Wind3.50hertz.in Installation instructions

Info: wind3.50hertz.in

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Date: 2017-02-21, revised _____

Introduction

This document explains how wind3.50hertz.in is set up. The instructions are aimed at any competent Linux system administrator.

Server

The application is hosted at E2E Networks in their NOIDA data centre. It runs on a virtual server (plan VPS-HDD-2B). The server configuration is summarised below:

CPU	Intel(R) Xeon(R) CPU E5-2650 v2 @ 2.60GHz
RAM	26GB
Disk	440GB
OS	CentOS release 6.8 (Final)
IP	205.147.98.133
Traffic	1000GB/month

Domain
The wind3.50hertz.in domain is registered through Net4India.

SSL Certificate

The application uses a RapidSSL SSL certificate for the *.**50hertz.in** domain.
This must be renewed periodically.
The private key and CSR (Certificate Signing Request) are generated using the following OpenSSL command:

openssl req -newkey rsa:2048 -nodes -keyout wildcard_50hertz_in.key -out hertz.csr
it will prompt for company information, provide all the details step by step.

send the .csr to provider, in return they will send the .cer file. Put the .cer and .key file in the below location.

SSL Certificate store on

/etc/nginx/SSL/wildcard_50hertz_in.crt
/etc/nginx/SSL/wildcard_50hertz_in.key

Installation

Application dependencies

1. Setup JAVA Environment

Download Java Archive:

mkdir -p /var/java/
cd /var/java/
wget --no-cookies --no-check-certificate --header "Cookie: gpw_e24=http%3A%2F
%2Fwww.oracle.com%2F; oraclelicense=accept-securebackup-cookie"
"http://download.oracle.com/otn-pub/java/jdk/7u79-b15/jdk-7u79-linux-x64.tar.gz"

```
# tar xzf jdk-7u79-linux-x64.tar.gz
```

Install Java & Make link

cd /var/java/jdk1.7.0_79/

ln -s /var/java/jdk1.7.0_79/bin/java /usr/bin/java

ln -s /var/java/jdk1.7.0_79/bin/java /etc/alternative/java

Configuring Environment Variables

Append below given contents in /etc/profile

export JAVA_HOME=/var/java/jdk1.7.0_79/

export PATH=$PATH:/var/java/jdk1.7.0_79/bin

Check Installed Java Version
java -version
```
  java version "1.7.0_79"
```

As We're assuming an apache tomcat instance already running for https://wind3.50hertz.in

2. Installing & Configuring Tomcat

Download and Unpack Tomcat 7.0.40

cd /usr/share/

wget https://archive.apache.org/dist/tomcat/tomcat-7/v7.0.40/bin/apache-tomcat-7.0.40.tar.gz

tar -xvf apache-tomcat-7.0.40.tar.gz

mv apache-tomcat-7.0.40 apache-tomcat-solar

Configure Tomcat to Run as a Service.

cd /etc/init.d

vim solar

And here is the script we will use to run tomcat as daemon.

```
#!/bin/bash
# description: Tomcat Start Stop Restart
# processname: tomcat
# chkconfig: 234 20 80
JAVA_HOME=/var/java/jdk1.7.0_79
export JAVA_HOME
servicename=tomcat
pidfile=/var/run/$servicename
PATH=$JAVA_HOME/bin:$PATH
export PATH
CATALINA_HOME=/usr/share/apache-tomcat-7.0.40
case $1 in
start)
sh $CATALINA_HOME/bin/startup.sh
;;
stop)
sh $CATALINA_HOME/bin/shutdown.sh
;;
restart)
sh $CATALINA_HOME/bin/shutdown.sh
```

```
sh $CATALINA_HOME/bin/startup.sh
;;
#tomcat_pid() { echo "ps -aux | grep $CATALINA_BASE | grep -v grep | tr -s " "|cut -d" " -f2"}
#status)
#      pid=$(tomcat_pid)
#       if [ -n "$pid" ]
#       then
#         echo "Tomcat is running with pid: $pid"
#       else
#         echo "Tomcat is not running"
#       fi
esac
exit 0
```

Change Permission on service script.

chmod 755 solar

Deploye war file, taken from Developers/Test Machine

make the war name to ROOT.war

Just need to copy the file from Developer machine/ Test Machine to **,** before that ensure all property files are updated , if not, copy all the property files from production running war, and paste the property files into the apropriate location.

/usr/share/apache-tomcat-7.0.40/webapps/

Adding the service to start on machine startup--

chkconfig tomcat on

Change Port number in **/usr/share/apache-tomcat-7.0.40/conf/server.xml.**

Server port="8082"

SSL port="8443"

Connector port="8082" protocol="AJP/1.3" redirectPort="8443"

Allow port from IPTABLES--

iptables -A INPUT -p tcp –dport 8443 -j ACCEPT

/etc/init.d/iptables save
/etc/init.d/iptables restart
/etc/inid.d/tomcat start

3. Running Tomcat behind Nginx(Optional)

As an alternative to running Tomcat on port 80, if you have Apache in front of Tomcat, you can use mod_proxy to map your domain to your Tomcat application(s) using an Nginx vhost as shown below.

yum install nginx

nginx -v
nginx version: nginx/1.10.1

Allow port from IPTABLES

iptables -A INPUT -p tcp –dport 80 -j ACCEPT
iptables -A INPUT -p tcp –dport 443 -j ACCEPT
/etc/init.d/iptables save
/etc/init.d/iptables restart

VHOST with mod_proxy

Append this line in **/etc/nginx/conf.d/default.conf**

```
server {
    listen      80;
    server_name  wind3.50hertz.in;
    rewrite ^ https://$http_host$request_uri? permanent;
#      rewrite ^ https://wind3.50hertz.in:8443/wind/login?;
}
server {
    listen 443;
    server_name wind3.50hertz.in;
```

```
    ssl on;
#    ssl_certificate /etc/nginx/50hertz.in.crt;
#    ssl_certificate_key /etc/nginx/keyfile.key;
    ssl_certificate /etc/nginx/SSL/wildcard_50hertz_in.crt;
    ssl_certificate_key /etc/nginx/SSL/wildcard_50hertz_in.key;


  location / {
        proxy_connect_timeout 159s;
        proxy_send_timeout   600;
        proxy_read_timeout   600;
        proxy_set_header X-Forwarded-Host $host;
        proxy_set_header X-Forwarded-Server $host;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_pass https://wind3.50hertz.in:8443;
  }
}
```

Restart the Service

/etc/init.d/nginx restart
/etc/init.d/tomcat restart

Now, Go to web browser and type <ins>http://wind3.50hertz.in</ins> in the URL bar

You will be able to see login page