Enterprise LDAP
and
Apache Directory Server

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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

- 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/Snapshoting
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™
- 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
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
what's into the box?

- LdapBrowser
- Schema editor
- ADS administrator
- ACI editor
- soon a Triplesec admin plugin
It's not only about search and read.
You can modify data.

And it works with any Ldap server!

**LdapStudio (3): ldap browser**
LdapStudio (4) : Schema Editor

You can edit Ldap schema (OpenLdap format).

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

(!((dc=questions)(desc=*))

to

Any Question?

with ADS
Thanks!

To the team:
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