

## NP-93: NameFLOW-Paradise X.500(93)

VB(96)006, 29 January 1996

Phase One: Root Context Test  
Time schedule: Testing: 12-16 February 1996  
Evaluation: 22 February 1996 (Schiphol Airport, NL)  
Participants: Ten organisations (see table below)  
Mailing list: NP-93-request@DANTE.org.uk

Purpose: Test basic inter working from a user perspective

between different X.500(93) implementations. Attention will be paid to conversion of current data sets to new X.500(93) format. The goal is to set up a shadow root context with multiple First Level DSAs to provide at least the same functionality as in the current infrastructure. The protocol used for replication will be DISP. In addition subordinate organisational DSAs will be installed to test basic DSP and DAP, including their X.500(93) extensions and the changed Access Control concept.

Phase One: Root Context Test

The prime objective of Phase One is to test top level replication usually referred to as the Root Context. This replication is done using the Directory Information Shadowing Protocol (DISP) introduced in the X.500(93) standard. The second objective is to test basic DAP and DSP including the X.500(93) extension. The third part (if possible) is to test Basic Access Control as this is significantly different in X.500(93) model. Phase One excludes non-implemented and/or non-standard features of X.500, such as: DOP, stronger authentication, LDAP and coexistence between Quipu (or X.500(88)) and X.500(93) systems.

The Tests

The tests are largely defined in co-operation with EuroSInet. A draft version of the test suite document will be distributed among the participants. A short summary will be send with document describing the test which are of our (NP) interest. All test document describes the purpose, procedure and expected results for each test. For example, the first test would be:

#1 Bind Test

Purpose: Bind anonymous to a DSA

Procedure: The DUA issues a BIND operation to the responding DSA  
with no credential information (anonymous bind)

Expected Results: The test is successful if the DAP connection can  
be established without errors

## DISP

The Root Context is considered important as it provides a key function in the current infrastructure. The root functionality is part of the current Root DSA and needs to be maintained for two reasons: it allows easy management of First Level knowledge references and provides basic replication optimising the service. A full description on "Managing the Root Context" is written by David Chadwick and the document is available via . The part that will be tested in this phase is the interim solution proposed in section four. The DISP tests specified at the EuroSInet work shop only test two specific subsets of replication supported by all EuroSInet participants (vendors). Both subsets replicate all attributes and Master and Shadow knowledge. The difference between the two subsets is that the replicated area component is "complete naming context" and "complete subtrees". The two subsets do not provide sufficient functionality for the proposed interim solution, but leading vendors will provide the required replication software. In the case DISP based replication fails, an out-of-band mechanism (e.g. ftp or e-mail) should be installed to enable participants to continue with the other tests.

## DAP and DSP

For the DAP and DSP tests there are three sets:

- 1) DAP tests between DUA and DSA,
- 2) DSP tests between two DSAs and
- 3) extended scenario for more than two DSAs.

The following test operations will be performed: Bind, Read, Search, List, Remove and Unbind. For DSP there is an extended scenario to test Chaining and Referrals. For the Lower Layer connectivity participants should use TCP/IP (with RFC 1006).

## Access Control

The Access test will focus on Basic Access Control as this is the minimal level that is implemented (so far!) and can be tested. The basic operations performed are Read, Modify, List and Search. Entries with different Access Control will be created and operations should be allowed or rejected according to the Access Control Information. The Modify and ModifyDN operation could be tested.

(Note that Modify and ModifyDN are not part of the DAP and DSP tests as they were considered vendor specific and are used by local administrators, not end users. See ACI for further information)

## Test structure

For the test set up there will be additions to the normal Directory Information tree. For the basic test concept, a participant will add an

OU= NP-93

to its organisation entry:

O= my\_org

with several test entries, five persons, an applicationProcess and an applicationEntity.

An entry example: c=GB, o=DANTE, OU= NP-93:

Common Name = Person One  
Surname = Digger  
Description = Salvage Clerk  
Telephone Number = +44 1902 111111  
Etcetera

## Preparation

The data conversion tools ("EDB converters") are not part of the EuroSInet test suite but are important to NP-93 participants. The conversion tools are going to be deployed for synchronisation between Quipu and X.500(93) systems. Some organisations want to run the two systems in parallel for a short period. The conversion test can be done independent of the inter working tests. It is however advised to do the conversions prior to the test as part of the software installation. It is advised to install the test DIT structure before the actual tests begin, as this can be time consuming.

## Time Frame

The week of 12 to 16 February 1996 is reserved to complete the tests. The preparations should be done prior to the test week, however the first day is reserved to install the last bits.

Mon 12/2 Final installations, conversion tests, DISP agreements

Tue 13/2 DISP tests

Wed 14/2 Inter working test, DAP and DSP and X.500(93) extensions  
probably followed by some ACI test

Thu 15/2 Reporting and discussing

Fri 16/2 Spare day if necessary.

Thu 22/2 Schiphol meeting, evaluation and future planning for Phase Two.

## Participants

There are ten participants (testing ten organisations) from seven different countries.

```
+-----+-----+-----+
| who      | software-vers | what
+-----+-----+-----+
ULCC       MDS-2         root "/"
Brunel     IC-3          c=GB
           c=GB@o=Brunel
DANTE     MDS-2         c=GB@o=DANTE (and/or c=GB if necessary)
Delft     MDS-2         c=NL
           c=NL@o=Tech Univ Delft?)
SURFnet   MDS-2         c=NL@o=SURFnet
SWITCH    IC-3          c=CH
           c=CH@o=SWITCH
           c=CH@o=Some University (BLT uploaded)
umdac     IC-3          c=SE
```

NCU;	IC-?	c=SE@o=Umea Universitet
		c=PL
Chemnitz;	IC-3	c=PL@o=Nicholas Copernicus University
		c=DE
		c=DE@TU-Chemnitz
EDF	DEC-?, MDS-0.9	c=FR
	IC-3	c=FR@o=EDF

-----+-----+-----