

Installing iDashboards on Linux (Ubuntu)

Overview

iDashboards can be installed on any Operating System that supports a Java 2 Enterprise Edition (J2EE) Web Application server. Because Linux does support application servers such as Apache Tomcat, iDashboards can be installed on a Linux or Unix-like Operating System.

There are numerous methods of installing applications on Linux, and exact steps may differ based on your type of Linux server. This document will detail the steps to install iDashboards on a Debian based platform (Ubuntu). Remember that this document is only a guide; you or your server administrator may have other preferred methods of installing applications. A more generalized installation guide can be found in the iDashboards Administrator's Manual under Chapter 3.4 "Manual Installation".

System Requirements

Prerequisites (Hardware)

- 2 GHz, Single CPU
- 4 GB RAM
- 1.5 GB Available Hard Disk Space

(Additional requirements for larger user environments can be found here:

<http://www.idashboards.com/products/system-requirements/>)

Prerequisites (Software)

- Linux or Unix-like Operating System that supports a J2EE-compliant Application Server
- Java JDK version 1.6 or later, including a Java Virtual Machine
- Java Application Server that implements the Servlet 3.0 and JSP 2.2 or later (Apache Tomcat 7.0 or later is recommended)
- One of the following supported relational database servers for the iDashboards repository
 - MySQL (used in this guide)
 - Oracle
 - Microsoft SQL Server
- A JDBC driver to connect to your database server

Installation of Prerequisites and iDashboards on Ubuntu with MySQL

Please note the following programs are used and will need to be installed:

- APT-GET
- Wget
- Unzip

Do not copy and paste these commands!

They may not work verbatim for your particular distribution due to the highly configurable nature of the Linux OS. Please note that they are included for reference purposes only.

Java JDK

1. Update the apt-get repository
 - `sudo apt-get update`
2. Install the OpenJDK Runtime Environment (note that during installs you will need to confirm the download and installation at various points by typing Y)
 - `sudo apt-get install openjdk-8-jdk`

Apache Tomcat

1. Create an idashboards user and group
 - `sudo useradd -MU -s /bin/nologin -d /opt/ivizgroup idashboards`
 - This creates a user group idashboards and a user idashboards that will only be used to run Tomcat, user logins are disabled so no password is set
2. Identify the Tomcat binary you wish to install from <http://tomcat.apache.org>. (replace “x” and “x.x.xx” with the version you wish to download. Please note the mirror location periodically changes, so you will want to confirm the URL on the Tomcat download page. Download this file to your home directory
 - `wget http://mirrors.advancedhosters.com/apache/tomcat/tomcatx/vx.x.xx/bin/apache-tomcat-x.x.xx.tar.gz`
3. Create the Tomcat directory and extract the Tomcat archive
 - `sudo mkdir /opt/tomcat`
 - `sudo tar xvf apache-tomcat-*tar.gz -C /opt/tomcat --strip-components=1`
4. Configure permissions for the idashboards user
 - `sudo chown -R idashboards /opt/tomcat`
5. Configure Tomcat to run as a service and set the ivizgroup home directory
 - Create the Systemd unit file
 - `sudo nano /etc/systemd/system/tomcat.service`

Insert the following script:

```
# Systemd unit file for tomcat
[Unit]
Description=Tomcat Server
Wants=syslog.target network.target
After=syslog.target network.target

[Service]
Type=forking

Environment=JAVA_HOME=/usr/lib/jvm/java-1.8.0-openjdk-amd64
Environment=CATALINA_PID=/opt/tomcat/temp/tomcat.pid
Environment=CATALINA_HOME=/opt/tomcat
Environment=CATALINA_BASE=/opt/tomcat
Environment='CATALINA_OPTS=-Xms512M -Xmx1024M -server -
XX:+UseParallelGC'
Environment='JAVA_OPTS=-Divizgroup.home=/opt/ivizgroup/ -
Djava.awt.headless=true -Djava.security.egd=file:/dev/./urandom'

ExecStart=/opt/tomcat/bin/catalina.sh start
ExecStop=/bin/kill -15 $MAINPID

User=idashboards
Group=idashboards
UMask=0007
RestartSec=10
Restart=always

[Install]
WantedBy=multi-user.target
```

- Save and exit (Ctrl-X and confirm save and filename)

6. Reload the Systemd file
 - o `sudo systemctl daemon-reload`
7. Set Tomcat to start on boot (optional)
 - o `sudo systemctl enable tomcat.service`

MySQL

1. Install MySQL
 - `apt-get install mysql-server`
 - Set your root password
2. Log in to MySQL with root (you will be prompted for a password)
 - `mysql -u root -p`
3. Create the iDashboards repository database
 - `CREATE DATABASE idashboards CHARACTER SET latin1 COLLATE latin1_swedish_ci;`
 - `CREATE DATABASE idb_workbooks CHARACTER SET latin1 COLLATE latin1_swedish_ci;`
 - `CREATE DATABASE idb_data CHARACTER SET latin1 COLLATE latin1_swedish_ci;`
4. Create a user for iDashboards to connect to the repository with and assign it privileges. We are using 'idash' as the username and a sample password, you can rename it if you'd like
 - `CREATE USER 'idash'@'localhost' identified by '$password';`
 - `GRANT ALL PRIVILEGES ON idashboards.* to idash@localhost;`
 - `GRANT ALL PRIVILEGES ON idb_workbooks.* to idash@localhost;`
 - `GRANT ALL PRIVILEGES ON idb_data.* to idash@localhost;`
 - `FLUSH PRIVILEGES;`
 - `Exit`
5. Change to the home directory
 - `cd`

iDashboards

1. Create the ivizgroup home directory
 - `sudo mkdir /opt/ivizgroup`

2. Copy the iDashboards installation media to the home directory. You can download it directly using the following command (replace **96a** with the latest version of iDashboards and **username** and **password** with your download portal credentials supplied to you by your Account Manager)

- `wget --user=$username --password=$password https://update.idashboards.com/downloads/software/release/iDashboards_96a_EnterpriseSuite_CDROM.zip`

3. Unzip the iDashboards software to the ivizgroup home directory

- `unzip iDashboards_96a_EnterpriseSuite_CDROM.zip -d /opt/ivizgroup`

4. Create the logs and drivers folders and set ownership for the ivizgroup home directory

- `cd /opt/ivizgroup`
- `sudo mkdir logs`
- `sudo mkdir drivers`
- `sudo chown -R idashboards /opt/ivizgroup`

5. Copy idashboards.war, idbalerts.war, and idbreports.war to the Tomcat webapps directory

- `sudo cp /opt/ivizgroup/bin/*.war /opt/tomcat/webapps`

6. Unzip the report folder (idb_reports_module.zip in your ivizgroup/bin directory) to the ivizgroup home directory.

- `unzip /opt/ivizgroup/bin/idb_reports_module.zip -d /opt/ivizgroup`

7. Download and install the MySQL Connector/J driver to your home directory and install it to your ivizgroup/drivers directory

- `wget http://dev.mysql.com/get/Downloads/Connector-J/mysql-connector-java-5.1.44.tar.gz`
- `sudo tar -xvf mysql-connector-java-5.1.44.tar.gz mysql-connector-java-5.1.44/mysql-connector-java-5.1.44-bin.jar -strip-components=1`
- `mv mysql-connector-java-5.1.44-bin.jar /opt/ivizgroup/drivers`

8. Edit the ivizgroup.properties file and add the following “db.” lines to configure the repository connection (remember to specify the password you gave your MySQL idash user)

- `sudo nano /opt/ivizgroup/config/ivizgroup.properties`

```
db.driverClass=com.mysql.jdbc.Driver
db.url=jdbc:mysql://localhost:3306/idashboards
db.user=idash db.password=$password
db.password.encrypted=false db.maxConnections=10
```

9. Run the create repository script from shell

- `mysql -u idash -p idashboards < /opt/ivizgroup/scripts/database/standard/create_repository/mysql_standard_create_repository.sql`

10. Verify the script ran. You should see a number of tables with the prefix "fv_"

- `mysql -u idash -p`
- `Use idashboards;`
- `Show tables;`
- `Exit`

11. Start the Tomcat service

- `sudo systemctl start tomcat`
- The service will deploy the .WAR files in the webapps directory. This may take a few minutes

12. Your iDashboards server should now be fully configured. Keep in mind you may need to add firewall exceptions in order to allow communication through the port iDashboards is configured with (8080 by default)

- User Application URL: <http://yourserver:8080/idashboards>
- Admin Application URL: <http://yourserver:8080/idashboards/admin>
- Login Credentials
 - Username: **admin**
 - Password: **change_me**