EASY Installation Guide

*version 2.8*

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# Introduction

The Electronic Archiving SYstem (EASY) is the DANS[[1]](#footnote-1) Fedora Commons based repository system for the long term preservation of scientific research data. It includes a web-based user interface that lets users find and download data as well as submit information packages for ingest into the repository.

This document will guide you through the steps of installing EASY on a server. As described below, EASY is built on several open source software components. Several configurations on different platforms should therefore be possible. However, this Guide describes a simple one-server set-up, on a RedHat Linux server, the configuration currently in use at DANS. So far, no other configurations have been tested.

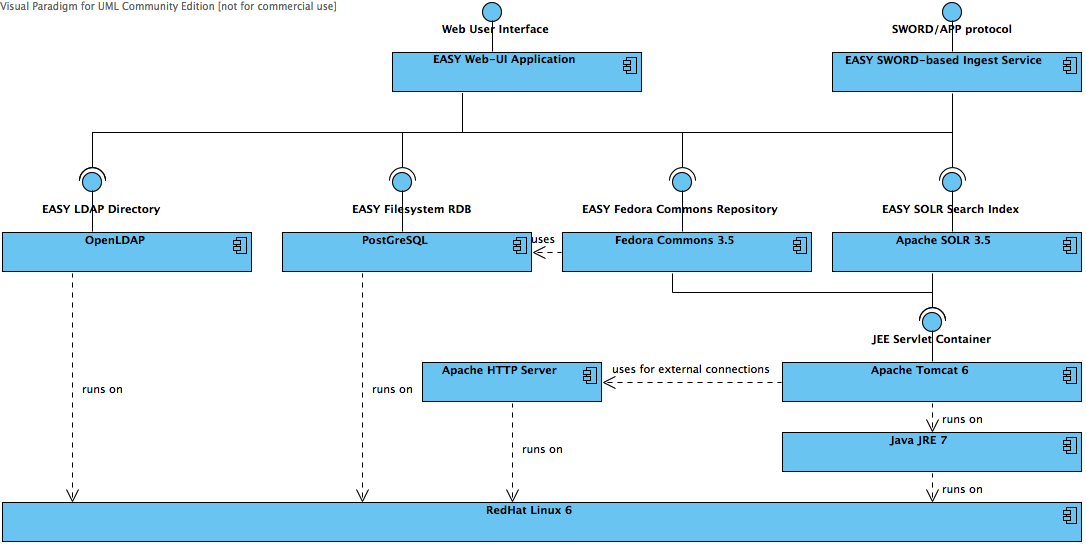
## Installation packages

Before you continue, please make sure you have the following required installations packages:

* *easy-back-end-cfg-2.8.tar.gz* - contains the files for setting up the back-end services needed to run EASY, as well as a copy of this Guide.
* *easy-webui-2.8.tar.gz* - contains the Web-UI component
* *easy-sword-2.8.tar.gz* (optional) - contains the SWORD-based Ingest component

# Overview of EASY

Refer to the diagram below for an overview of the components that make up an EASY installation.



Some of these components could in principle be replaced by different components. If only a standard protocol is mentioned in the interface, a different implementation of that protocol could possibly be used:

* EASY LDAP Directory - another LDAP implementation could be used
* EASY Filesystem RDB - another rdms could be used
* EASY Fedora Commons Repository - needs to be a version of Fedora Commons
* EASY SOLR Search Index - needs to be a version of Apache SOLR.

*However, it is important to remember that only the configuration discussed in this document has been tested.*

# Software Requirements

The following industry standard software components need to be installed first. See subsections for comments about alternatives and additional configuration.

## Redhat 6 or CentOS 6

We recommend that you run the operation system in SELinux “protected mode.”

## Oracle Java SE 7

Version 6 will work as well. OpenJDK has not been tested.

## Tomcat 6

Add the following line to /etc/tomcat6/tomcat6.conf (just below the line that starts with “JAVA\_OPTS=”):

JAVA\_OPTS="${JAVA\_OPTS} -Xmx2048m -Xms2048m -server -XX:PermSize=256m \

-XX:MaxPermSize=256m -XX:+AggressiveHeap"

Configure all the connectors you specify in /etc/tomcat6/server.xml to use the UTF-8 encoding, by means of the attribute: URIEncoding="UTF-8". When adding an AJP-connector to connect Tomcat to Apache HTTP Server (see next step) don’t forget to also configure it.

## Apache HTTP <version?>

Configure to … with Tomcat 6.

## PostGreSQL

Initialize the database after installation:

sudo service postgresql initdb

Configure the database to accept local connections based on username/password credentials by editing the file /var/lib/pgsql/data/pg\_hba.conf. Change the lines at the bottom of the file to look like this:

# TYPE DATABASE USER CIDR-ADDRESS METHOD

# "local" is for Unix domain socket connections only

local all all **md5**

# IPv4 local connections:

host all all 127.0.0.1/32 **md5**

# IPv6 local connections:

host all all ::1/128 **md5**

## OpenLDAP

No additional configuration needed.

# EASY Back-end Services

* Fedora Commons + EASY Repository
* EASY Directory (OpenLDAP)
* EASY Filesystem Database (PostGreSQL)
* EASY PID Database (PostGreSQL)
* SOLR + EASY Search Index

# EASY Web-UI Application

# EASY SWORD-based Ingest Service

1. Data Archiving and Networked Services, an institute of the Netherlands Academy for the Arts and Sciences (KNAW) and the Netherlands Research Organisation (NWO). [↑](#footnote-ref-1)