

DESIRE II

LDAP Indexing System

45 IETF, Oslo

LDAP Service Deployment - Take 2 BoF

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Peter Gietz, University of Tübingen

Peter.Gietz@directory.dfn.de

Table of contents

- **DESIRE II**
- **Distributed Indexing System**
- **Gathering of Index Objects**
- **Distribution**
- **Query Routing**
- **Architecture of the Referral Server**
- **Security Considerations**

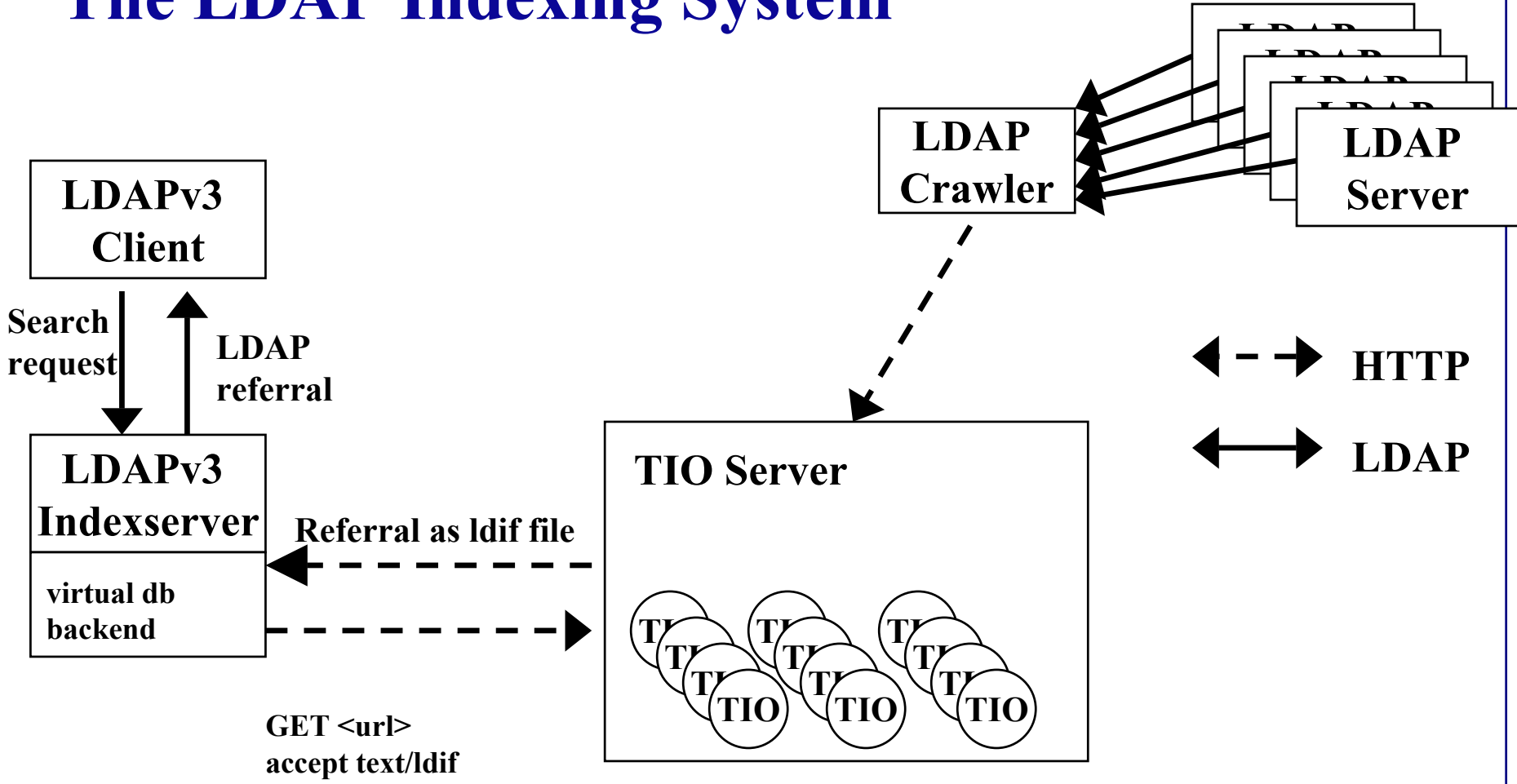
DESIRE II

- **Distributed Index system part of DESIRE II project**
- **Development of a European Service for Information on Research and Education**
- **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

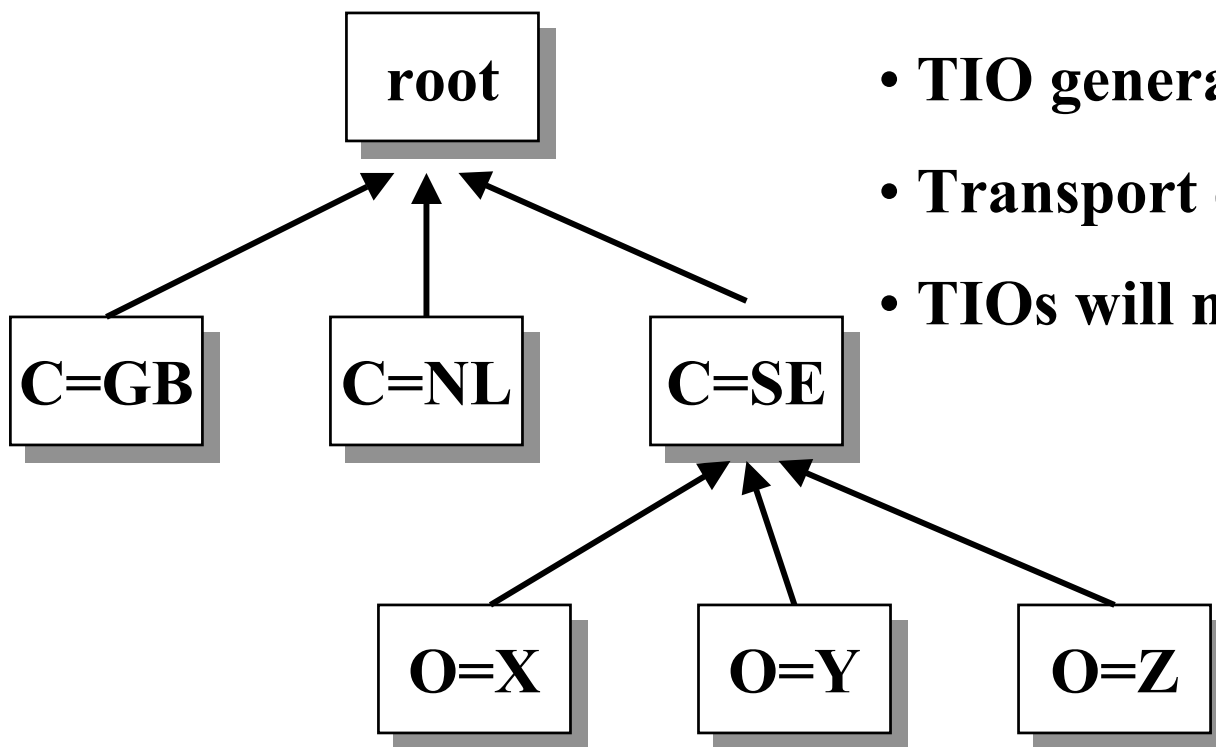
- **Hierarchical topology**
- **LDAP v3 technology**
- **Managed by the server side**
- **Index server registration**
- **Subset of CIP**
 - **Dataset Identifier (DSI)**
 - **Base URI for generating referrals**
- **Usage of the Tagged Index Object (TIO)**
 - **Tag identifies common attributes of an entry**

The LDAP Indexing System



Index Gathering

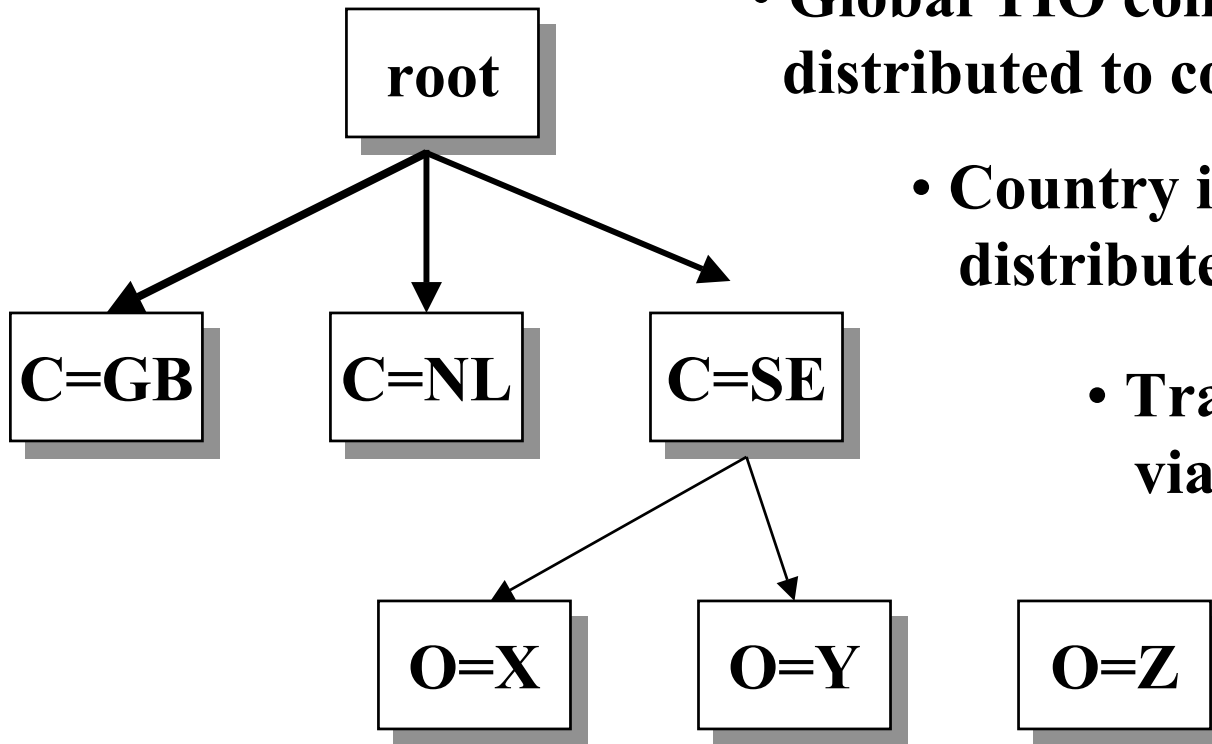
- TIO generated by crawlers
- Transport encrypted via HTTP
- TIOs will not be aggregated



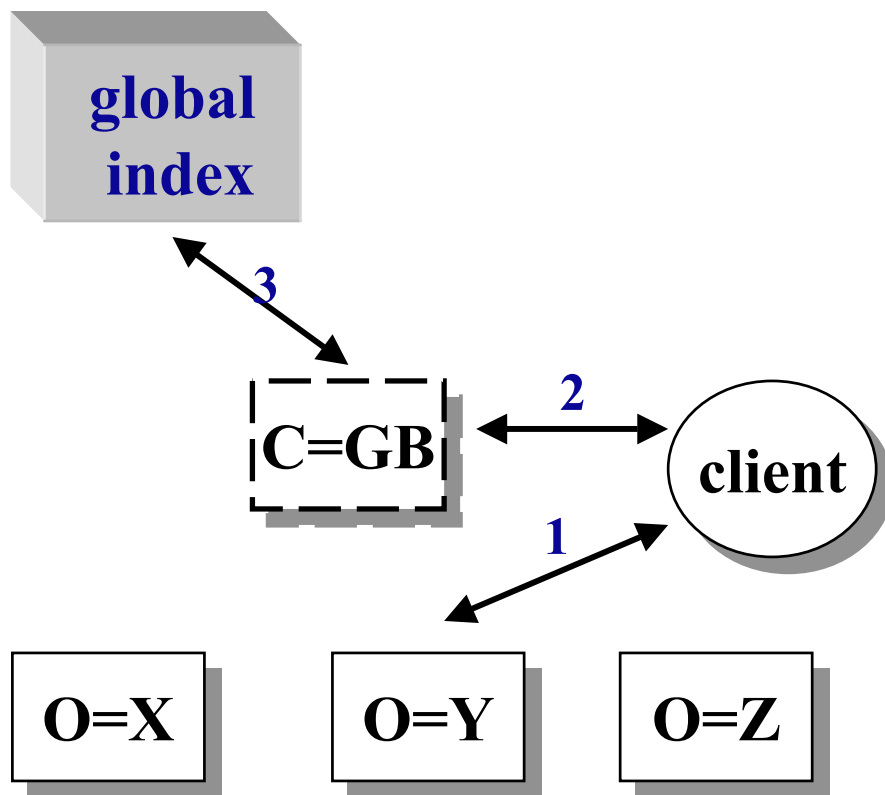
Index Distribution

- **Global TIO collection distributed to country level**
- **Country index can be distributed downwards**

- **Transport encrypted via HTTP**

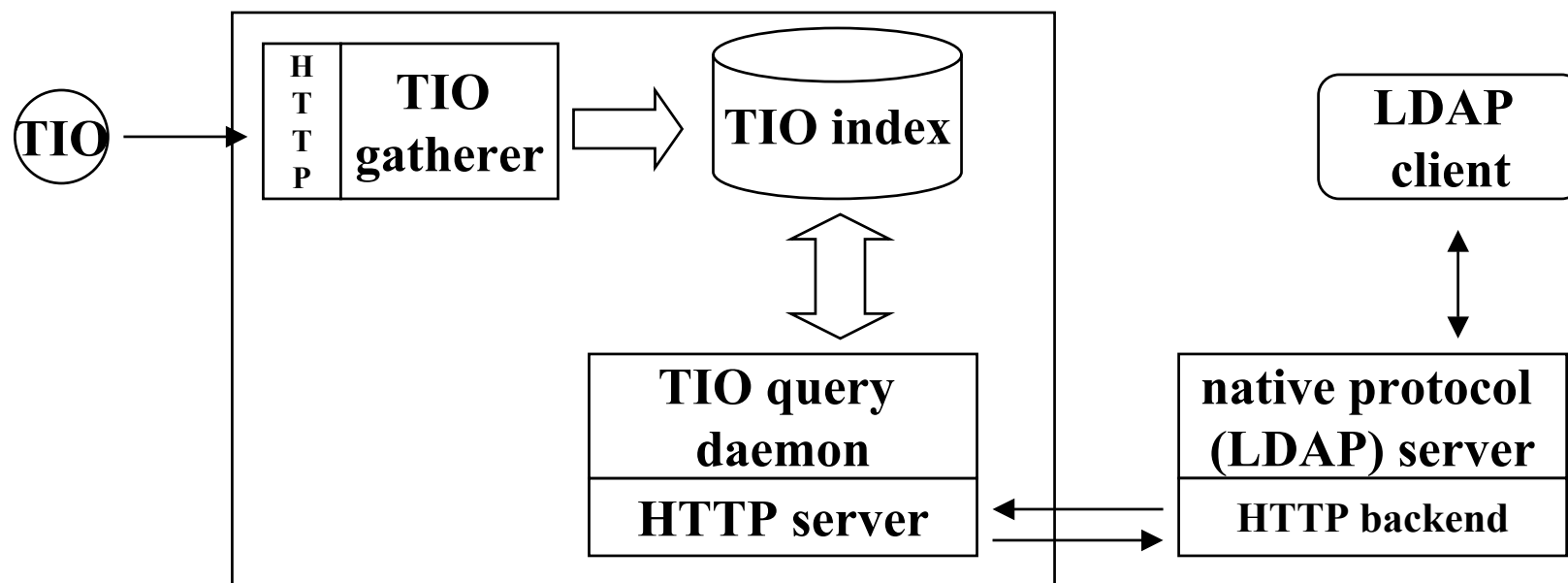


Query Routing



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>