The UK COSINE X.500 Directory Pilot

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ABSTRACT

This note describes the UK COSINE X.500 Directory Pilot, how organisations can become involved in the pilot, the services offered to sites wishing to participate in the pilot and the steps that need to taken to become connected into the pilot directory information tree.

1. Background

For nearly two years there has been an academic X.500 Pilot Project sponsored by the JNT. The initial aims of the project were a) to provide users with white pages look up of postal and electric contact information of other academic users and b) to gain experience and understanding of the technical issues involved in managing large scale distributed directories. This pilot has now become part of a European X.500 Paradise Project under the COSINE initiative. It is also linked with other national pilots, including the White Pages Project in the US, and the Australian X.500 project.

As well as providing a white pages services for users, the global pilot is now being used to provide OSI host information for support of X.400 and FTAM applications.

Currently, the JNT UK pilot is academic based, with a few corporate representatives. At a meeting of these representatives and representatives of the JNT it was decided to expand the scope of the pilot to allow and encourage commercial participation in the pilot. X−Tel Services Ltd were asked to act as the Registration Authority for this pilot, bearing in mind they already support the existing academic pilot.

2. Joining the X.500 Pilot

To become fully connected in the pilot an organisation will need to register their involvement with X−Tel. To register you will need to be running an X.500 Directory System Agent (DSA) which holds data representing your organisation. You must be prepared to make some of your organisational telephone and/or email data publicly available for other pilot sites to look at via the X.500 protocol (that is allow them to read data explicitly made available to them). In return the other sites have a commitment to making their data available to you.

The DSA should be available via either X.25 over PSPDN (PSS, Janet, IXI...) or the Internet (using RFC-1006 over TCP/IP).

2.1. Choice of Relative Distinguished Name

At the time of writing, there is not an official UK Name Registration Authority. The draft documents discussing such an authority suggest that RDNs will be the registered name of the company, for example "X−Tel Services Ltd", with the organizationalName attribute being used to hold the name. The pilot will adopt this policy, resolving any clashes as and when they occur by discussion with the relevant parties.

2.2. Level in the DIT

You can be registered at the c=GB level of the DIT, or if you organisation is not a national one, and you do not wish to be registered under the c=GB node of the tree, you can opt to be registered under a locality, for example "c=GB, locality=Nottingham". Again the draft UK Naming document says localities will be formed using Postal District names defined by the Post Office, the pilot will adopt this policy.

2.3. Cost

The annual fee for registration under the c=GB node or under a locality is £100†.

For this X−Tel will register your organisation in the pilot, thus making your data available to other participating sites. X−Tel will supply you with connection information so you can access the data from others organisations involved in the pilot. You will also be offered some limited support to help maintain the service. You will be able to update your registration once made.

3. Data Protection Act

All data in your DSA should be registered under the Data Protection Act for world wide access. There was quite some debate on this subject in the JNT academic pilot and involved discussions with the Data Protection Registrar. A proforma registration acceptable to the Data Protection Registrar and the pilot's needs was generated and is available to interested parties from X−Tel.

X−Tel will assume all organisations registering in the pilot have suitable data protection registrations.

3.1. Use of Data

There is an informal agreement amongst the academic sites that data found in the directory is for personal use only, for example to get the telephone number of somebody you want to call. By registering your organisation in the pilot, you are seen to have agreed to this principle. Any use of the data for generating mailing lists or the like, without permission of the recipients is frowned upon and strongly discouraged.

Any abuse of this agreement or violation of the Data Protection Act as determined by the Pilot management committee may result in removal of the offending organisation from the pilot.

†All fees mentioned in this note are based on the use of existing COSINE facilities in a pilot service, and are subject to alteration. The fees do not apply to sites covered by the JNT directory support contract.

4. Registering an Organisation

To register your organisation you will need to supply X–Tel with the Distinguished Name you wish your organisation the be registered with, the Distinguished Name of your DSA, and the OSI address of your DSA. This information will the be added into the X.500 knowledge database of a central GB DSA. This knowledge can then be accessed by other participating sites using the X.500 protocols.

In return, you will be given the access information to the central GB DSA, enabling you to access the data from the other pilot sites. This DSA will also have knowledge of other countries participating in the global pilot, allowing you to access them as well.

Having registered your organisation you have a commitment to making your DSA(s) available to the other pilot sites. DSAs which are consistently unavailable may be de-registered from the pilot.

4.1. Place holders

If you do not have a DSA service running, but wish to register your organisation, you can supply X–Tel with you organisation information which will be registered in the directory as a place holder. There is an annual charge of £100† for this service.

4.2. Remote DSA

If you do not have the facilities to run a DSA, X–Tel may be able to run a DSA on your behalf. Contact X–Tel for further details.

5. Replication

An important part of the Pilot service is replication. Replication is not covered by the X.500(88) protocol. However, the pilot service achieves replication using the protocol defined in the document "Replication to provide an Internet Directory using X.500: A proposed solution" submitted as an Internet Draft (copies available from X–Tel).

X–Tel can offer replication services of the root of the DIT, and most of the countries registered below the root. This means will X–Tel hold copies of the root and most of the country level Entry Data Block (EDB) files, and make copies available to you via the Internet Draft replication protocol.

The annual cost of replication facilities is a flat fee of £50†, plus a fee of £10† per Entry Data Block required (one fee per EDB per year).

If you register for countries other than c=GB, X–Tel will provide a tracking service to advise you when a new country is added, and see if you want to replicate the data.

6. DSA Relaying.

Currently there are two major networks involved in the global pilot - International X.25 and the Internet. (IXI in Europe and JANET in the UK are also widely used.) If your DSA is only connected to one of these networks there is a DSA Relay service. This is a DSA that has access to all these networks and is prepared to chain queries to DSA on one network on behalf of your DSA which only has access to another. Initially the COSINE DSA Relay will be used for this service.

7. DUA access

If you do not have the facilities to run a DSA, X–Tel can provide details of the COSINE access point for a DUA to connect to.

Similarly, if you do not have the facilities to run a DUA, X–Tel can provide details of the COSINE public access DUA accessible via X.25 Pad or Telnet on the Internet.

8. Electronic Mailing Lists

There are two mailing lists concerning the directory pilot.

GB-Dir-Pilot@xtel.co.uk is used to discuss operational issues affecting commercial sites participating in the pilot service. DSA availability and DIT size statistics are sent to this list. (This is similar to the Directory–Pilot@rutherford.ac.uk list used to discuss operation issues relating to the academic pilot.) You should send a message to *GB–Dir–Pilot–Request@xtel.co.uk* to join this list.

Directory-Group@rutherford.ac.uk is used to discuss the wider issues of the X.500 pilot. Operational problems should not be discussed on this list. You should send a message to *Directory–Group–Request@rutherford.ac.uk* to join this list.

9. Consultancy

Experience with the UK Academic Pilot has shown that setting up a DSA requires a reasonable level of technical expertise. X–Tel Services can offer consultancy to help sites without sufficient expertise join the pilot and can offer extended support arrangements above the limited support offered in the initial registration fee.

X–Tel can supply UNIX based X.500 software consisting of a DSA and a range of DUAs. Details on request.

10. Contacting X–Tel

Post: X.500 Directory Project,
X-Tel Services Ltd,
University Park,
Nottingham,
NG7 2RD

Telephone: +44 602 412648
Fax: +44 602 790278

E-Mail: x500@xtel.co.uk
X.400: /c=GB/ADMD=GOLD 400/PRMD=X-Tel Services Ltd/o=X-Tel/S=x500/
X.400: /c=GB/ADMD= /PRMD=X-Tel Services Ltd/o=X-Tel/S=x500/