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Replication of Published Subject Indicators as thesaurus by means of LDAP

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Topics

- Mobile distributed Topic Map Engines
- Issue: Shared vocabulary
- Thesaurus
- LDAP
- Distributed Thesaurus with LDAP
- LDAP goes Topic Maps
- Short demonstration

Mobile distributed applications

- Application consisting of co-operating components

- Some components are mobile, e.g. running on notenbooks, mobile phones etc.

- Can establish spontaneous networks, e.g. based on Bluetooth

- Special interest in mobile Topic Map Engines

Impacts

- Distribution: Shared vocabulary required
- Mobility: components are not always online
  - UMTS, GPRS etc. are not a solution, they const money!
- Requires: **Autonomy**
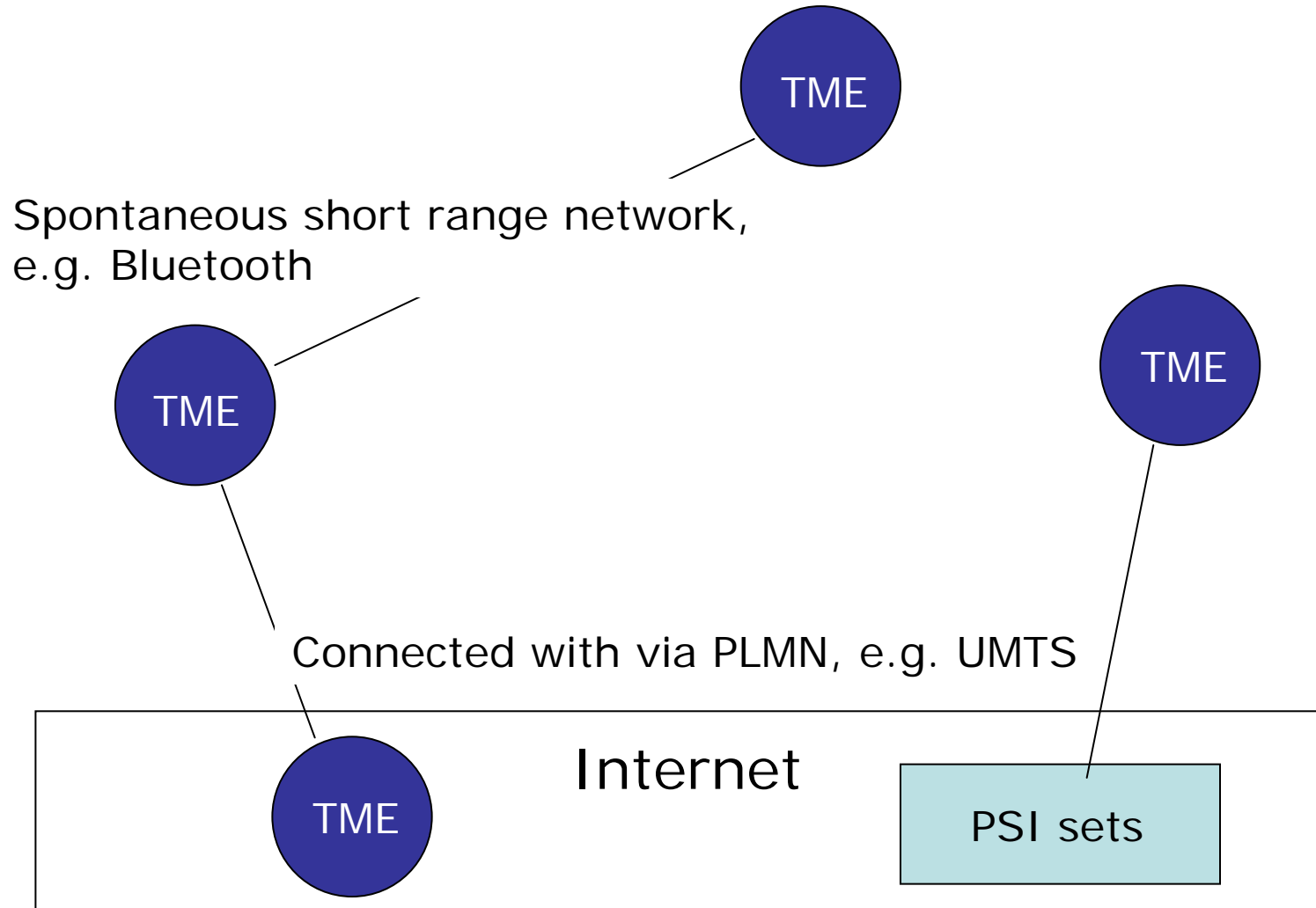 - Shared and (partly) replicated vocabulary

PSI

- Topic Maps way to provide a shared vocabulary
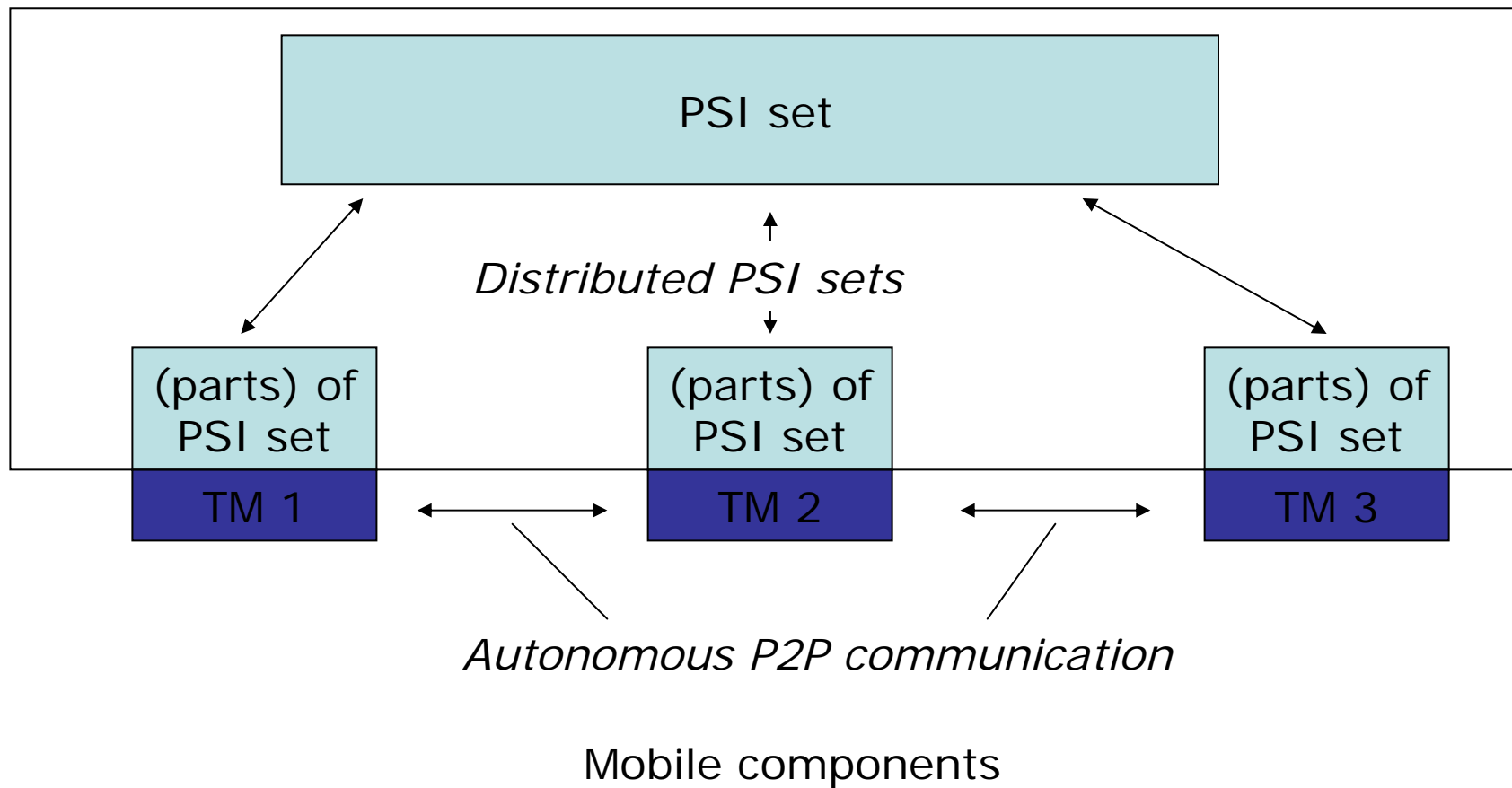- No distribution platform for shared PSI sets

status: centralised PSI set

Wish: Distributed PSI sets

PSI set

Distributed PSI sets

(parts) of PSI set

(parts) of PSI set

(parts) of PSI set

TM 1

TM 2

TM 3

Autonomous P2P communication

Mobile components

Thesaurus

- controlled shared vocabulary
- not distributed per se
- several thesauri available

LDAP

- hierarchical directory service
- New schemas can be defined
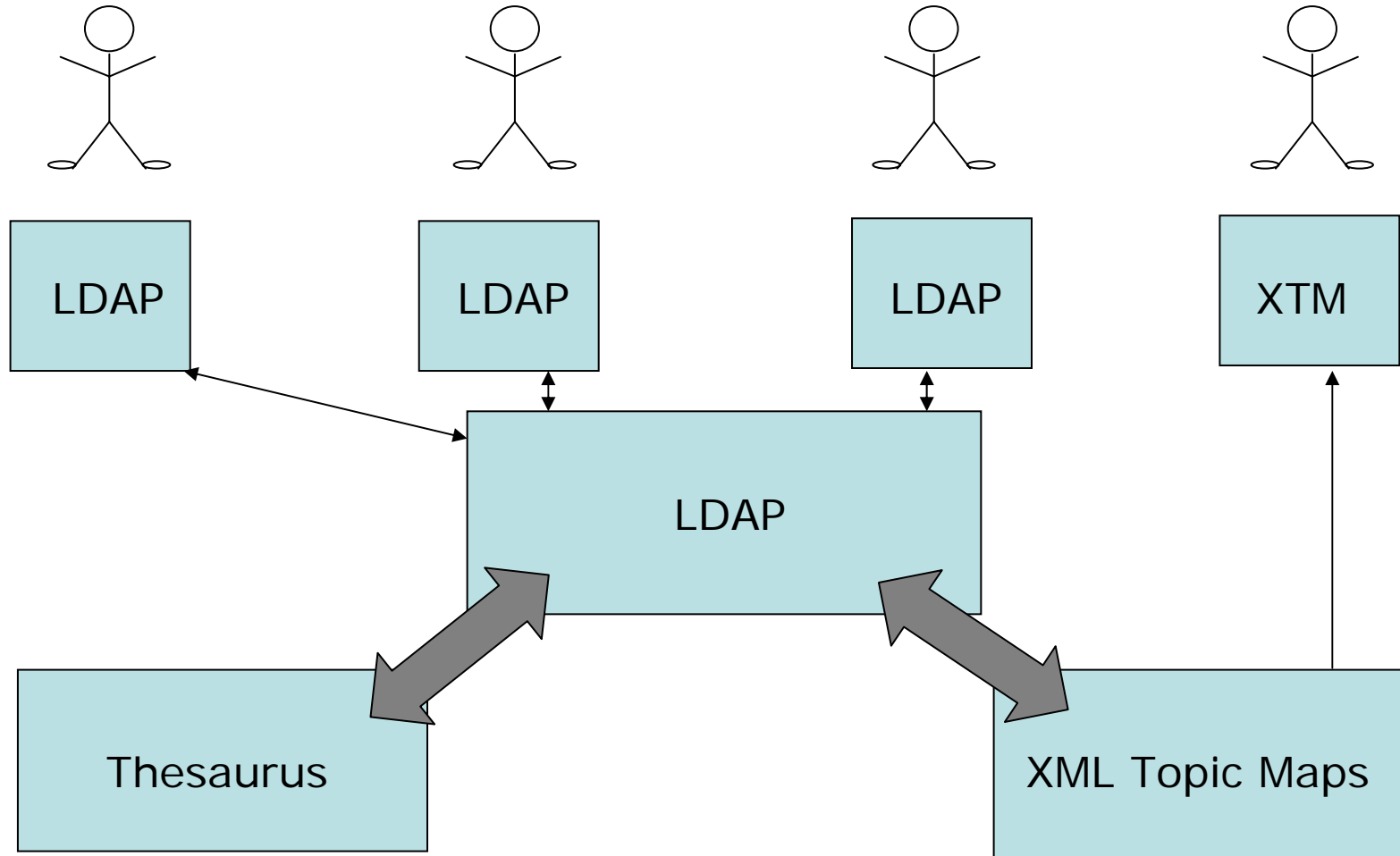- Replication and decentralised administration possible

The idea

- Use LDAP as distribution platform for thesauri

- Make LDAP entries available as PSIs

- Allow export and import of PSI set from and into this system

Three system for distributed PSIs

What had to be done

- LDAP schema compatible with thesaurus
- Import thesaurus into LDAP
- Export tools LDAP -> XTM
- Import tools XTM -> LDAP
  - Only works with constraints on the "XTM-thesaurus"

Demonstration

- OpenLDAP
- Jxplorer (LDAP browser)
- Our application via WWW front-end
- TMNav to browse PSI set

Thank you for listening!
Questions?