Directory Usage at Higher Educational Institutions

Stanford University
Quanah Gibson-Mount
Directory History at Stanford University

First LDAP Directory – Netscape v1.0, 1995

“Directory” i.e., whitepages information via Stanford.Who (http://stanfordwho.stanford.edu)

Allowed users to restrict web pages to “stanford:stanford” ‘Privilege Group’ with Webauth V1 (http://webauth.stanford.edu)
1 record matched your search for quanah.

For a new search, go to the QuickSearch box below.

Name: Quanah Gibson-Mount
Email: quanah@stanford.edu
Web Page: http://www.stanford.edu/people/quanah
Organization: University
Relationship: Staff
Position: Principal Sys Admin, QA, Programmer, Webmaster
Department: Information Technology Systems and Services
Work Phone: (650) 723-4897
Fax: (650) 723-3255
1 record matched your search for quanah.

For a new search, go to the QuickSearch box below.

Name: Quanah Gibson-Mount
Email: quanah@stanford.edu
Web Page: http://www.stanford.edu/people/quanah

Organization: University
Relationship: Staff
Position: Principal Sys Admin, QA, Programmer, Webmaster
Department: Information Technology Systems and Services
Work Phone: (650) 723-4897
Fax: (650) 723-3253
Mail Code: 4136
Work Address: Office 211, Polya Hall, 255 Panama Street
Stanford, California, 94305-4136

Profile: Principal Software Developer
Mobile Phone: (650) 387-6559

SUNet IDs: Quanah.Gibson-Mount
q.gibson-mount
quanah

Copied/paste version of this information
Directory History at Stanford University

- E-Mail routing ([http://email.stanford.edu](http://email.stanford.edu))
- First version to allow access to various Stanford Departments and Organizations via K4 Bind.
- Student printing accounting system ([http://rescomp.stanford.edu](http://rescomp.stanford.edu)) integrated with directory.
Directory History at Stanford University

- Third Generation – OpenLDAP 2.1/2.2 (http://www.stanford.edu/services/directory/), rolled out April, 2003
- Access via Kerberos 5 for clients and the general population
- Webauth V3
- posixAccount replacement for Hesiod service
- Account services integration (AFS Quota, E-Mail quota, vacation messages)
- Anonymous “White pages” lookup for public information from Email clients, etc.
- Radius Authorization via PrivilegeGroups
- Other “service” authorizations
Caution: Never enter your SUNet ID and password on a Web page unless that page's URL (location) points to the weblogin.stanford.edu computer or unless you are establishing network connectivity.

Macintosh users of Internet Explorer: WebLogin will fail and you will not get to the requested website unless you use version 5.1 or later of IE or use a different browser. Get an IE update at ESS.

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Last modified 10/30/03 by ITS\@ink.
Stanford has implemented a “registry” as the central store of information from a variety of applications (www.stanford.edu/services/registry).

Registry information is published to clients via an XML document service (http://registry.stanford.edu).

Clients are notified of data changes via a custom event system.

The registry is also a client in the event system for some clients (bi-directional data flow).

All person related data (Account or People tree) is fed to the directory from the registry via a program named SLOG - Stanford OpenDirectory LDAP Gateway (no, we cannot abbreviate correctly).
<<?xml version="1.0" encoding="UTF-8"?>
   <!DOCTYPE Person (View Source for full doctype...)>  
   <Person name="Gibson-Mount, Quanah" regid="85e49978f61311d27b662436008baa77" sunetid="quanah" univid="09787508"
cardid="806092000002504" relationship="staff" source="registry" listing="world">
   Information Technology Systems and Services, Principal Sys Admin, QA, Programmer, Webmaster
   - <name type="registered" visibility="world">
       Gibson-Mount, Quanah
       <first nval="quanah">Quanah</first>
       <last nval="gibson mount">Gibson-Mount</last>
   </name>
   - <name type="display" visibility="world">
       Gibson-Mount, Quanah
       <first nval="quanah">Quanah</first>
       <last nval="gibson mount">Gibson-Mount</last>
   </name>
   - <biodemo>
       <gender>male</gender>
   </biodemo>
   - <address type="permanent" visibility="private">
       <linePager>1</linePager>
       <city>Palo Alto</city>
       <state code="CA">California</state>
       <postalcode></postalcode>
       <country alpha2="US" alpha3="USA" numeric="840">United States</country>
   </address>
   - <telephone type="permanent" visibility="private">
       <linePager>1</linePager>
       <city>Palo Alto</city>
       <state code="CA">California</state>
       <postalcode></postalcode>
       <country alpha2="US" alpha3="USA" numeric="840">United States</country>
   </telephone>
   - <email type="permanent" visibility="private">
       <linePager>1</linePager>
       <city>Palo Alto</city>
       <state code="CA">California</state>
       <postalcode></postalcode>
       <country alpha2="US" alpha3="USA" numeric="840">United States</country>
   </email>
   - <work type="permanent" visibility="private">
       <linePager>1</linePager>
       <city>Palo Alto</city>
       <state code="CA">California</state>
       <postalcode></postalcode>
       <country alpha2="US" alpha3="USA" numeric="840">United States</country>
   </work>
</Person>
- <affiliation organization="stanford" type="staff" visibility="world" affnum="1"/>

  Staff
  - <department>
    Information Technology Systems and Services
    <organization regid="21480b56986611d3acf6ab400b0baa77" adminid="CHYR">Communication and Networking Services Operations</organization>
  </department>
  <description>Principal Sys Admin, QA, Programmer, Webmaster</description>
  <affdata type="refid" code="0" />
  <affdata type="idmail" code="4136" />
  <affdata type="code" code="5119">System Software Developer</affdata>
  <affdata type="jobtitle" code="Senior Sys Admin, QA, Programmer, Webmaster" />
  - <place type="office">
    <location type="officeidmail" code="4136" affnum="1">Polya Hall</location>
    - <address type="officeaddress" visibility="stanford" affnum="1" instance="1">
        Office 211, Polya Hall, 255 Panama Street, Stanford, California 94305-4136
        <line>Office 211</line>
        <line>Polya Hall</line>
        <line>255 Panama Street</line>
        <city>Stanford</city>
        <state code="CA">California</state>
        <postal code="94305-4136"></postalcode>
        <country alpha2="US" alpha3="USA" numeric="840">United States</country>
    </address>
    - <telephone type="officephone" visibility="world" affnum="1" instance="1">
        (650) 723-3253
        <lcc>1</lcc>
        <area>650</area>
        <number>723-3253</number>
        <litu>+1 650 723 3253</litu>
    </telephone>
    - <telephone type="officephone" visibility="world" affnum="1" instance="1">
        (650) 723-4897
        <lcc>1</lcc>
        <area>650</area>
        <number>723-4897</number>
        <litu>+1 650 723 4897</litu>
    </telephone>
Stanford has multiple categories of data stored in the directory:

- Student (FERPA protected) data
- Staff data
- Faculty data
- Affiliate data
- Hospital staff data (may be affected by HIPPA)
- SLAC staff data (http://slac.stanford.edu)
Directory Data – Security Concerns

- Access limited by “visibility” settings
- 4 visibility settings are allowed: public, stanford, private, and none
- Faculty and Staff are allowed to change visibility via Stanford.You (http://stanfordyou.stanford.edu)
- Students are allowed to have their data either be public or private. All data is private by default, and may be released using Axess (http://axess.stanford.edu)
Published Email/Web Addresses

Email address: quanah@stanford.edu
Web page: http://www.stanford.edu/people/quanah
SUNet ID URL forwards to: your Stanford web page

Stanford Affiliation

Affiliation: University Staff - System Software Developer
In department: Communication and Networking Services Operations
Listed as: Information Technology Systems and Services
Preferred title: Principal Sys Admin, QA, Programmer, Webmaster

Phone: (650) 723-4897
Fax: (650) 723-3253
ID Mail Code: 4136
Work address: Office 211
Polya Hall
255 Panama Street
Stanford, California, 94305-4136

Profile

Profile: Principal Software Developer

Your Privacy Choices

Some or all of the information on this page may appear in Stanford’s online and printed directories.

Online directory (Stanford.Who and whois) Information marked… will be included in the public view.
Information
### Affiliation

**Affiliation:** University Staff - System Software Developer  
In department: Communication and Networking Services Operations  
Listed as: Information Technology Systems and Services  
Preferred work title: Principal Sys Admin, QA, Progr.

### Work phones

**Work phone 1:** (650) 723-4897  
**Work phone 2:**  
**Work fax:** (650) 723-3253

### Work address

**ID Mail Code:** 4136  
**Address:**  
- Office 211  
- Poly Hall  
- 255 Panama Street  
**City:** Stanford  
**State/Province:** California  
**ZIP/Postal Code:** 94305-4136  
**Country:** US

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If the non-editable affiliation information shown here is incorrect, see Help for instructions to have it changed for you.

Your preferred work title will display in place of your official position title in Stanford Who, whois and printed listings (and in addition to faculty appointment title, if you are faculty).

Your work phones can be made visible to the general public, or restricted to the Stanford community, but staff phones cannot be made private.

Your work address can be made visible to the general public, or restricted to the Stanford community, but staff work addresses cannot be made private.
Service status

Account name: quanah
Email address(es):
quanah@stanford.edu
Quanah.Gibson-Mount@stanford.edu
q.gibson-mount@stanford.edu
Quota: 200 MB

Antoreply

Status: off
Scheduled to be ON: [not scheduled]

From: "Quanah Gibson-Mount [via an autoresponder]"
Subject: Away from my mail [Re: $SUBJECT]
I will be on vacation until June 1, 2004.
Your mail regarding
$SUBJECT
will be read when I return.

Reply for these user names: q.gibson-mount
Quanah.Gibson-Mount
quanah

Email Forwarding

Email sent to:
quanah@stanford.edu
Quanah.Gibson-Mount@stanford.edu
q.gibson-mount@stanford.edu
.. will be: delivered to the account's @stanford mailbox
Directory Data – Security Concerns

How does one handle multiple affiliate data?
For example, some people are both staff and student, or faculty and staff.

Data access request – We have multiple “Data owners” that must give permission to people who want access to the particular pieces of data they own if they lie outside a fixed set. (http://www.stanford.edu/services/directory/access/policy.html)
Stanford University – Directory Directions

- Course Data Tree
- Organizational Data Tree
- True Dynamic and Static Group instantiation via Workgroup Manager
- Change AD to be a true mirror of OpenLDAP (same schema)
Directory Usage at Higher Educational Institutions

A survey of other institutions
Survey Questions

- What software do you use for your directory services?
- What functions are your directory services used for?
- Are there any particular functions and/or improvements at a directory technology level that would make directories more useful for you?
Directory Usage at Higher Educational Institutions

- Brandeis
- Columbia University
- Stanford
- University of Michigan
- University of Texas – Arlington
- University of Washington
Brandeis

- Running OpenLDAP (version unspecified)
- Active Directory slave
- E-Mail routing
- User login to ERP
- Some web application user/password authentication
- White Pages
- Active Directory only used for Windows
Columbia University

- Running OpenLDAP v1, moving to OpenLDAP 2.2
- E-Mail routing
- User Login
- White Pages
- Course Information
Stanford

Running OpenLDAP 2.2 as central Campus directory service

Active Directory used primarily for Windows domain. Contains a subset of data from OpenLDAP

Usage discussed previously. ;)


University of Michigan

- Running OpenLDAP 2.1.x for core campus
- LDAP service
- Feeds AD and Novel eDirectory
- E-mail routing
- posixAccount
- Group membership
- Web ACLs via Groups
- Kerberos Authentication pass through
Running OpenLDAP 2.2

Central Authorization and Identity Management System

Static and Dynamic Groups (Organizational as well as Functional and User created)

E-Mail Routing

E-Mail Aliases

Personal Identification Questions & Answers
University of Washington

- Running Netscape (Legacy)
- E-Mail routing
- White Pages
- Web ACL via Groups
Feature requests

- Dynamic Groups (Implemented in OpenLDAP 2.2, this knowledge does not seem to be widely dispursed).
- Weighted Attributes – Ability to have the values assigned to attributes returned in a particular order, I.E., Structured data!
- Meta-Directory support – Unfortunately, not well elaborated on, and this is a rather over-used term. Stanford is also interested in a “Meta-Directory”.

Existence of an attribute/value pair implies creation/existence of another attribute/value pair. Example: affiliation=student implies WeeklyPageQuota=100

Automagical “memberOf” attribute generation (AD does this).

Multi-Master replication