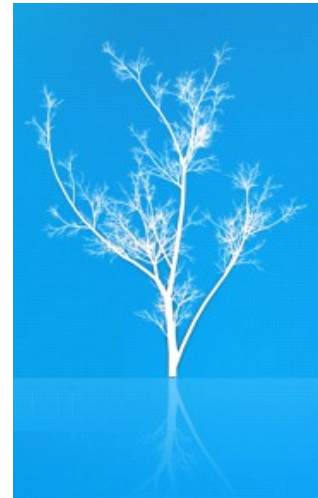


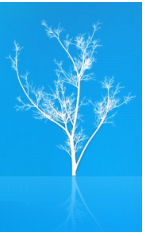
Enterprise LDAP and *Apache Directory Server*

Emmanuel Lécharny
Iktek
<elecharny@iktek.com>

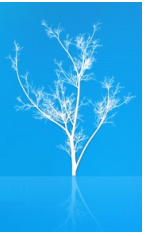


Agenda

- 1- Introduction
- 2- LDAP Today
- 3- Future evolutions
- 4- Introduction to ADS
- 5- Conclusion...
- 6- Q&A



Introduction



- First there was X.500

X500 was all about directories. First published in 1990. Based on OSI networking stack

- LDAP as an alternative

Lightweight, over TCP. Back in 1993

- 15 years later

Time for the next step, and massive enterprise adoption, not only for White Pages.

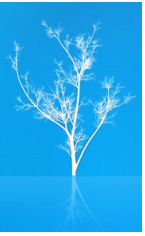


LDAP today (1)

- White pages
- NIS
- PAM extensions
- Security, PKI
- applications ?



LDAP today (2)



- Complexity has slowed down its adoption
- No real leader :
Netscape, OpenLdap, SunDS, IDS, OID, ...
- Almost no evolution since 1993



LDAP today (3)

- Still LDAP V3 from 1995
- New RFCs has been issued last year
- This was only about clarifying old RFCs



LDAP today (4)

- Archaic
- complex to implement
- inconsistent
- under utilized
- no traction from the market



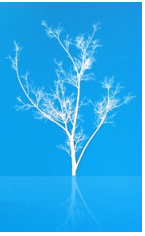
LDAP today (5)

- No tools, or outdated tools (Ldap browsers, schema editors)
- No skills, compared to RDBMS
- RDBMs are studied in university, not LDAP
- API is a problem (JNDI or jLDAP ?)



LDAP today (6)

- Microsoft introduced AD
 - Managing domains needs it
 - Better replication
 - Allows distributed systems
- Identity Management suddenly became mainstream
- Increased integration problems



LDAP future (1)

- RDBMs vs LDAP : a new choice
- Better tooling
- Better API (JNDI is being redesigned)
- Better integration



LDAP future (2)

- Virtual directories
- Views, triggers, stored procs
- Queues
- Notifications
- Having E/R tools for LDAP



LDAP future (3)

- Persistence layer
- DAS
- Hibernate's like persistence layer
- Graphical tree management
- Graphical replication management
- ChangeLogs/Snapshotting



LDAP future (4)

New LDAP client API
JSR just started

Will be available for Java 7

Apache is part of it



LDAP future (5)



LDAP server should be transparent

It's a major component of IT now,
and will be more essential in the
next few years

Integration is the key



ADS to the rescue

- a compliant LDAP Server
- written in Java(tm)
- embeddable
- extensible
- tooling (LdapStudio)
- and more ...



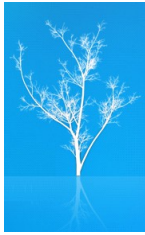


What is ADS ?

- Originally designed to increase the uptake of LDAP by the enterprise
- Makes the users more comfortable with LDAP concepts
- Lower the price and the barrier for LDAP enabled applications



Ldap Compliant



Compliance validated by OpenGroup

LDAP Certified V2

Company Name: [Apache Software Foundation](#)

Product Name: Apache Directory Server 1.0
Environment: Java 2 Standard Edition 1.5.0 (5.0)

Registered on: 27-Sep-2006

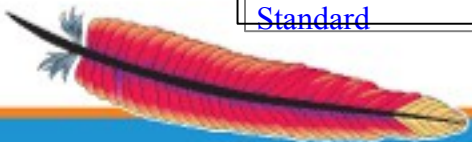
Display a copy of the Brand Certificate in PDF

Search the [Conformance Statements database](#) for all LDAP Certified V2 registrations

See all the [registered products](#) for the LDAP Certified V2 Product Standard

See more information about the [LDAP Certified V2 Product Standard](#)

THE *Open* GROUP
Making standards work®

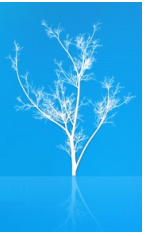


Written in Java

- Ubiquitous language
- Wide community
- Performant
- Improving year after year
- Lot of available tools
- GUI capable, lots of libraries



Embeddable

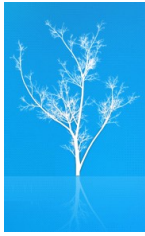


Apache Directory Server has been designed to be embeddable

- This is useful for many applications
- It eases packaging
- Better performances (no more network costs)
- Easier to unit test



Extensible

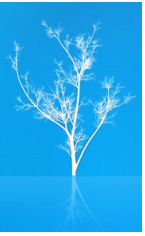


Apache Directory Server has been designed to be extensible

- Not only with new controls of extended operations
- Interceptors (filters equivalent)
- Partitions
- Stored procedures
- Triggers
- ACI support



Possible extensions



- Virtual Directory
- Proxy
- e-provisioning
- Identity management (TripleSec)
- and more ...

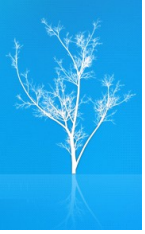


e-provisioning

- ADS has Stored Procedure and triggers built-in
- This is the best solution for e-provisioning
- One can add some new SPs for specific components
- We have a scheduler inside ADS (Quartz)



Ldap proxy



- Allows to dispatch requests to many servers
- Filters requests based on rules
- Can be used to log data



Identity Management



- Triplesec : A complete solution for IdM
- Guardian is the associated API to be used by application
- Centralized system
- « Keep it simple, keep it safe »
- See Alex Karasulu presentation



LdapStudio (1)



- LdapStudio is the platform for the next generation of LDAP tools.
- Plugins architecture (Eclipse)
- RCP application
- Not only for ADS, but leverage ADS and work better with ADS



LdapStudio (2) : Functionalities



what's into the box ?

- LdapBrowser
- Schema editor
- ADS administrator
- ACI editor
- soon a Triplesec admin plugin

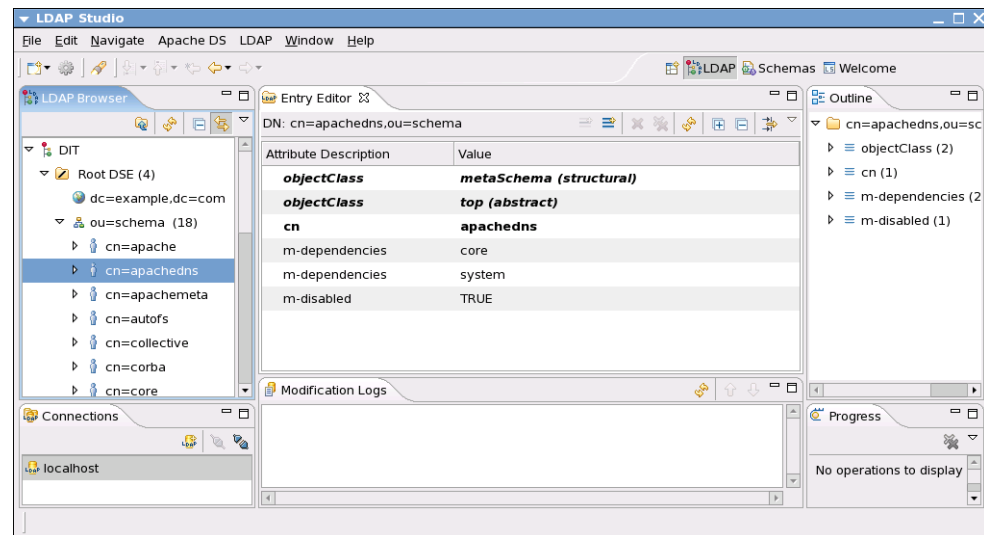


LdapStudio (3) : ldap browser

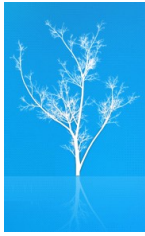


It's not only about search and read.
You can modify data.

And it works
with any Ldap
server !

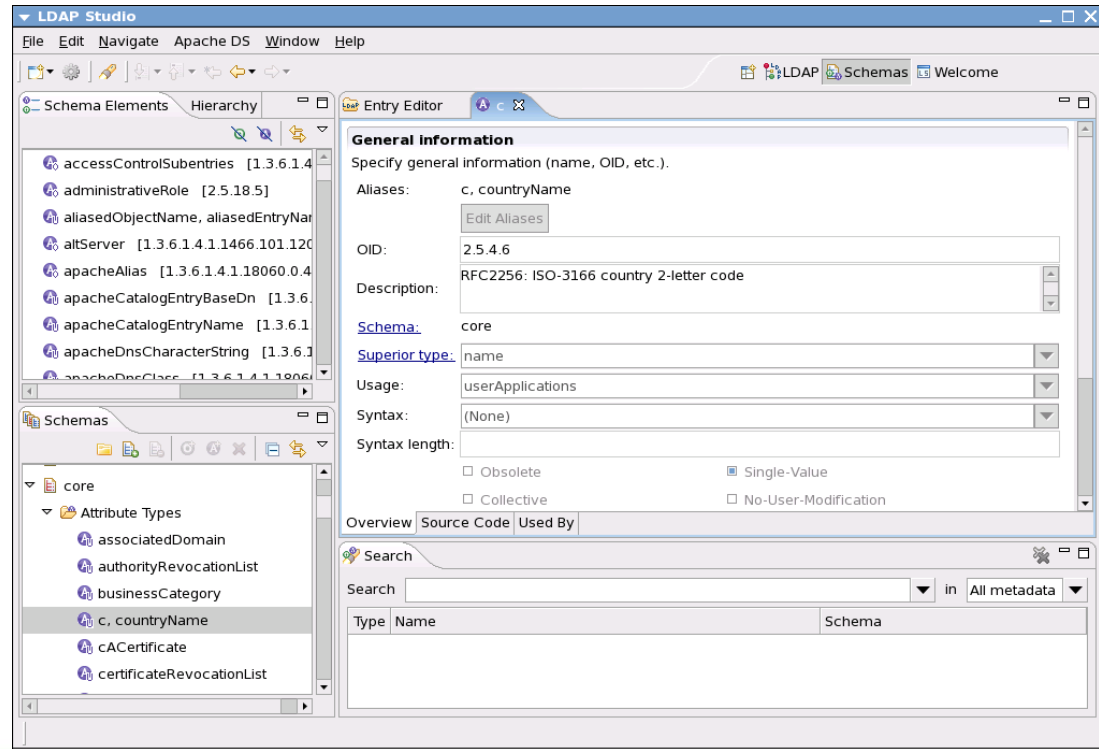


LdapStudio (4) : Schema Editor

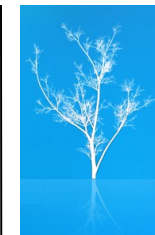


You can edit Ldap schema (OpenLdap format).

Soon, you will be able to update the server (ADS only)

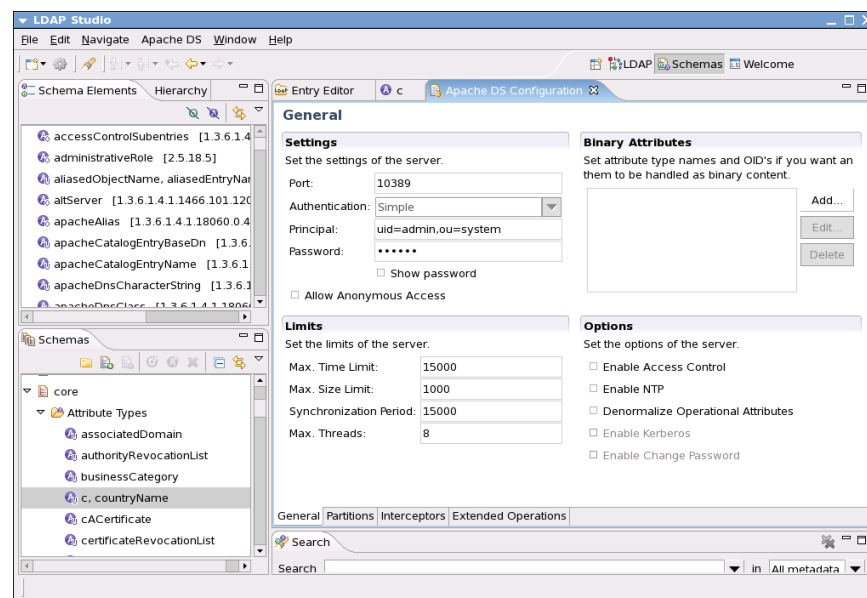


LdapStudio (5) : ADS configuration



Manage ADS configuration :

- interceptors
- basic configuration
- attributes
- indices and cache
- partitions

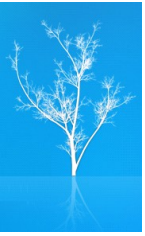


What's next ?

- Stored procedure management plugin
- Triggers management plugin
- TripleSec plugin
- Replication management plugin
- LDAP E/R plugin
- LDAP Hibernate plugin



Conclusion



Apache DS
has the potential to increase
LDAP adoption at a higher
level of usage besides simple
white pages



Q&A



From
(`&(dc=questions)(desc=*)`)

to

Any Question ?

with ADS



Thanks !



To the team:

Ersin Er, Alex Karasulu, Christine Koppelt,
Trustin Lee, Pierre-Arnaud Marcelot, Enrique
Rodriguez, Stefan Seelmann, Stefan Szörner,
the whole MINA team, and to many other
peeps at
Apache !

