CNS /Update Newsletter Feature

Open Up! LDAP Upgrade

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UF Information Technology

UFIT

2046 NE Waldo Rd, Suite 2100
Gainesville Florida  32609-8942
(352) 392.2061
<editor@cns.ufl.edu>
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Open Up! LDAP Upgrade

In January of this year, we upgraded the UF Lightweight Directory Access Protocol (LDAP) server to OpenLDAP 2.0.x. This upgrade provided an open-standards-based implementation of the LDAP V3 protocol. The new version of LDAP is multi-threaded which means that more search requests can be handled at a time. The new server is also expected to operate faster, speeding up the handling of your searches.

As an open standard—not tied to a particular operating system or vendor—LDAP provides a flexible and powerful way to provide centralized storage and management of data that needs to be available in a distributed environment of systems and services such as we have at UF. This article describes what LDAP is and what it does for the UF campus community.

Lightweight Directory Access Protocol (LDAP) was developed at the University of Michigan as a way to provide directory services across the Internet. It is quickly becoming the standard protocol for this service and is supported by companies such as IBM, Microsoft, Netscape, and Lotus.

Why is it called lightweight? It is adapted from an older technology called X.500, a complex large-system directory system that does not support TCP/IP, a necessary feature for Internet access. LDAP is a more simple directory system—hence the name lightweight. However, it is also more flexible. LDAP runs on a large-system computer, but it will interact with various client programs (on personal computers) to allow remote directory searches. This is how the UF Phonebook/E-mail Directory (http://search.ufl.edu:8765/#phone) lets you look up UF faculty, staff, and student information online. It uses the LDAP protocol to query the central UF directory database.

LDAP is very versatile. In addition to providing directory information, it is being used by some companies to look up files, services and devices on the Internet, and it is sometimes used as a gateway to other electronic information systems. It can store user information for shared use between Web servers, mail servers, phonebooks and other applications.

At UF, LDAP is used to provide online directory services to our campus. Additionally, UF applications have been developed to use this protocol to conduct University business. Uses of LDAP at UF include GatorLink authentication, GatorLink account creation, the UF Phone Directory Project, Plaza FTP authentication, and UF Space Management services that use Oracle database management software.

Older methods for searching on the Internet, like whois, ph, and finger, still exist and are available on our system. However, these methods do not have the features and strengths of LDAP. Individuals still using the campus ph server for directory queries are strongly advised to use the campus LDAP server instead. LDAP provides a query language and API (application program interface) set that allow for more complex questions than does ph. Also, LDAP has better client support and is under active development by its authors.

To convert to LDAP from ph, you can use the LDAP client that is built into your e-mail client software. You can read related information on configuring for LDAP in NERDC documents Q1272 [http://docweb.cns.ufl.edu/qa/q1272/q1272.html], Directory Look-ups with Netscape; Q1257 [http://docweb.cns.ufl.edu/qa/q1257/q1257.html], Directory Look-ups with Outlook Express; and D0117 [http://docweb.cns.ufl.edu/docs/d0117/d0117.html], NERDC Internet Servers. You can access these documents by going to http://docweb.cns.ufl.edu. Type in the document ID (Q1272, Q1257, or D0117) in the NERDC DOCID= box and click on
If you wish to use LDAP from NERSP or some other UNIX system, we recommend that you acquire an OpenLDAP client utility. These are available from Red Hat, Inc., at
http://www.redhat.com/swr/i386/openldap-clients-2.0.7-14.i386.html
and other sources on the Internet.

If you have additional questions about converting to LDAP from ph, write to us at
open-systems@lists.ufl.edu. We will be happy to answer your questions.

Your Comments are Welcome

We welcome your comments and suggestions on this and all UFIT documentation. Please send your comments to:

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