NameFLOW Status Report

NameFLOW Meeting, Utrecht

SURFnet Office

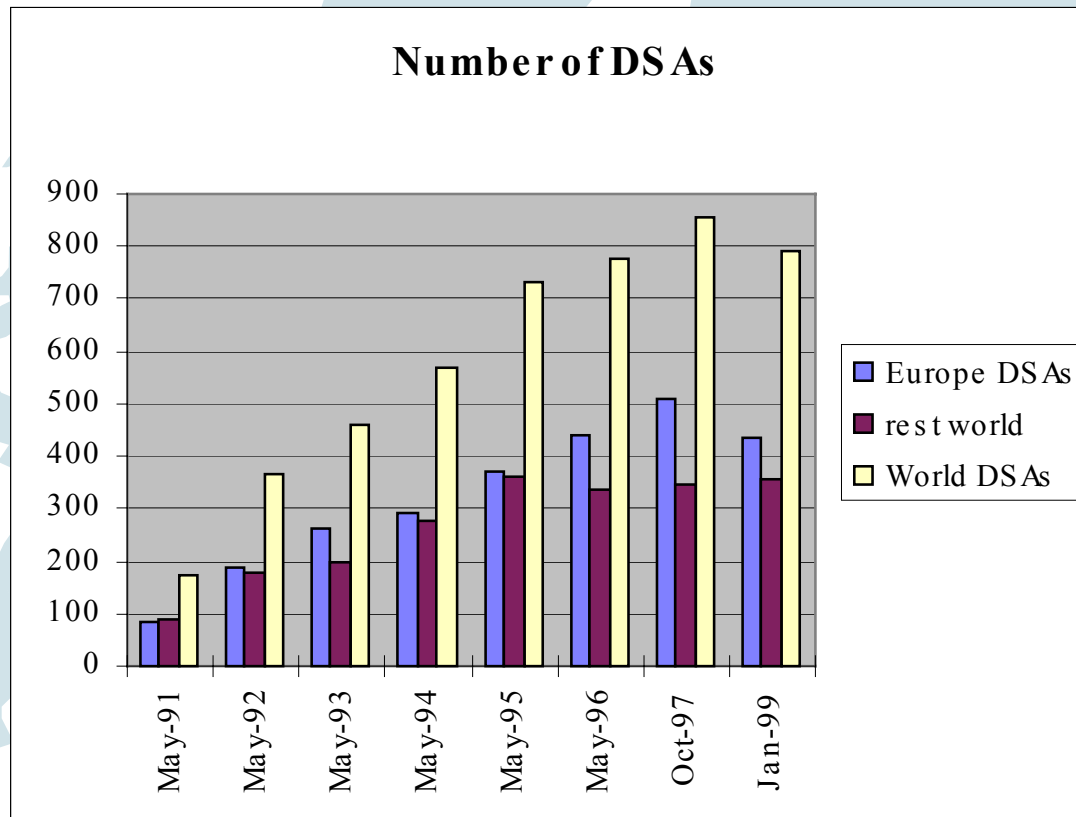**18. January 1999**

Karl-Peter Gietz, DANTE

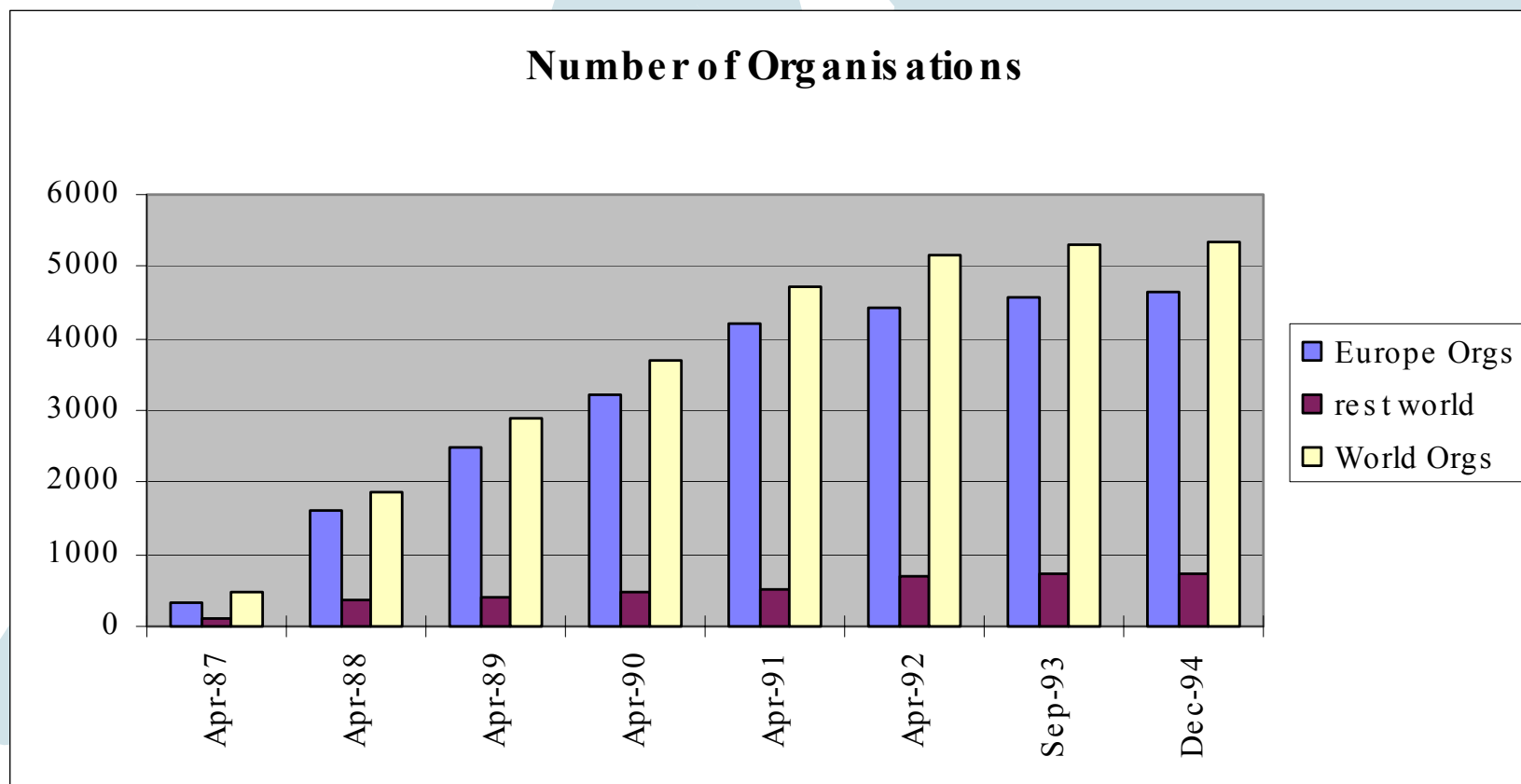Peter.Gietz@Dante.org.uk

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NameFLOW usage statistics 1

Number of DSAs

NameFLOW usage statistics 2

Number of Organisations

Legend:
- Europe Orgs
- rest world
- World Orgs

X-axis: Apr-87, Apr-88, Apr-89, Apr-90, Apr-91, Apr-92, Sep-93, Dec-94

Y-axis: 0, 1000, 2000, 3000, 4000, 5000, 6000

DANTE

Root DSA transfer: time table

11.9.98	Notification of NameFLOW customers
25.9.98	Planning meeting at ULCC
12.11.98	Transfer of the external hard disk
8.12.98	Root DSA running at DANTE
16.12.98	All scripts for monitoring and logging running
17.12.98	Posting to NameFLOW DSA managers
18.12.98	Second meeting at ULCC
19.12.98	Root DSA at ULCC set to read only
21.12.98	Report to NameFLOW customers
12.1.99	Root DSA at ULCC set to refuse binds
16.2.99	Root DSA at ULCC shut down

Root DSA transfer: Status

- **New Quipu Root DSA @ DANTE**
- **currently on kappa.dante.org.uk, IP 193.63.211.34**
- **eventually on a Sun E 250 Enterprise server**
- **no second change of IP address**
- **Old Root DSA still running**
- **7 FLDSA manager confirmed change**

Transfer of the other services

- **Statistic scripts**
- **Directory probes**
- **NameFLOW mailing lists (new names):**
  - **NameFLOW-Forum@Dante.org.uk**
  - **NameFLOW-Managers@Dante.org.uk**
- **FTP Information Server**
  - **Documents, minutes, reports, replication files, LDAP software, X.500 software**
  - **Mirrors of ftp.bull.com/pub/OSIdirectory and ftp.ema.org/pub/challenge**
- **NameFLOW helpdesk**

Obsolete NameFLOW services

- **Gopher information service**
- **Public DUA**
- **FTP mirror of**
  `ftp.surfnet.nl/mirror-archive/software/x500`

New NameFLOW services

- **FTP mirror of `ftp//terminator.rs.itd.umich.edu/x500/`**

- **Enhanced Web site**

- **Hybrid solution**

- **LDAP index**

PGP Directory initiative: history

- **Aug 1996 draft-ietf-asid-pgp-02.txt expired**

- **1996 German initiative ambix-pgp @ Uni-Tuebingen**

- **Nov 1997 NAI PGP Certificate server uses LDAP**

- **Nov 1998 Start of pgp-directory @ DANTE ***

- **Dec 1998 openPGP meeting in Orlando**

***   to subscribe: pgp-directory-request@Dante.org.uk
        archive at http://www.dante.net/np/listarchives/pgp**

PGP directory: The Problem

- **Several attributes are needed to store information**
- **One person can have several PGP keys**
- **One PGP key can have several UserIDs**

PGP directory: 4 models

- **NAI:**
  pgpUserID=xx, pgpCertID=yy,o=PGP KEYSPACE
- **Kurt:**
  pgpKeyID,o=xx -> pgpUserID, o=yy
- **Peter:**
  pgpKeyID,o=xx with multivalue attribute pgpUserID
- **David:**
  Family of entries
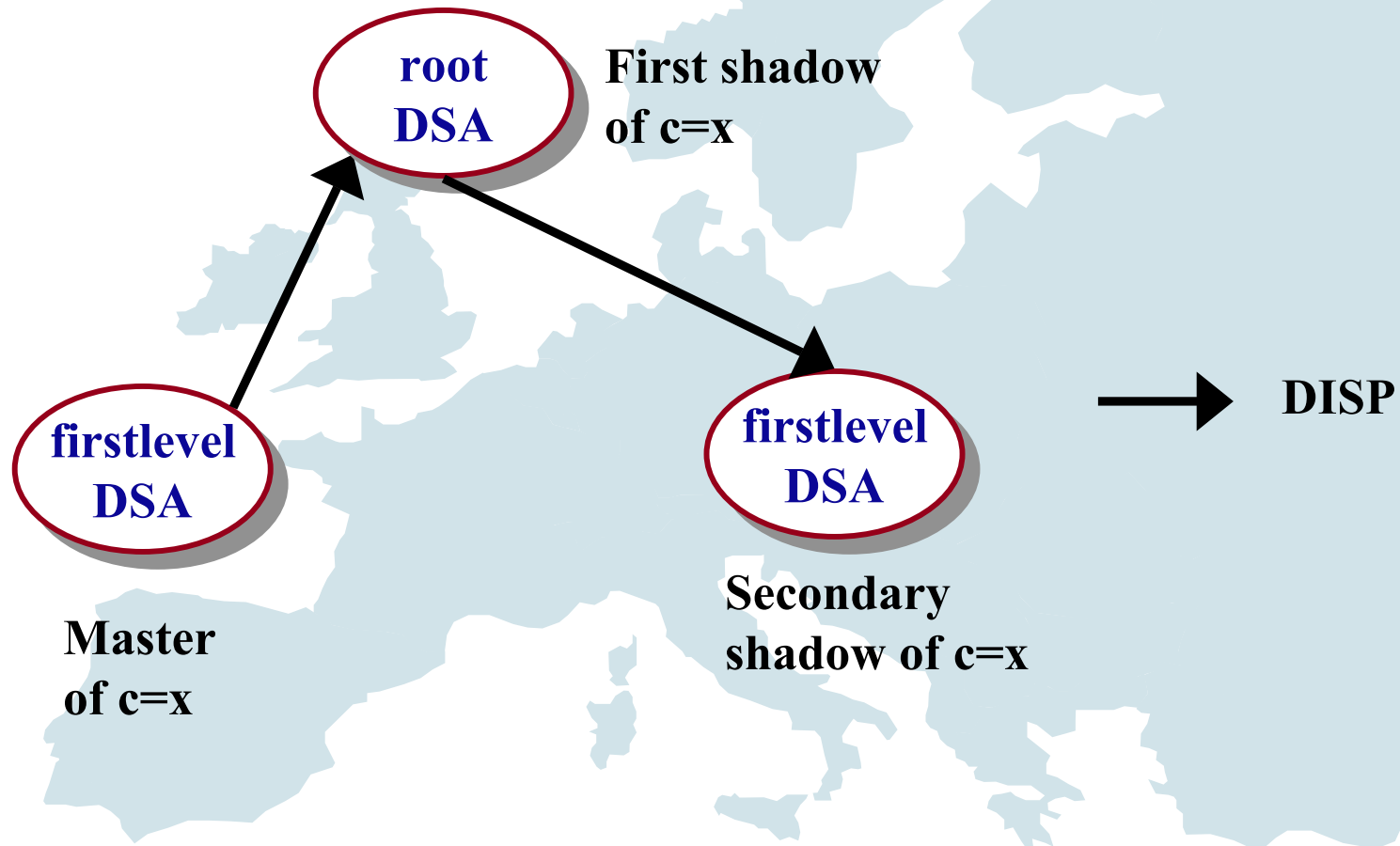- **Ed Reed: ???**
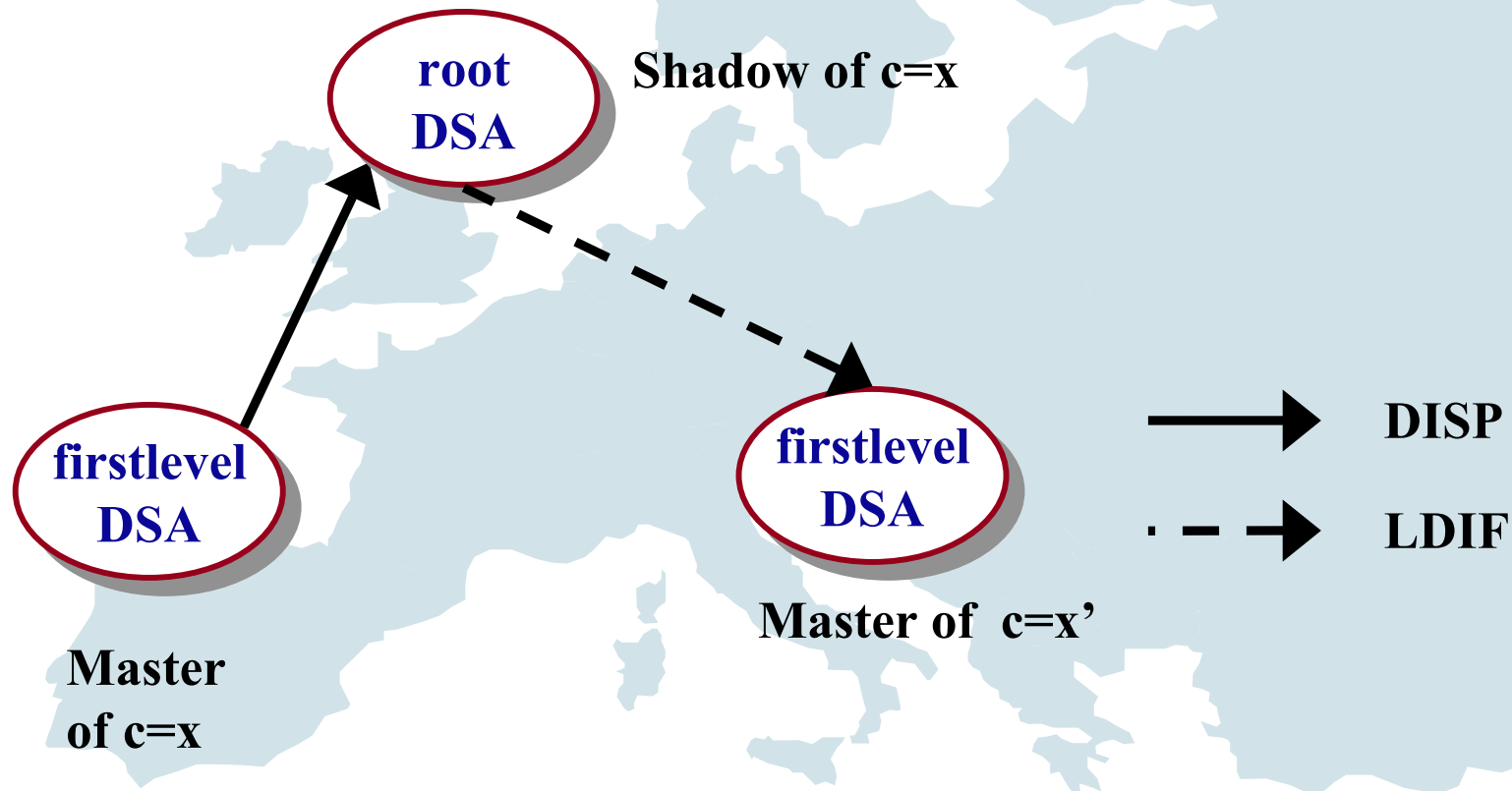
Hybrid solution architecture
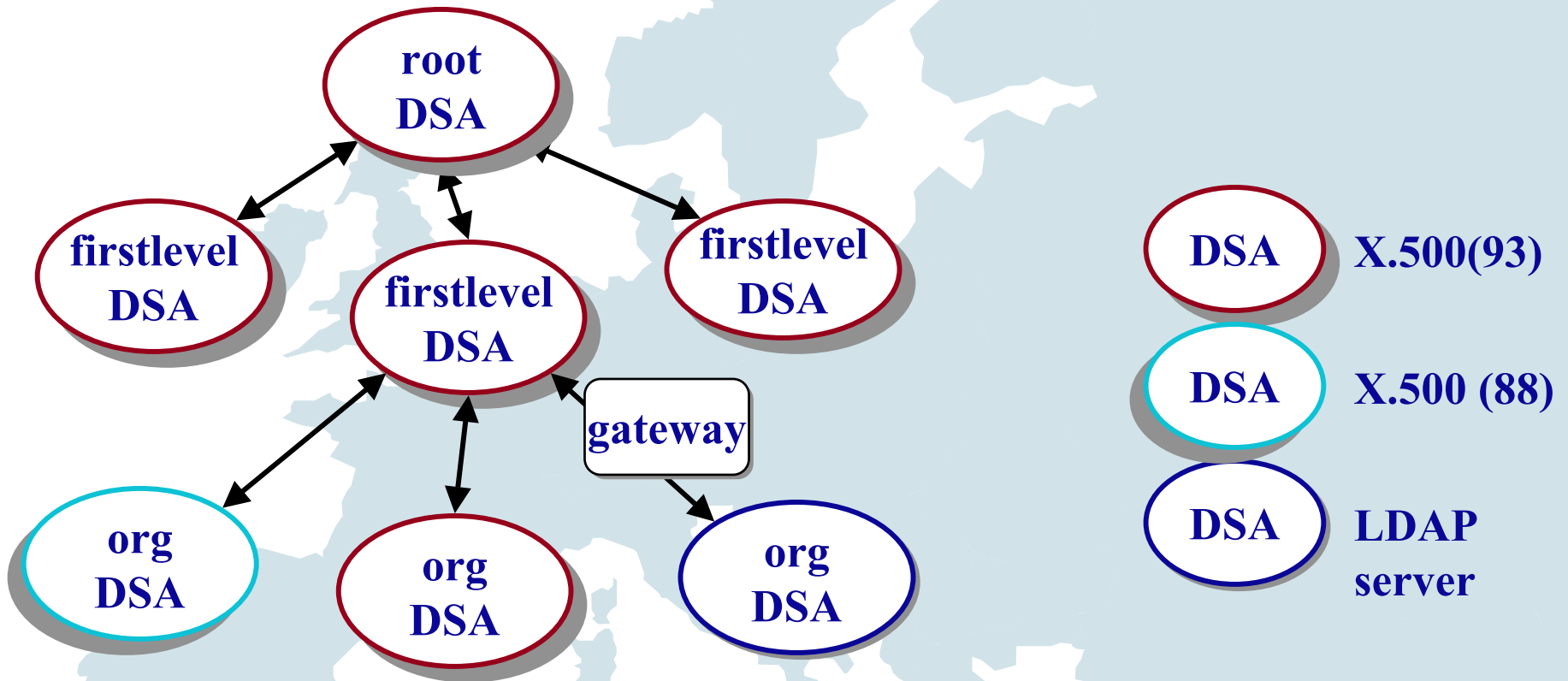
Hybrid solution architecture (cont.)

- **Root DSA and first level DSAs single vendor X.500(93)**
- **Knowledge information includes LDAP servers**
- **LDAP servers connected via X.500-LDAP gateway**
- **Future: Integration of an indexing system**

Hybrid solution: replication model 1

root
DSA

First shadow
of c=x

firstlevel
DSA

firstlevel
DSA

DISP

Master
of c=x

Secondary
shadow of c=x

Hybrid solution: replication model 2

root DSA

Shadow of c=x

firstlevel DSA

firstlevel DSA

Master of c=x'

Master of c=x

DISP

LDIF

LDAP DIT

- **Setting up a LDAP DIT via v3 referrals**
- **Draft-ietf-ldapext-referral-00.txt:**
  - **Superior reference**
  - **Unnamed reference (≈ nonspecific subordinate reference)**
- **Netscape Directory Server**
  - **"Smart Referrals"**

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**

Index distribution

root

C=GB   C=NL   C=SE

O=X   O=Y   O=Z
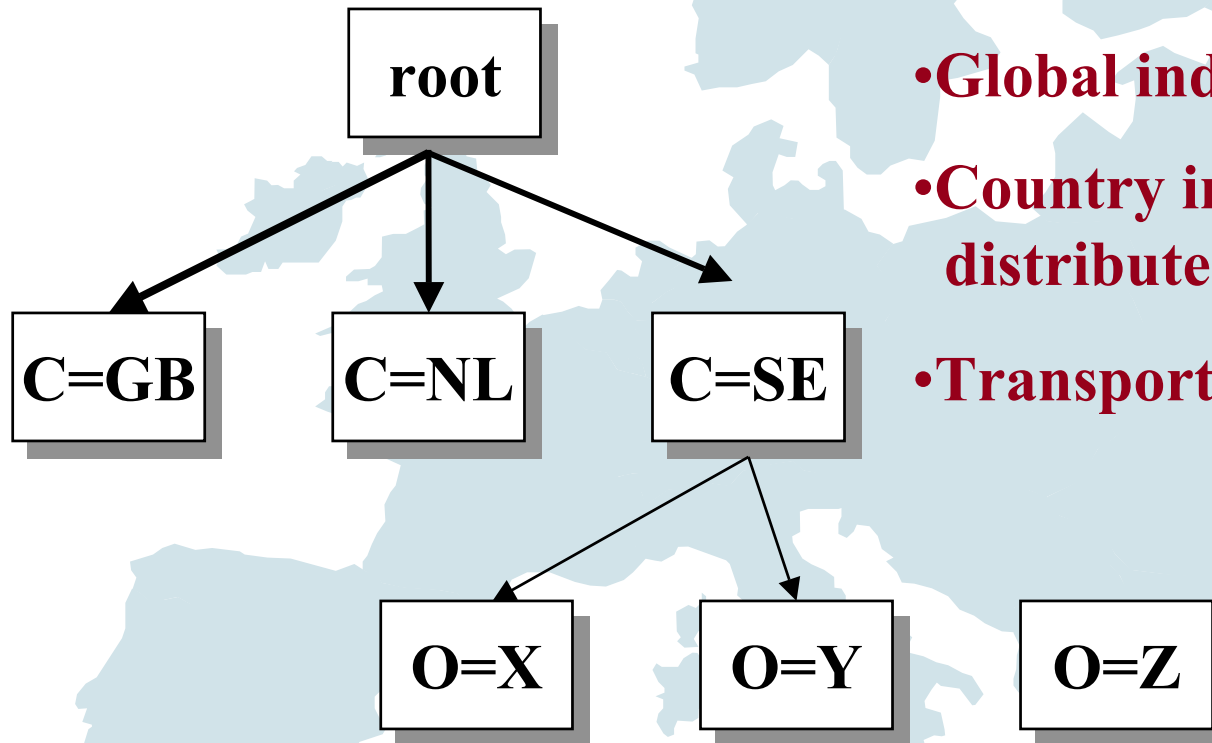
- Global index to country level
- Country index can be distributed downwards
- Transport via FTP

Index query routing

global index   country index

C=SE ↔ 2 ↔ client

4   3

1

O=X   O=Y   O=Z
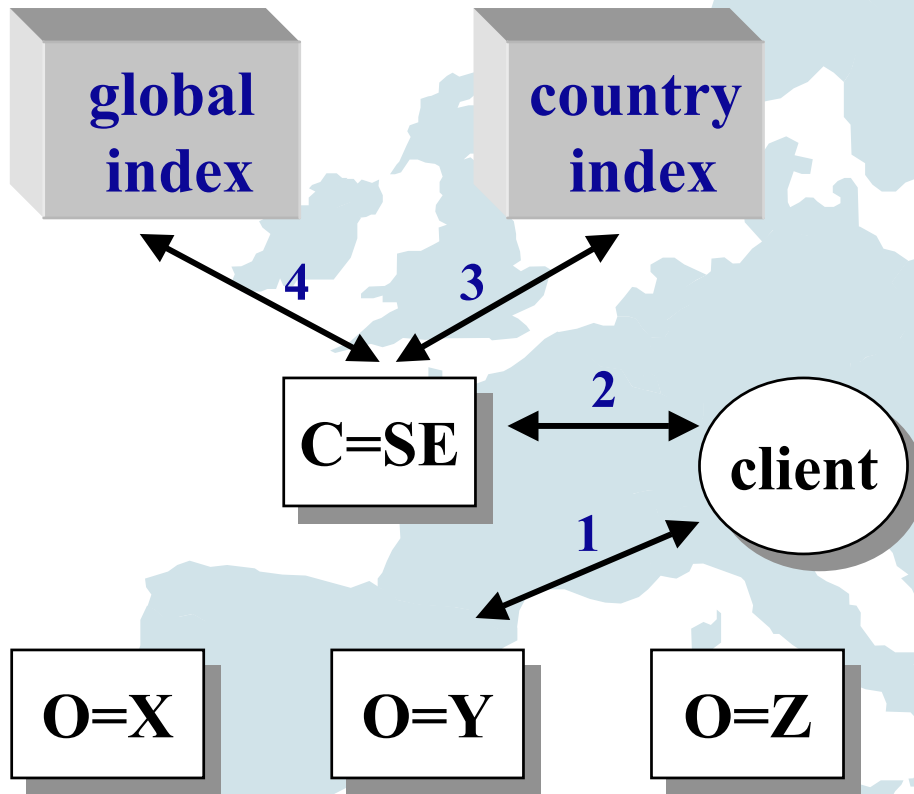
1. Client searches local server

2. Client searches country level server (CLS)

3. CLS looks up country index

4. CLS looks up its copy of the global index

Details of the query routing