# How Lion has changed Mac OS X

## Services, features, and capabilities


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Northbrook / Glenview School District 30
@rsaeks

Cheetah

Puma

Panther

Leopard

Snow Leopard

Lion

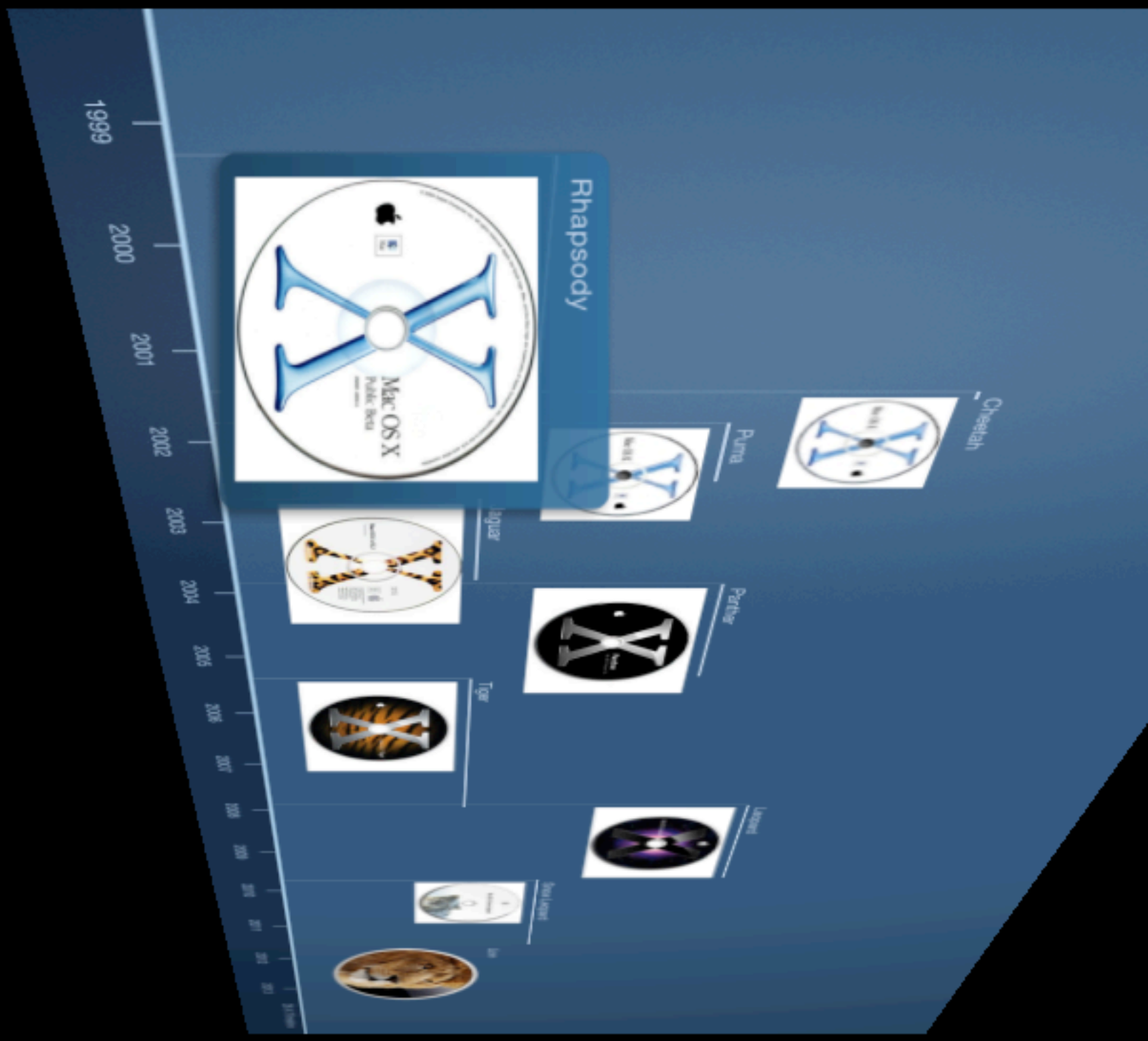
Rhapsody

Jaguar

Tiger

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

OS X Timeline


1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
Rhapsody
Mac OS X
Public Beta
Cheetah
Puma
Jaguar
Panther
Tiger
Leopard
Snow Leopard

Cheetah

Puma

Panther

Leopard

Snow Leopard

Lion

Rhapsody

Jaguar

Tiger

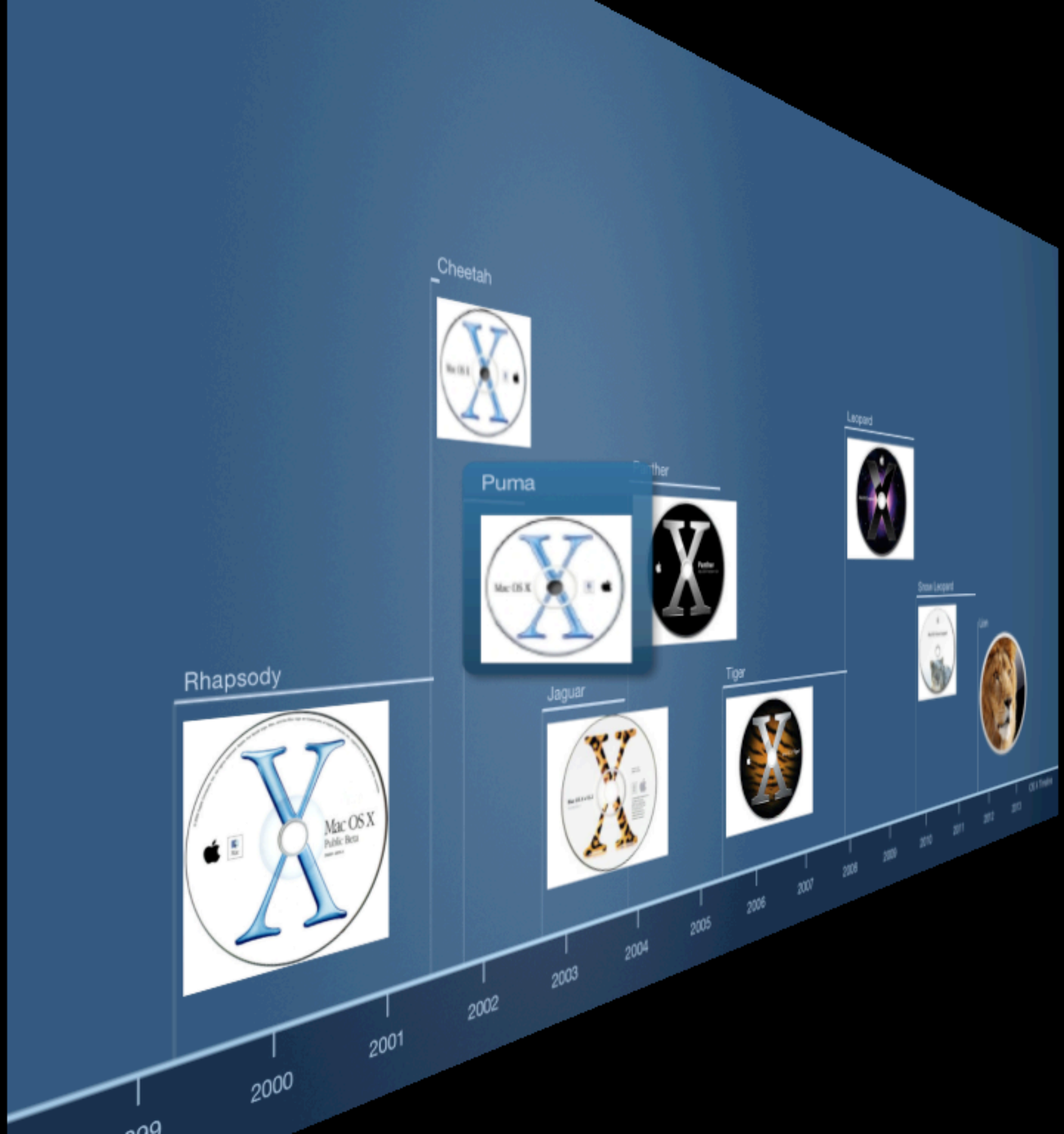
2004

2005

2006

2007

2008


Cheetah
Puma
Panther
Leopard
Snow Leopard
Lion
Rhapsody
Mac OS X
Public Beta
Jaguar
Tiger
2000
2001
2002
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2004
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2010
2011
2012
2013

Rhapsody

Puma

Panther

Jaguar

Leopard

Snow Leopard

Lion

1999
2000
2001
2002
2003
2004
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2006
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2008
2009
2010
2011
2012
2013

About This Mac

Mac OS X Server

Version 10.2.8

Memory: 1.38 GB
Processor: 400 MHz PowerPC G4

More Info...

™ & © Apple Computer, Inc. 1983–2003

Finder File Edit View Go Window Help

Fri 1:50 PM

Utilities

Back Forward View Computer Home Favorites Applications Search

41 items, 56.89 GB available

Open Directory Assistant

Print Center

Process Viewer

Server Assistant

Server Monitor

Server Settings

Server Status

Set SLP Neighborhood

StuffIt Expander

Terminal

Workgroup Manager

jaguar.justinrummel.net

File & Print | General | Internet | Network

Apple FTP Windows NFS Print

Service Status: 0 Running

Server Status:jaguar.justinrummel.net:Directory Servers

Workgroup Manager | Connect | Reconnect | Disconnect | Refresh | New Window

Service

Devices & Services

- jaguar.justinrummel.ne
  - AppleFile
  - DHCP-NetBoot
  - Directory Servers
  - DNS
  - FTP
  - Firewall
  - Mail
  - NFS
  - Print
  - QT Streaming
  - Web
  - Windows

Active Services Only

Overview | Logs

Directory Services are: Not available

Lookup Server (lookupd) is: Not available

NetInfo Server (netinfod) is: Not available

LDAP Server (slapd) is: Not available

Password Server is: Not available

Workgroup Manager Server Edit View Favorites Window Help Fri 1:49 PM

Workgroup Manager: jaguar.justinrummel.net

Status Sharing Accounts Preferences | New Record Delete Connect Disconnect Refresh New Window

Basic Advanced Groups Home Mail Print

Name

- Andre LeLimb
- Avery Day
- Carrie Onn
- Franklin Beans
- Schoun Vegan
- Server Admin
- Simon Wheatgerm

Name: Schoun Vegan

Short Names: schounvegan

User ID: 1028

Password: ••••••••

Verify: ••••••••

User can administer the server

administer this directory domain Privileges...

Account Summary

Location: jaguar.justinrummel.net/NetInfo/root
Home: /Network/Servers/Jaguar/Users/schounvegan
Primary Group: (1002)
Mail: No mail service for this user
Print: Disabled
Password: Basic

At: /NetInfo/root Presets: None Revert Save

network @ jaguar.justinrummel.net - /

New Duplicate Delete Open Parent Find

| / | users | schounvegan |
|---|---|---|
| aliases | andrelelimb | |
| computer_lists | averyday | |
| computers | franklinbeans | |
| config | root | |
| groups | sadmin | |
| machines | schounvegan | |
| mounts | simonwheatgerm | |
| presets_computer_lists | untitled_2 | |
| presets_groups | | |
| presets_users | | |
| printers | | |
| users | | |

| Property | Value(s) |
|---|---|
| mcx_flags | <?xml version="1.0" encoding="UTF-8"?> |
| realname | Schoun Vegan |
| name | schounvegan |
| _writers_tim_password | schounvegan |
| home | /Network/Servers/Jaguar/Users/schounvegan |
| passwd | dsAuthMethodStandard:dsAuthClearText |
| _writers_passwd | schounvegan |
| uid | 1028 |
| shell | |

Click the lock to make changes.

Directory Access

Services | Authentication | Contacts

| Enable | Name | Version |
|---|---|---|
| ☑ | AppleTalk | 1.0 |
| ☐ | BSD Configuration Files | 1.1 |
| ☑ | LDAPv2 | 1.5 |
| ☑ | LDAPv3 | 1.5.6 |
| ☑ | NetInfo | 1.5.1 |
| ☑ | NIS | 1.0 |
| ☑ | Rendezvous | 1.0.1 |
| ☑ | SLP | 1.0 |
| ☑ | SMB | 1.0 |

Configure...

Click the lock to prevent further changes. Revert Apply

Explorer File Edit View Go Favorites Tools Window Help

Mon 3:10 PM

Apple

Back Forward Stop Refresh Home AutoFill Print Mail

Address: http://www.apple.com/ go

Live Home Page | Apple | Apple Support | Apple Store | .Mac | Mac OS X | Microsoft MacTopia | Office for Macintosh | MSN

Favorites History Search Scrapbook Page Holder

Receiving image (0 bytes of 206 bytes, 0 bytes/sec)

Application Not Responding

Show In Finder
Force Quit

Rhapsody

Puma

Panther

Jaguar

Leopard

Snow Leopard

Lion

1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013

Cheetah

Puma

Panther

Leopard

Snow Leopard

Lion

Jaguar

Tiger

osody

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 OS X Timeline

About This Mac

# Mac OS X Server

Version 10.3.9

Software Update...

**Processor** 400 MHz PowerPC G4

**Memory** 1.38 GB SDRAM

More Info...

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All Rights Reserved.

Finder File Edit View Go Window Help Mon 2:33 PM

Server

local disks

Network
Panther
Cheetah
Puma
Jaguar
jbr
Desktop
sadmin
Applications
Documents
Movies
Music
Pictures

AppleShare IP Migration
Fibre Channel Utility
Macintosh Manager
MySQL Manager
Network Image Utility
QTSS Publisher
RAID Admin
Server Admin
Server Assistant
Server Monitor
Workgroup Manager

11 items, 56.07 GB available

Server Admin Server Edit View Favorites Window Help Mon 2:39 PM

Server Admin:panther.justinrummel.net:Open Directory

Workgroup Manager | Add Server | Remove Server | Disconnect | Refresh | New Window

Service

Computers & Services

- panther.justinrummel.net
  - AFP
  - Application Server
  - DHCP
  - DNS
  - Firewall
  - FTP
  - Mail
  - NAT
  - NetBoot
  - NFS
  - Open Directory
  - Print
  - QuickTime Streaming
  - VPN
  - Web
  - Windows

Open Directory is: Running

Lookup Server (lookupd) is: Running

NetInfo Server (netinfod) is: Running

LDAP Server (slapd) is: Running

Password Server is: Running

KDC is: Running

Overview | Logs | Settings

Kerberos Login Server Edit Mon 3:18 PM

Authenticate to Kerberos

**Finder requires that you type your Kerberos password**

Name:

Realm: PANTHER.JUSTINRUMMEL.NET

Password:

5.0.1 Copyright 2003 MIT

Show Options Cancel OK

Workgroup Manager Server Edit View Favorites Window Help Mon 2:43 PM

Workgroup Manager: panther.justinrummel.net

Admin Sharing Accounts Preferences | New User Delete Connect Disconnect Refresh New Window

Authenticated as sadmin to directory: /LDAPv3/127.0.0.1

Name contains

| Name | ID |
|---|---|
| Server Admin | 501 |
| Schoun Vegan | 1002 |
| Andre LeLimb | 1003 |
| Simon Wheatgerm | 1004 |
| Avery Day | 1005 |
| Carrie Onn | 1006 |
| Franklin Beans | 1007 |

1 of 7 users selected

Basic Advanced Groups Home Mail Print Windows

Name: Avery Day

User ID: 1005

Short Names: averyday

Password: ••••••••

Verify: ••••••••

User can: administer the server

administer this directory domain Privileges...

log in

Account Summary

Location: panther.justinrummel.net/LDAPv3/127.0.0.1

Home: /Usersaveryday

Primary Group: (20)

Mail: No mail service for this user

Print Quota: None

Password: Advanced

Presets: None Revert Save

Workgroup Manager Server Edit View Favorites Window Help Mon 2:43 PM

Workgroup Manager: panther.justinrummel.net

Admin Sharing Accounts Preferences | New User Delete Connect Disconnect Refresh New Window

Authenticated as sadmin to directory: /LDAPv3/127.0.0.1

Name contains

| Name | ID |
|---|---|
| Server Admin | 501 |
| Schoun Vegan | 1002 |
| Andre LeLimb | 1003 |
| Simon Wheatgerm | 1004 |
| Avery Day | 1005 |
| Carrie Onn | 1006 |
| Franklin Beans | 1007 |

1 of 7 users selected

Basic Advanced Groups Home Mail Print Windows Inspector

Filter:

| Name | Value |
|---|---|
| AppleMetaNodeLocation | /LDAPv3/127.0.0.1 |
| ▶ AuthenticationAuthority(2) | ;ApplePasswordServer;0x3bd4689639876b |
| FirstName | Avery |
| GeneratedUID | 8C1F157A-C71C-11D5-99F5-000A27E3A |
| LastName | Day |
| MCXFlags | <?xml version="1.0" encoding="UTF-8"?> |
| NFSHomeDirectory | /Usersaveryday |
| Password | ******** |
| PrimaryGroupID | 20 |
| RealName | Avery Day |
| ▶ RecordName(2) | averyday |
| UniqueID | 1005 |
| UserShell | /bin/bash |
| dsAttrTypeNative:apple-generated | 8C1F157A-C71C-11D5-99F5-000A27E3A |
| dsAttrTypeNative:apple-mcxflags | <?xml version="1.0" encoding="UTF-8"?> |

Options… Edit… New Value… New Attribute…

Presets: None Revert Save

Finder File Edit View Go Window Help Mon 2:44 PM

Workgroup Manager: panther.justinrummel.net

Admin Sharing Accounts Preferences | New Record Delete Connect Disconnect Refresh New Window

Authenticated as sadmin to directory: /LDAPv3/127.0.0.1

Name contains

Users

| Name |
|---|
| andrelelimb |
| averyday |
| franklinbeans |
| root |
| sadmin |
| schounvegan |
| simonwheatgerm |
| untitled_2 |

Inspector

Filter:

| Name | Value |
|---|---|
| AppleMetaNodeLocation | /LDAPv3/127.0.0.1 |
| ▶ AuthenticationAuthority(2) | ;ApplePasswordServer;0x3bd4689555d5e9 |
| FirstName | Schoun |
| GeneratedUID | 8B38E4DE-C71C-11D5-99F5-000A27E3A |
| LastName | Vegan |
| MCXFlags | <?xml version="1.0" encoding="UTF-8"?> |
| NFSHomeDirectory | /Usersschounvegan |
| Password | ******** |
| PrimaryGroupID | 20 |
| RealName | Schoun Vegan |
| ▶ RecordName(2) | schounvegan |
| UniqueID | 1002 |
| UserShell | /bin/bash |
| dsAttrTypeNative:apple-generated | 8B38E4DE-C71C-11D5-99F5-000A27E3A |
| dsAttrTypeNative:apple-mcxflags | <?xml version="1.0" encoding="UTF-8"?> |

Options... Edit... New Value... New Attribute...

Revert Save

Directory Access Server Edit Window Help Mon 3:17 PM

Directory Access

Services | Authentication | Contacts

| Enable | Name | Version |
|---|---|---|
| ☐ | Active Directory | 1.0.7 |
| ☑ | AppleTalk | 1.1 |
| ☑ | BSD Flat File and NIS | 1.1 |
| ☑ | LDAPv3 | 1.6.5 |
| ☐ | NetInfo | 1.6.2 |
| ☑ | Rendezvous | 1.1.2 |
| ☑ | SLP | 1.1.3 |
| ☑ | SMB | 1.1.4 |

Configure...

Click the lock to prevent further changes. Revert Apply

Cheetah

Puma

Panther

Leopard

Snow Leopard

Lion

Jaguar

Tiger

osody

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 OS X Timeline

Puma

Panther

Leopard

Snow Leopard

Lion

Jaguar

Tiger

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

OS X Timeline

Finder File Edit View Go Window Help

Wed 3:33:07 PM

ServerHD

About This Mac

# Mac OS X Server

Version 10.4.11

Software Update...

**Processor** 400 MHz PowerPC G4

**Memory** 1.38 GB SDRAM

More Info...

TM & © 1983–2007 Apple Inc.
All Rights Reserved.

Finder File Edit View Go Window Help

Wed 3:33:46 PM

ServerHD

Server

Network
ServerHD
Desktop
sadmin
Applications
Documents
Movies
Music
Pictures

AppleShare IP Migration
Fibre Channel Utility
Gateway Setup Assistant
MySQL Manager
QTSS Publisher
RAID Admin
Server Admin
Server Assistant
Server Monitor
System Image Utility
Workgroup Manager
Xgrid Admin

12 items, 15.86 GB available

Server Admin Server Edit View Favorites Window Help Wed 3:37:14 PM

ServerHD

Server Admin:Tiger.local:Open Directory

Workgroup Manager | Add Server | Remove Server | Connect | Refresh | New Window | Start Service

Service

Computers & Services

- Tiger.local
  - AFP
  - Application Server
  - DHCP
  - DNS
  - Firewall
  - FTP
  - iChat
  - Mail
  - NAT
  - NetBoot
  - NFS
  - Open Directory
  - Print
  - QuickTime Streaming
  - Software Update
  - VPN
  - Web
  - WebObjects
  - Windows
  - Xgrid

General | Protocols | Policy

Configure: LDAP Settings

Search base: dc=tiger,dc=justinrummel,dc=net

Database: /var/db/openldap/openldap-data ...

Return a maximum of 11000 search results

Search times out in 1 hours

Enable Secure Sockets Layer (SSL)

Certificate: Custom Configuration

Overview | Logs | Archive | Settings

Revert Save

Workgroup Manager Server Edit View Favorites Window Help Wed 3:44:03 PM

ServerHD

Workgroup Manager: tiger.justinrummel.net

Admin Sharing Network Accounts Preferences New User Delete Connect Disconnect Refresh New Window Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

| Name | ID |
|---|---|
| Directory Administ... | 1000 |
| Schoun Vegan | 1025 |
| Andre LeLimb | 1026 |
| Simon Wheatgerm | 1027 |
| Avery Day | 1028 |
| Carrie Onn | 1029 |
| Franklin Beans | 1030 |

1 of 7 users selected

Basic Advanced Groups Home Mail Print Quota Info Windows Inspector

Name: Franklin Beans

User ID: 1030

Short Names: franklinbeans

Password: •••••

Verify: •••••

User can
- [ ] administer the server
- [ ] administer this directory domain — Privileges...
- [x] access account

Account Summary

Location: tiger.justinrummel.net/LDAPv3/127.0.0.1
Home: No Home Directory
Primary Group: staff (20)
Mail: No mail service for this user
Print Quota: None
Password: Open Directory

Presets: None

Revert Save

Workgroup Manager Server Edit View Favorites Window Help Wed 3:44:44 PM

ServerHD

Workgroup Manager: tiger.justinrummel.net

Admin Sharing Network Accounts Preferences New Record Delete Connect Disconnect Refresh New Window Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

Name contains

Users

| Name |
|---|
| andrelelimb |
| averyday |
| diradmin |
| franklinbeans |
| root |
| schounvegan |
| simonwheatgerm |
| untitled_2 |
| vpn_c3ef69f5fc85 |

Inspector

Filter:

Record Size: 1.28 KB

| Name | Size | Value |
|---|---|---|
| AppleMetaNodeLocation | 17 bytes | /LDAPv3/127.0.0.1 |
| ▼AuthenticationAuthority(2) | 879 bytes | |
| | 415 bytes | ;ApplePasswordServer; |
| | 464 bytes | ;Kerberosv5;0x3bcddef926250ddd00 |
| FirstName | 6 bytes | Schoun |
| GeneratedUID | 36 bytes | A52905ED-F148-490D- |
| LastName | 5 bytes | Vegan |
| MCXFlags | 245 bytes | <?xml version="1.0" encoding="UTF- |
| NFSHomeDirectory | 2 bytes | 99 |
| Password | 8 bytes | ******** |
| PrimaryGroupID | 2 bytes | 20 |
| RealName | 12 bytes | Schoun Vegan |
| ▼RecordName(2) | 23 bytes | |
| | 11 bytes | schounvegan |
| | 12 bytes | Schoun Vegan |

Options… Edit… New Value… New Attribute…

Revert Save

Workgroup Manager Server Edit View Favorites Window Help Wed 3:45:07 PM

ServerHD

Workgroup Manager: tiger.justinrummel.net

Admin Sharing Network Accounts Preferences New User Delete Connect Disconnect Refresh New Window Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

| Name | ID |
|---|---|
| Directory Administ... | 1000 |
| Schoun Vegan | 1025 |
| Andre LeLimb | 1026 |
| Simon Wheatgerm | 1027 |
| Avery Day | 1028 |
| Carrie Onn | 1029 |
| Franklin Beans | 1030 |

1 of 7 users selected

Basic Advanced Groups Home Mail Print Quota Info Windows Inspector

Filter: Record Size: 1.28 KB

| Name | Size | Value |
|---|---|---|
| AppleMetaNodeLocation | 17 bytes | /LDAPv3/127.0.0.1 |
| ▼AuthenticationAuthority(2) | 879 bytes | |
| | 415 bytes | ;ApplePasswordServer; |
| | 464 bytes | ;Kerberosv5;0x3bcddef926250ddd00 |
| FirstName | 6 bytes | Schoun |
| GeneratedUID | 36 bytes | A52905ED-F148-490D- |
| LastName | 5 bytes | Vegan |
| MCXFlags | 245 bytes | <?xml version="1.0" encoding="UTF- |
| NFSHomeDirectory | 2 bytes | 99 |
| Password | 8 bytes | ******** |
| PrimaryGroupID | 2 bytes | 20 |
| RealName | 12 bytes | Schoun Vegan |
| ▼RecordName(2) | 23 bytes | |
| | 11 bytes | schounvegan |
| | 12 bytes | Schoun Vegan |

Options... Edit... New Value... New Attribute...

Presets: None Revert Save

Directory Access Server Edit Window Help Mon 3:28:57 PM

Directory Access

Services | Authentication | Contacts

| Enable | Name | Version |
|---|---|---|
| ☐ | Active Directory | 1.5.8 |
| ☐ | AppleTalk | 1.2 |
| ☑ | Bonjour | 1.2 |
| ☑ | BSD Flat File and NIS | 1.2.2 |
| ☑ | LDAPv3 | 1.7.4 |
| ☐ | NetInfo | 1.7.4 |
| ☑ | SLP | 1.3.1 |
| ☑ | SMB/CIFS | 1.2 |

Configure...

Click the lock to prevent further changes. Revert Apply

Puma

Panther

Leopard

Snow Leopard

Lion

Jaguar

Tiger

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

OS X Timeline

Leopard

Panther

Tiger

Snow Leopard

Lion

2009 2010 2011 2012 2013 OS X Timeline

Finder File Edit View Go Window Help

Fri 1:24 PM

Leopard

About This Mac

# Mac OS X Server

Version 10.5.8

Software Update...

**Processor** 2.4 GHz Intel Core 2 Duo

**Memory** 2 GB 667 MHz DDR2 SDRAM

**Startup Disk** Leopard

More Info...

TM & © 1983–2009 Apple Inc.
All Rights Reserved.

Finder File Edit View Go Window Help

Fri 1:34 PM

Server

DEVICES
Leopard
iDisk

SHARED
odr
JRummel-MBP
Lion
odm
snowleopard
All...

PLACES
Desktop
sadmin
Applications
Documents

SEARCH FOR

RAID Admin
Server Admin
Server Assistant
Server Monitor
Server Preferences
System Image Utility
Workgroup Manager
Xgrid Admin

8 items, 137.44 GB available

Server Preferences Connection Edit View Window Help Mon 2:37 PM

Server Preferences

Show All

Accounts

Users

Services

File Sharing

VPN

System

Information Logs Graphs Time Machine Firewall

**Server Preferences can't be used with advanced configurations of Mac OS X Server.**

The server you're trying to connect to is running an advanced configuration. Server Preferences only supports standard and workgroup configurations of Mac OS X Server v10.5.

OK

Server Admin Server Edit View Window Help Fri 1:25 PM

Server Admin:leopard.local:Open Directory

SERVERS
- Available Servers
- leopard.local
  - Open Directory

Overview | Logs | Archive | Settings

Open Directory is: Open Directory Master

LDAP Server is: Running
Password Server is: Running
Kerberos is: Running

LDAP Search Base: dc=leopard,dc=justinrummel,dc=net
Kerberos Realm: LEOPARD.JUSTINRUMMEL.NET

Workgroup Manager Server Edit View Favorites Window Help Fri 1:26 PM

Workgroup Manager: Local

Server Admin | Accounts | Preferences | New User | Delete | Refresh | New Window | Search

Viewing directory: /LDAPv3/127.0.0.1. Not authenticated

Name Contains

| User Name | UI |
|---|---|
| Directory Administ... | 1000 |
| Schoun Vegan | 1002 |
| Andre LeLimb | 1003 |
| Simon Wheatgerm | 1004 |
| Avery Day | 1005 |
| Carrie Onn | 1006 |
| Franklin Beans | 1007 |

1 of 7 users selected

Basic | Privileges | Advanced | Groups | Home | Mail | Print Quota | Info | Windows | Inspector

Filter:

Record Size: 1.29 KB

| Name | Size | Value |
|---|---|---|
| AppleMetaNodeLocation | 17 bytes | /LDAPv3/127.0.0.1 |
| ▶ AuthenticationAuthority(2) | 873 bytes | ;ApplePasswordServer; |
| FirstName | 6 bytes | Schoun |
| GeneratedUID | 36 bytes | 053807E0-A6B7-4DAF- |
| LastName | 5 bytes | Vegan |
| MCXFlags | 243 bytes | <?xml version="1.0" |
| NFSHomeDirectory | 18 bytes | /Users/schounvegan |
| Password | 8 bytes | ******** |
| PrimaryGroupID | 2 bytes | 20 |
| RealName | 12 bytes | Schoun Vegan |
| ▶ RecordName(2) | 23 bytes | schounvegan |
| RecordType | 23 bytes | dsRecTypeStandard:Users |
| UniqueID | 4 bytes | 1002 |
| UserShell | 9 bytes | /bin/bash |
| dsAttrTypeNative:apple- | 36 bytes | 053807E0-A6B7-4DAF- |
| dsAttrTypeNative:apple- | 243 bytes | <?xml version="1.0" |

Options... | View... | New Value... | New Attribute...

Presets: None | Revert | Save

Workgroup Manager Server Edit View Favorites Window Help Fri 1:26 PM

Workgroup Manager: Local

Server Admin | Accounts | Preferences | New Record | Delete | Refresh | New Window | Search

Viewing directory: /LDAPv3/127.0.0.1. Not authenticated

Name contains

Users

| Name |
|---|
| andrelelimb |
| averyday |
| diradmin |
| franklinbeans |
| root |
| schounvegan |
| simonwheatgerm |
| untitled_2 |
| vpn_f4395f4002b1 |

1 of 9 records selected

Inspector

Filter:

Record Size: 1.29 KB

| Name | Size | Value |
|---|---|---|
| AppleMetaNodeLocation | 17 bytes | /LDAPv3/127.0.0.1 |
| ▶ AuthenticationAuthority(2) | 873 bytes | ;ApplePasswordServer; |
| FirstName | 6 bytes | Schoun |
| GeneratedUID | 36 bytes | 053807E0-A6B7-4DAF- |
| LastName | 5 bytes | Vegan |
| MCXFlags | 243 bytes | <?xml version="1.0" |
| NFSHomeDirectory | 18 bytes | /Users/schounvegan |
| Password | 8 bytes | ******** |
| PrimaryGroupID | 2 bytes | 20 |
| RealName | 12 bytes | Schoun Vegan |
| ▶ RecordName(2) | 23 bytes | schounvegan |
| RecordType | 23 bytes | dsRecTypeStandard:Users |
| UniqueID | 4 bytes | 1002 |
| UserShell | 9 bytes | /bin/bash |
| dsAttrTypeNative:apple- | 36 bytes | 053807E0-A6B7-4DAF- |

Options... | View... | New Value... | New Attribute...

Revert | Save

Directory Utility File Edit Window Help Mon 3:03 PM

Directory Utility

Directory Servers | Mounts | Services | Search Policy

Select a service and click the pencil icon to edit settings.

| Enable | Name | Version |
|---|---|---|
| ☐ | Active Directory | 1.6.5 |
| ☑ | BSD Flat File and NIS | 2.0 |
| ☑ | LDAPv3 | 3.1 |
| ☑ | Local | 1.1 |

Click the lock to make changes.

Apply

Leopard

Panther

Tiger

Snow Leopard

Lion

2009 2010 2011 2012 2013 OS X Timeline

Leopard

Snow Leopard

Tiger

2006

2007

2008

2009

2010

2011

2012

2013

OS X Timeline

Finder File Edit View Go Window Help
Wed 10:36 AM
About This Mac
Mac OS X Server
Version 10.6.8
Software Update...
Processor 2.4 GHz Intel Core 2 Duo
Memory 2 GB 667 MHz DDR2 SDRAM
Startup Disk MacHD
More Info...
TM and © 1983-2011 Apple Inc.
All Rights Reserved.

Finder File Edit View Go Window Help Wed 10:36 AM

Server

DEVICES
MacHD
iDisk

SHARED
odr
JRummel-MBP
leopard
Lion
odm
All...

PLACES
Desktop
ladmin
Applications
Documents

SEARCH FOR
Today

iCal Server Utility
Podcast Composer
RAID Admin
Server Admin
Server Monitor
Server Preferences
System Image Utility
Workgroup Manager
Xgrid Admin

9 items, 149.17 GB available

Server Preferences Connection Edit View Window Help Sat 11:39 AM

Server Preferences

Show All

Accounts

Users Groups

Services

File Sharing Address Book iCal iChat Mail Web VPN

System

Information Logs Graphs Time Machine Security

Server Preferences Connection Edit View Window Help Sat 11:40 AM

File Sharing

Show All

File Sharing

OFF ON

Shared Folders:

There are currently no shared folders.

+ − Edit Permissions...

?

Server Admin  Server  Edit  View  Window  Help  Wed 10:37 AM

Server Admin: snowleopard.local: Open Directory

SERVERS
- Available Servers (4)
- snowleopard.local
  - NFS
  - Open Directory

Overview | Logs | Archive | Settings

Open Directory is: Open Directory master

LDAP Server is: Running
Password Server is: Running
Kerberos is: Running

LDAP Search Base: dc=snowleopard,dc=justinrummel,dc=net
Kerberos Realm: SNOWLEOPARD.JUSTINRUMMEL.NET

Workgroup Manager Server Edit View Favorites Window Help Wed 10:35 AM

snowleopard.justinrummel.net

Server Admin | Accounts | Preferences | New Record | Delete | Refresh | New Window | Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

Name contains

Users

| Name |
|---|
| andrelelimb |
| averyday |
| diradmin |
| franklinbeans |
| root |
| schounvegan |
| simonwheatgerm |
| untitled_2 |
| vpn_e8d5ac11f22e |

1 of 9 groups selected

Inspector

Filter:

Record Size: 1.32 KB

| Name | Size | Value |
|---|---|---|
| AltSecurityIdentities | 52 bytes | Kerberos:simonwheatgerm@SNOWL |
| AppleMetaNodeLocation | 17 bytes | /LDAPv3/127.0.0.1 |
| ▶ AuthenticationAuthority(2) | 906 bytes | ;ApplePasswordServer; |
| FirstName | 5 bytes | Simon |
| GeneratedUID | 36 bytes | F64206DF-86B3-4FB4-99C7-2C31 |
| LastName | 9 bytes | Wheatgerm |
| MCXFlags | 181 bytes | <?xml version="1.0" |
| NFSHomeDirectory | 21 bytes | /Users/simonwheatgerm |
| Password | 8 bytes | ******** |
| PrimaryGroupID | 2 bytes | 20 |
| RealName | 15 bytes | Simon Wheatgerm |
| ▶ RecordName(2) | 29 bytes | simonwheatgerm |
| RecordType | 23 bytes | dsRecTypeStandard:Users |
| UniqueID | 4 bytes | 1004 |
| UserShell | 9 bytes | /bin/bash |

Options... | Edit... | New Value... | New Attribute...

Revert | Save

Workgroup Manager Server Edit View Favorites Window Help Wed 10:36 AM

snowleopard.justinrummel.net

Server Admin | Accounts | Preferences | New User | Delete | Refresh | New Window | Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

Name contains

| User Name | UID |
|---|---|
| Directory Administ... | 1000 |
| Schoun Vegan | 1002 |
| Andre LeLimb | 1003 |
| Simon Wheatgerm | 1004 |
| Avery Day | 1005 |
| Carrie Onn | 1006 |
| Franklin Beans | 1007 |

1 of 7 users selected

Basic | Privileges | Advanced | Groups | Home | Mail | Print | Info | Windows | Inspe

Filter:

Record Size: 1.32 KB

| Name | Size | Value |
|---|---|---|
| AltSecurityIdentities | 51 bytes | Kerberos:franklinbeans@SNOWLEOP |
| AppleMetaNodeLocation | 17 bytes | /LDAPv3/127.0.0.1 |
| ▶ AuthenticationAuthority(2) | 905 bytes | ;ApplePasswordServer; |
| FirstName | 8 bytes | Franklin |
| GeneratedUID | 36 bytes | 78D11451-1262-47C8-976D-34A |
| LastName | 5 bytes | Beans |
| MCXFlags | 181 bytes | <?xml version="1.0" |
| NFSHomeDirectory | 20 bytes | /Users/franklinbeans |
| Password | 8 bytes | ******** |
| PrimaryGroupID | 2 bytes | 20 |
| RealName | 14 bytes | Franklin Beans |
| ▶ RecordName(2) | 27 bytes | franklinbeans |
| RecordType | 23 bytes | dsRecTypeStandard:Users |
| UniqueID | 4 bytes | 1007 |
| UserShell | 9 bytes | /bin/bash |

Options... | Edit... | New Value... | New Attribute...

Presets: Users | Revert | Save

Finder File Edit View Go Window Help Wed 1:52 PM

CoreServices

DEVICES
SnowLeopard
iDisk

SHARED
odr
JRummel-MBP
leopard
Lion
odm
All...

PLACES
Desktop
ladmin
Applications
Documents

SEARCH FOR
Today
Yesterday
Past Week
All Images
All Movies
All Documents

Library

Address Book Plug-Ins
Automator
BridgeSupport
Caches
CFMSupport
ColorPickers
Colors
ColorSync
Components
Compositions
CoreServices
DirectoryServices
Displays
DTDs
Extensions
Filesystems
Filters
Fonts
Frameworks
Graphics
Image Capture
Input Methods
Java
KerberosPlugins
Keyboard Layouts
Keychains
LaunchAgents
LaunchDaemons
LoginPlugins
Modem Scripts
MonitorPanels
OpenSSL

CCacheServer
Certificate Assistant
checkfixlist
CommonC...els.bundle
CoreLocationAgent
coreservicesd
CoreServicesUIAgent
CoreTypes.bundle
Database Events
DefaultDes...Server.jpg
DictionaryPanel.bundle
Directory Utility
DiskImageMounter
Dock
DumpPanic
Encodings
Expansion Slot Utility
File Sync
FileSyncAgent
Finder
Firmware Updates
FixupResourceForks
Folder Acti...Dispatcher
Folder Actions Setup
Front Row
HelpViewer
Image Events
Installer
Jar Launcher
Java Web Start
JavaVersion.plist
KerberosAgent

Preview:

Name Directory Utility
Kind Application
Size 3.4 MB on disk
Created 5/19/09 2:08 AM
Modified 5/19/09 2:08 AM
Last opened 5/19/09 2:08 AM
Version 2.2

More info...

1 of 107 selected, 149.17 GB available

Leopard

Snow Leopard

Tiger

2006

2007

2008

2009

2010

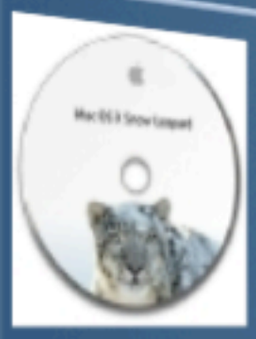
2011

2012

2013

OS X Timeline

Snow Leopard




Lion

2008

2009

2010

2011

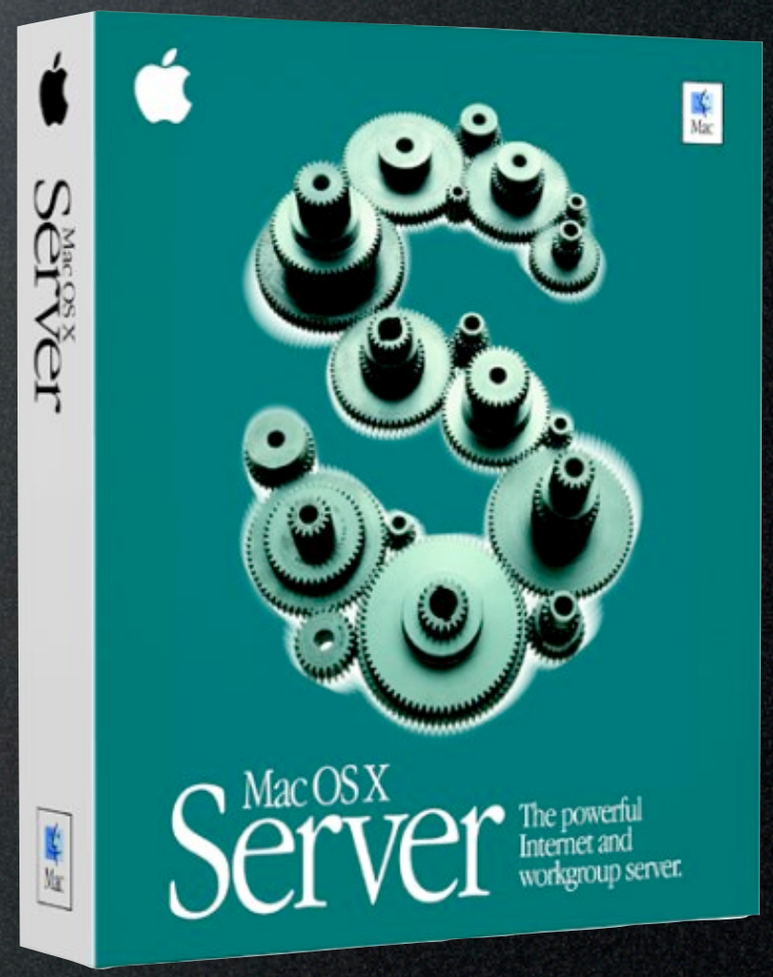
2012

2013

OS X Timeline

# Lion Server Overview

- “Install Media”
- Update to 10.7.2
- Pricing
- EULA Changes
- Recovery Partition



# EULA

2,B,iii

*to install, use and run up to two (2) additional copies or instances of the Apple Software within virtual operating system environments on each Mac Computer you own or control that is already running the Apple Software.*

# Recovery Partition

- 650MB hidden partition
- Option or Command + R
- Allows for Internet Restore
  - Mid-2011 MacBook Air, Mini & Early 2011 iMac (FW Update)
  - WPA/WPA2, DHCP, Ethernet

# Lion & iOS Philosophy

- Shift to focus on “personal devices”
- Stressing ease of service accessibility

# Installing Server

- Update / Install
  - Update to 10.6.8
    - Purchase through AppStore
- New Install
  - Prerequisites

# Offline Install

- “Show Package Contents” > Contents > SharedSupport > InstallESD.dmg
- Copy Server (AppStore Download)

# WGM vs SA vs Server.App

- Server Admin Tools is an additional download
- DL1457 (10.7.2)

| | WGM | SA | Server.App |
|---|---|---|---|
| Configuring Services | | | |
| Managing Accounts | | | |
| File Sharing | | | |
| Network Services | | | |
| Delegate Administration | | | |

Workgroup Manager: Local

Server Admin | Accounts | Preferences | New User | Delete | Refresh | New Window | Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

Name contains

| User Name | UID |
|---|---|
| Directory Administ... | 1000 |
| Randy Saeks | 1026 |
| Sandy Rakes | 1025 |

Basic | Privileges | Advanced | Groups | Home | Info

Name: Randy Saeks

User ID: 1026

Short Names: rsaeks

Password: ••••••••  Verify: ••••••••

User can
- [ ] administer this server
- [x] access account

Workgroup Manager: Local

Server Admin | Accounts | Preferences | New User | Delete | Refresh | New Window | Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

Name contains

| User Name | UID |
|---|---|
| Directory Administ... | 1000 |
| Randy Saeks | 1026 |
| Sandy Rakes | 1025 |

Basic | Privileges | Advanced | Groups | Home | Info

Name: Randy Saeks

User ID: 1026

**Randy Saeks**

rsaeks

Full Name: Randy Saeks

Email Address:

Allow user to administer this server

Home Folder: Custom

Groups:

Cancel | Done

Workgroup Manager: Local

Server Admin | Accounts | Preferences | New User | Delete | Refresh | New Window | Search

Authenticated as diradmin to directory: /LDAPv3/127.0.0.1

Name contains

| User Name | UID |
|---|---|
| Directory Administ... | 1000 |
| Randy Saeks | 1026 |
| Sandy Rakes | 1025 |

Basic | Privileges | Advanced | Groups | Home | Info

Name: Randy Saeks

User ID: 1026

**Randy Saeks**

rsaeks

Full Name: Randy Saeks

Email Address:

Allow user to administer this server

Home Folder: Custom

Basic | Privileges | Advanced | Groups | Home | Info

Name: Randy Saeks

User ID: 1026

Short Names: rsaeks

Password: ••••••••  Verify: ••••••••

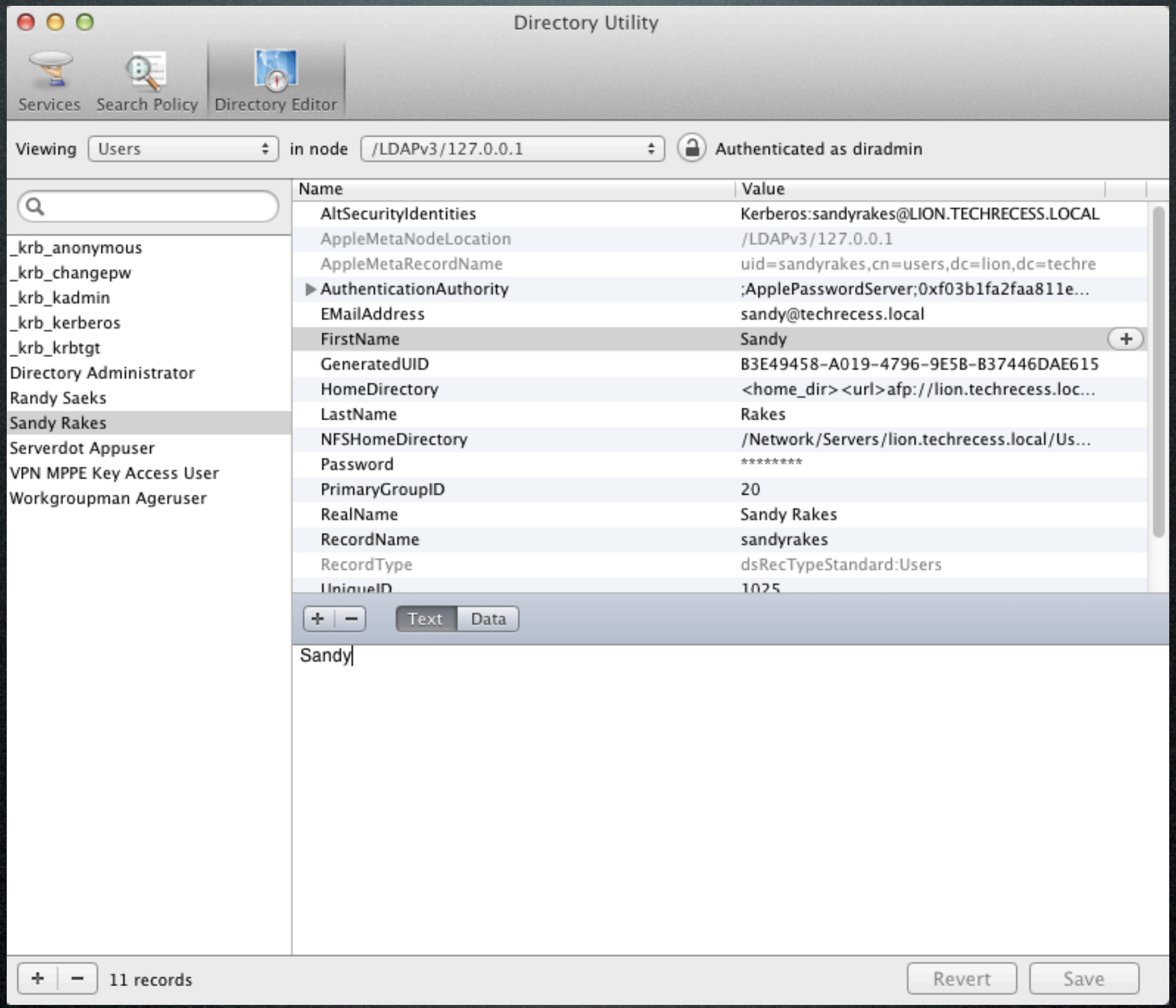
User can administer this server

access account

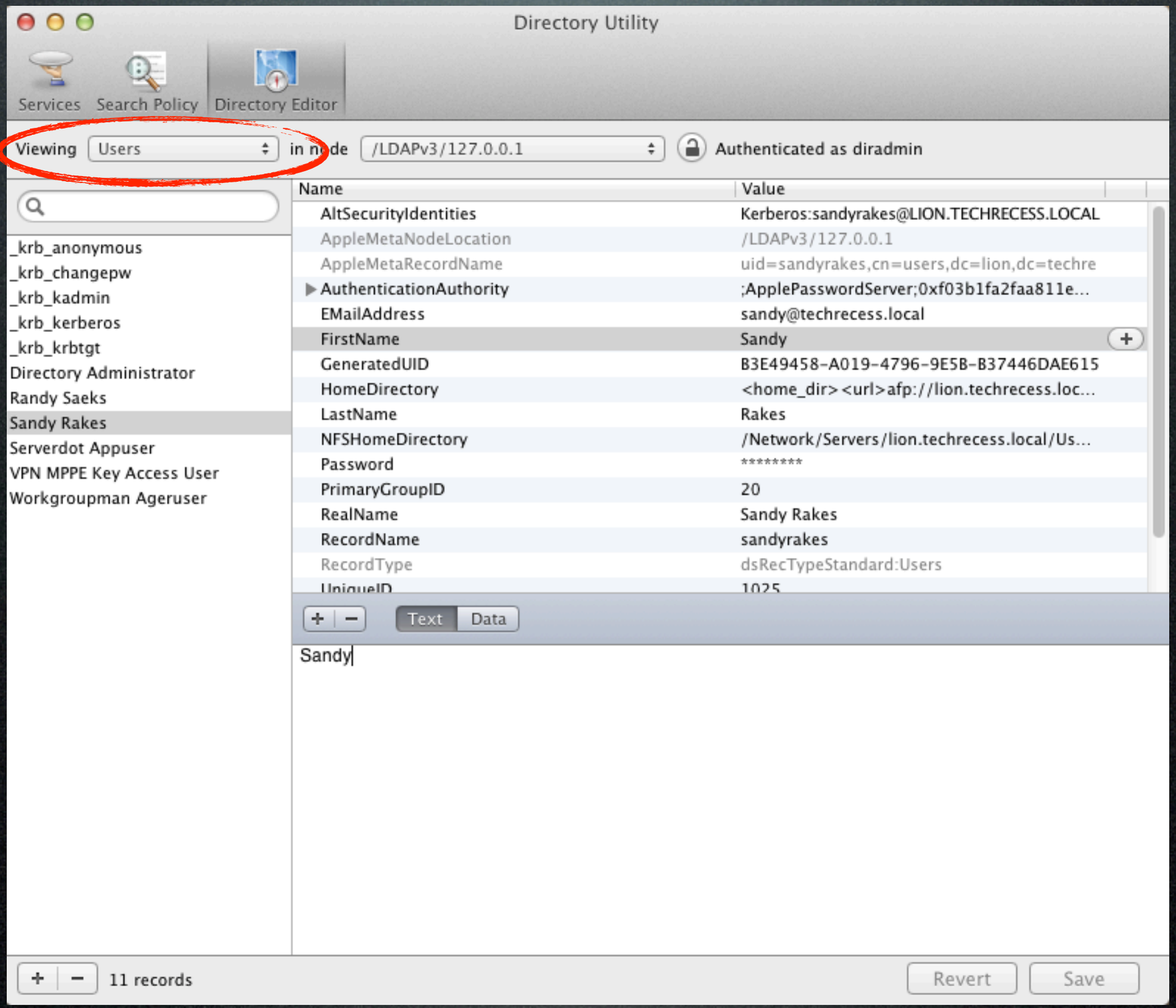
# WGM

- Modify U,G,C,CG
- Set / Modify Manageable Items (MCX)
- Edit Address Book Information
- No more Inspector*

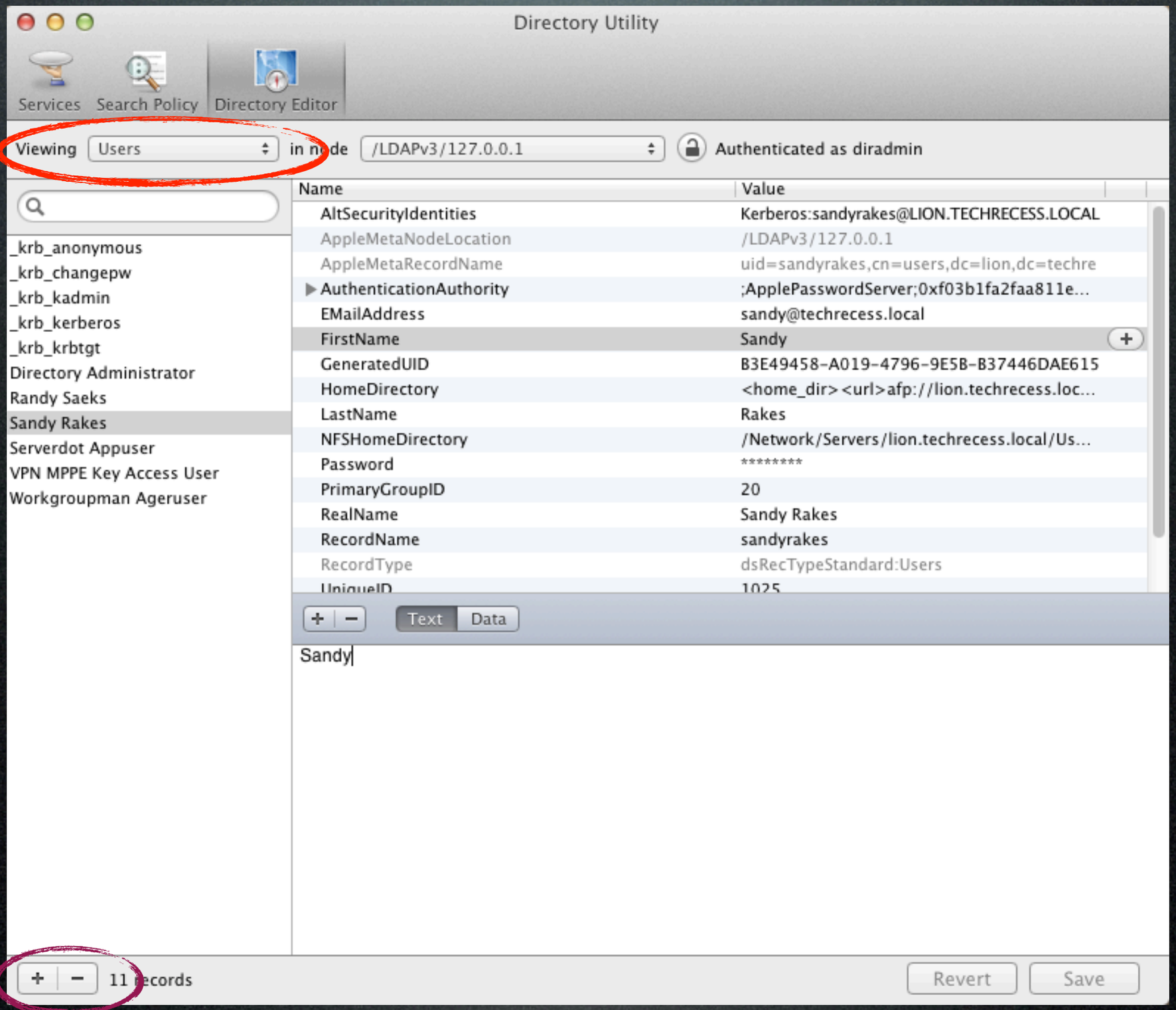
# Directory Editor



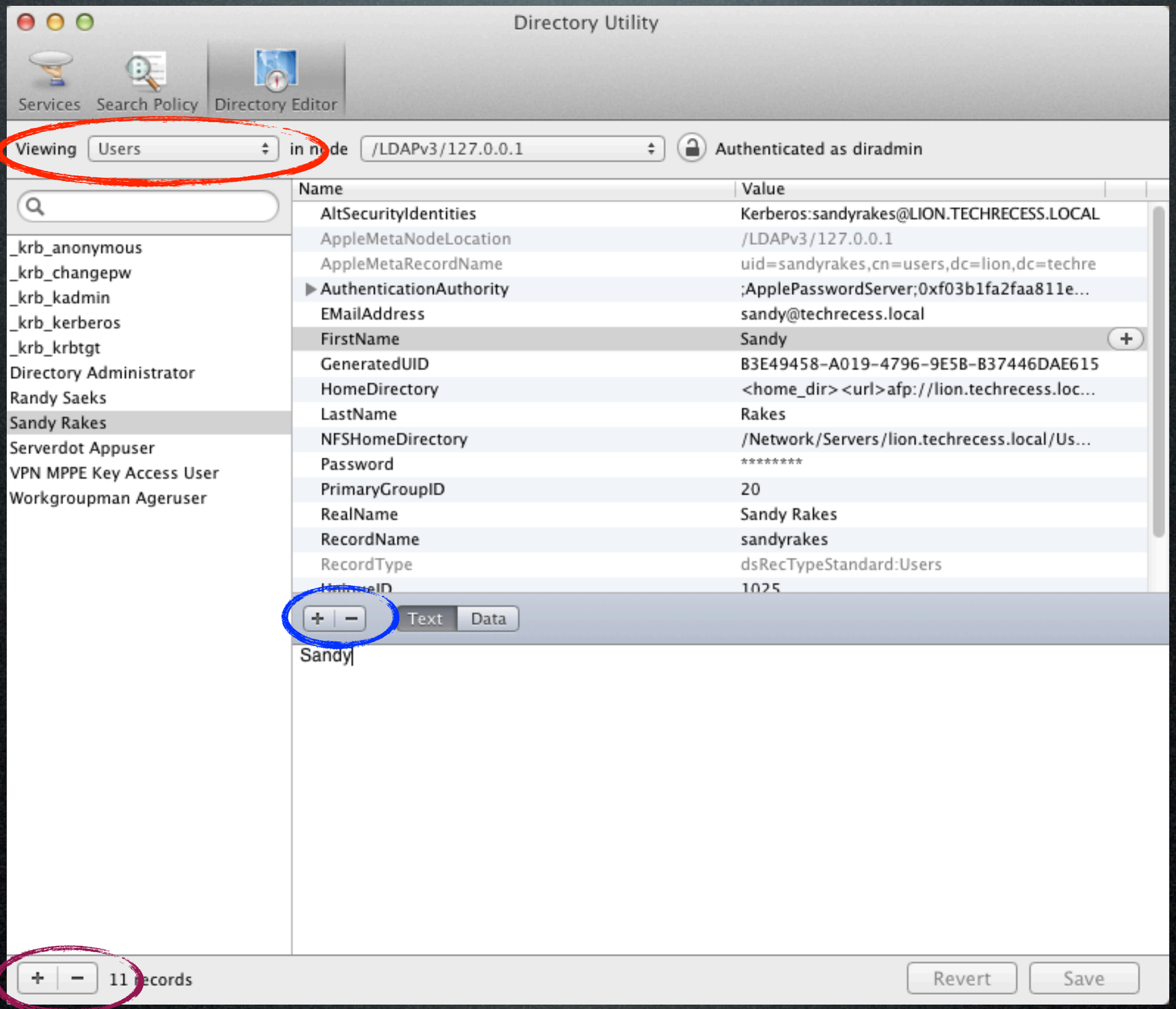
# Directory Editor



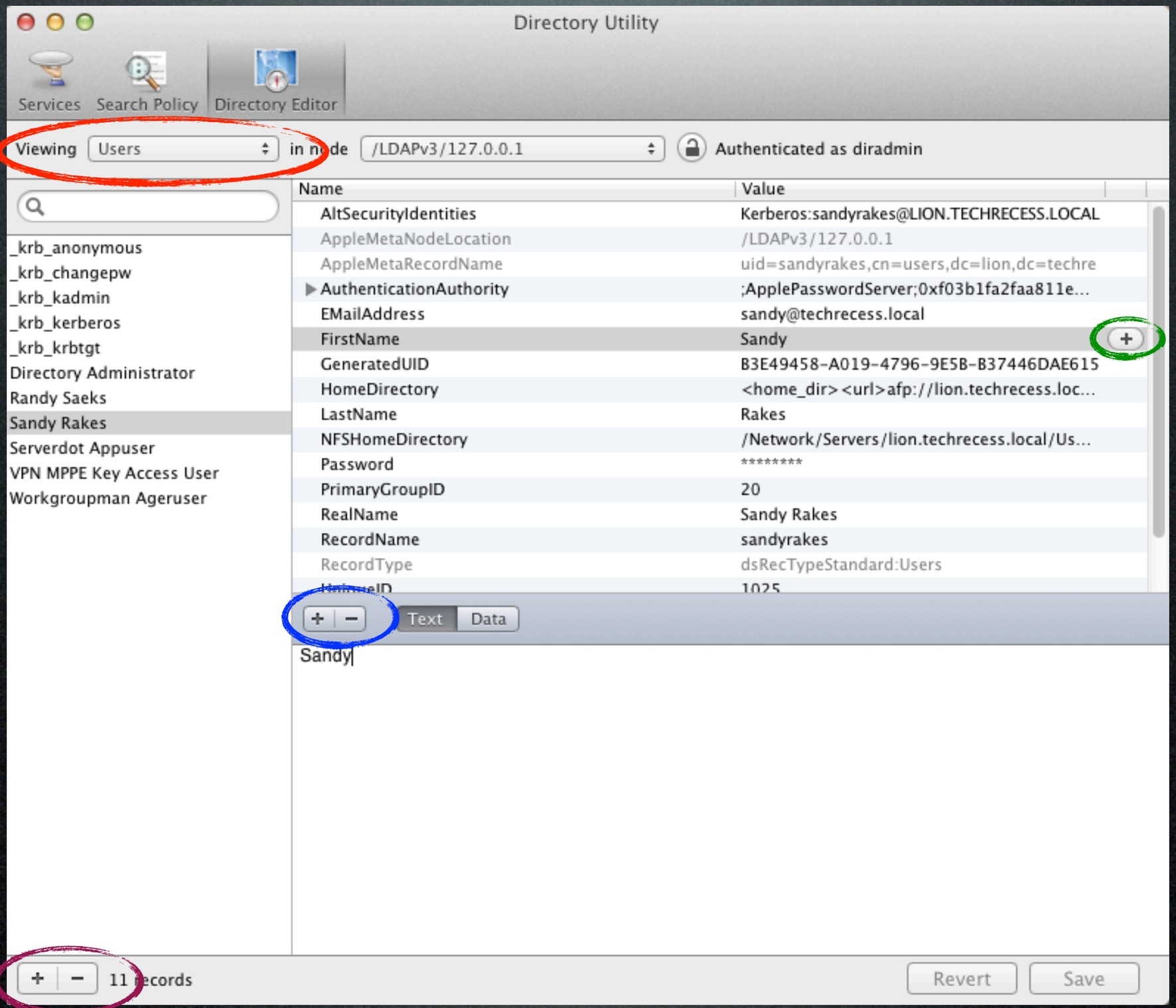
# Directory Editor



# Directory Editor



# Directory Editor



# Server Admin

- “Network Services Admin”
- Setup group and fine-tuned SACLs
- View Multiple Server Stats

# Server Admin

- “Network Services Admin”
- Setup group and fine-tuned SACLs

- View Multiple Server Stats

| Name | OS | CPU | Network | Disk | Uptime | Users |
|---|---|---|---|---|---|---|
| wexserver2.district30.k12.il.us | 10.5.8 | | 129.55 KB/... | | 89 days, 5:30 | 7 |
| maxserver2.district30.k12.il.us | 10.5.8 | | 6.89 KB/sec | | 35 days, 17:34 | 17 |
| wexserver.district30.k12.il.us | 10.6.8 | | 6.95 KB/sec | | 45 days, 23:23 | 17 |
| d30odm.district30.k12.il.us | 10.6.8 | | 12.24 KB/sec | | 7 days, 6:50 | 0 |
| wixserver2.district30.k12.il.us | 10.5.8 | | 32.68 KB/sec | | 28 days, 0:04 | 1 |
| wixserver.district30.k12.il.us | 10.6.8 | | 119.46 KB/... | | 92 days, 5:18 | 14 |
| alerts.district30.k12.il.us | 10.6.8 | | 21.3 KB/sec | | 1 day, 12:18 | 0 |
| d30svcs.district30.k12.il.us | 10.5.8 | | 10.25 KB/sec | | 65 days, 4:22 | 0 |
| maxserver.district30.k12.il.us | 10.6.8 | | 248.44 KB/... | | 80 days, 3:59 | 56 |

# Server.App

- Users
- On / Off Service Control
- File Sharing Options
- AutoMounts
- Services moved here lose GUI config

Mac OS X 10.7

Server Manage Edit View Tools Window Help Tue 7:54 PM

Server

ACCOUNTS
- Users
- Groups

STATUS
- Alerts
- Logs
- Stats

SERVICES
- Address Book
- File Sharing
- iCal
- iChat
- Mail
- Podcast
- Profile Manager
- Time Machine
- VPN
- Web
- Wiki

HARDWARE
- Lion

# Lion

Overview | Settings | Network | Storage

## Access

- [x] Allow remote login using SSH
- [ ] Enable screen sharing and remote management
- [x] Allow remote administration using Server
- [ ] Dedicate system resources to server services
- [ ] Enable Apple push notifications — Edit...

SSL Certificate: lion.techrecess.local — Edit...

Service Data: Macintosh HD — Edit...

Next Steps

Getting log contents for Lion

Macintosh HD

VMware Share...lders

/

Screen Shot 2011...8 PM

Mac OS X 10.7

Server Manage Edit View Tools Window Help Tue 7:54 PM

Server

ACCOUNTS
- Users
- Groups

STATUS
- Alerts
- Logs
- Stats

SERVICES
- Address Book
- File Sharing
- iCal
- iChat
- Mail
- Podcast
- Profile Manager
- Time Machine
- VPN
- Web
- Wiki

HARDWARE
- Lion

Next Steps

Getting log contents for Lion

# Lion

Overview | Settings | Network | Storage

## Access

- [x] Allow remote login using SSH
- [ ] Enable screen sharing and remote management
- [x] Allow remote administration using Server
- [ ] Dedicate system resources to server services
- [ ] Enable Apple push notifications — Edit...

SSL Certificate: lion.techrecess.local — Edit...

Service Data: Macintosh HD — Edit...

Macintosh HD

VMware Share...lders

/

Screen Shot 2011...8 PM

# User Creation Oddities

- Local vs. Network User creation
- AltSercurityIdentities

Directory Utility

Services | Search Policy | Directory Editor

Viewing: Users | in node: /LDAPv3/127.0.0.1 | Authenticated as diradmin

_krb_anonymous
_krb_changepw
_krb_kadmin
_krb_kerberos
_krb_krbtgt
Directory Administrator
Randy Saeks
Sandy Rakes
Serverdot Appuser
VPN MPPE Key Access User
Workgroupman Ageruser

| Name | Value |
|---|---|
| AltSecurityIdentities | Kerberos:serverdotappuser@LION.TECHRECESS.LOCAL |
| AppleMetaNodeLocation | /LDAPv3/127.0.0.1 |
| AppleMetaRecordName | uid=serverdotappuser,cn=users,dc=lion,dc=techrecess |
| ▼ AuthenticationAuthority | ;ApplePasswordServer;0x0e62ed3400f311e19599000… |
| | ;Kerberosv5;0x0e62ed3400f311e19599000c292442… |
| EMailAddress | serverdotapp@techrecess.local |
| FirstName | Serverdot |
| GeneratedUID | 462170A3-56D4-425D-AD2D-5DD3EB2316F7 |
| LastName | Appuser |
| NFSHomeDirectory | /Users/serverdotappuser |
| Password | ******** |
| PrimaryGroupID | 20 |
| RealName | Serverdot Appuser |
| RecordName | serverdotappuser |
| RecordType | dsRecTypeStandard:Users |
| UniqueID | 1027 |

Text | Data

;Kerberosv5;0x0e62ed3400f311e19599000c292442a3;serverdotappuser@LION.TECHRECESS.LOCAL;LION.TECHRECESS.LOCAL;1024 65537
15209069698302886918692526275993682685487756125241275262150096080917796305925875866433453420931131994014600826538074718957896394170386808680293277891776138269639491567328116530183914723160884261156800622031414312353187217671958570581620259497774710335218553143192948015800112360857606515547166191384156522228 9 root@lion.techrecess.local:192.168.161.100

Directory Utility

Services | Search Policy | Directory Editor

Viewing Users in node /LDAPv3/127.0.0.1 Authenticated as diradmin

_krb_anonymous
_krb_changepw
_krb_kadmin
_krb_kerberos
_krb_krbtgt
Directory Administrator
Randy Saeks
Sandy Rakes
Serverdot Appuser
VPN MPPE Key Access User
Workgroupman Ageruser

| Name | Value |
|---|---|
| AltSecurityIdentities | Kerberos:untitled_1@LION.TECHRECESS.LOCAL |
| AppleMetaNodeLocation | /LDAPv3/127.0.0.1 |
| AppleMetaRecordName | uid=workgroupmanageruser,cn=users,dc=lion,dc=tech |
| ▼ AuthenticationAuthority | ;ApplePasswordServer;0x1ef01f1e00f311e19599000c... |
| | ;Kerberosv5;0x1ef01f1e00f311e19599000c292442a... |
| FirstName | Workgroupman |
| GeneratedUID | 393BF620-7BB4-43B9-A979-B7B20D3133E9 |
| LastName | Ageruser |
| MCXFlags | <?xml version="1.0" encoding="UTF-8"?> |
| NFSHomeDirectory | 99 |
| Password | ******** |
| PrimaryGroupID | 20 |
| RealName | Workgroupman Ageruser |
| RecordName | workgroupmanageruser |
| RecordType | dsRecTypeStandard:Users |
| UniqueID | 1028 |

Text | Data

;Kerberosv5;0x1ef01f1e00f311e19599000c292442a3;workgroupmanageruser@LION.TECHRECESS.LOCAL;LION.TECHRECESS.LOCAL;1024 65537
15209069698302886918692526275993682685487756125241275262150096080917796305925875866433453420931131994014600826538074718957896394170386808680293277891776138269639491567328116530183914723160884261156800622031414312353187217671958570581620259497774710335218553143192948015800112360857606515547166191384156522228 9 root@lion.techrecess.local:192.168.161.100

Directory Utility

Services | Search Policy | Directory Editor

Viewing Users in node /LDAPv3/127.0.0.1 Authenticated as diradmin

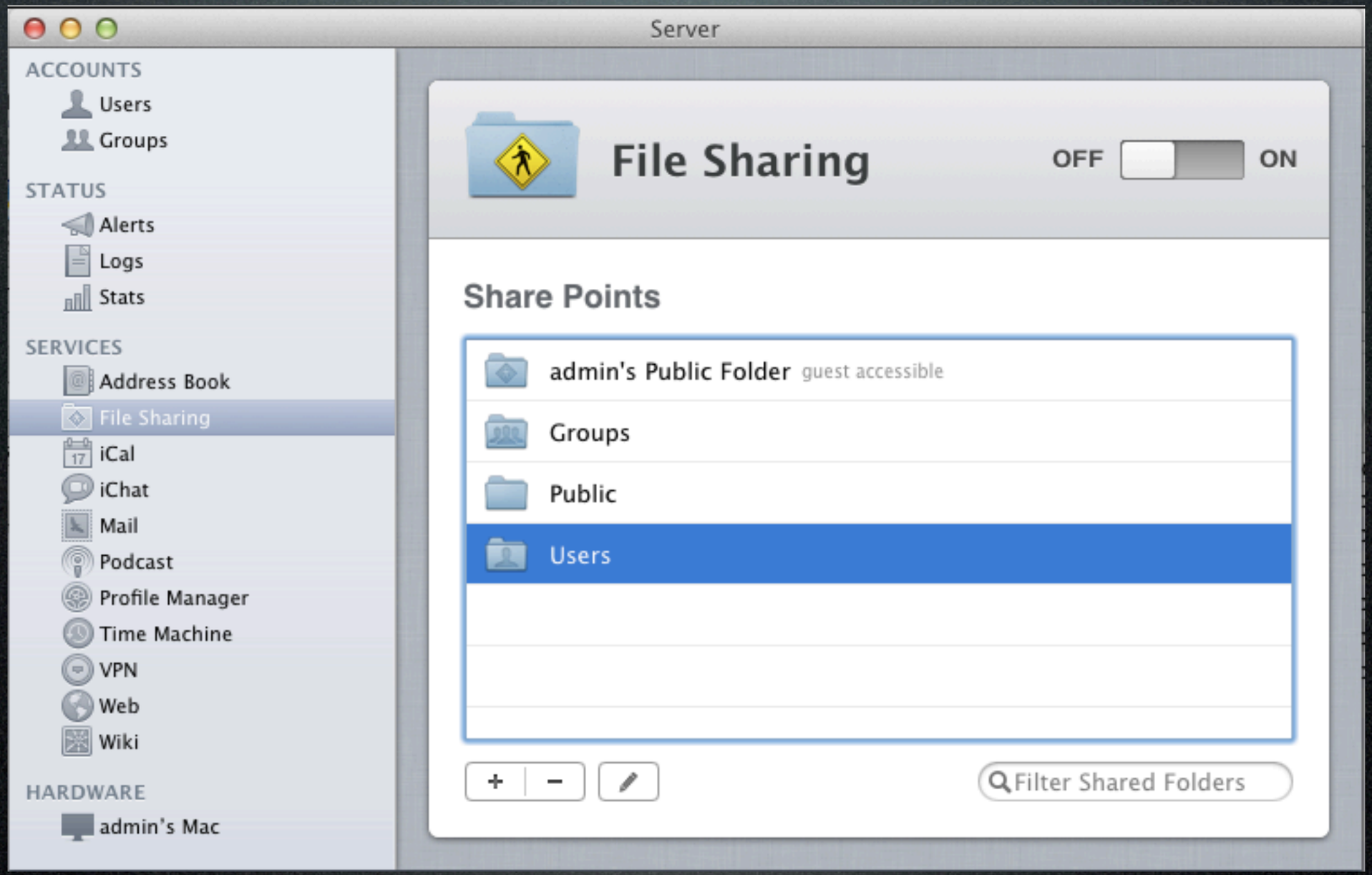
_krb_anonymous
_krb_changepw
_krb_kadmin
_krb_kerberos
_krb_krbtgt
Directory Administrator
Randy Saeks
Sandy Rakes
Serverdot Appuser
VPN MPPE Key Access User
Workgroupman Ageruser

| Name | Value |
|---|---|
| AltSecurityIdentities | Kerberos:untitled_1@LION.TECHRECESS.LOCAL |
| AppleMetaNodeLocation | /LDAPv3/127.0.0.1 |
| AppleMetaRecordName | uid=workgroupmanageruser,cn=users,dc=lion,dc=tech |
| AuthenticationAuthority | ;ApplePasswordServer;0x1ef01f1e00f311e19599000c... |
| | ;Kerberosv5;0x1ef01f1e00f311e19599000c292442a... |
| FirstName | Workgroupman |
| GeneratedUID | 393BF620-7BB4-43B9-A979-B7B20D3133E9 |
| LastName | Ageruser |
| MCXFlags | <?xml version="1.0" encoding="UTF-8"?> |
| NFSHomeDirectory | 99 |
| Password | ******** |
| PrimaryGroupID | 20 |
| RealName | Workgroupman Ageruser |
| RecordName | workgroupmanageruser |
| RecordType | dsRecTypeStandard:Users |
| UniqueID | 1028 |

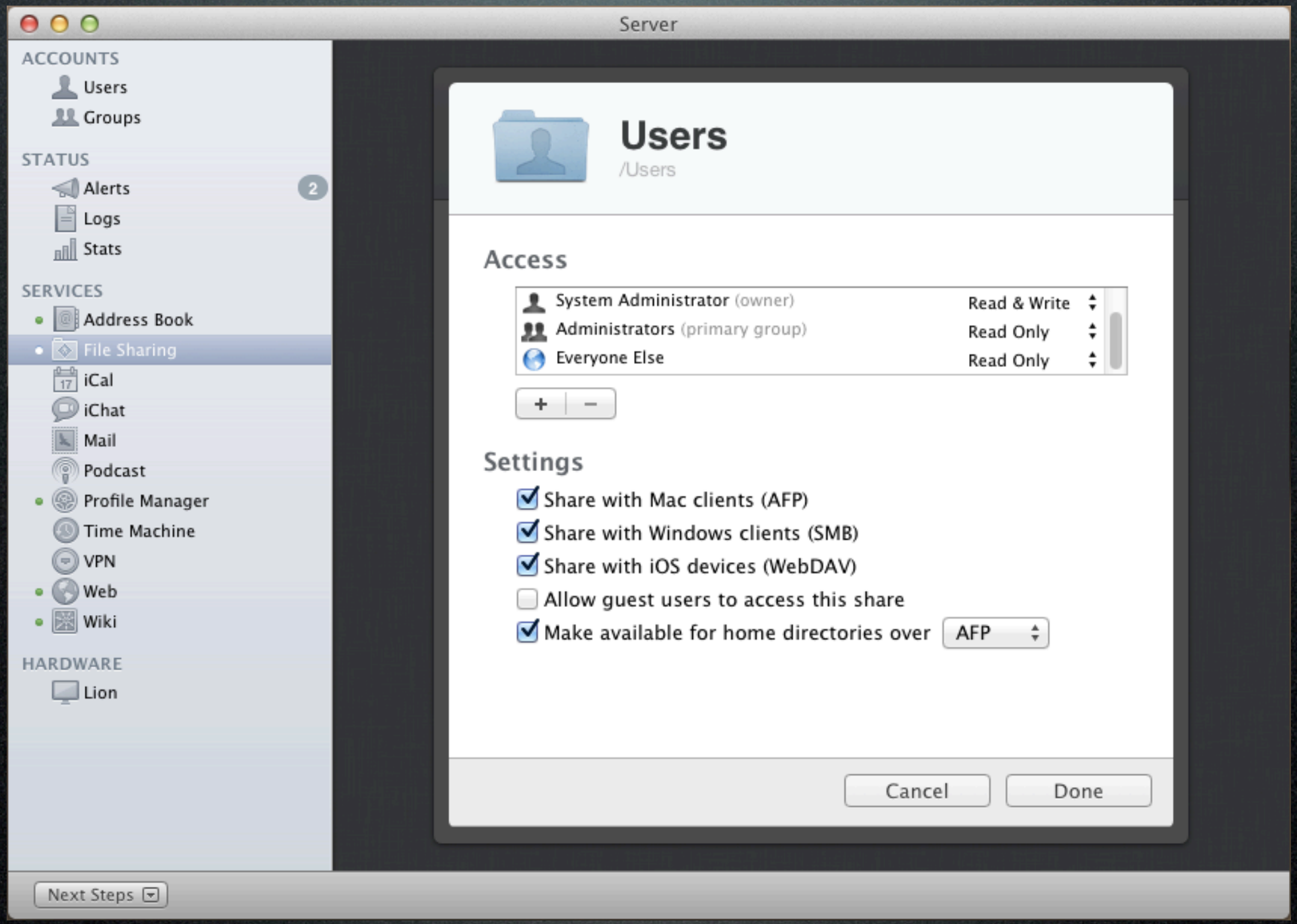
Text | Data

;Kerberosv5;0x1ef01f1e00f311e19599000c292442a3;workgroupmanageruser@LION.TECHRECESS.LOCAL;LION.TECHRECESS.LOCAL;1024 65537
15209069698302886918692526275993682685487756125241275262150096080917796305925875866433453420931131994014600826538074718957896394170386808680293277891776138269639491567328116530183914723160884261156800622031414312353187217671958570581620259497774710335218553143192948015800112360857606515547166191384156522228 9 root@lion.techrecess.local:192.168.161.100

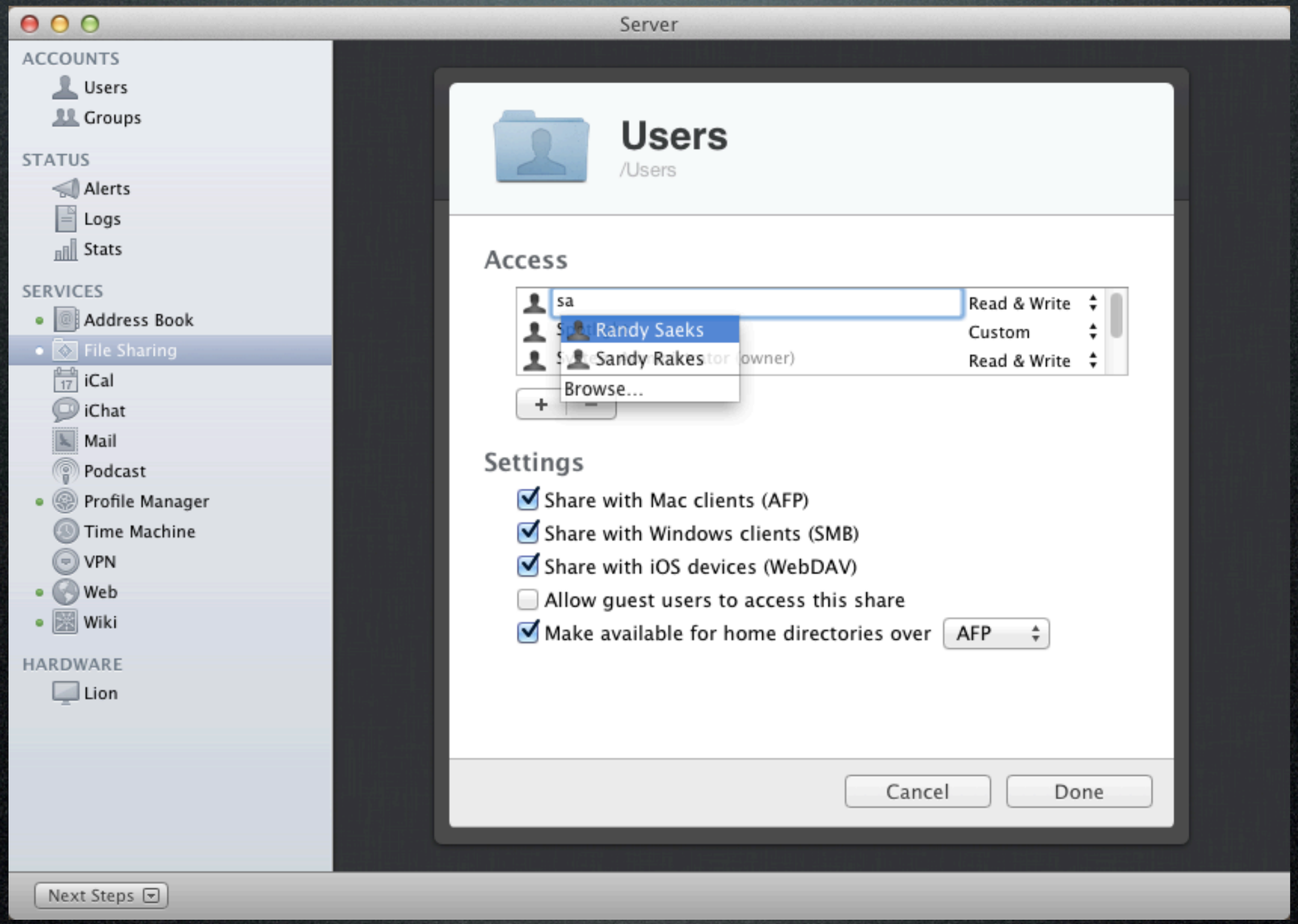
# Enabling Services



# Sharing Options



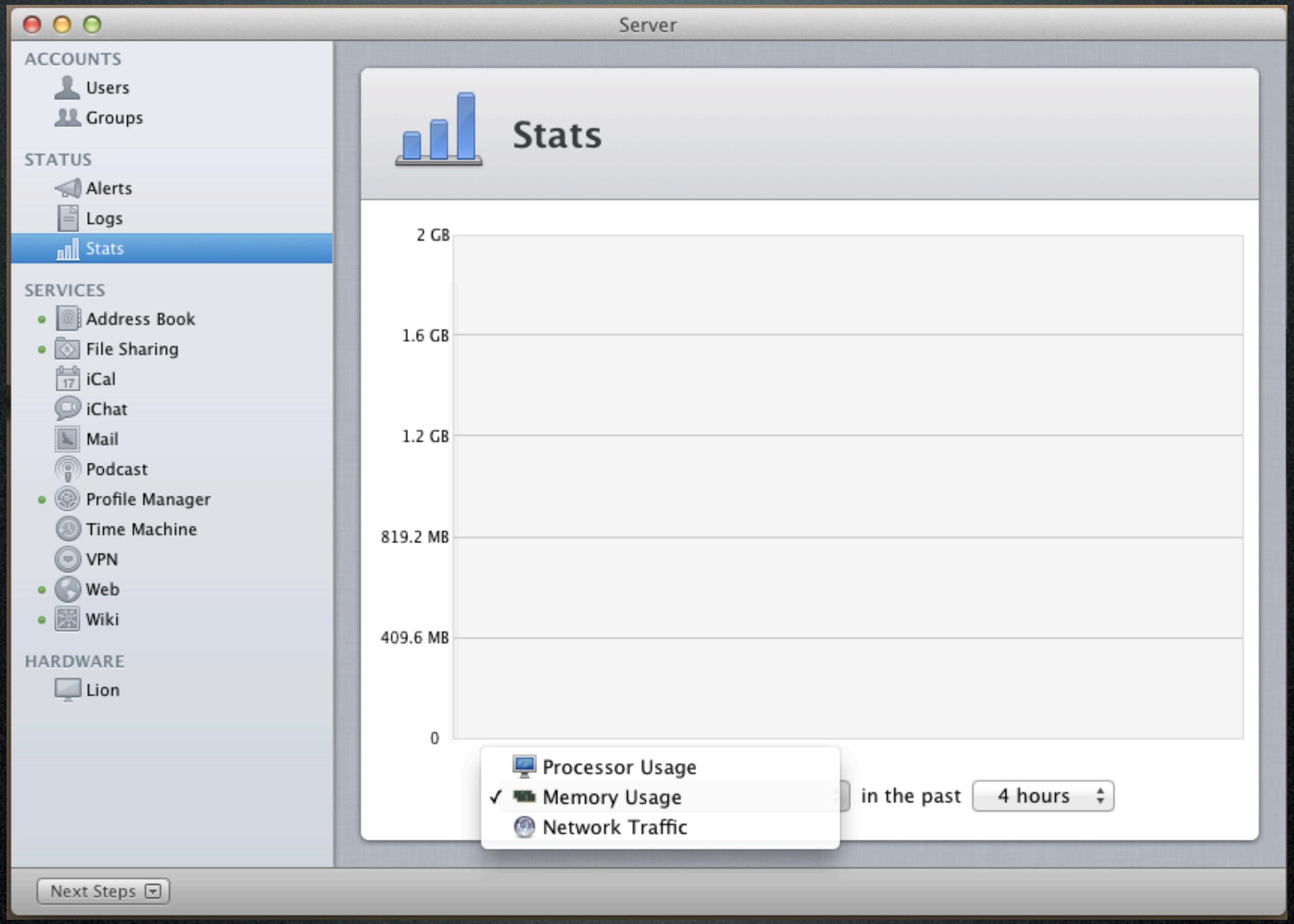
# Sharing Options



# Lion AFP

- AppleFileServer -v
  - afpserver-580.2
    - http://www.jammed.com/~jwa/hacks/security/asip
      - AFP3.4,AFP3.3,AFP3.2,AFP3.1,AFPX03
  - 3.4??!

# Where are connections?



# Where are connections?

| Name | OS | CPU | Network | Disk | Uptime | Users |
|---|---|---|---|---|---|---|
| **lion.techrecess.local** | 10.7.2 | | 8.0 B/sec | | 3 days, 22:16 | 0 |

# Where are connections?

admin — bash — 84×24

```
lion:~ admin$ sudo serveradmin command afp:command = getConnectedUsers
afp:state = "RUNNING"
afp:usersArray:_array_index:0:lastUseElapsedTime = 3
afp:usersArray:_array_index:0:minsToDisconnect = 0
afp:usersArray:_array_index:0:sessionType = "tcp"
afp:usersArray:_array_index:0:state = 1
afp:usersArray:_array_index:0:serviceType = "afp"
afp:usersArray:_array_index:0:ipAddress = "192.168.161.1"
afp:usersArray:_array_index:0:sessionID = 4
afp:usersArray:_array_index:0:loginElapsedTime = 374
afp:usersArray:_array_index:0:disconnectID = 0
afp:usersArray:_array_index:0:name = "sandyrakes"
afp:usersArray:_array_index:0:flags = 0
afp:timeStamp = "2011-10-20 00:03:58 +0000"
lion:~ admin$
```

| Name | OS | CPU | Network | Disk | Uptime | Users |
|---|---|---|---|---|---|---|
| **lion.techrecess.local** | 10.7.2 | | 8.0 B/sec | | 3 days, 22:16 | 0 |

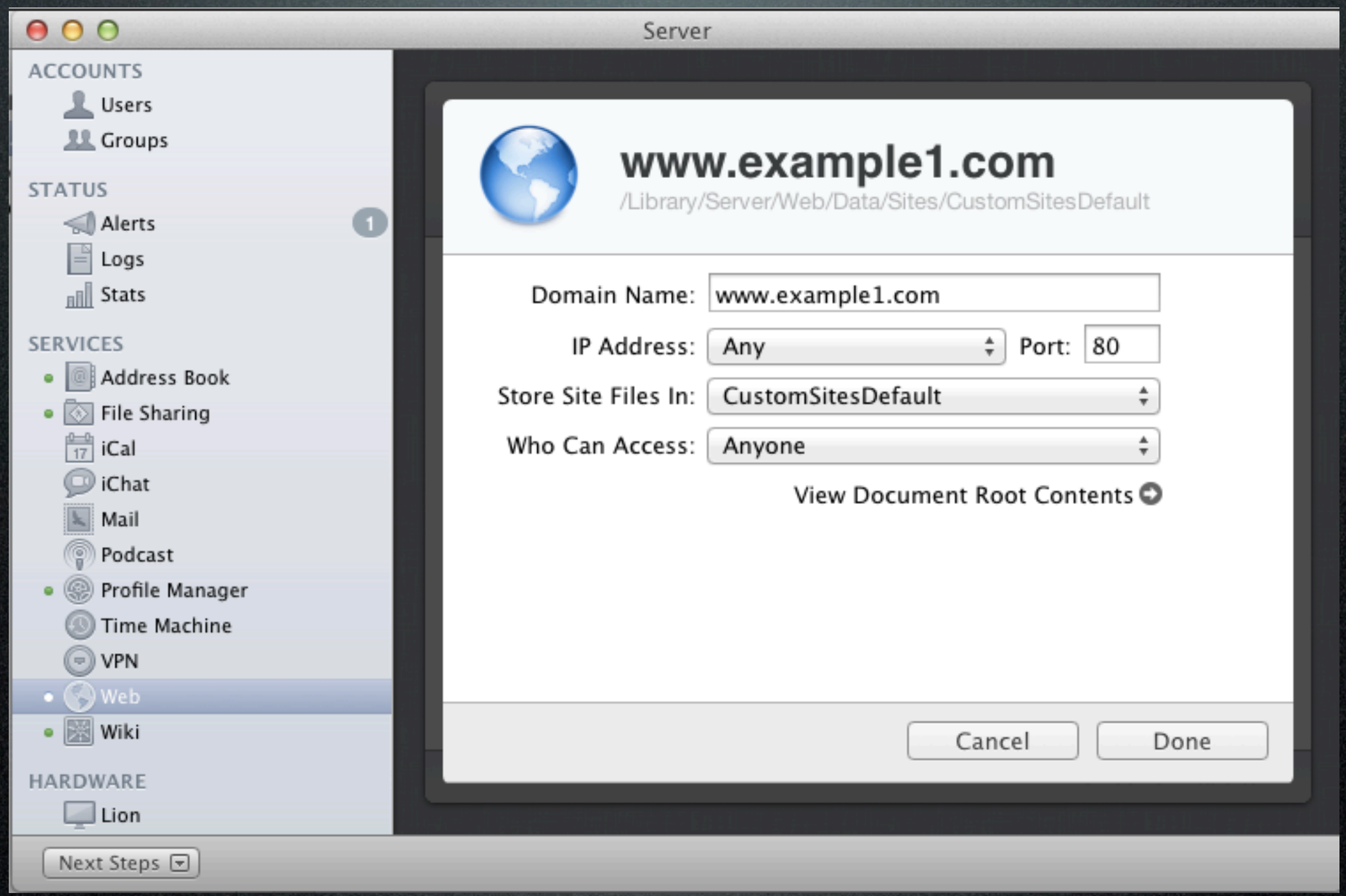
# Where are connections?

admin — bash — 84×24

```
lion:~ admin$ sudo serveradmin command afp:command = getConnectedUsers
afp:state = "RUNNING"
afp:usersArray:_array_index:0:lastUseElapsedTime = 3
afp:usersArray:_array_index:0:minsToDisconnect = 0
afp:usersArray:_array_index:0:sessionType = "tcp"
afp:usersArray:_array_index:0:state = 1
afp:usersArray:_array_index:0:serviceType = "afp"
afp:usersArray:_array_index:0:ipAddress = "192.168.161.1"
afp:usersArray:_array_index:0:sessionID = 4
afp:usersArray:_array_index:0:loginElapsedTime = 374
afp:usersArray:_array_index:0:disconnectID = 0
afp:usersArray:_array_index:0:name = "sandyrakes"
afp:usersArray:_array_index:0:flags = 0
afp:timeStamp = "2011-10-20 00:03:58 +0000"
lion:~ admin$
```

| Name | OS | CPU | Network | Disk | Uptime | Users |
|---|---|---|---|---|---|---|
| **lion.techrecess.local** | 10.7.2 | | 8.0 B/sec | | 3 days, 22:16 | 0 |

# GUI “Config” Option(s)



# GUI Config - Web

- All other web settings are in httpd.conf
  - SSI
  - Aliases
  - Server threads, etc

# Gotchas

- Each Lion service applies a SACL
- Server.App auto-does this
- WGM does not

# Directory Services

- DirectoryServices replaced with opendirectoryd
- OpenDirectory is still here
  - Setup & Monitor in SA
- ActiveDirectory Support

# odutil

- OpenDirectory logging
  - odutil set log debug
  - Persistent across reboots
  - odutil set log default
- Files moved to
  - /S/L/OpenDirectory
  - /var/log/opendirectoryd.log

# Kerberos

- 10.7 Kerberos is based on Heimdal
- 10.6 and 10.7 kadmin don’t talk

# Client Management

- “Line in the sand”
- WGM / MCX for 10.6 and lower
- Profile Manager (PM) for 10.7 & iOS

# Profile Manager Features

- PM instant*
- Ability to enroll devices by the user
- Also means ability to un-enroll
    - Goes back to “personal device” mindset

# Profile Manager

- More robust iPCU
- Requires
  - ODM
  - CA signed SSL Certs
  - APNS Ports- 2195, 2196, 5223
  - PM Ports - 80, 443, 1640

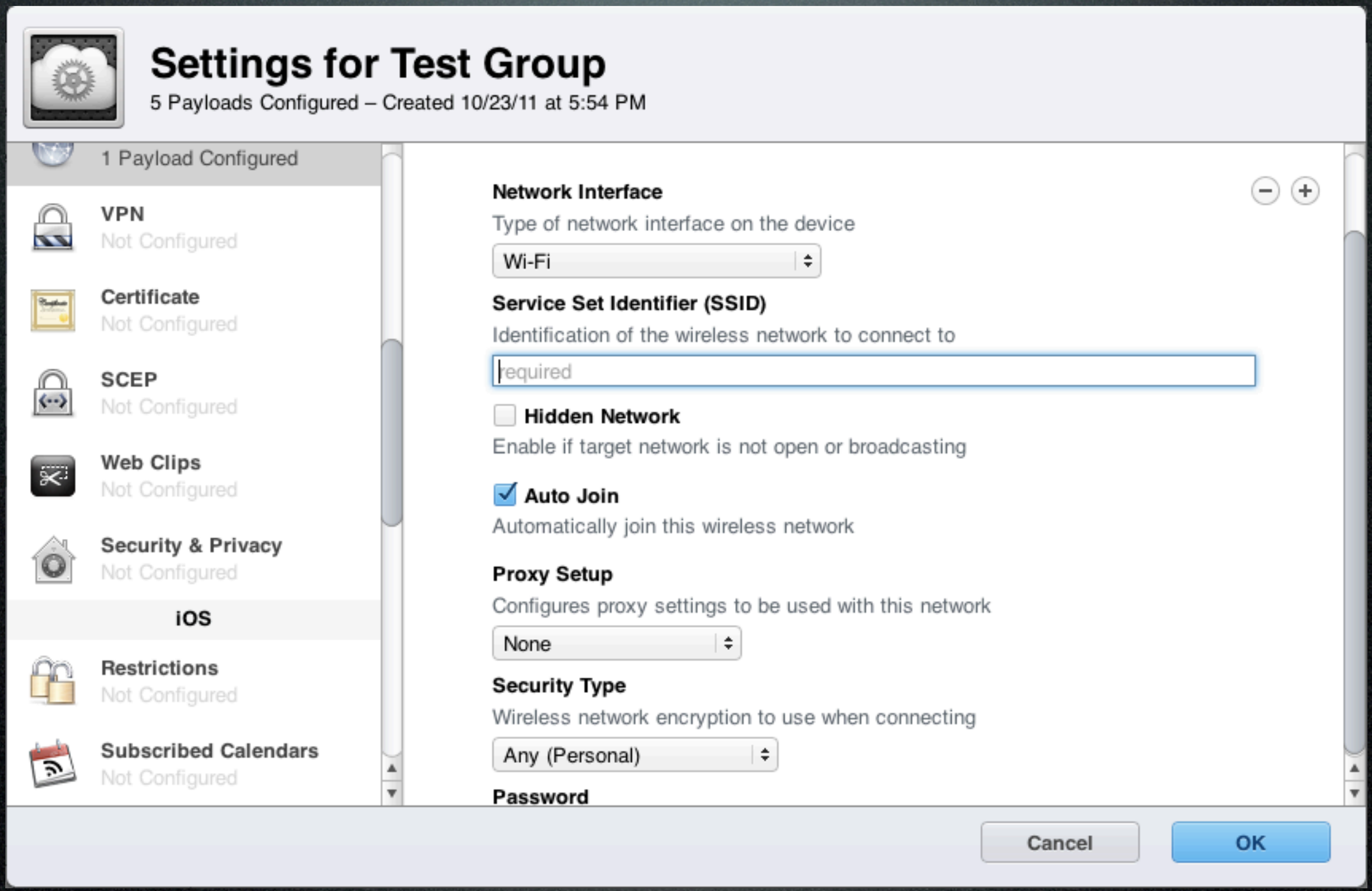
# Profile Manager

- Create payloads and associate
- Many WGM items are now here
- Upload plist for advanced settings

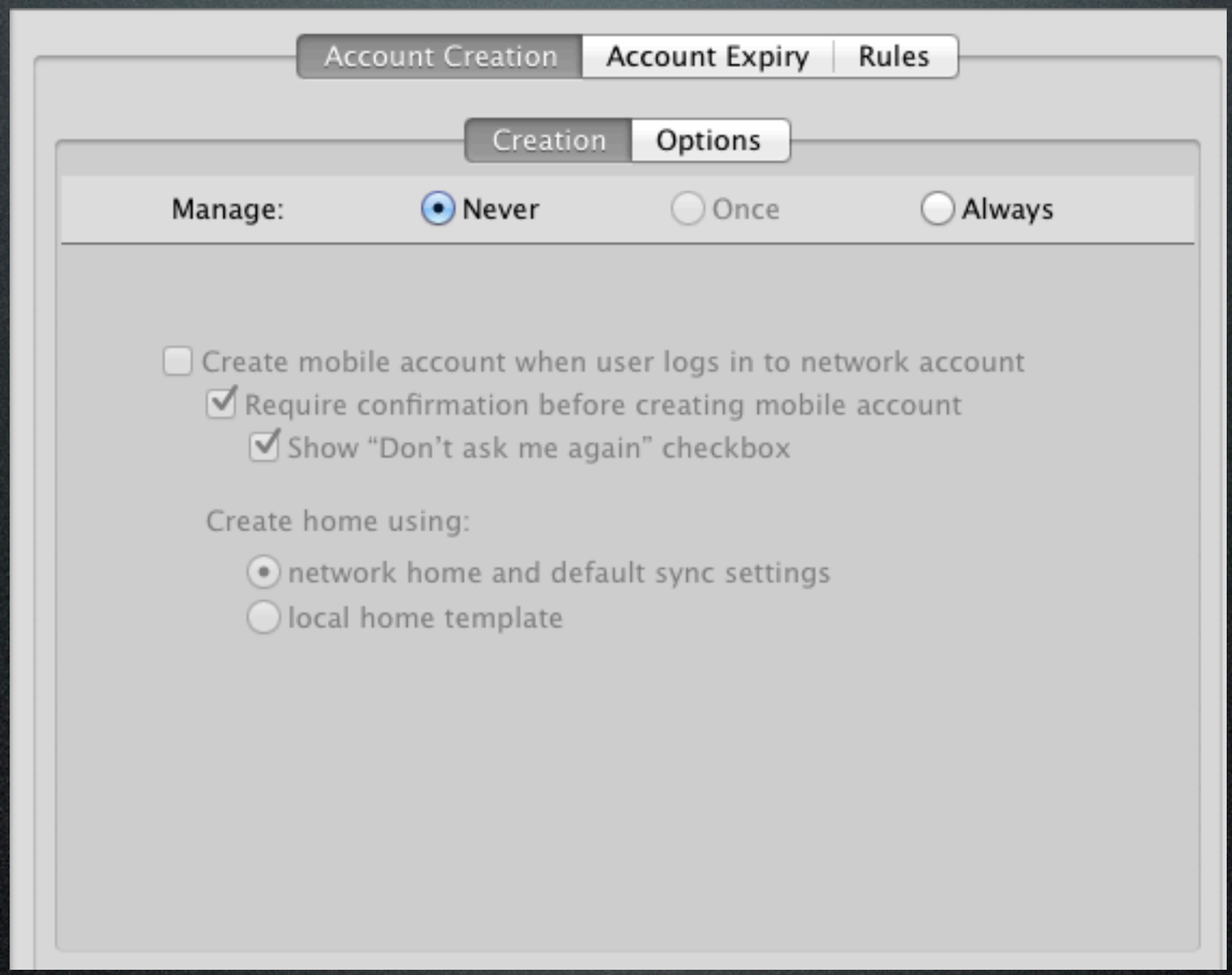
# Profile Manager Guide

- http://help.apple.com/profilemanager/mac/10.7/

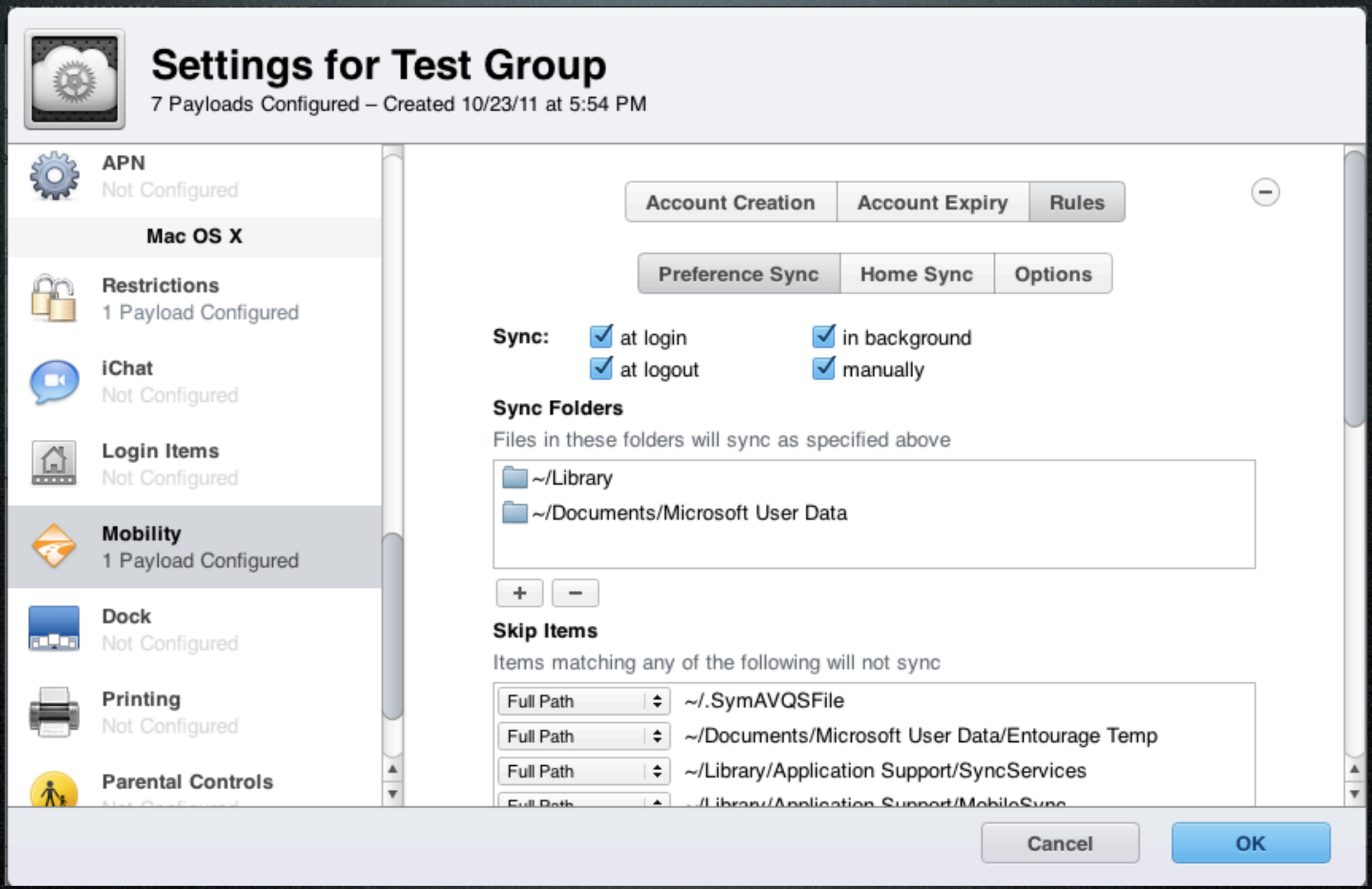
# Profile Manager



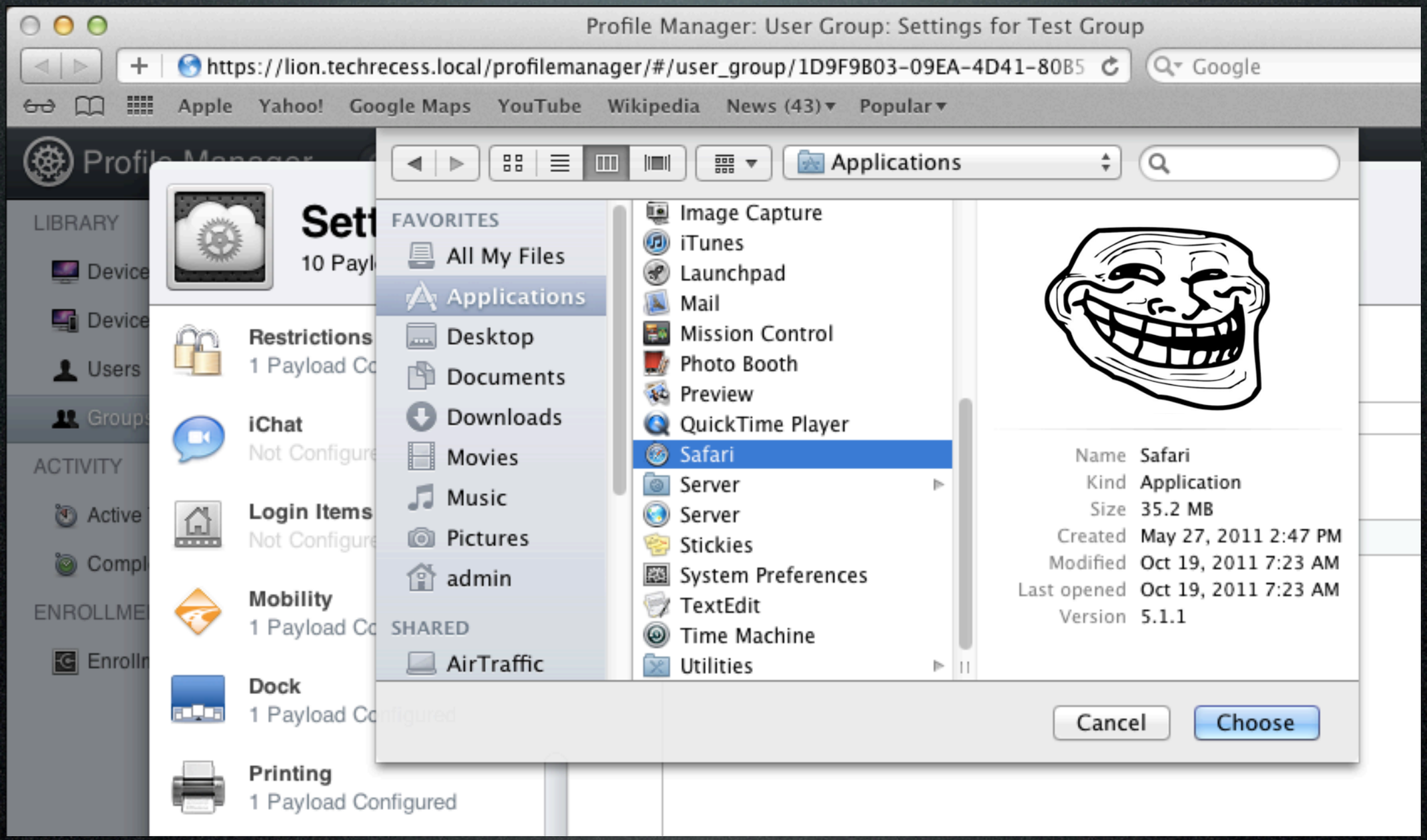
# Profile Manager



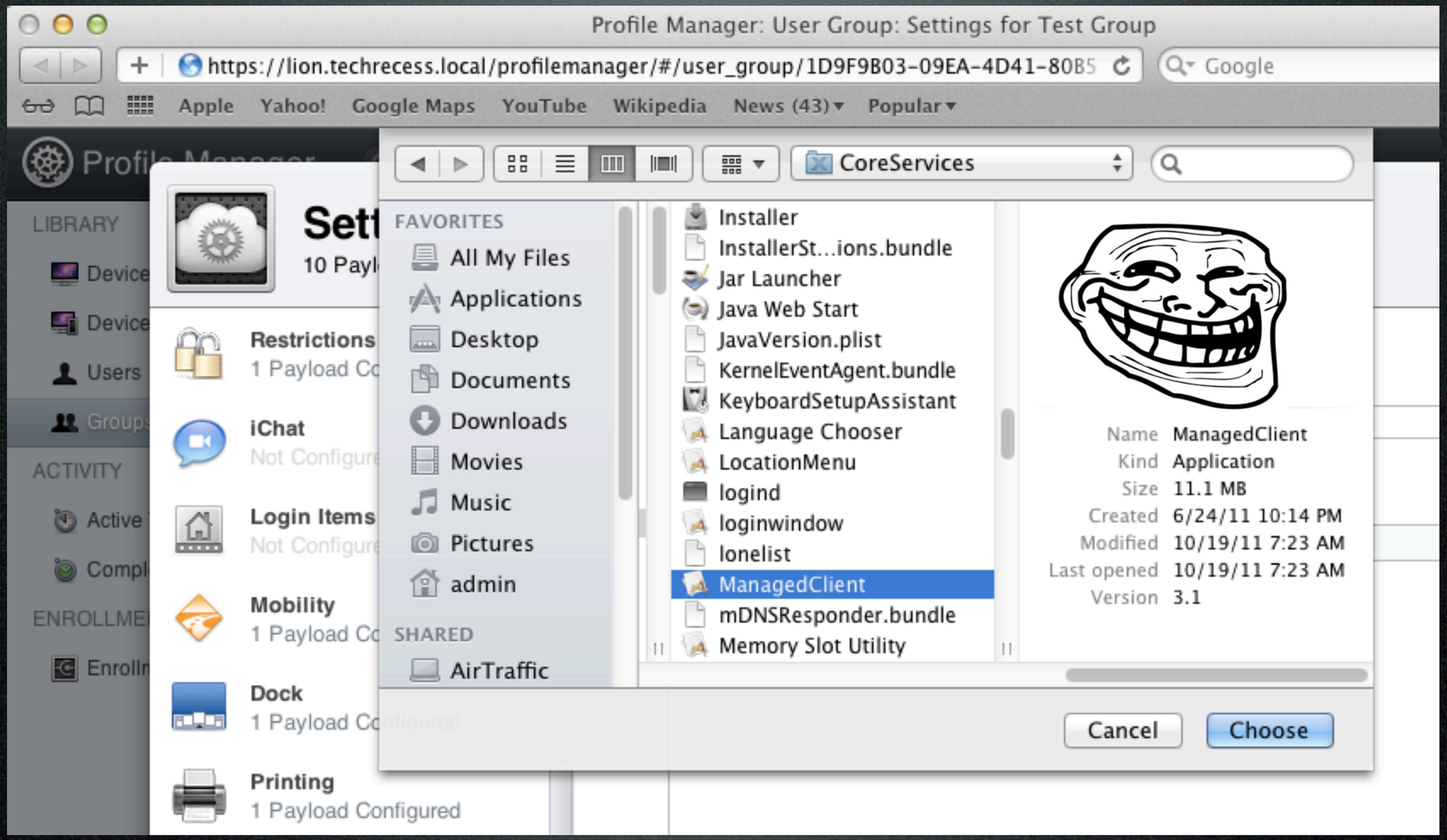
# Profile Manager



# Profile Manager



# Profile Manager



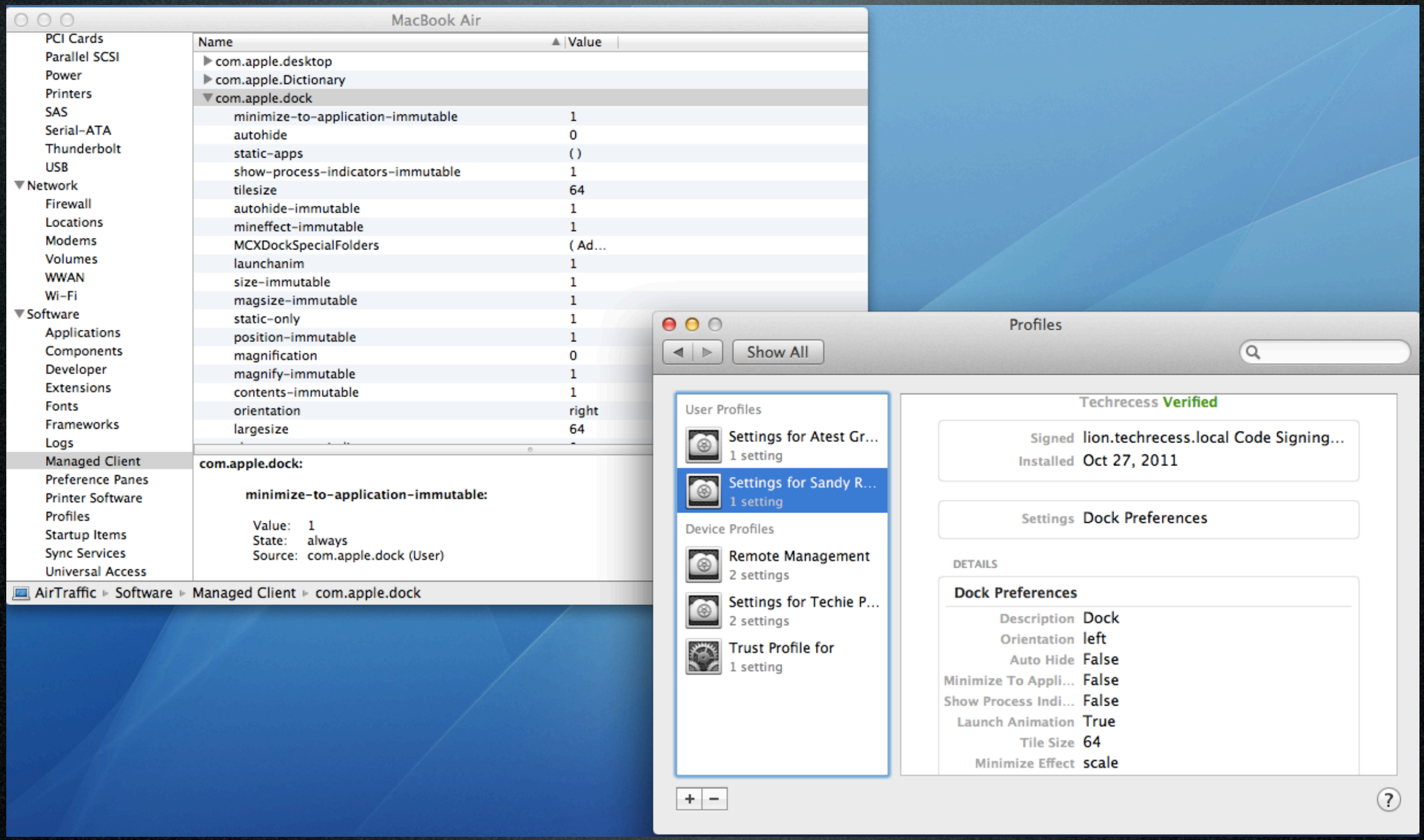
# Profile Manager

- Preference manifests don't work
- Loss of "Always, Once, Never"
  - If it is set in PM - it is "Always"
- Leave the Everyone Group alone
- iPCU may open your profiles

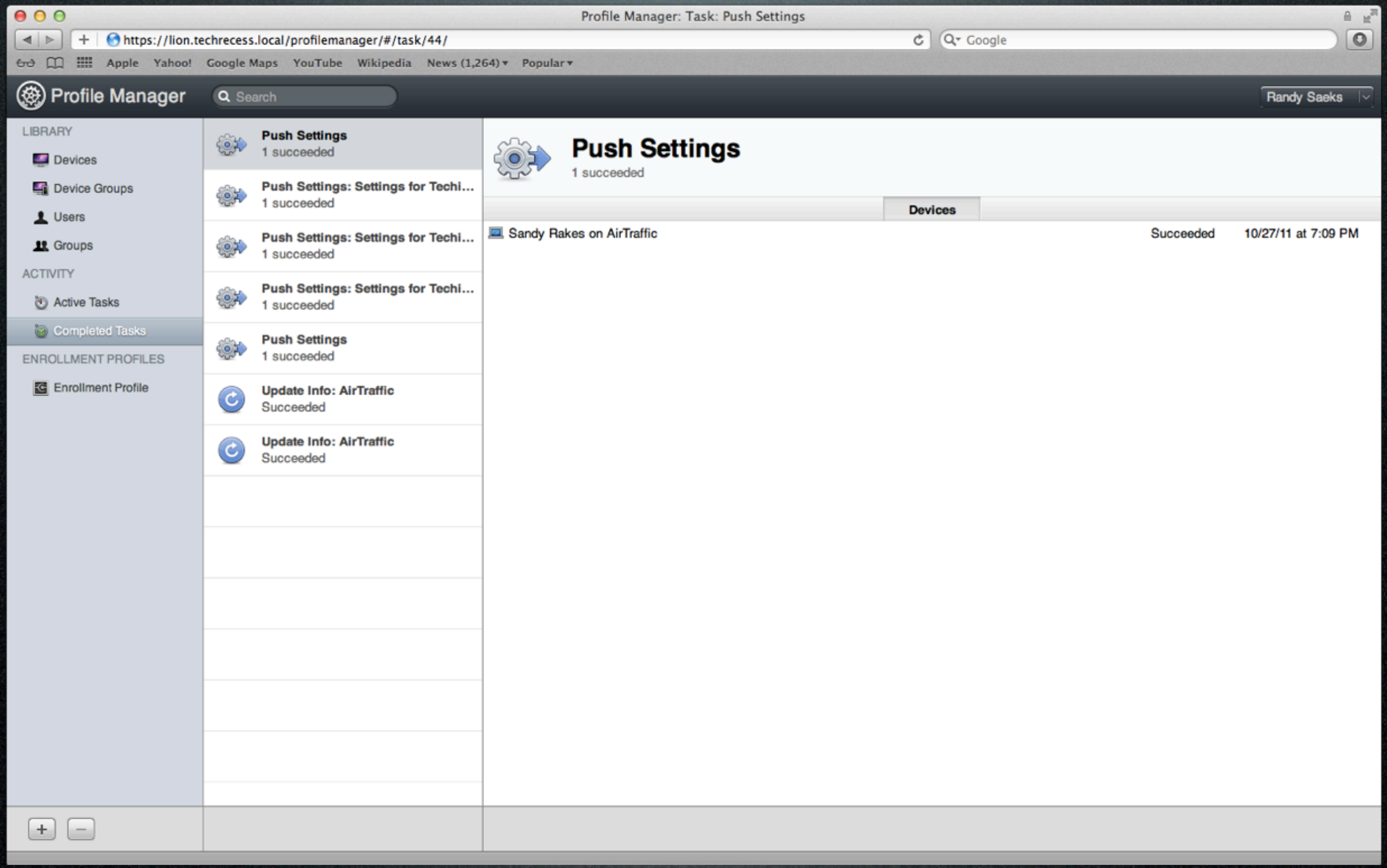
# Profile Manager & WGM

- PM Settings apply over WGM
- View MCX in System Profiler
- View PM in System Preferences

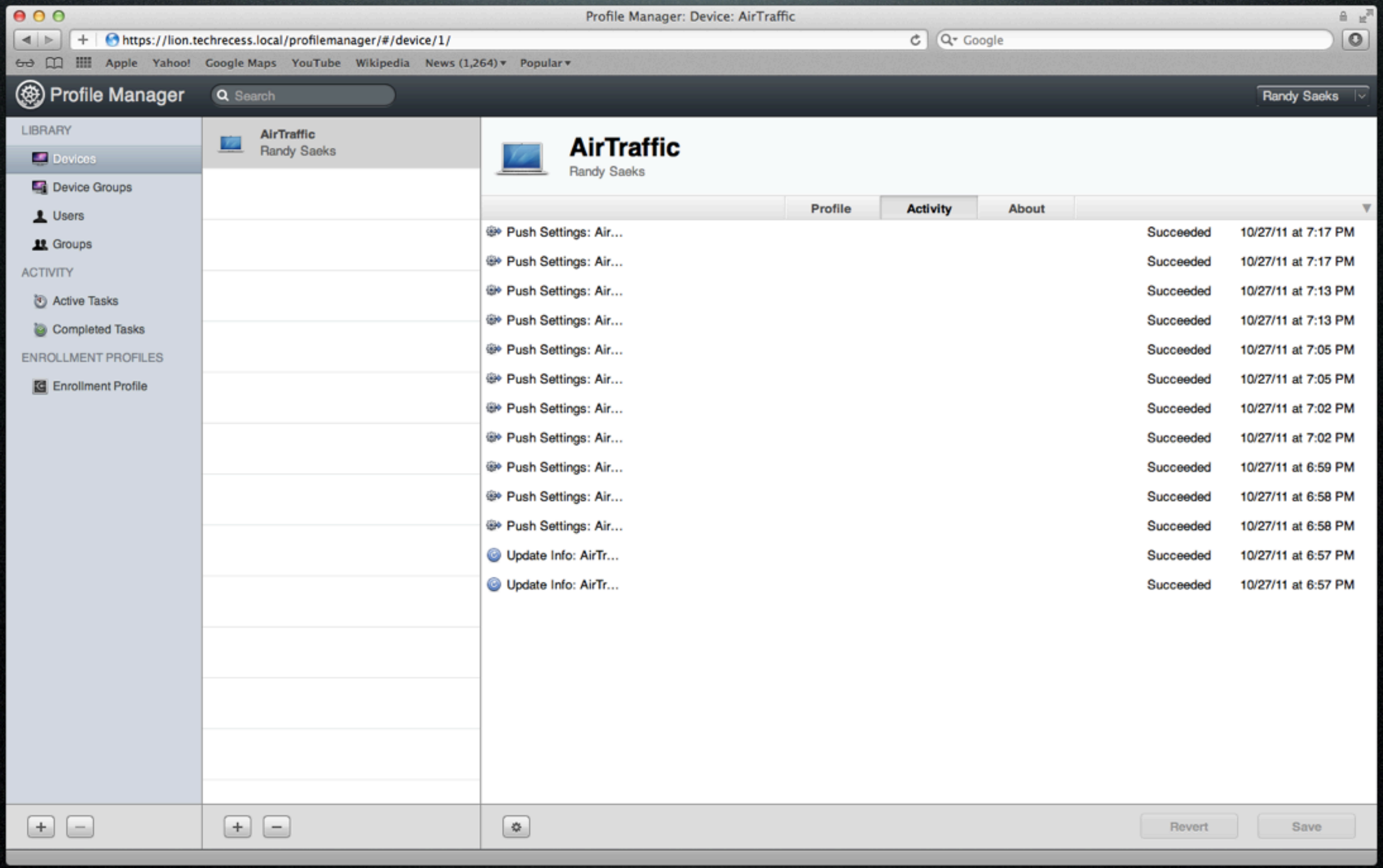
# WGM & PM


MacBook Air
PCI Cards
Parallel SCSI
Power
Printers
SAS
Serial-ATA
Thunderbolt
USB
Network
Firewall
Locations
Modems
Volumes
WWAN
Wi-Fi
Software
Applications
Components
Developer
Extensions
Fonts
Frameworks
Logs
Managed Client
Preference Panes
Printer Software
Profiles
Startup Items
Sync Services
Universal Access
Name
Value
com.apple.desktop
com.apple.Dictionary
com.apple.dock
minimize-to-application-immutable 1
autohide 0
static-apps ( )
show-process-indicators-immutable 1
tilesize 64
autohide-immutable 1
mineffect-immutable 1
MCXDockSpecialFolders ( Ad...
launchanim 1
size-immutable 1
magsize-immutable 1
static-only 1
position-immutable 1
magnification 0
magnify-immutable 1
contents-immutable 1
orientation right
largesize 64
com.apple.dock:
minimize-to-application-immutable:
Value: 1
State: always
Source: com.apple.dock (User)
AirTraffic ▸ Software ▸ Managed Client ▸ com.apple.dock
Profiles
Show All
User Profiles
Settings for Atest Gr...
1 setting
Settings for Sandy R...
1 setting
Device Profiles
Remote Management
2 settings
Settings for Techie P...
2 settings
Trust Profile for
1 setting
Techrecess Verified
Signed lion.techrecess.local Code Signing...
Installed Oct 27, 2011
Settings Dock Preferences
DETAILS
Dock Preferences
Description Dock
Orientation left
Auto Hide False
Minimize To Appli... False
Show Process Indi... False
Launch Animation True
Tile Size 64
Minimize Effect scale

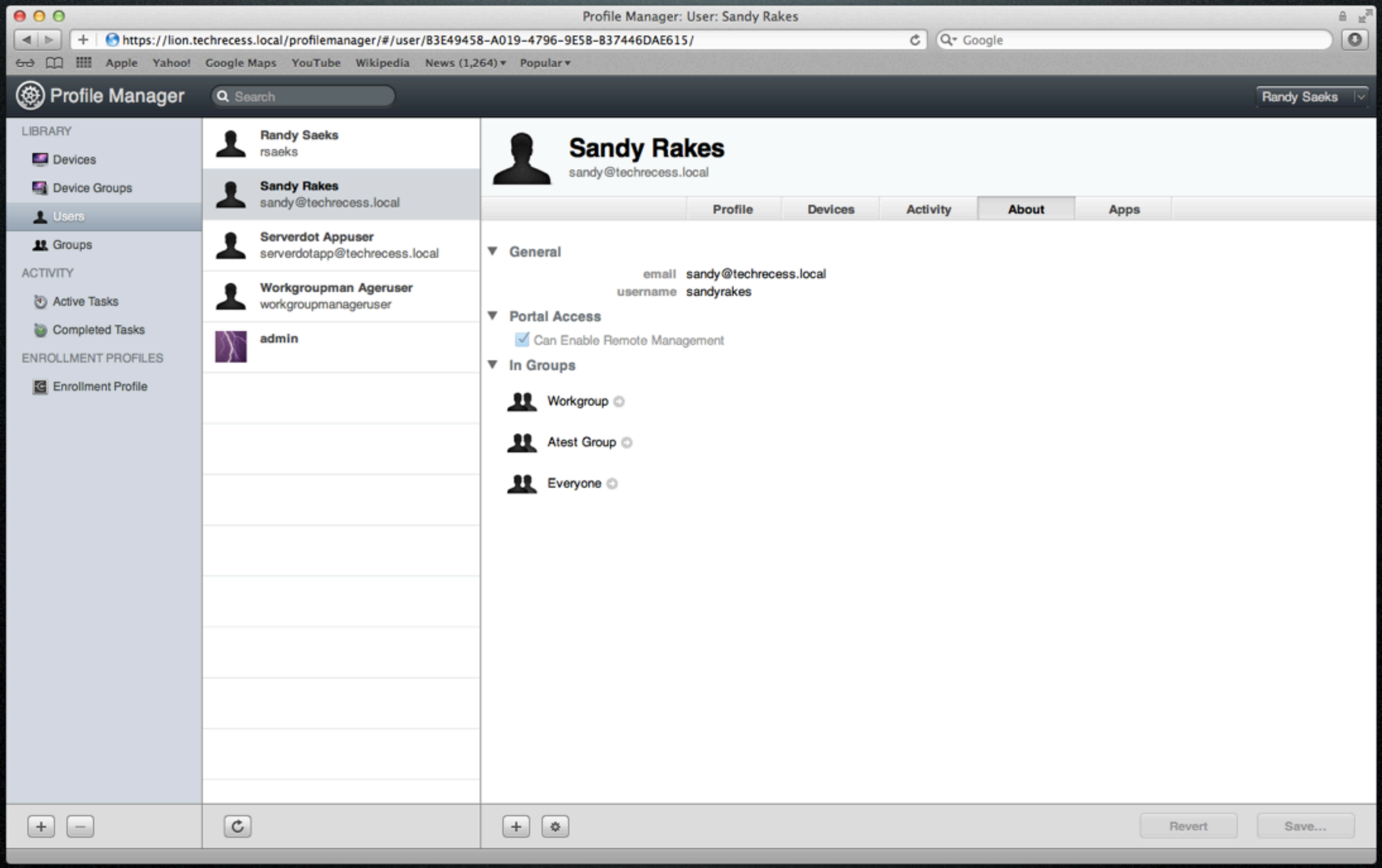
# Profile Manager



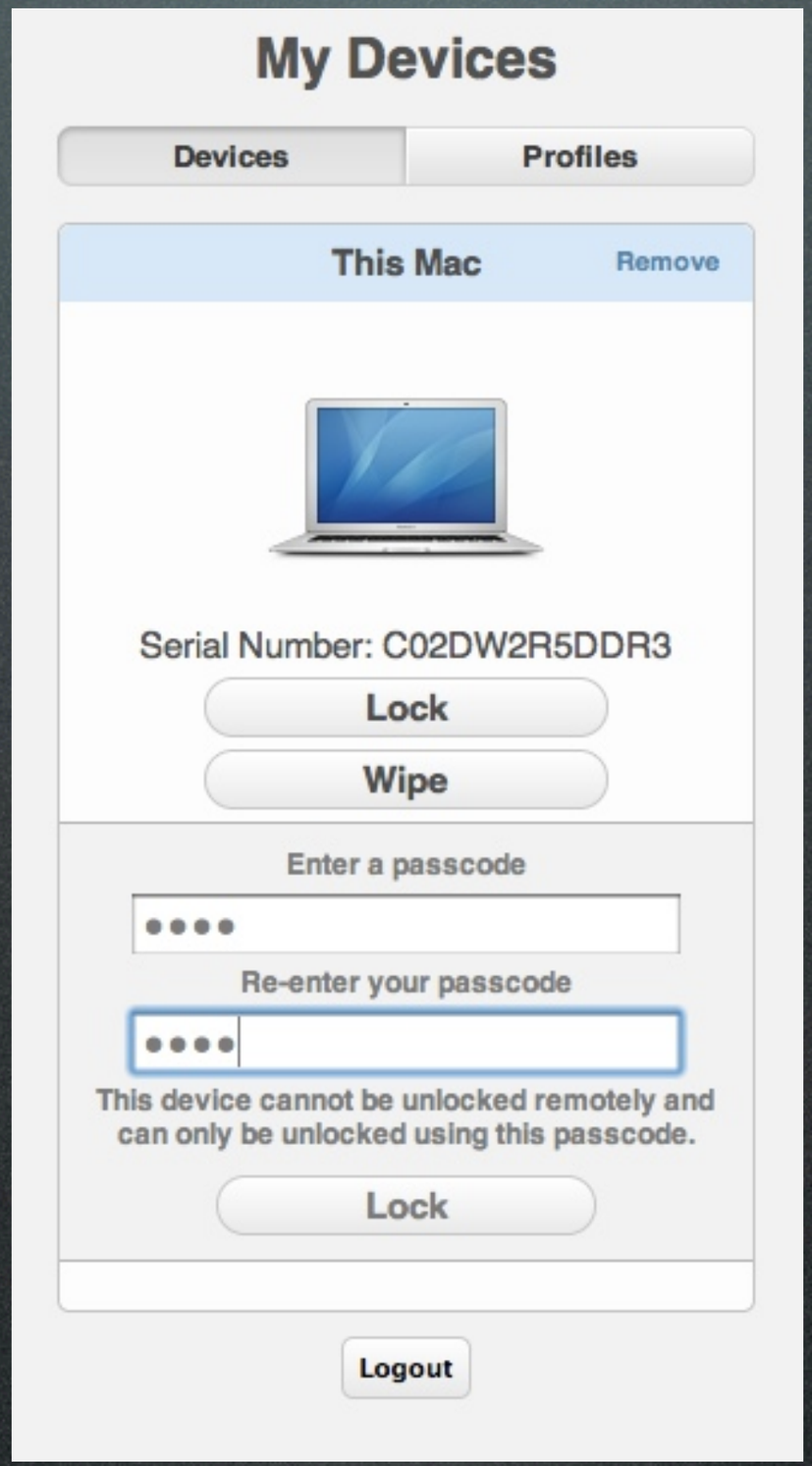
# Profile Manager



# User info in Profile Manager



# PM - “My Devices”



# Other Services

# Services Removed

- Mobile Access
- Push Notification
- Tomcat
- QTSS - Use HTTP Streaming
- Samba* (More in a bit)

# NetBoot

- 10.5+ Images are reusable
- Can use other imaging products with more Lion-centric features

# FTP

# FTP

- Enable by loading launchd item

sudo launchctl load -w /System/Library/LaunchDaemons/ftp.plist

# FTP

- Enable by loading launchd item
- /etc/ftpd.conf

sudo launchctl load -w /System/Library/LaunchDaemons/ftp.plist

# mySQL

- Download from mySQL and get 10.6 (x86, 64-bit)

# Postgres

- Included database
  - DON’T TOUCH

# Backup & Restore

- sudo -s PGUSER=_postgres /usr/bin/pg_dumpall > ~/postgress.dump
- /usr/share/devicemgr/backend/wipeDB.sh
- sudo -s PGUSER=_postgres /usr/bin/psql -d template1 -f ~/postgress.dump

# Print Server

- Manage via CUPS Interface
  - http://localhost:631
- Does not have samba support
- If you really need a print server ... Use something other than OS X

# Windows Support

# AD Integration

- 10.6 had AD / OD Golden Triangle
- 10.7 has AD / PM
  - Avoid AD / OD / PM

# AD Integration

- 10.6 had AD / OD Golden Triangle
- 10.7 has AD / PM
  - Avoid AD / OD / PM

The “Rusty Cluster”?

# AD & 10.7 Clients

- Better support of multiple Kerb realms
- Bind clients to AD
- Use PM for Management
- AD + OD AFP Mount :(

# Useful Links

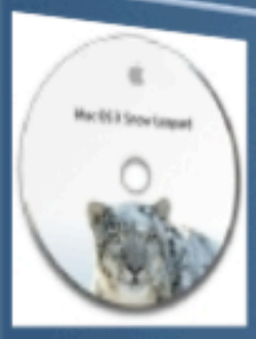
- Configuring services for users of Active Directory or third-party LDAP servers
  **Article HT4851**

- Unable to connect to a Mac OS X v10.6 Open Directory Server (Golden Triangle)
  **Article TS3861**

# 10.7 OD and Windows

- Stick with 10.6 for OS X PDC / BDC
- For 10.7
  - Enable SMB on OS X Server
  - Connect with OD user / password

Snow Leopard




Lion

2008

2009

2010

2011

2012

2013

OS X Timeline

Cheetah

Puma

Panther

Leopard

Snow Leopard

Lion

Rhapsody

Jaguar

Tiger

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

OS X Timeline