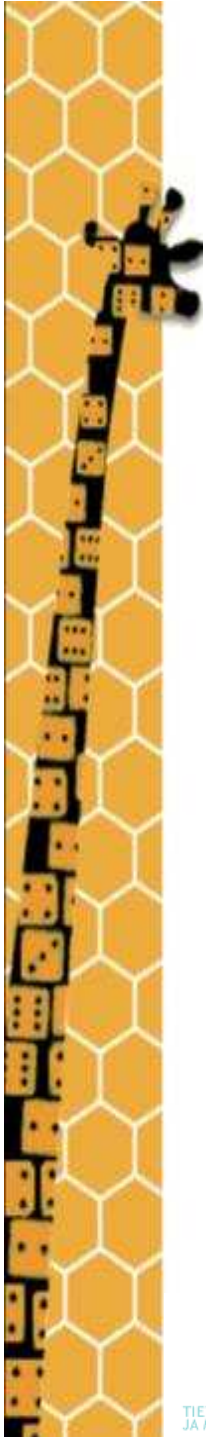
Group Communication System

- Enables the communication between a group of entities (hosts, users, or applications).
- Single point of contact:
 - reference
 - ID
 - Address



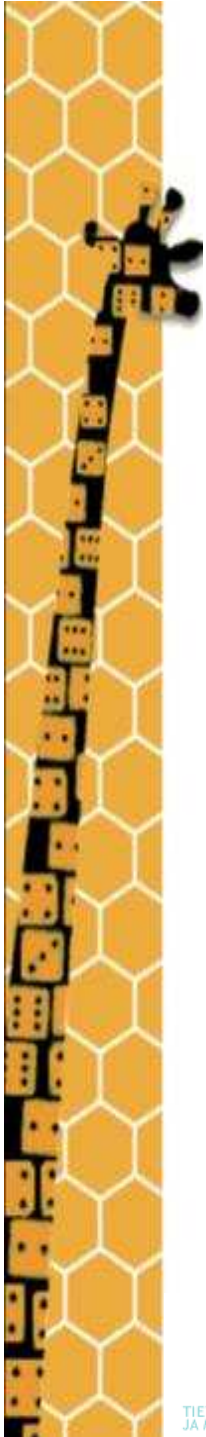
Group Comm System Services

- Group Identification
- Message Deliver Service
 - Order of message
 - Contents of the message
- Group Membership Control
 - Joining the group
 - Leaving the group
 - Authentication/authorization



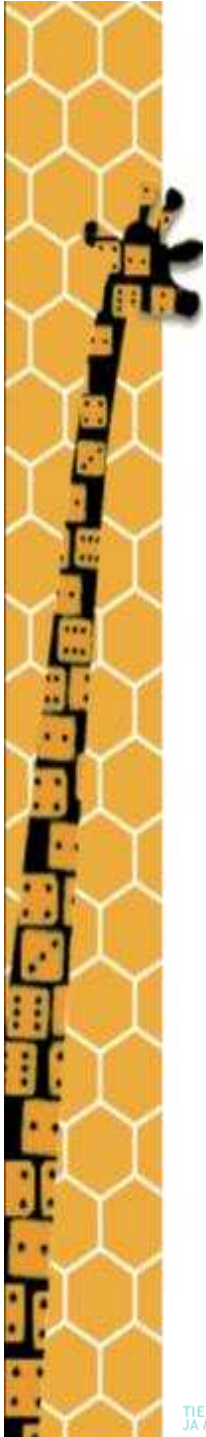
Group Communication Challenges

- Mobility
- Multi-homing
- Security
- Performance
- Scalability



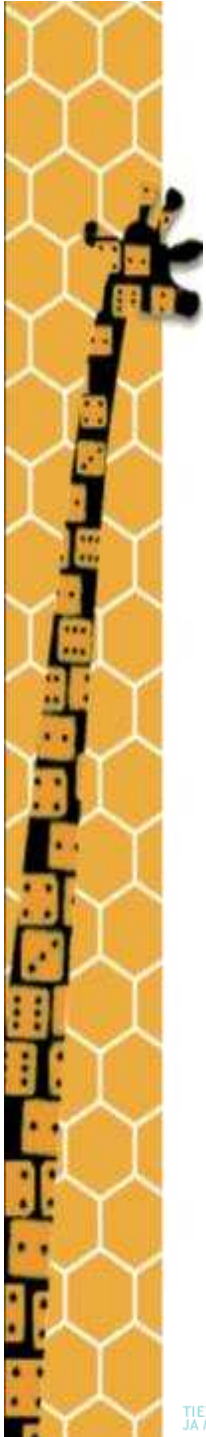
ID/LOC Split

- HIP
 - Endpoint ID
 - Dynamic locator assignment



Group Comm using ID/LOC Split

- The Endpoint ID = Group ID
- Lookup Service to map the group members into their HIs
- Can be secure in the HIP way.



References

- Y. Amir et. al., *Practical Cluster Applications of Group Communication.*
- R. Golding and R. Rodeh, *Group Communication- still complex after all these years.*
- P. Nikander et. al., *Integrating Security, Mobility, and Multi-Homing in a HIP Way.*