The Multi-Media Telephone

Directory Service and Session Control for Multi-Media Communications

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Conference Tools

Internet multicast

VAT WB VIC Nevot

Internet unicast

CU-See-Me WebTalk WebPhone SoftFone

ISDN

ProShare

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Directory and Session Tools

SDR: Multicast session adverts

MMCC: host-to-host calling

Commercial applications:

    Point-to-point, various addressbooks

Directories: standalone tools or mail-integrated

Roving users?

Integrated scalable directory services?

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Components and Services:

- Media Tools
- Session Control
- Location Service
- Directory Service
- Certification Authorities

Related functions:

- Diary, Mail, News, Information Services

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Directory Service

White Pages

Registry of unique names

Pointers to location services

Credentials and certificates

Implementation:

- Co-operating distributed servers
- X.500 and LDAP
- Data cached in user addressbook

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Location Service

Map Subscriber Directory Name

to current session agent address

User signs mapping for security

Many independent servers

User subscribes to one or more servers

Session agent registers at startup

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Session Control

Initiate and receive calls

Control media tools

Co-ordinate unicast/multicast switching

One session agent per user

Direct communication - no servers

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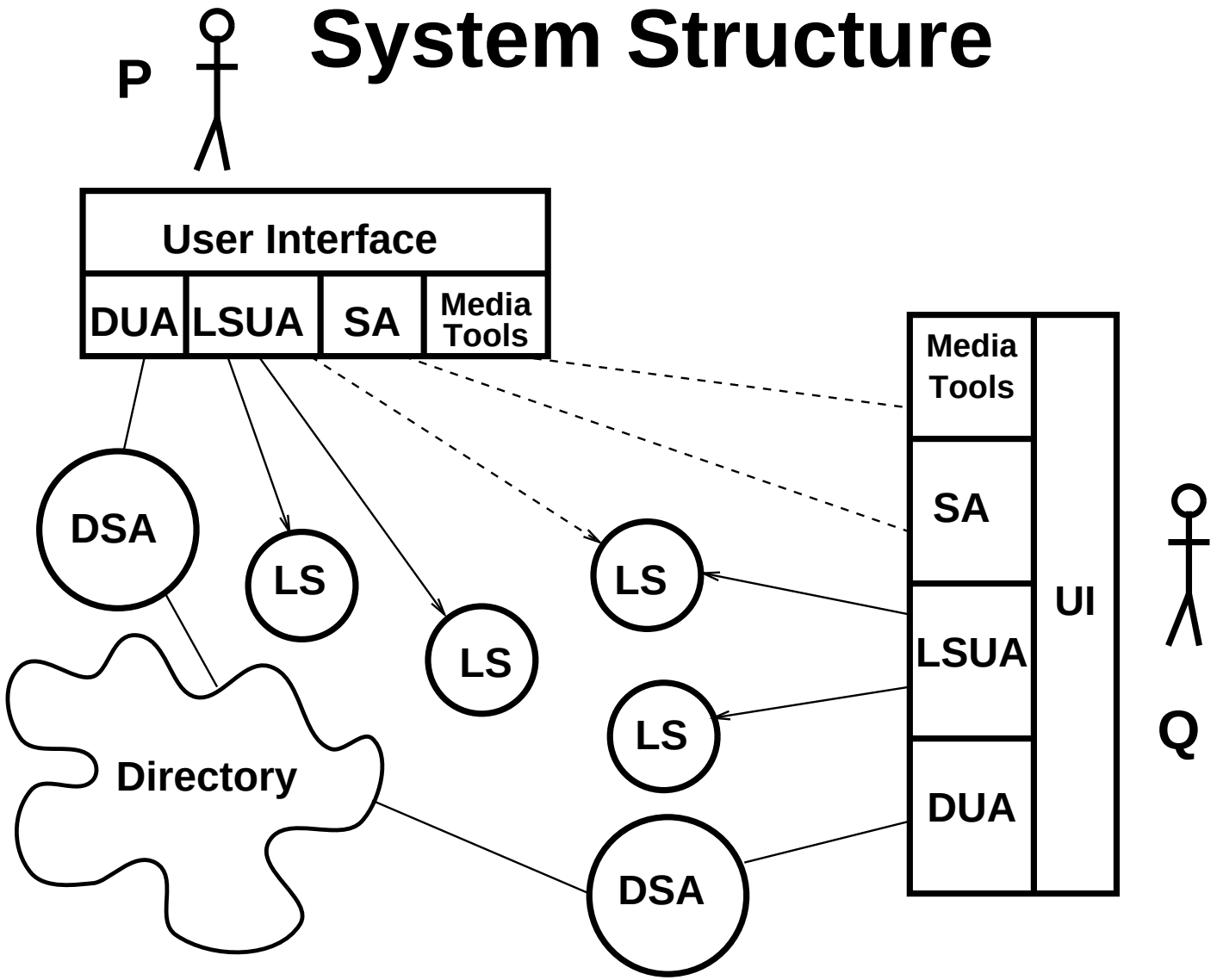
System Structure



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Group Communications

Meetings and Conferences

- Usually closed groups
- Fix session parameters in advance
- Distribute by mail or information service
- Integrate with diary agents

Ad-Hoc groups

- Expand unicast session to multicast

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Summary

Co-operating components

- Media Tools
- Session Control
- Location Service
- Directory Service

Each component has its own protocol

Only the location service is completely new

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