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NameFLOW

NameFLOW TIO Exchange

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Introduction

Tagged Index Object (TIO) is an abstract data format representing the index of arbitrary information. The format which can be used to store indexed data from various types of directories (X.500, LDAP, Whois++ etc.) is defined in [RFC2654](#). NameFLOW Index Exchange is created to operate with indices of LDAP directories only.

Multiple indices from different LDAP servers can be merged into a single special database. An Index Forwarding Server connected to the index database is able to provide a client with LDAPv3 referrals to original LDAP servers/gateways holding the requested information. In this case, the number of requests the client must send to obtain directory information gets reduced to two: the first request to the Index Server itself and the second one to the original LDAP server.

Service Description

The NameFLOW Index Exchange service is intended generally for national directory services. The national services' managers collect and re-distribute the directory indices of organisations within their own countries. The NameFLOW TIO Exchange provides a point of index interchange between NRENs. It can also be used by directory managers from organisations in countries lacking the national service.

The service allows its users to exchange their Tagged Index Objects with each other. The participants can upload their TIOs to the service and download TIOs of all other users. New participants have to register (by filling the [form below](#) or sending an email message to the [TIO Exchange manager](#) in an arbitrary format with the information specified in the form) before they are allowed to access other people's index objects.

The service uses a MySQL database to store index objects as well as control information (users, passwords, naming contexts etc.), PHP-enabled web server to download (HTTP protocol, GET method), upload and delete (HTTP protocol, POST method) index objects. The objects are protected by simple (basic) password authentication. Users must supply their login name and

password in order to get read access to all TIOs and write/delete access to their own ones.

Also provided is web access using PUT and DELETE HTTP methods for uploading and deleting TIOs, respectively, using command line tools.

User Registration

In order to be included into the list of the TIO Exchange participants, please provide the following information:

General information:

Your name:

Organisation:

E-mail:

Naming contexts of your directory (such as `c=<country>` or `dc=<domain>`, one per line):

Please provide one of your TIO objects here:

LDAP URL (with naming context):

Select your TIO file to upload:

Authentication information:

Login name for web access to the TIO Exchange:

Password:

Password again:

User Guide

The service is available in two forms: a dynamic HTML page with forms and hyperlinks for using with a browser, and a pure HTTP interface with the GET, PUT and DELETE methods for downloading, uploading and deleting TIOs from scripts.

Both interfaces require basic HTTP authorization, the user's login name and password must be registered in NameFLOW database.

[HTML Interface](#)

[HTTP Interface](#)

HTML Interface (

[log in here](#))

The HTML interface is a [single web page](#). When accessing it with a browser, the user is asked for a login name and password for authorization realm **NameFLOW TIO Exchange**. The page consists of the following parts (note that hyperlinks presented below are broken, they are for viewing purposes only; the links on the Exchange page are correct):

1. Header with the user's full name:

TIO Exchange - *first_name surname*

2. HTML table with the form for **uploading** a new TIO:

Your TIOs		
	Distinguished Name	Upload File
New TIO:		

3. HTML table with the form for **updating, deleting** or **downloading** the user's existing TIOs:

Last Update	Distinguished Name	Update TIO	Delete TIO
YYYY-MM-dd HH:mm:ss	DN (a hyperlink for downloading the TIO)		
YYYY-MM-dd HH:mm:ss	DN (a hyperlink for downloading the TIO)		

4. HTML table with the list of other users' TIOs (for **downloading** only):

Other TIOs		
Choose Naming Context: 1 st level		
Last Update	Distinguished Name	Owner
YYYY-MM-dd HH:mm:ss	hyperlinked DN	User's full name (user's organisation)
YYYY-MM-dd HH:mm:ss	hyperlinked DN	User's full name (user's organisation)

The actions available for the user are as follows:

Downloading TIOs:

by clicking on the TIO's distinguished name in part 3 (for the user's own TIOs) or 4 (for other users' TIOs).

Uploading new TIOs:

by entering the TIO's distinguished name and selecting a local file for upload in part 2.

Updating the user's existing TIOs:

by selecting a local file for upload in the row corresponding to a certain distinguished name in part 3. The user can upload multiple files (including a new one in part 2) at the same time.

Deleting the user's TIOs:

by selecting a checkbox in the row corresponding to a certain distinguished name in part 3. The user can delete multiple TIOs at the same time.

Sorting other users' TIOs by the date of last update (newer TIOs come first) or distinguished name (in alphabetical order of DNs with reversed RDN's order):

by clicking to the **Last Update** or **Distinguished Name** links in the headers of part 4.

Narrowing the list of other users' TIOs:

by selecting any of available first level naming contexts from the listbox in part 4.

HTTP Interface

The service was tested with the [Libwww Command Line Tool](#) that comes with [LibWWW - the W3C Protocol Library](#) of the [World Wide Web Consortium](#). The format of the command line usage is as follows:

Download:

```
w3c -auth login:password@'NameFLOW TIO Exchange' \  
-o local_file \  
-get 'http://www.dante.net/nameflow/tio/exchange.phtml?dn=dn'
```

Upload:

```
w3c -auth login:password@'NameFLOW TIO Exchange' \  
-dest 'http://www.dante.net/nameflow/tio/exchange.phtml?dn=dn' \  
-put local_file
```

Delete:

```
w3c -auth login:password@'NameFLOW TIO Exchange' \  
-delete 'http://www.dante.net/nameflow/tio/exchange.phtml?dn=dn'
```

... where

login

is the TIO Exchange user's login name,

password

is the password,

dn

is the TIO's distinguished name (URL-escaped, for example `dc%3Ddante,%20dc%3Dorg,%20dc%3Duk` for `dc=dante, dc=org, dc=uk`) and

local_file

is the full path to the local file containing the TIO (for example `/home/joy/dante.tio`).

Please note that the source file (remote URL for download, local file for upload) **must** be specified last in the command line. See `w3c`'s [command line syntax](#) for further details.

CONTACT [NameFLOW](#)

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