How to add URIs to the X.500 Directory

Introduction

At the managers meeting it was thought to be a good idea to add URIs to the Directory to allow closer interworking with the World Wide Web. The first step was to add URIs to the country entries, which has been successfully implemented and recieved quite a few positive reactions! The second step is to add URIs to organisations and other subentries. This page is intended to give you some help with this.

An example: The DANTE Home Page using the Directory.

In the Autumn 1995 the NameFLOW-Paradise country managers agreed to add labaeldURI as the are called to the national level of the DIT and subsequently do the same for organisations. There is however one thing to consider: adding the URIs for the organisations (a reference to their homepage) by the country managers could be "unwanted" as they want to maintain the organisation entries themselves. (so they tell me)

What do you need to do?

The following part is based on an e-mail sent from Adrew Findlay to the UK Directory Managers mailing list in 1995. It is edited to support labeledURI as the prefered option.

>At the recent UKERNA directory meeting there was much interest in storing WWW >URLs in the Directory. Here is how to do it:

Add this to \$(ETCDIR)/oidtable.gen (if it's not already there as most sources included these OIDs in oidtable.gen)

umich:	enterprises.250
umichAttributeType:	umich.1
umichAttributeSyntax:	umich.2
umichObjectClass:	umich.3

(Note: Some releases of ISODE (8.0 and more recent) already include these unich OIDs in oidtable.gen)

Add this to \$(ETCDIR)/oidtable.at

labeledURL:	umichAttributeType.41	:	caseExactString
labeledURI:	umichAttributeType.57	:	caseExactString

(Note: the labeledURL is added for backwards compatibility and usage of labeledURI is currently prefered)

Add this to \$(ETCDIR)/oidtable.oc

labeledURIObject: umichObjectClass.15 : top : : \
labeledURI, labeledURL

NOTE

These attributes refer to `URI' rather than `URL'. This is the change between the vfirst and second edition of the Internet Draft. Until the March draft, URLs were to be stored and the OID numbers were different. This may change again, as the spec is still in draft (see below).

It will be necessary to restart the DSA for these to take effect.

You next need to update the treeStructure attribute (if any) of the entry above any entry that is to contain a URI. Add the spec `labeledURIObject' to whatever is there already. Do NOT create a treeStructure attribute from scratch unless you know what that action implies.

Next, add the objectclass `labeledURIObject' to any object that is to contain an URI. You may add the URI itself in the same operation if you wish, or this can be done later.

Note:

Few (if any) user interfaces are yet aware of the latest spec for including Web references in the Directory so you may not see much result for all this work!

Is the labeledURI a standard?

Yes, it is on standards track! The possibility exists that more UR* (C, N, L, Y?) could be added to the document, but this is currently unlikely.

If you want to read the Request for Comments describing the labeledURI in full detail:

DANTE server: **RFC 2079:** Definition of an X.500 Attribute Type and an Object Class to Hold Uniform <u>Resource Identifiers (URIs)</u> from the RFC store. IETF server: ftp://ds.internic.net/rfc/rfc2079.txt

NOTE on URI:

Uniform Resource Locators (URLs) as defined by [<u>rfc1738.txt</u>] are being widely used to specify the location of Internet resources. URLs are the first of several types of Uniform Resource Identifiers (URIs) being defined by the IETF URI working group.

Many thanks to Mark Smith of the University of Michigan for writing the Internet Draft and Andrew Findlay who send this page as an e-mail long long ago.