



## Authenticated Networked Guided Environment for Learning

As a middleware application, ANGEL utilises a wide-range of protocols, specifications, and standards recommended to UK HE. This sheet provides a brief guide to the terminology used, and where to find additional information.

**APPROPRIATE COPY** - Leading a specified user to the most suitable version of a resource, taking into account access privileges defined by both content providers and institutions. This may be the physical copy of a resource held in a library, an e-journal, or a service such as interlibrary loans.

<http://www.ariadne.ac.uk/issue31/information-environments/>

**ATHENS** - Athens is an Eduserv service delivering "authentication, authorisation and distributed user administration services" to UK HE/FE.

<http://www.athens.ac.uk>

**COOKIE** - A cookie is a file sent to a web browser by a web server that is used to record a user's activities on a website. Cookies can remember all kinds of personal information, such as your password, so you don't have to re-enter it each time you visit the site, and your preferences, so the next time you return to a site, you can be presented with customised information.

<http://www.cookiecentral.com/faq/>

**DIGITAL CERTIFICATE** - The most common use of a digital certificate is to verify that a user sending a message

is who he or she claims to be, and to provide the receiver with the means to encode a reply. An individual wishing to use a digital certificate first obtains a signed certificate from a Certificate Authority (CA). When the user sends the digital certificate, the recipient can check that the CA is a known and trusted authority, and then proceed to communicate with the user. The certificate holds what is known as the user's 'public key'; the 'private key' is held by the user. Each set of public and private keys can decrypt information sent by its pair. The user and certificate recipient can use this pair of keys to exchange encrypted information.

<http://middleware.internet2.edu/core/certificates.shtml>

**EDUPERSON** - Name given to the EDUCAUSE / Internet 2 LDAP object class used to identify widely used person attributes / roles within higher education. This standard namespace will allow a range of directory-based applications to share personal information between institutions, data providers and platforms.

<http://www.educause.edu/eduperson/>

**INFORMATION ENVIRONMENT** - The JISC Information Environment is the set of networked services that allows people to discover, access, use and publish resources within the DNER. The technical architecture suggests a three layer structure of provision layer, fusion layer and presentation layer.

<http://www.jisc.ac.uk/jcie/>

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**INTERNET2** - Internet2 is led by over 190 U.S. universities and is developing and deploying advanced network applications and technologies. The Internet2 Middleware Architecture Committee for Education (MACE) is developing the Shibboleth architecture.  
<<http://www.internet2.edu>>

**ITE** - Interface to Everything. Many companies and institutions are designing portals that aim to provide access to all the information needed by a user. Examples include the University of British Columbia's myUBC.  
<<http://www.angel.ac.uk>>

**NAMESPACE** - A set of names in which all names are unique.

**PAPI** - PAPI is a system for providing access control to restricted information resources across the Internet. It intends to keep authentication as an issue local to the organization the user belongs to, while leaving the

information providers full control over the resources they offer.

<<http://www.rediris.es/app/papi/doc/TERENA-2001/>>

**SHIBBOLETH** - Shibboleth is a system for facilitating sharing of resources between institutions. When a user at one institution tries to use a resource at another, Shibboleth sends attributes about the user to the remote destination, rather than making the user log in to that destination. The destination can use the attributes in deciding whether or not to grant access to the user.  
<<http://middleware.internet2.edu/shibboleth/>>

**X.509** - A digital certificate standard. X.509 (version 3) has been recommended to JISC as a standard for national services. The X.509 standard defines what information can go into a certificate, and describes how to write it down (the data format).  
<[http://www.jisc.ac.uk/pub02/ar1/future\\_auth.html](http://www.jisc.ac.uk/pub02/ar1/future_auth.html)>

[www.angel.ac.uk](http://www.angel.ac.uk)