

Open Enterprise Server Presentation

Toshaan Bharvani <toshaan@vantosh.com>

21 March 2013

Open Enterprise Server



Table of contents

- 1 Introduction
- 2 CentOS
- 3 OpenLDAP
- 4 Sendmail
- 5 MySQL
- 6 Zarafa
- 7 Alfresco
- 8 SugarCRM
- 9 Samba
- 10 User Admin

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

1

Introduction

Introduction

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Collaboration
- Integration
- Enterprise Solution
- Open Source
- No front-end changes

Software Architecture table

Open
Enterprise
Server

Toshaan
Bharvani

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

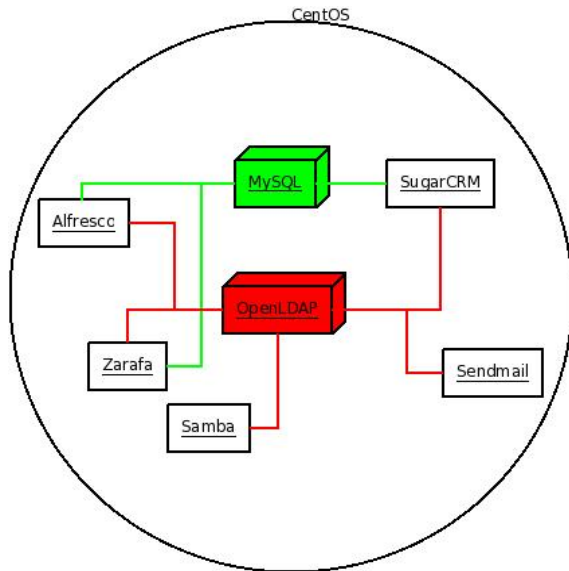
User Admin

Website

The End

- Operating System : CentOS
- User Management : OpenLDAP
- MTA : Sendmail
- Collaboration : Zarafa
- Document Management : Alfresco
- CRM : SugarCRM
- File Server : Samba

Software Architecture overview



Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

2

CentOS

Installing CentOS 6

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Download install media from mirrors.centos.org
- Boot install media
- Install minimal package set for servers.

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

3

OpenLDAP

Setup OpenLDAP

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Install OpenLDAP
 - yum install openldap-servers openldap-clients
- Import schemas
- setup /etc/openldap/slapd.conf

```
1 include /etc/openldap/schema/core.schema
2 include /etc/openldap/schema/cosine.schema
3 include /etc/openldap/schema/inetorgperson.schema
4 include /etc/openldap/schema/nis.schema
5 include /etc/openldap/schema/samba.schema
6 include /etc/ldap/schema/zarafa.schema
7
8 allow bind_v2
9
10 database bdb
11 suffix "dc=vantosh,dc=com"
12 rootdn "cn=Manager,dc=vantosh,dc=com"
13 rootpw {SSHA}UcGO6KtbJi38IPSn4VWgqLt84oewgkWy
```

Populate LDAP

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Populate LDAP with top domain

- base.ldif

```
1 dn: dc=vantosh,dc=com
2 dc: vantosh
3 objectclass: top
4 objectclass: domain
```

- ldapadd -a -W -x -D cn=Manager,dc=vantosh,dc=com -f base.ldif

- Add a group for people

- people.ldif

```
1 dn: ou=people,dc=vantosh,dc=com
2 ou: people
3 objectClass: top
4 objectClass: organizationalUnit
```

- ldapadd -a -W -x -D cn=Manager,dc=vantosh,dc=com -f people.ldif

Configure PAM to use LDAP

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- configure /etc/nsswitch.conf

```
1 passwd: files ldap
2 group:  files ldap
3 shadow: files ldap
```

- configure /etc/openldap/ldap.conf

```
1 HOST 127.0.0.1
2 BASE dc=vantosh , dc=com
```

- configure /etc/ldap.conf

```
1 uri ldap://localhost/
2 binddn cn=Manager , dc=vantosh , dc=com
3 bindpw secret
```

Install phpLDAPAdmin

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Install phpLDAP in `/var/www/html/openldap`
 - `/var/www/html/openldap/config.php`

```
1 $ldapservers->SetValue($i, 'server', 'name', 'Ldap-Server');
2 $ldapservers->SetValue($i, 'server', 'base', array('dc=vantosh', 'dc=com'));
3 $ldapservers->SetValue($i, 'server', 'auth_type', 'config');
4 $ldapservers->SetValue($i, 'login', 'dn', 'cn=Manager,dc=vantosh,dc=com');
5 $ldapservers->SetValue($i, 'login', 'pass', 'xxxxxxx');
6 $ldapservers->SetValue($i, 'server', 'tls', false);
```

- `/etc/php.ini`

```
1 memory_limit = 32M
```

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

4

Sendmail

Setup Sendmail with LDAP support (1/3)

- Sendmail is already installed
- Configure /etc/mail/sendmail.mc

```
1 define('CERT_DIR', 'MAIL_SETTINGS_DIR' certs')dnl
2 define('confCACERT_PATH', 'CERT_DIR')dnl
3 define('confCACERT', 'CERT_DIR/ca.vantosh.com.cert')dnl
4 define('confSERVER_CERT', 'CERT_DIR/smtp.vantosh.com.cert')dnl
5 define('confSERVER_KEY', 'CERT_DIR/smtp.vantosh.com.cert')dnl
6 define('confCLIENT_CERT', 'CERT_DIR/smtp.vantosh.com.cert')dnl
7 define('confCLIENT_KEY', 'CERT_DIR/smtp.vantosh.com.cert')dnl
8 define('confLDAP_DEFAULT_SPEC', '-h localhost -b dc=vantosh,dc=com -d
   uid=sendmail,dc=vantosh,dc=com -M simple -P /etc/mail/ldap')dnl
9 define('ALIAS_FILE', 'ldap:')dnl
10 FEATURE(virtusertable, 'LDAP')dnl
11 define('confAUTH_MECHANISMS', 'PLAIN')dnl
12 TRUST_AUTH_MECH('PLAIN')dnl
```

Setup Sendmail with LDAP support (2/3)

- Populate sendmail user

- sendmail.ldif

```
1 dn: uid=sendmail,dc=vantosh,dc=com
2 objectClass: account
3 objectClass: posixAccount
4 uid: sendmail
5 cn: sendmail account
6 uidNumber: 25
7 gidNumber: 25
8 homeDirectory: /etc/mail
9 userPassword::
```

- `ldapadd -a -W -x -D cn=Manager,dc=vantosh,dc=com -f sendmail.ldif`

- Assign password with `ldappasswd`

- `ldappasswd -W -x -D cn=Manager,dc=vantosh,dc=com -S sendmail`

Setup Sendmail with LDAP support (3/3)

- Populate sendmail aliases : sendmail-alias.ldif

```
1 dn: sendmailMTAKey=testalias , dc=vantosh , dc=com
2 objectClass: sendmailMTA
3 objectClass: sendmailMTAAlias
4 objectClass: sendmailMTAAliasObject
5 sendmailMTAAliasGrouping: aliases
6 sendmailMTAHost: smtp.vantosh.com
7 sendmailMTAKey: testalias
8 sendmailMTAAliasValue: testperson
9
10 dn: sendmailMTAKey=nouser@vantosh.com , dc=vantosh , dc=com
11 objectClass: sendmailMTA
12 objectClass: sendmailMTAMap
13 objectClass: sendmailMTAMapObject
14 sendmailMTAMapName: virtuser
15 sendmailMTAHost: smtp.vantosh.com
16 sendmailMTAKey: nouser@vantosh.com
17 sendmailMTAMapValue: error:nouser No such user here
18
19 dn: sendmailMTAKey=ouser@vantosh.com , dc=vantosh , dc=com
20 objectClass: sendmailMTA
21 objectClass: sendmailMTAMap
22 objectClass: sendmailMTAMapObject
23 sendmailMTAMapName: virtuser
24 sendmailMTAHost: smtp.vantosh.com
25 sendmailMTAKey: ouser@vantosh.com
26 sendmailMTAMapValue: realuser
```

Sendmail configuration

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

● Spamassassin

- yum install spamassassin spamass-milter
- /etc/mail/sendmail.mc

```
1 dnl # SPAMASSASSIN PLUGIN
2 INPUT_MAIL_FILTER('spamassassin', 'S=local:/var/run/spamass-milter/
   spamass-milter.sock ,F=T;C:15m;S:4m;R:4m;E:10m')
```

● ClamAV

- yum install clamav clamav-milter
- /etc/mail/sendmail.mc

```
1 dnl # CLAMAV PLUGIN
2 dnl # local:/var/run/clamav-milter/clamav.sock
3 INPUT_MAIL_FILTER('clamav', 'S=local:/var/clamav/clmilter.socket ,F=T;
   :4m;R:4m') dnl
4 define('confINPUT_MAIL_FILTERS', 'clamav')
```

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

5

MySQL

Setup MySQL

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Install MySQL
 - `yum install mysql-server php-mysql`
- Initialize MySQL
 - `service mysql start`
- Setup new root password
 - `mysqladmin -u root password NEWPASSWORD`

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

6

Zarafa

Install & Configure Zarafa

- Download Zarafa from www.zarafa.com
- extract `zarafa-7.2.1-rhel6-x86_64.tar.gz`
- run install script as root
- Add `zarafa.schema` to `/etc/openldap/slapd.conf`
- `server.cfg`

```
1 system_email_address = postmaster@vantosh.com
2 user_plugin            = ldap
3 user_plugin_config     = /etc/zarafa/ldap.cfg
```

- `ldap.cfg` (copy of `ldap.openldap.cfg`)

```
1 ldap_bind_user = cn=Manager,dc=vantosh,dc=com
2 ldap_bind_passwd =
3 ldap_user_search_base = ou=people,dc=vantosh,dc=com
```

- Configure Zarafa Webaccess
 - `cp config.php.dist to config.php`
 - Alfresco integration

Zarafa Sendmail integration

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Configure sendmail to hand mail to Zarafa
 - /etc/procmailrc

```
1 LOGFILE=$HOME/procmail.log
2 VERBOSE=yes
3 USER=$1
4
5 ### Junk mail filter
6 :0w
7 * ^X-Spam-Status: Yes
8 | zarafa-dagent -j $USER
9 EXITCODE=$?
10
11 ### All other mails go to $USER
12 :0 w
13 | /usr/bin/zarafa-dagent $USER
```

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

7

Alfresco

Get Alfresco

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Install Tomcat5
 - yum install tomcat5 tomcat5-common-lib tomcat5-jasper tomcat5-jsp-2.0-api tomcat5-server-lib tomcat5-servlet-2.4-api xml-commons-apis
- Download Alfresco
 - Alfresco WAR : alfresco-community-war-3.2.tar.gz
 - Module Management Tool : alfresco-mmt-3.2.jar
 - Alfresco M\$ SharePoint Protocol : vti-module.amp
 - Add-in for PHP integration : phpIntegration-3Stable.amp
 - Sample extensions :
alfresco-community-sample-extensions-3.2.tar.gz
- MySQL Java Connector
 - mysql-connector-java-5.1.5.tar.gz

Alfresco with added amp support

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Extract alfresco.war
 - `tar -xzf alfresco-community-war-3.2.tar.gz`
- Add SharePoint support
 - `java -jar alfresco-mmt-3.2.jar vti-module.amp alfresco.war`
- Add php support
 - `java -jar alfresco-mmt-3.2.jar phpIntegration-3Stable.amp alfresco.war`

Setup Tomcat & MySQL

- Copy Alfresco to the webapp directory
 - `cp alfresco.war /var/lib/tomcat6/webapps`
- `/etc/sysconfig/tomcat6`

```
1 JAVA_OPTS="$JAVA_OPTS -Xms1024m -Xmx1024m"  
2 JAVA_OPTS="$JAVA_OPTS -XX:NewSize=256m -XX:MaxNewSize=256m"  
3 JAVA_OPTS="$JAVA_OPTS -XX:PermSize=256m -XX:MaxPermSize=256m"
```

- Setup MySQL database
 - `mysql -u root -p j ./extras/databases/mysql/db_setup.sql`
- Integrate MySQL connector within JDK :
 - `tar -xzf mysql-connector-java-5.1.5.tar.gz`
 - `cp mysql-connector-java-5.1.5-bin.jar /usr/share/java/`
 - `cd /var/lib/tomcat6/common/endorsed/`
 - `rebuild-jar-repository /var/lib/tomcat6/common/endorsed mysql-connector-java-5.1.5-bin.jar`

Configure Alfresco Tomcat Shared files (1/2)

- Extract into the Tomcat shared class path
 - `cd /var/lib/tomcat6/shared/classes`
 - `tar -xzf alfresco-community-sample-extensions-3.2.tar.gz`
- Configure the Alfresco properties
 - `cd /var/lib/tomcat6/shared/classes/alfresco/extension`
 - `cp custom-repository-context.xml.sample custom-repository-context.xml`
 - `cp custom-repository.properties.sample custom-repository.properties`

```
1 dir.root=/var/lib/alfresco/alf_data
2
3 db.username=alfresco
4 db.password=alfresco (change this to your own custom password)
5 db.pool.initial=10
6 db.pool.max=100
7 db.driver=org.gjt.mm.mysql.Driver
8 db.url=jdbc:mysql://localhost/alfresco
```

- `cp custom-hibernate-dialect.properties.sample custom-hibernate-dialect.properties`

```
1 hibernate.dialect=org.hibernate.dialect.MySQLInnoDBDialect
```

Configure Alfresco Tomcat Shared files (2/2)

- Configure log
 - `cd /var/lib/tomcat5/webapps/alfresco/WEB-INF/classes`
 - `log4j.properties`

```
1 log4j.appender.File.File=/var/log/tomcat6/alfresco.log
```

- Configure Alfresco to authenticate through LDAP
 - `/var/lib/tomcat5/shared/classes/alfresco/extension/chaining-authentication-context.xml`
 - `/var/lib/tomcat5/shared/classes/alfresco/extension/ldap-authentication-context.xml`

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

8

SugarCRM

Setup SugarCRM

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Download SugarCRM 5.2.0f
- Extract into /var/www/html/sugarcrm
 - mkdir -p /var/www/html/sugarcrm
 - cd /var/www/html/sugarcrm
 - unzip SugarCE-5.2.0f.zip
- Configure LDAP through the admin web interface
 - Server: localhost
 - Port Number: 389
 - Base DN: ou=people,dc=vantosh,dc=com
 - Bind Attribute: dn
 - Login Attribute: uid
 - Auto Create Users: yes

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

9

Samba

Setup Samba

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- Install samba
 - yum install samba
- Configure samba
 - /etc/samba/smb.conf

```
1 passdb backend = ldapsam:ldap://localhost
2 ldap suffix = ou=people,dc=vantosh,dc=com
3 ldap admin dn = cn=Manager,dc=vantosh,dc=com
```

- Set admin dn password
 - smbpasswd -w <ldap-secret>
- Mapping Windows groups to unix groups
 - net groupmap add -unixgroup=<unix-group>
-ntgroup="<windows-group>"

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

10

User Admin

Adding users to LDAP

Open
Enterprise
Server

Toshaan
Bharvani

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

● Toshaan Bharvani

```
1 dn: uid=toshaan ,ou=people ,dc=vantosh ,dc=com
2 uid: toshaan
3 cn: toshaan
4 loginShell: /bin/bash
5 uidNumber: 503
6 gidNumber: 503
7 homeDirectory: /home/toshaan
8 objectClass: account
9 objectClass: posixAccount
10 objectClass: top
11 objectClass: shadowAccount
12 objectClass: zarafa-user
13 objectClass: sambaSamAccount
14 structuralObjectClass: account
15 zarafaAccount: 1
16 userPassword: {CRYPT}$1$o8RLWTbQ$m6YhEoogwum3ySMilpoV50
17 sambaSID: 503
```

Website urls and download locations

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

SugarCRM

Samba

User Admin

Website

The End

- CentOS : <http://centos.org/>
- Zarafa : <http://www.zarafa.com/>
- Alfresco : <http://www.alfresco.com/>
- SugarCRM : <http://www.sugarcrm.com/>
- Samba : <http://www.samba.org/>

The End

Open
Enterprise
Server

Toshaan
Bharvani

Introduction

CentOS

OpenLDAP

Sendmail

MySQL

Zarafa

Alfresco

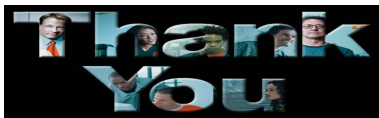
SugarCRM

Samba

User Admin

Website

The End



Toshaan Bharvani <toshaan@vantosh.com>

<http://www.vantosh.com/publications>

Made with Beamer \LaTeX
a \TeX based Presentation program