

8 - Installing LexEVS 6.x CTS2 Documentation API Service

Access to other Systems

- This server needs to be able to access the CTS2 service located here: <http://lexevscts2.nci.nih.gov/lexevscts2>

Step-by-step installation guide

Instructions for installing LexEVS 6.x CTS2 Documentation API Service.

- The name of the install directory will be **/usr/local/cts2Docs**
- Create these additional directories
 - /usr/local/cts2Docs/logs
 - /usr/local/cts2Docs/bin

Install CTS2 API Documentation Project

1. Clone git repository
 - a. git clone <https://github.com/cts2/lexevs-service-rest-docs.git>
 - b. This will create a project under /usr/local/cts2Docs/**lexevs-service-rest-docs**

Install Node.js

1. Download Node.js (linux 64 bit) (v0.10.35) to /usr/local/cts2Docs
 - a. File download location: nodejs.org/dist/v0.10.35/node-v0.10.35-linux-x64.tar.gz
2. Unzip the file node-v0.10.35-linux-x64.tar.gz in /usr/local/cts2Docs
 - a. tar -vxzf node-v0.10.35-linux-x64.tar.gz
3. Create symbolic link /usr/local/cts2Docs/node -> /usr/local/cts2Docs/node-v0.10.35-linux-x64
4. Add an environment variable for NPM
 - a. export NPM_HOME=/usr/local/cts2Docs/node
 - b. export PATH=\${PATH}:\${NPM_HOME}/bin
5. Update the port that node.js runs on (**OPTIONAL step**)
 - a. Edit this file: /usr/local/cts2Docs/lexevs-service-rest-docs/config.json
 - b. The "port" parameter is set to **3000** by default. It can be changed as needed. This port used by the end URL to get to the CTS2 API Documentation: (http://<server_name>:port)

Create nodejs start/stop script

- Created the nodejs start/stop script /usr/local/cts2Docs/bin/**nodejs_init_script** with the following properties

nodejs_init_script

```
LEXEVSDOCS_HOME=/usr/local/cts2Docs/lexevs-service-rest-docs
LOGDIR=/usr/local/cts2Docs/logs
LOGFILE=${LOGDIR}/nodejs.log
PIDFILE=${LEXEVSDOCS_HOME}/nodejs.pid
```

Install Redis

1. Download Redis version 2.8.19 to /usr/local/cts2Docs
 - a. File download location: <https://github.com/antirez/redis/archive/2.8.19.tar.gz>
2. Unzip the file redis-2.8.19.tar.gz in /usr/local/cts2Docs
 - a. tar -vxzf redis-2.8.19.tar.gz
3. Build redis
 - a. cd /usr/local/cts2Docs/redis-2.8.19
 - b. make
4. Create symbolic link /usr/local/cts2Docs/redis -> /usr/local/cts2Docs/redis-2.8.19
5. Create a copy of redis.conf called **cts2_redis.conf**
 - a. Make the following changes in the **cts2_redis.conf** file

cts2_redis.conf

```
daemonize yes  
pidfile /usr/local/cts2Docs/redis/redis_6379.pid  
logfile "/usr/local/cts2Docs/logs/redis.log"
```

6. Copy the file /usr/local/cts2Docs/redis/utis/redis_init_script to /usr/local/cts2Docs/bin and make the following modifications

redis_init_script

```
#!/bin/sh
#
# start/stop cts2doc-redis
# chkconfig: 345 94 90
# description: Redis server
#
## Instructions ##
## This is a template only.
## Rename appropriately and copy this file into /etc/init.d
## chkconfig --add FILENAME
#####
#
# Simple Redis init.d script conceived to work on Linux systems
# as it does use of the /proc filesystem.
DATE=`date +%Y%m%d-%H%M%S`
REDISPORT=6379
REDISDIR=/usr/local/cts2Docs/redis
EXEC=${REDISDIR}/src/redis-server
CLIEXEC=${REDISDIR}/src/redis-cli
LOGDIR=/usr/local/cts2Docs/logs/
#EXEC=/usr/local/bin/redis-server
#CLIEXEC=/usr/local/bin/redis-cli
PIDFILE=${REDISDIR}/redis_${REDISPORT}.pid
CONF=${REDISDIR}/cts2_redis.conf
#PIDFILE=/var/run/redis_${REDISPORT}.pid
#CONF="/etc/redis/${REDISPORT}.conf"
REDIS_USER=cts2
case "$1" in
    start)
        if [ -f $PIDFILE ]
        then
            echo "$PIDFILE exists, process is already running or crashed"
        else
            if [ -f ${LOGDIR}/redis.log ]; then
                echo "Renaming redis.log"
                cd ${LOGDIR}/
                mv redis.log redis.log-$DATE
            fi
            echo "Starting Redis server..."
            su - ${REDIS_USER} -c "$EXEC $CONF"
        fi
        ;;
    stop)
        if [ ! -f $PIDFILE ]
        then
            echo "$PIDFILE does not exist, process is not running"
        else
            PID=$(cat $PIDFILE)
            echo "Stopping ..."
            su - ${REDIS_USER} -c "$CLIEXEC -p $REDISPORT shutdown"
            while [ -x /proc/${PID} ]
            do
                echo "Waiting for Redis to shutdown ..."
                sleep 1
            done
            echo "Redis stopped"
        fi
        ;;
    *)
        echo "Usage: $0 { start | stop }"
        ;;
esac
```

Install Directory File Structure

At this point the install directory should have the following structure:

- cts2Docs
 - lexevs-service-rest-docs
 - bin
 - logs
 - node-v0.10.35-linux-x64
 - node (symbolic link)
 - redis-2.8.19
 - redis (symbolic link)

Change Directory permissions

For security purposes, restrict access to the following directories/files:

- **chmod 700** /usr/local/cts2Docs/lexevs-service-rest-docs
- **chmod 700** /usr/local/cts2Docs/lexevs-service-rest-docs/app.js
- **chmod 700** /usr/local/cts2Docs/lexevs-service-rest-docs/views
- **chmod 700** /usr/local/cts2Docs/lexevs-service-rest-docs/node_modules
- **chmod 700** /usr/local/cts2Docs/lexevs-service-rest-docs/public
- **chmod 700** /usr/local/cts2Docs/lexevs-service-rest-docs/public/*
- **chmod 600** /usr/local/cts2Docs/lexevs-service-rest-docs/public/javascripts/*.js
- **chmod 754** /usr/local/cts2Docs/redis-2.8.19

Create a Linux account for user cts2

- Create Linux account cts2 and added the following to **.bash_profile**

.bash_profile

```
export NPM_HOME=/usr/local/cts2Docs/node
PATH=$JAVA_HOME/bin:$ANT_HOME/bin:$NPM_HOME/bin:$HOME/bin:$PATH
```

Steps to start/stop/deploy the services

DEV Server: ncias-d1224

User account: cts2

Deploy Directory: /usr/local/cts2Docs

CTS2 Home: /local/home/cts2

Service Ports: 3000, 6379

Application URL: <http://ncias-d1224:3000/> (DEV server)

1. SSH into the DEV server ncias- d1224 with your NIH credentials
2. Become the cts2 developer account: "su – cts2"
3. The password will be sent in a separate email to those listed in the PTE.
4. To start redis service run /usr/local/cts2Docs/bin/redis_init_script start " as the cts2 user account
5. To stop redis service run /usr/local/cts2Docs/bin/redis_init_script stop " as the cts2 user account
6. To stop node.js service run /usr/local/cts2Docs/bin/nodejs_init_script start " as the cts2 user account
7. To stop node.js service run /usr/local/cts2Docs/bin/nodejs_init_script stop " as the cts2 user account

Accessing the CTS2 Documentation API Service

Once redis and node.js have been successfully started, the CTS2 Documentation API service can be reached at the following URL:

http://<server_name>:port

<http://ncias-d1224:3000/>