



Greek School Network – www.sch.gr The network in the service of education

Directory Service

The Greek Schools Network Directory Service is not a simple user catalogue or address book, but constitutes the **middleware** upon almost all services of the Greek Schools Network are based.

The Directory Service supports almost all the services offered by the Greek Schools Network by providing the central repository where the users' and network devices' profiles are being maintained and stored.

The usage of a dedicated directory server (LDAP Directory Server) is the ideal solution for the administration and maintenance of such a significant information volume. All related information is centrally stored at a single point, facilitating its easy and smooth update when required.

1. Targets & Goals

The directory service has two basic targets:

A. Support the operation of the following telematics services

- User Administration Interface
- User registration
- Network Access (dialup)
- Electronic Mail (e-mail)
- E-mail lists
- Web pages publication (ftp server)
- Large scale virtual hosts for hosting webpages of the educational and administrative units.
- Authentication and authorization operations for the following services
 - Greek Schools Network World Wide Web Portal
 - Instant Messaging (jabber)
 - Asset Management System
 - Helpdesk Information System
 - Technical assistance web site
 - News service
 - Chat service
 - Discussion forums of the Greek Schools Network
 - Teleconference service



- o Asynchronous e-learning service
- o GSN database

B. Provide a User catalogue of the Greek Schools Network

- The catalogue is provided to the users of the Greek Schools Network

2. Service Specifications

2.1. Servers

The directory service is supported by an array of four (4) servers, of which three are exclusively dedicated to supporting the directory service. The main server is the write master, where all additions and updates to the directory information store take place. The remaining servers store a copy of this information, which is continually synchronized with the main server (on line replicas).

The online replicas constantly answer to queries of other services supporting the delivery of email messages, dialup access to the network and authentication/authorization operations of other services.

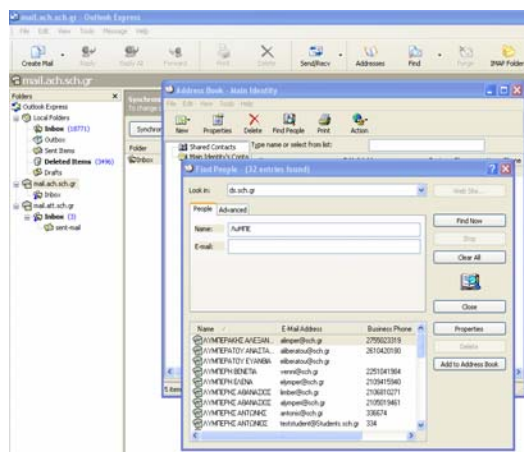
The number of services supported by the directory results in a significant number of queries, which makes the selection of a robust server array pivotal to the efficient operation of the directory service.

It is worth noting that in addition to the typical multimaster replication model alternative servers may assume the role of the main write master, allowing for the smooth and continual operation of the directory in case the typical write master server ceases to operate due to malfunction.

2.2. Directory access by the end users

Access to the directory service is feasible through the web portal of the GSN www.sch.gr as well as with applications - directory clients, such as Microsoft Outlook, Outlook Express, Netscape, Mozilla etc.

Access to the directory service is granted only to registered, authenticated users, once they are logged in. Detailed instructions for connecting to and using the directory may be found at www.sch.gr/helpdesk.





Searching the directory through the Greek Schools Network Portal

Displaying details for Papadopoulou
Athena – member of the educational
community

2.3. Entities

The directory service contains the following basic entities. All entities are administrated through the User Administration Interface.

Entity	Description
Prefectures	Organizational structure with the prefectures where the educational and administrative units are placed
Units	Educational and administrative units
Groups	User groups
Mail enabled Groups	User groups with an email address
Dynamic Groups	Dynamic groups, whose members are provided through queries to the directory service.
Unit Account	Account of an educational or an administrative unit.
Teacher	Account of a member of the educational community (of the first two grades of education)



Student	Student Account
Personnel	Personnel Accounts
Personnel TA	Technical Assistance personnel accounts
Router	Profile for authentication operations of units connected to the network via a router.
Router ADSL	Profile for authentication operations of units connected to the network via a router and a ADSL connection
Routes	Profiles containing routes, which update the GSN routers with these routes. These profiles support dial-out connections to educational units, facilitating the remote support of units connected to the network via a router.

3. Statistics

Main Server (write master Directory Server)	1
Servers hosting Multimaster Replicas	2
Servers hosting read only Replicas	1

4. Implementation

The Directory Service has been implemented and being maintained by the **Institute of Communication and Computer Systems (ICCS)** <http://www.iccs.ece.ntua.gr> of the **National and Technical University of Athens (NTUA)** www.ntua.gr.

5. Information

URL: <http://www.sch.gr>, email: info@sch.gr