



OpenDS Intro

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Overview

- What is OpenDS?
- Why should you care?
- What can you do with it?
- How do you get started?

What is OpenDS?

- Next generation directory service
- A community effort bootstrapped by Sun
 - > OSS
 - > CDDL
 - > <http://www.opensds.org>
 - > Participatory - 145 members, 22 committers, 12 contributors (mostly Sun employees)
- 100% Java

Next generation?

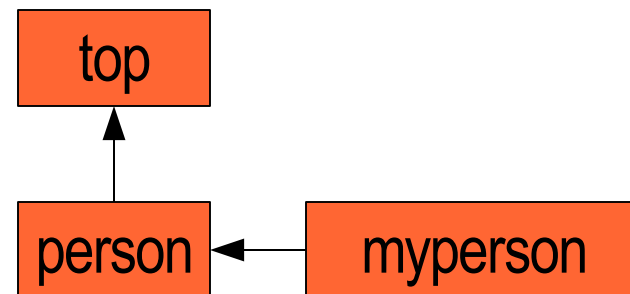
- Services built on a common stack
 - > Directory, synchronization, virtual, proxy
- Modular and extensible
- Fast
- Deployment versatility
 - > embedded, standalone, micro, telco
- Ease of use
 - > Development and deployment

LDAP Directory?

- IETF standard
 - > Specifications for: protocol, information model, syntaxes, authentication mechanisms, common schema, internationalization
- Extensible
 - > Controls, matching rules
- Scalable
 - > Architected to grow with data
- Distributed
 - > Built-in synchronization a.k.a. replication

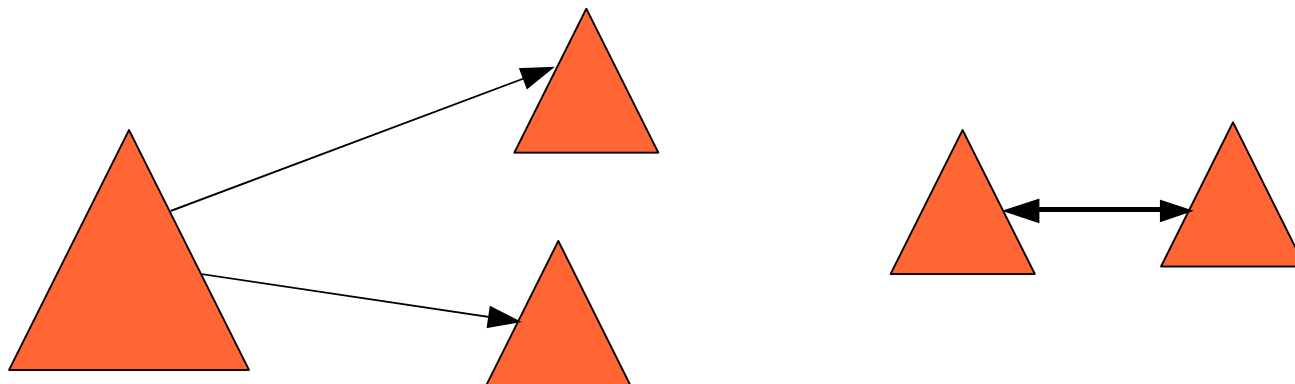
LDAP?

- Interesting information model
 - > Hierarchical
 - > Inheritable and aux classes
 - > Application schema
 - > **Globally** unique schema elements
 - > Attribute value sizes aren't fixed
 - > Multi-valued attributes
- Wire protocol
 - > No vendor drivers
 - > Choose the SDK that fits



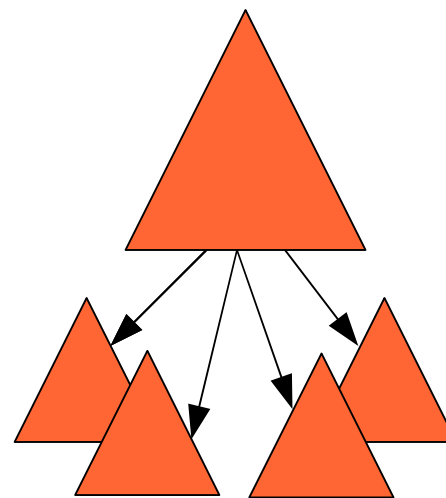
Synchronization?

- Simplified means to propagate changes from 1:n directories
 - > Data center friendly
 - > Granular: entire database, sub-trees, filtered entries, attributes
 - > Enables “local” data repositories



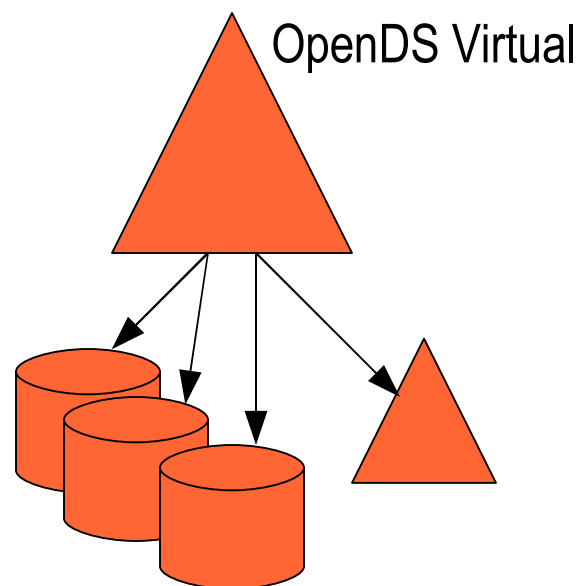
Proxy?

- Directory specific firewall
 - > Prevents DOS attacks
- H/A
 - > Configurable fail-over protection
- Attribute renaming
 - > Map client attribute vocabulary to directory attributes
- Hides physical data location from clients

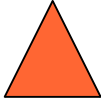


Virtual?

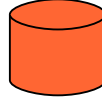
- Unify disparate data sources as a single LDAP view
- Opposite of meta, data stays where it is
- Ease consuming application pain
- Read/Write



RDBMS Comparison



- Hierarchical model
- Standards based
 - > data portability
 - > vendor agnostic
- Extensible/flexible
- High performance
- Simplified administration
- Cheap schema changes



- Relational model
- Complex data relationships
- Cross operation transactions
- Vendor dependencies
- General purpose
- Expensive schema changes

Why care?

- Relevant JavaONE '07 themes
 - > Next generation web
 - > Open source
 - > Java
- Expand your world view
 - > More than one peg
- Web 2.0 (next generation)
 - > Need for speed
 - > Identity centric

More Reasons To Care

- Widespread support
 - > Numerous servers, clients
 - > Built-in to application servers, email clients, etc
 - > Steady stream of books, articles, et al
- Significant improvements on **all** fronts
 - > New directory servers
 - > New and improved tools and clients; e g., Java LDAP JSR
- Directory use is growing

What can you do with OpenDS?

- Typical: Identity management
 - > Centralize people, passwords, & profiles
 - > Centralize network and devices; e.g., NIS
- Atypical: Leverage the service as the high-performance, distributed system that it is
 - > Easily support new identity protocols; e.g., OpenID
 - > Web 2.0 e.g., blogs, tagging
- Embed in application as a low maintenance, H/A database

What we did

- Secured a Java EE application
- Implemented a simple OpenID identity provider
- Atom & APP server
- Blog server
- “Real time” blogging a.k.a. “Twitter”

How to get started?

- Come by our booth
- <http://www.opensds.org>
- treydrake@dev.java.net
- Extensive documentation @ <http://wiki.opensds.org>
- Responsive community
- Freely available source

Demos?