OrecX
Open Source Recording

Installation Oreka TR in Linux

Contents

What is Oreka TR?

Oreka TR is an enterprise cross-platform system for recording and retrieval of audio streams, computer screens, and text messages (SMS). It supports recording from VoIP telephony systems via active and passive recording methods. It also supports recording from TDM telephony systems.

The Oreka TR user interface (OrkUI) is web-based and provides a rich feature set such as call live monitoring, recordings playback, extensive search and query capabilities, audit trail, reporting, tagging, media manager, and many others.

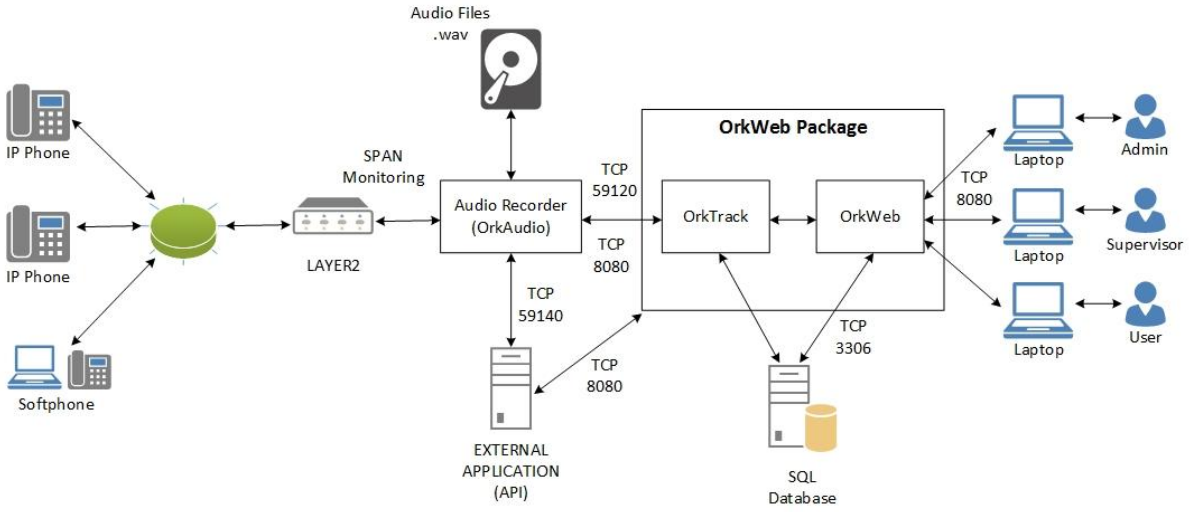
Architecture

The Oreka TR system consists of a combination of the following services:

- **OrkAudio** : This is the audio capture background service. It supports active and passive VoIP recording as well as TDM based recording.

- **OrkTrack** : This service centrally tracks activity on the entire system and logs recordings to any popular SQL database. It is also responsible for background tasks such as the Media Manager, User and Group Auto-Provisioning as well as most API functionality through a RESTful interface.

- **OrkUI**: This service is the web interface accessible via any standard compliant web browser. It relies on the Tomcat web server.



Prerequisites (provided by customer):

- Centos 7.x – 64-bit (minimal ISO or higher) or RHEL 7.x/8.x
- For hardware requirements see: http://files.orecx.com/docs/oreka-voip-server-specs.pdf
- Root-level or Administrator access on the server
- Internet connection to download MySQL or MariaDB as well the Oreka TR installation files

Prerequisites (provided by Orecx):

- Valid OrkAudio and OrkWeb Licenses
- OrkAudio installer (e. g. `orkaudio-commercial-2.70-1686.x8127.x86_64.centos7.gcc48-installer.tar`)
- Orkwebapps installer (e.g `orkwebapps-2.90-11509-x64-rhel8-installer.sh.tar`)
- Tomcat 7 and OpenJDK 8 (automatically installed by the Orkwebapps Installer)

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OrkAudio Installation

1. Download the installer to the recording server system. Use the link as well as the username and password provided by Orecx to get the installers.

NOTE: If “wget” is not installed , you may install it with the following command

```
# yum -y install wget
```

2.Dowload the installer of orkaudio in the recording server, i.e.:

```
# wget --http-user=orecxaccess --http-password=XXXXXXXXX
http://files.orecx.com/orecx/cestrada/orkaudio-commercial-2.70-1686.x8127.x86_
64.centos7.gcc48-installer.tar
```

3. Untar the file:

```
# tar -xvf
orkaudio-commercial-2.11-1042.x6177.x86_64.centos7.gcc48-installer.tar
```

4. Run the installer:

```
# ./orkaudio-commercial-2.11-1042.x6177.x86_64.centos7.gcc48-installer.sh
```

5. Type i for installing, for a default installation:

```
# OrkAudio - starting installation... please wait


**** Welcome to the OrkAudio installer! ****
Please select between installing or uninstalling OrkAudio (i/u): i

Default owner of audio files will be user: tomcat
Do you want to change this? (y/n):n

orkaudio will run as the root user. Do you want to run as user
tomcat? (y/n): n
```

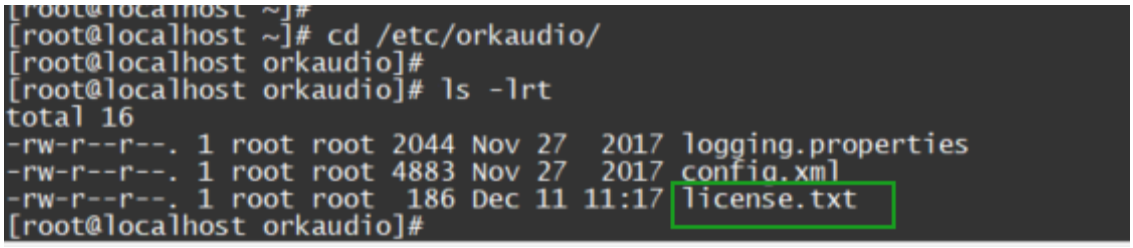
Then type “y” for the installation of each of the dependencies when prompted

```
Configure an Interface for port mirroring
Available interfaces:
1: [enp0s3]
2: [enp0s8]
Enter the interface to use for port-mirroring (0 to configure
port-mirroring later):
0-2: 0
NOTE: unless you know the interface where the traffic will be
received (in case of passive recording) type 0.
```

Then type “l” to copy the license later during the installation.

6. Copy the provided **Orkaudio** license to /etc/orkaudio. Use any SFTP client, such as WinSCP, Filezilla or command-line SFTP. Alternatively, you can simply open the license file and copy/paste into a file named /etc/orkaudio/license.txt

7. Rename the file to license.txt if needed



8. Start the OrkAudio service

```
# systemctl start orkaudio
```

9. Verify that is running with the command

```
# ps - ef| grep orkaudio
```

NOTE: Once you have your **Port Mirror** setup on your LAN to capture traffic, please make sure that the correct Network Adapter (Device) is correctly entered in `/etc/orkaudio/config.xml`

Example using eth3 to capture data:

Change:

```
<!---Devices>eth1,eth2</Devices>-->
```

to:

```
<Devices>eth3</Devices>
```

```
<VoIpPlugin>
        <PcapSocketBufferSize>67108864</PcapSocketBufferSize>

        <!--queuemetrics integration, uncomment the following line-->
        <!--<SipExtractFields>X-Unique-ID</SipExtractFields>-->

        <!-- Use this for Nortel proprietary VoIP protocol -->
        <!--<UnistimDetect>yes</UnistimDetect>-->

        <!-- Turn both these on this for Avaya H.323 extensions -->
        <!--<AvayaDetect>yes</AvayaDetect>-->
        <!--<RtcpDetect>yes</RtcpDetect>-->

        <!-- Set the option below to "true" to enable IAX2 support -->
        <!-- the default is that IAX2 support is disabled -->
        <!--<Iax2Support>false</Iax2Support> -->

        <!-- Use this if you want to force capture from a given list of devices. -->
        <!-- All available devices are listed in orkaudio.log when the service is starting -->
        <!--<Devices>eth1, eth2</Devices>-->
```

9. Restart orkaudio service.

```
# systemctl restart orkaudio
```

Configuring OrkAudio for Active Recording

If you will be using SIPREC or Cisco BiB to record, please refer to the following additional documents:

Broadsoft SIPREC SIPUA

Metaswitch SIPREC SIPUA

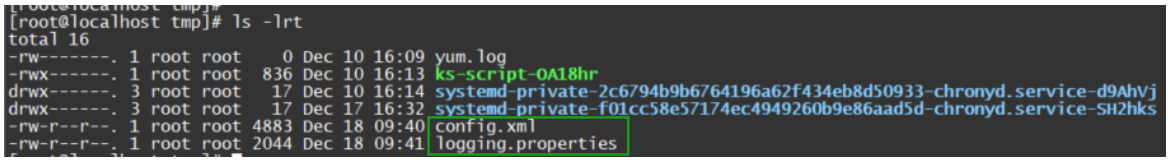
Cisco BIB

Avaya SBCE SIPREC Configuration for Oreka Audio Recording

Oracle SBC SIPREC with Oreka TR Configuration Guide

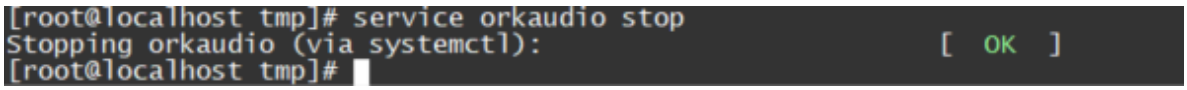
Upgrading OrkAudio (optional)

1. Make a backup copy of `/etc/orkaudio/config.xml` and `/etc/orkaudio/logging.properties` if you have customized them, saving them in a directory other than /etc/orkaudio



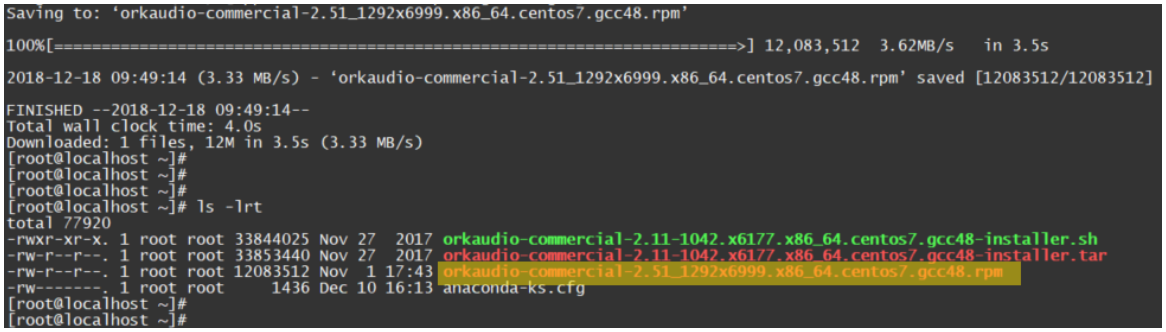
2. Stop the orkaudio process:

```
# systemctl start orkaudio
```



3. Download the RPM file required to perform the upgrade. (Note the filename and version shown are examples, the actual filename may vary):

```
# wget --http-user=orecxaccess --http-password=XXXXXXXXXXXX
http://files.orecx.com/orecx/cestrada/orkaudio-commercial-2.85_1728x8354.x86_64.centos7.gcc48.rpm
```



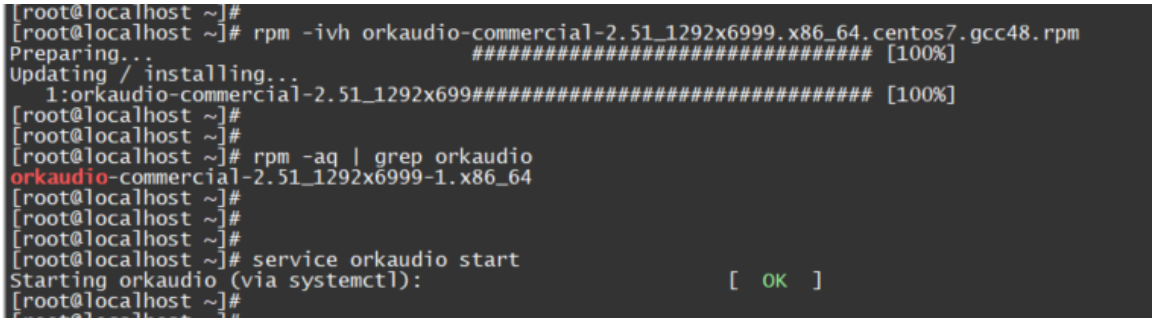
4. Run the command:

```
# yum upgrade orkaudio-commercial-2.85_1728x8354.x86_64.centos7.gcc48.rpm
```

5. Check the version of the new OrkAudio and start the process

```
# rpm -aq | grep orkaudio
```

```
# systemctl start orkaudio
```



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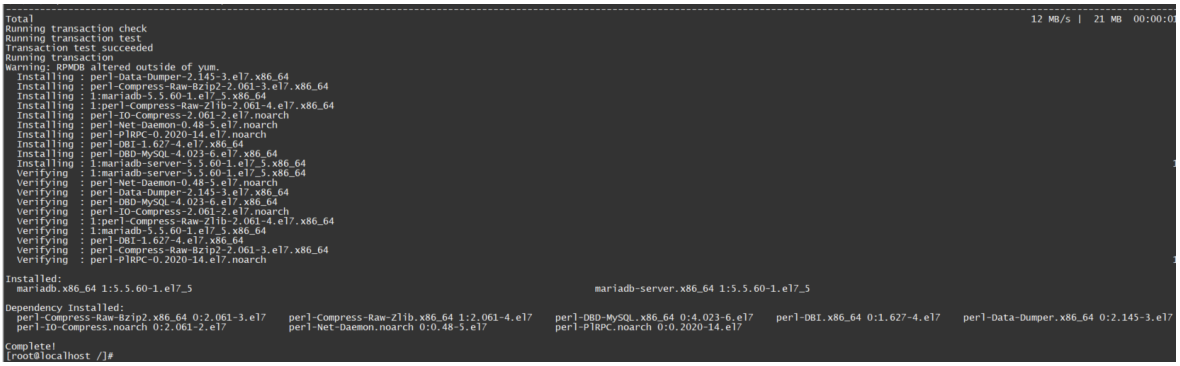
Orkwebapps Installation

1. Install the MariaDB database

Note: MySQL is no longer available via yum using the default repositories but can be installed by your Linux Admin if you prefer to use MySQL instead of MariaDB.

```
# yum -y install mariadb-server mariadb
```



2. Verify if MariaDB is running, if not start it

```
# systemctl status mariadb
```

```
# systemctl start mariadb
```

```
# systemctl enable mariadb
```

NOTE: The default username and password when installing MariaDB is “root” with a blank password. We strongly recommend changing that prior to installing Orkui/Orktrack using the `mysql_secure_installation` command before proceeding to the next step.

```
# mysql_secure_installation
```

Save the password of the mariadb that was configured during the mysql_secure_installation.

3. In case is not installed, install unzip

```
# yum install unzip
```

4. Download the Orkwebpps installer, untar and execute it:

```
# wget --http-user=orecxaccess --http-password=XXXXXXXX
http://files.orecx.com/orecx/cestrada/orkwebapps-2.90-11509-x64-rhel8-installe
r.sh.tar
```

```
# tar -xvf orkwebapps-2.90-11509-x64-rhel8-installer.sh.tar
```

```
# ./orkwebapps-2.90-11509-x64-rhel8-installer.sh
```

5. Press Y as the Orkwebapps installation proceeds to disable SELinux and install Java and Tomcat 7

NOTE: You will need the MariaDB/MySQL password that you set in Step 2

```
[root@localhost oreka]# ./orkwebapps-2.90-11509-x64-rhel8-installer.sh

Oreka Web User Interface Installer - starting installation... please wait


**** Welcome to the Oreka Web User Interface installer by OrecX LLC ****
64-bit OS detected...
The installer has found that SELinux is enabled
Would you like to continue with the installation and allow the installer to disable SELinux (y/n)? y
Disabling SELinux in existing /etc/selinux/config file for future reboots...

Verifying Java installation...
OpenJDK 8 installed at: /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.302.b08-0.el7_9.x86_64/jre/bin/java
openjdk version "1.8.0_302"
OpenJDK Runtime Environment (build 1.8.0_302-b08)
OpenJDK 64-Bit Server VM (build 25.302-b08, mixed mode)

OpenJDK 8 Java Development Kit: javac 1.8.0_302

Verifying MySQL database installation...
Found package mariadb-server-5.5.68-1.el7.x86_64

Click enter to accept defaults...
Path to MariaDB (default: /usr/bin/mysql):

MariaDB hostname (default: localhost):

MariaDB database (default: oreka):

MariaDB user name ('root' is not recommended):
root
MariaDB password:
Oreka123
MariaDB password confirm:
Oreka123
Verifying database connection...
Connected successfully!
                                                    innodb_buffer_pool_size and slow query log file)
Added innodb_buffer_pool_size=100m
Added max_connections=200
Added slow_query_log=1
Added slow_query_log_file=/var/log/mysqld_slow.log
Added long_query_time=20

Do you want to install Tomcat 7? (y/n)
```

You will be prompted at the end of the installation to choose a password for the OrkUI “admin” superuser. Please take note of that, since you will need to log into OrkUI in Step 7.

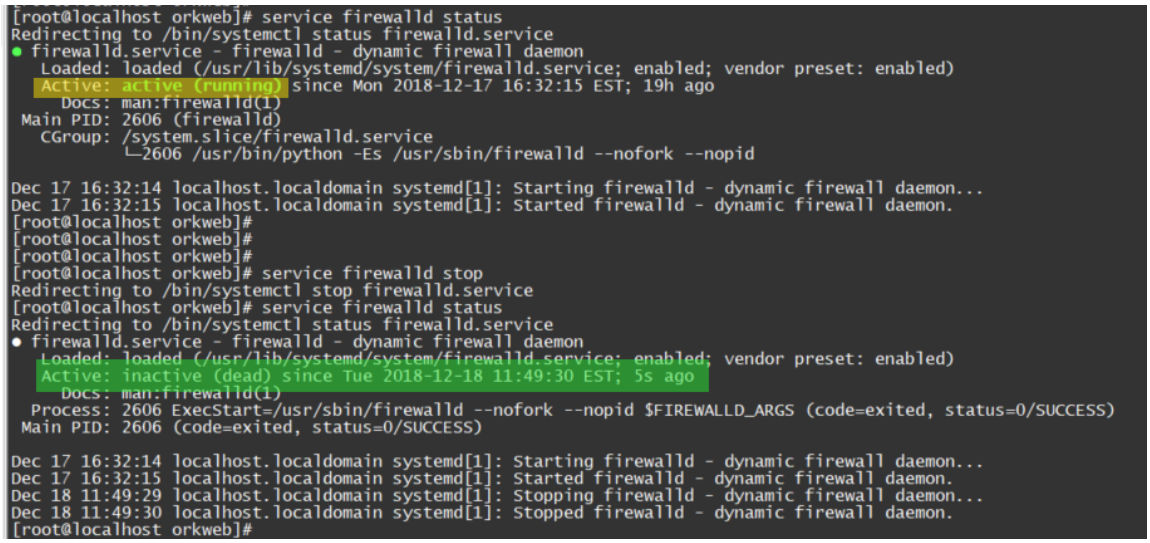
5. Start the Tomcat service and verify that it was started successfully

```
# systemctl start tomcat
```

```
# systemctl status tomcat
```

6. Stop the service firewalld on the Linux server:

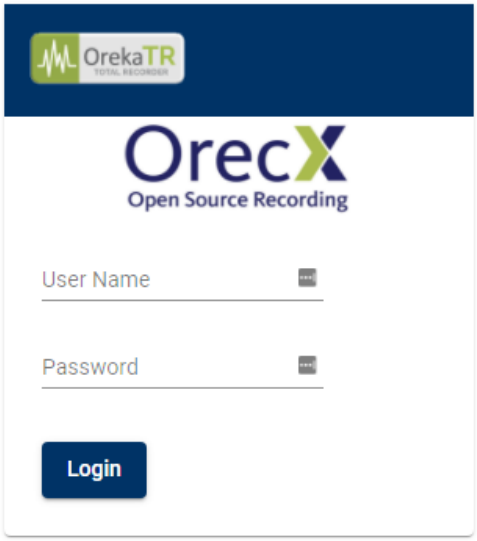
```
# systemctl stop firewalld
```



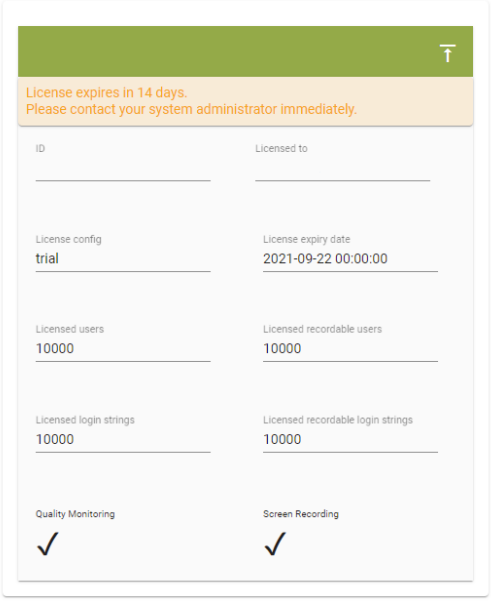
7. Open in a browser and navigate to: http://hostname.or.ip.address.of.server:8080/orkui

In this example http://192.168.2.39:8080/orkui/app

8. Enter “admin” as the username and the password that you chose at the end of the Orkwebapps installation



9. Click on the import button ( ) and select the orkweb license that you were sent as a trial. After it is applied, you will need to log in again.



10. The Oreka TR installation is now complete.

Additional documentation:

Oreka 3.00 Administrator Manual (orecx.com)

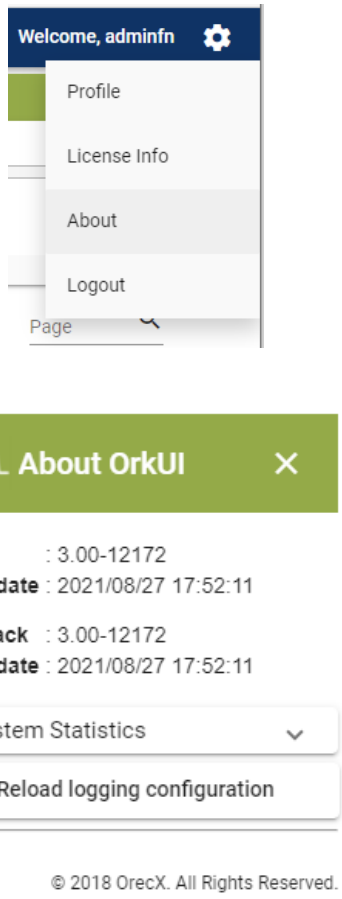
Oreka TR Post-deployment Guide (orecx.com)

YouTube Channel:

OrecX

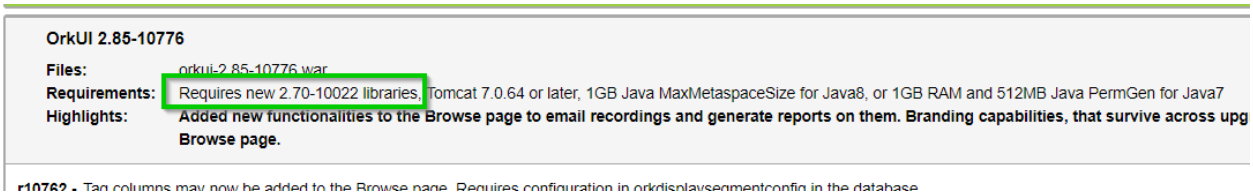
Upgrading Orkwebapps

Note the version number is visible on About section in OrkUI:



To determine the version of the java-deps required for the upgrade, it can be found on:
http://files.orecx.com/docs/oreka-release-notes.html

i.e.



1. Download the required WAR files and java deps files necessary. For this example we used:

    - orkweb-2.87-11040.war
    - orktrack-2.87-11040.war
    - orkui-2.87-11040.war
    - http://files.orecx.com/software/oreka-tomcat-java-deps-2.70-10022.zip

```
# wget --http-user=orecxaccess --http-password=XXXXXXXX
http://files.orecx.com/orecx/cestrada/orkweb-2.87-11040.war
```

```
# wget --http-user=orecxaccess --http-password=XXXXXXXX
http://files.orecx.com/orecx/cestrada/orktrack-2.87-11040.war
```

```
# wget --http-user=orecxaccess --http-password=XXXXXXXX
http://files.orecx.com/orecx/cestrada/orkui-2.87-11040.war
```

```
# wget --http-user=orecxaccess --http-password=XXXXXXXX
http://files.orecx.com/software/oreka-tomcat-java-deps-2.70-10022.zip
```

2. Backup the “oreka” database (MariaDB or MySQL root password required)

```
# mysqldump -uroot -p<password> oreka > orekaDB.sql
```

3. Stop the tomcat service

```
# systemctl stop tomcat
```

4. Move the existing webapp directories and shared folder:

```
/opt/tomcat7/webapps/orkweb
/opt/tomcat7/webapps/orktrack
/opt/tomcat7/webapps/orkui
/opt/tomcat7/shared
```

to another directory on the system in order to back them up in the case of a required rollback

ex:

```
# mv /opt/tomcat7/webapps/orkweb /home/oreka/orkweb2_87_10859/
# mv /opt/tomcat7/webapps/orkui /home/oreka/orkweb2_87_10859/
# mv /opt/tomcat7/webapps/orktrack /home/oreka/orkweb2_87_10859/
# mv /opt/tomcat7/shared /home/oreka/orkweb2_87_10859/
```

In the case there are existing *.war files on the /opt/tomcat7/webapps, remove them as well.

5. Copy the downloaded OrkWeb, OrkTrack and OrkUI WAR files to `/opt/tomcat7/webapps/` while **renaming them to them to orkweb.war, orktrack.war, orkui.war respectively:**

```
# cp /home/orkweb-2.87-11040.war /opt/tomcat7/webapps/orkweb.war
# cp /home/orktrack-2.87-11040.war /opt/tomcat7/webapps/orktrack.war
# cp /home/orkui-2.87-11040.war /opt/tomcat7/webapps/orkui.war
```

Make sure that on the /opt/tomcat7/webapps there are ***ONLY*** war files with the correct name, not older war files or orkweb/orktrack/orkui old folders to avoid issues. Other folders not related to orkweb orktrack, orkui are OK:.

i.e.

```
drwxr-xr-x.   3 tomcat tomcat    4096 Oct  8 12:24 ROOT
drwxr-xr-x.  14 tomcat tomcat    4096 Oct  8 12:24 docs
drwxr-xr-x.   7 tomcat tomcat     111 Oct  8 12:24 examples
drwxr-xr-x.   5 tomcat tomcat      87 Oct  8 12:24 host-manager
drwxr-xr-x.   5 tomcat tomcat     103 Oct  8 12:24 manager
-rw-r--r--    1 root   root   4276895 Jan  4 10:20 orkweb.war
-rw-r--r--    1 root   root   3395691 Jan  4 10:23 orktrack.war
-rw-r--r--    1 root   root   1943717 Jan  4 10:24 orkui.war
```

6. Unzip the oreka-tomcat-java-deps-2.70-10022.zip on the /opt/tomcat7 folder. It will result in a shared folder on that path.

Change the owner:group to tomcat:tomcat for the “shared” directory:

```
# chown -R tomcat:tomcat shared
```

```
[root@localhost tomcat7]# chown -R tomcat:tomcat shared
[root@localhost tomcat7]# ls -lrt
total 100
-rw-r--r--.  1 tomcat tomcat 16195 Dec  7  2015 RUNNING.txt
-rw-r--r--.  1 tomcat tomcat  8965 Dec  7  2015 RELEASE-NOTES
-rw-r--r--.  1 tomcat tomcat  1239 Dec  7  2015 NOTICE
-rw-r--r--.  1 tomcat tomcat 56846 Dec  7  2015 LICENSE
drwxr-xr-x.  2 tomcat tomcat  4096 Oct  8 12:24 lib
drwxr-xr-x.  2 tomcat tomcat    23 Oct  8 12:24 orecx
drwxr-xr-x.  3 tomcat tomcat    22 Oct  8 12:24 work
drwxr-xr-x.  2 tomcat tomcat    90 Oct  8 12:24 logs
drwxr-xr-x   3 tomcat tomcat    17 Nov 18 09:54 shared
drwxr-xr-x. 10 tomcat tomcat   179 Jan  4 10:28 webapps
drwxr-xr-x.  2 tomcat tomcat    65 Jan  5 10:00 temp
```

7. Start the tomcat service

```
# systemctl start tomcat
```

8. Validate that you are now at the version that you downloaded by looking again at the About section:

.