Objective

This document provides instructions how to prepare and run performance and stress test against Vaisala legacy IRIS/Web Server.

Software Requirement

- ✓ Red Hat Enterprise Linux 6, or Red Hat Linux Desktop 5.4
- ✓ IRIS/Web Server - weblook.tgz, irisservlets.tgz
- ✓ servlet_test script
- ✓ run_servlet_tests script

Hardware Requirement

- ✓ Systems that meet the requirements for running IRIS & RDA software.

Test Bed Settings

A. Install IRIS by following the IRIS installation manual
B. Installed IRIS/Web Server by following the instructions from the irisweb installation instructions document.
C. Install servlet_test, and run_servlet_test into your path; for example you may install them to your /usr/local/bin directory.

500 Simultaneous Users Testing

This test tests 500 users (clients) to access IRIS/Web simultaneously. The server should be able to handle the request with reasonable throughputs. Following steps below to run test:

1. Assume that you installed servlet_test , and run servlet_test in your path. Run servlet_test to test single instance with default passes which is 5 passes. For example, if IRIS/Web Server is run on host name called wesporter.vaisala.com , and on port 80, you would type:

   $servlet_test –s wes-porter.vaisala.com –p 80

You can run servlet_test –h to see the instructions how to run servlet_test script; for example, typing servlet_test –h on the terminal window, and you should get the output similar to:

```
Usage:
servlet_test[-h] | [-s SERVER] [-p PORT] [-d DELAY]
Options:
  -v [ --version ]              print version
  -h [ --help ]                 produce help message
  -s [ --server ] arg (=localhost) Host name or IP address of the IRIS Web serv
                                er.
  -p [ --port ] arg (=8080)     Port number.
  -d [ --delay ] arg (=10)      Start delay in seconds.
```

2. Run run_servlet_tests. For example, rung test on host wes-porter.vaisalqa.com on port 80 with 500 users. This a stress tests for server to handle up to 500 users simultaneously. To pass the test the server must not crash or stall, and with a decent throughputs. Observe the outputs printout from terminal to see how many image per second that sever can handle. It might be a good idea to open a few browser sessions and play movie-loop while running servlets test.

   $run_servltet_tests -u 500 -s wes-porter.vaisala.com -p 80 -d 10

   From other terminal, you can check how many servlet processes are running by running "ps" command; for example, "ps –ef | grep servlet | wc –l".

The –h option prints out instructions how to run the script; for example,

```
[radarop@wes-porter ~]$ run_servlet_tests -h
Usage: run_servlet_tests [OPTION]
Test simultaneous IRIS web request using servlet_testutility.

  -u, --users=COUNT   number of simulated simulteneous users (default is 1)
  -s, --server=SERVER web server name or IP number (default is localhost)
  -p, --port=PORT     web server port (default is 8080)
  -d, --delay=DELAY   delay in sec before requests are initiated
  -h, -?, --help      display this help and exit
  --version           output version information and exit
```

500 Users with Password Access

Unfortunately this test cannot use run_servlet_tests script since the authentication is from the apache web server, not from the servlet. You have to do this test manually by opening as many web browsers and access the server simultaneously. Each time new users want to access the server, they have to have valid user and password to log in. Steps below should help you to test this feature:

1. Populate password file for 500 users. You can write script or use the one we wrote "passwd_gen.sh". Assume that you already configured access authentication from the installation instructions.
2. After populated 500 users and passwords, open web browsers from different PCs or Workstations that can connect to your server, and play the movie loop.
3. Or you can random pick users to log in in the range of 1 to 500.
4. Observed the throughputs while there are many browser sessions playing movie-loop.

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