DESIRE II
LDAP Indexing System

45 IETF, Oslo

LDAP Service Deployment - Take 2 BoF

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DESIRE II

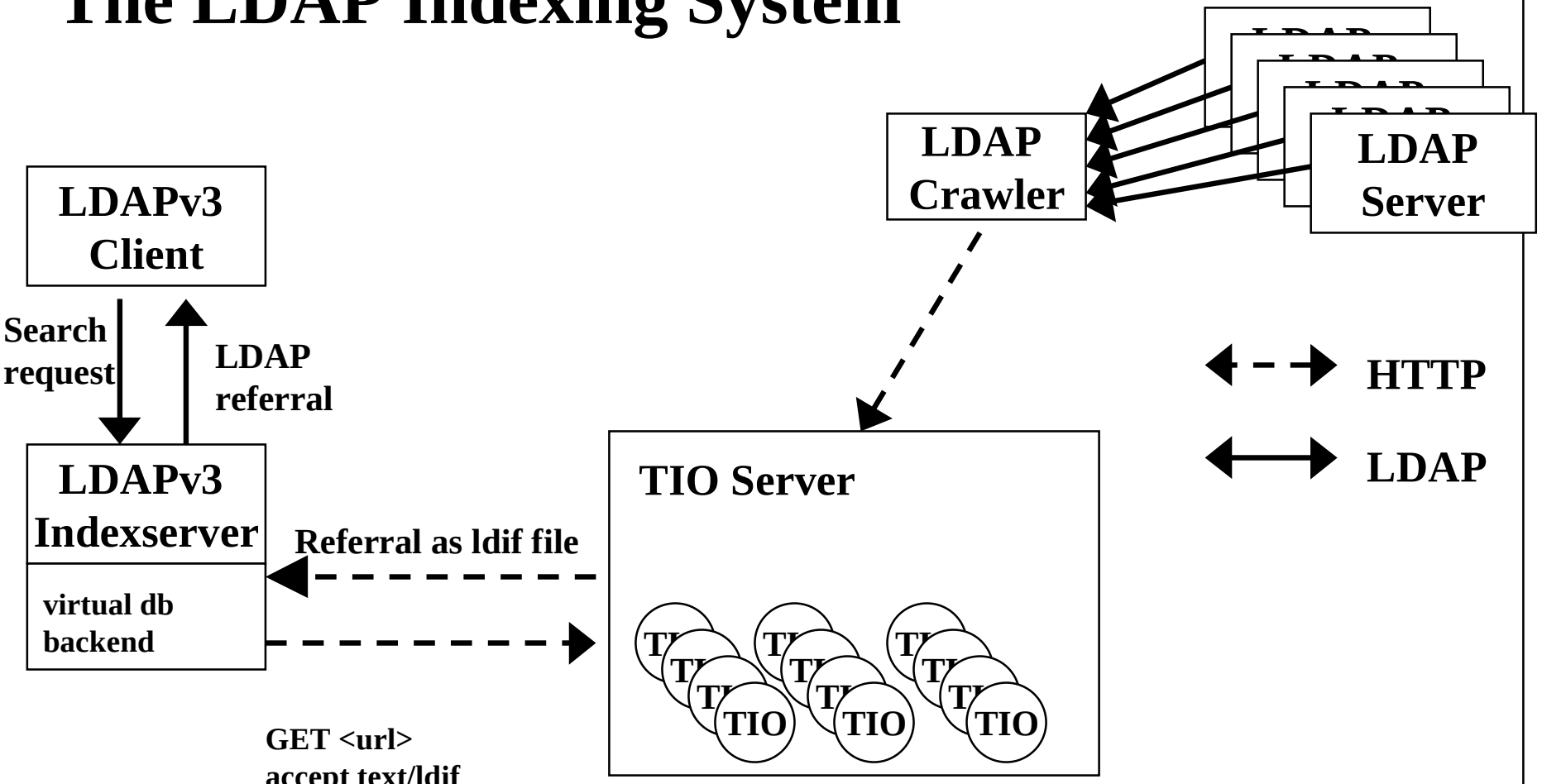
- Distributed Index system part of DESIRE II project
- **D**evelopment of a **E**uropean **S**ervice for **I**nformation on **R**esearch and **E**ducation
- European Union's Telematics Applications Programme
- 10 European Partners
- Information discovery, integrated in a Web-centered model
- Integration of other distributed information services
- Metadata management

Distributed Index system

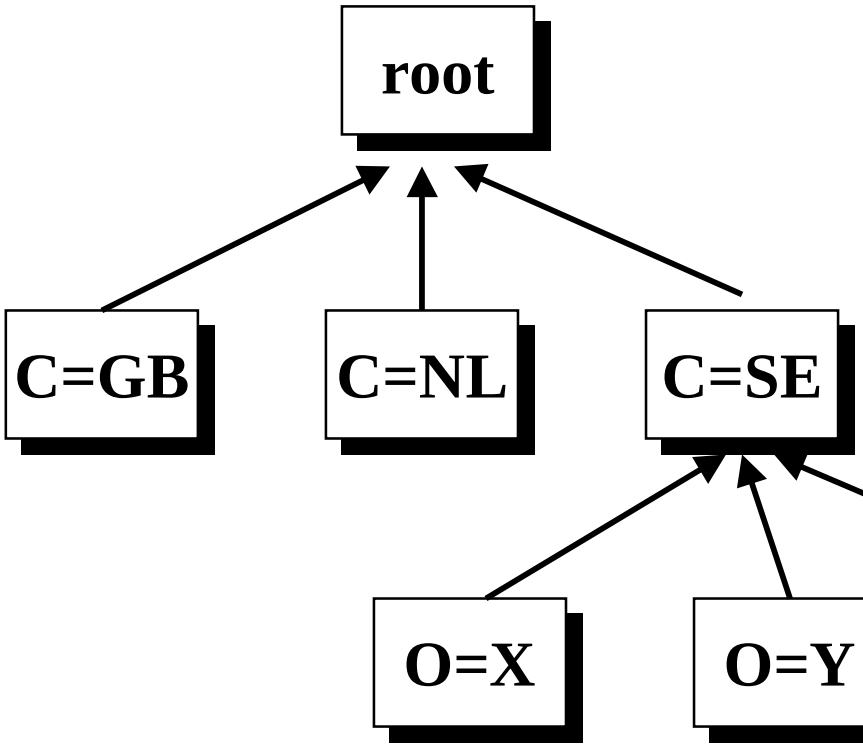
- Hierarchical topology
- LDAP v3 technology
- Managed by the server side
- Index server registration
- Subset of CIP
  - Dataset Identifier (DSI)
  - Base URI for generating referrals
- Usage of the Tagged Index Object (TIO)
  - Tag identifies common attributes of an entry

DESIRE

The LDAP Indexing System

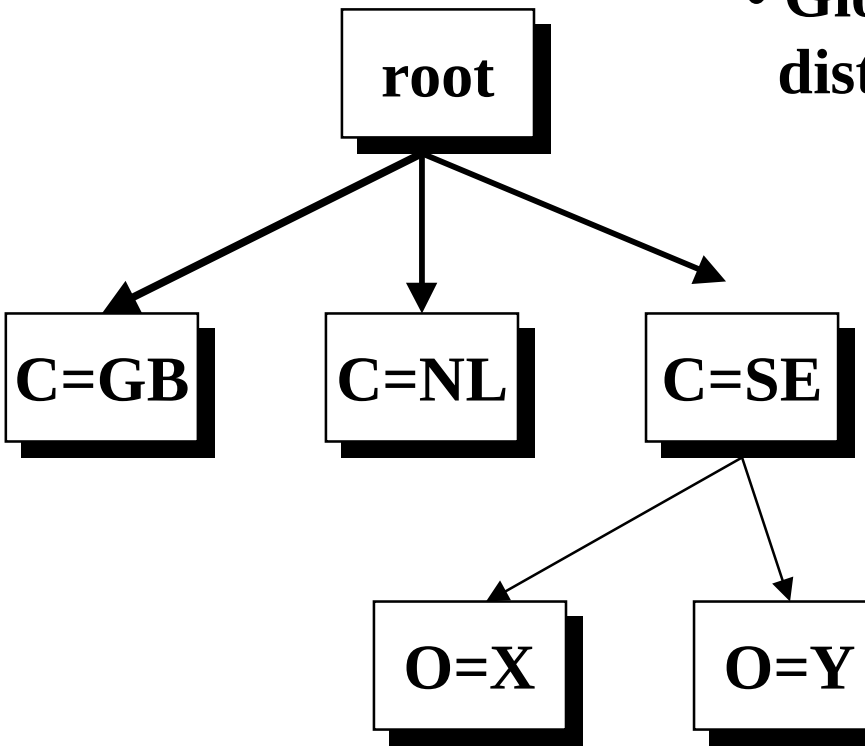


Index Gathering



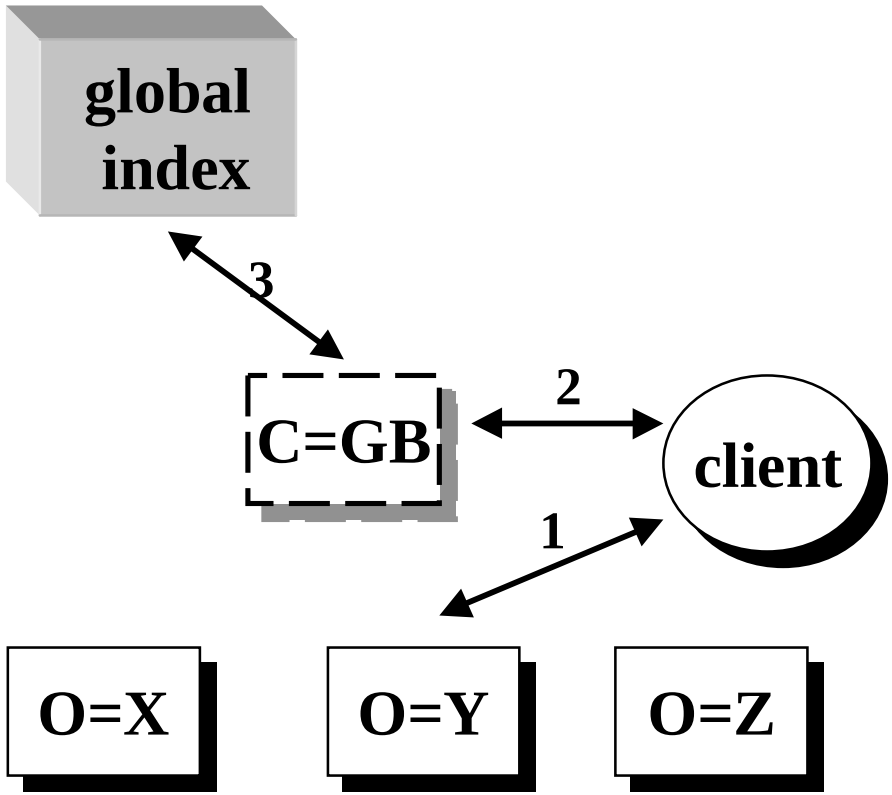
- TIO generated by crawlers
- Transport encrypted via HTTP
- TIOs will not be aggregated

Index Distribution



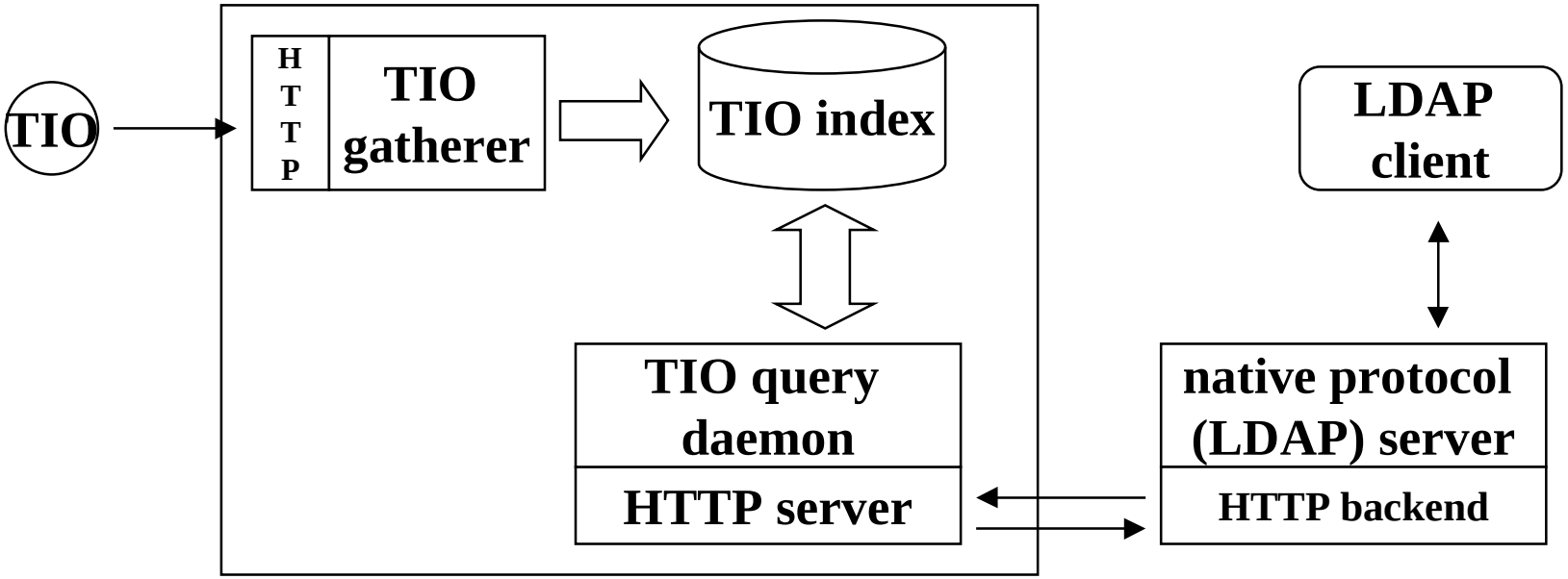
- Global TIO collection distributed to country level
- Country index can be distributed downwards
- Transport encrypted via HTTP

Query Routing



1. Client searches local server
2. Client searches country level server (CLS)
3. CLS looks up the referral index

Referral Server Architecture



Http request: GET ldap://hostport/c=nl??sub?(cn=*pers*) Accept:text/ldif
Http response: Content-Type:text/ldif dn:ref=ldap://host/o=abc,c=nl

Security Requirements

- Personal Data are subject to privacy legislation
- Public data have different status in collections
- We don’t want to serve spammers
- Participating applications should be known

Security Solutions

- All Index objects will be encrypted while on the net
- PGP encrypted S/MIME RFC 2015
  - Transport protocol independent
- Data server registration
- Crawler policy stored in the data server
- Crawler registration
- Referral Server will give back a limited amount of referrals

Partners / More Info

- **Partners**
  - **SURFnet**
  - **DANTE, Cambridge**
  - **University of Brunel**

- **More Info:**
  - **http://www.desire.org**
  - **Peter.Gietz@directory.dfn.de**
  - **draft-gietz-ldapindex-00.txt**

  - **http://www.directory.dfn.de**