



# STEP-BY-STEP ACCREDITATION PROCEDURE

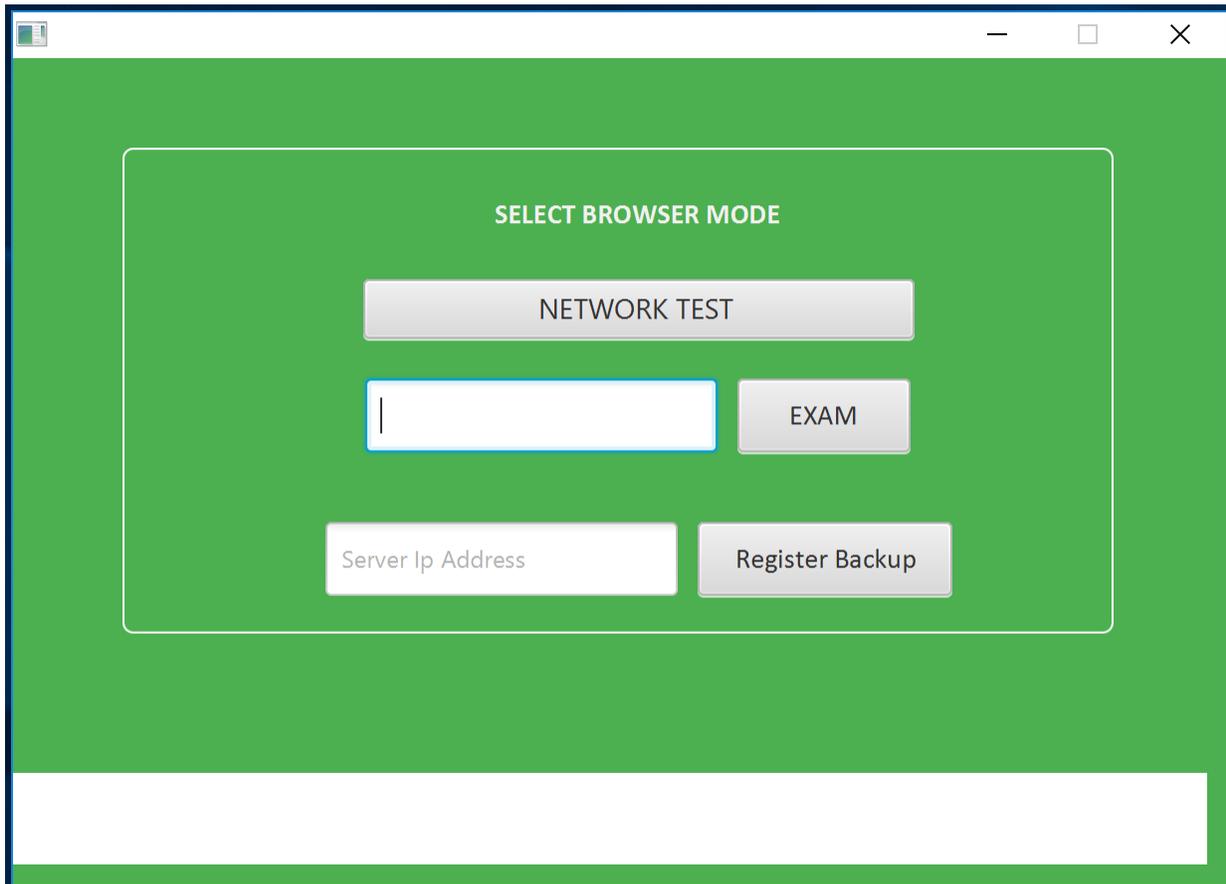
(Network Test)

## NETWORK TEST MANUAL

- a. Install java version jre-8u 151.
- b. Extract the content of the **rapidtestlite-networktest** zip folder and copy its content on the C: drive.

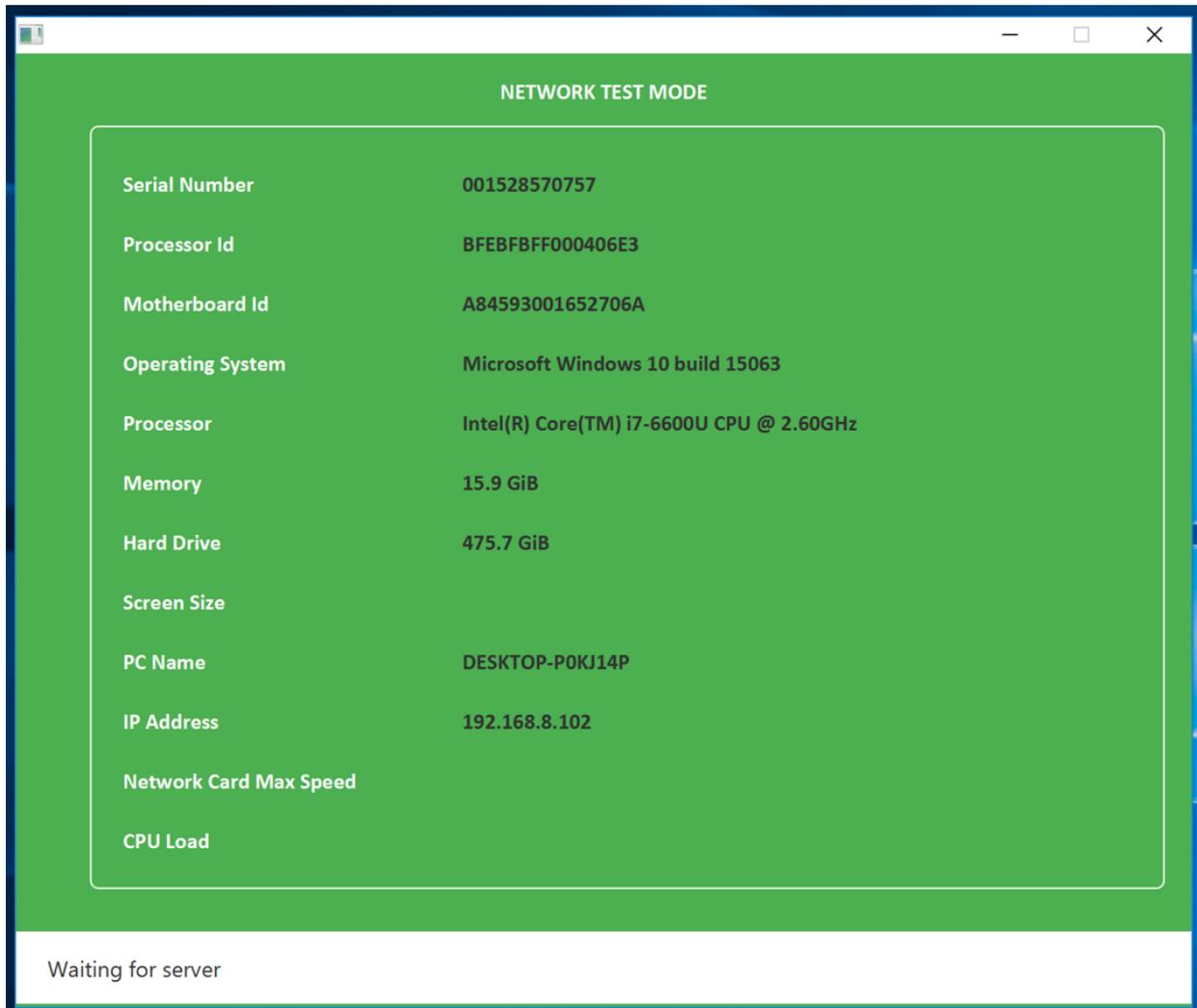
### **A. Candidate Systems Custom Browser v 0.2-beta (network test mode)**

1. Copy the **custombrowser\_v2 folder** on the hard drive of candidate systems.
2. Create a shortcut of the custombrowser\_v2 jar file on the desktop.
3. Launch (double click) the custom browser shortcut on the desktop. A green window as shown below should appear.



4. Click on network test. After some seconds, a window showing the system details and IP address as seen below would appear.

**Note:** candidate systems to be used as backup mustn't be used for network test.



### ***B. Candidate Systems Custom Browser v 0.2-beta (Register Backup)***

To register a backup system:

- a. launch custom browser on backup systems,
- b. enter the IP address of the server,
- c. click register backup.



### C. Server (network test installation)

1. Install java version jre-1.8u 151 on the server.
2. Launch command prompt, make the folder containing the network test app (*rapidtest\_lite\_networktest-0.0.1-SNAPSHOT*) the parent directory in this case (C:\rapidtestlite-networktest>). Then use the command line below: **java -jar rapidtest\_lite\_networktest-0.0.1-SNAPSHOT.jar**. See the picture below for details.

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\ Jamb-software >cd C:\rapidtestlite-networktest

C:\rapidtestlite-networktest>dir
Volume in drive C is Local Disk
Volume Serial Number is D079-03A9

Directory of C:\rapidtestlite-networktest

11/24/2017  12:01 PM    <DIR>          .
11/24/2017  12:01 PM    <DIR>          ..
11/24/2017  12:02 PM    <DIR>          custombrowser_v2
11/21/2017  04:00 PM           32,750,556 rapidtestlite-candidate-0.0.1-SNAPSHOT.jar
11/21/2017  08:47 PM           36,857,006 rapidtest_lite_networktest-0.0.1-SNAPSHOT.jar
           2 File(s)          69,607,562 bytes
           3 Dir(s)       123,788,853,248 bytes free

C:\rapidtestlite-networktest>java -jar rapidtest_lite_networktest-0.0.1-SNAPSHOT.jar
```

3. Press enter to execute the command. A window similar to the one below should appear

```

C:\WINDOWS\system32\cmd.exe - java -jar rapidtest_lite_networktest-0.0.1-SNAPSHOT.jar
2017-11-24 12:55:38.364 INFO 9728 --- [main] s.w.s.m.a.RequestMappingHandlerMapping : Mapped "{[/networktest/getquestion/{ipAddress}/{iteration}],methods=[POST]}" onto public byte[] rapidtest_lite.networkTest.controller.controller.getQuestions(java.lang.String,int)
2017-11-24 12:55:38.366 INFO 9728 --- [main] s.w.s.m.a.RequestMappingHandlerMapping : Mapped "{[/networktest/dashboard],methods=[GET]}" onto public rapidtest_lite.networkTest.model.NetworkTestDashBoard rapidtest_lite.networkTest.controller.controller.loadDashBoard()
2017-11-24 12:55:38.367 INFO 9728 --- [main] s.w.s.m.a.RequestMappingHandlerMapping : Mapped "{[/networktest/donee/{ipAddress}],methods=[POST]}" onto public void rapidtest_lite.networkTest.controller.controller.donee(rapidtest_lite.networkTest.entity.SystemConfig,java.lang.String)
2017-11-24 12:55:38.370 INFO 9728 --- [main] s.w.s.m.a.RequestMappingHandlerMapping : Mapped "{[/error]}" onto public org.springframework.http.ResponseEntity<java.util.Map<java.lang.String, java.lang.Object>> org.springframework.boot.autoconfigure.web.BasicErrorController.error(javax.servlet.http.HttpServletRequest)
2017-11-24 12:55:38.372 INFO 9728 --- [main] s.w.s.m.a.RequestMappingHandlerMapping : Mapped "{[/error],produces=[text/html]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.BasicErrorController.errorHtml(javax.servlet.http.HttpServletRequest,javax.servlet.http.HttpServletResponse)
2017-11-24 12:55:38.428 INFO 9728 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/webjars/**] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2017-11-24 12:55:38.428 INFO 9728 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2017-11-24 12:55:38.486 INFO 9728 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favicon.ico] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2017-11-24 12:55:38.533 INFO 9728 --- [main] oConfiguration$WelcomePageHandlerMapping : Adding welcome page: class path resource [static/index.html]
2017-11-24 12:55:38.746 INFO 9728 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Registering beans for JMX exposure on startup
2017-11-24 12:55:38.821 INFO 9728 --- [main] b.c.e.u.UndertowEmbeddedServletContainer : Undertow started on port(s) 8080 (http)
2017-11-24 12:55:38.832 INFO 9728 --- [main] rapidtest_lite.RapidtestLiteApplication : Started RapidtestLiteApplication in 7.624 seconds (JVM running for 8.245)

```

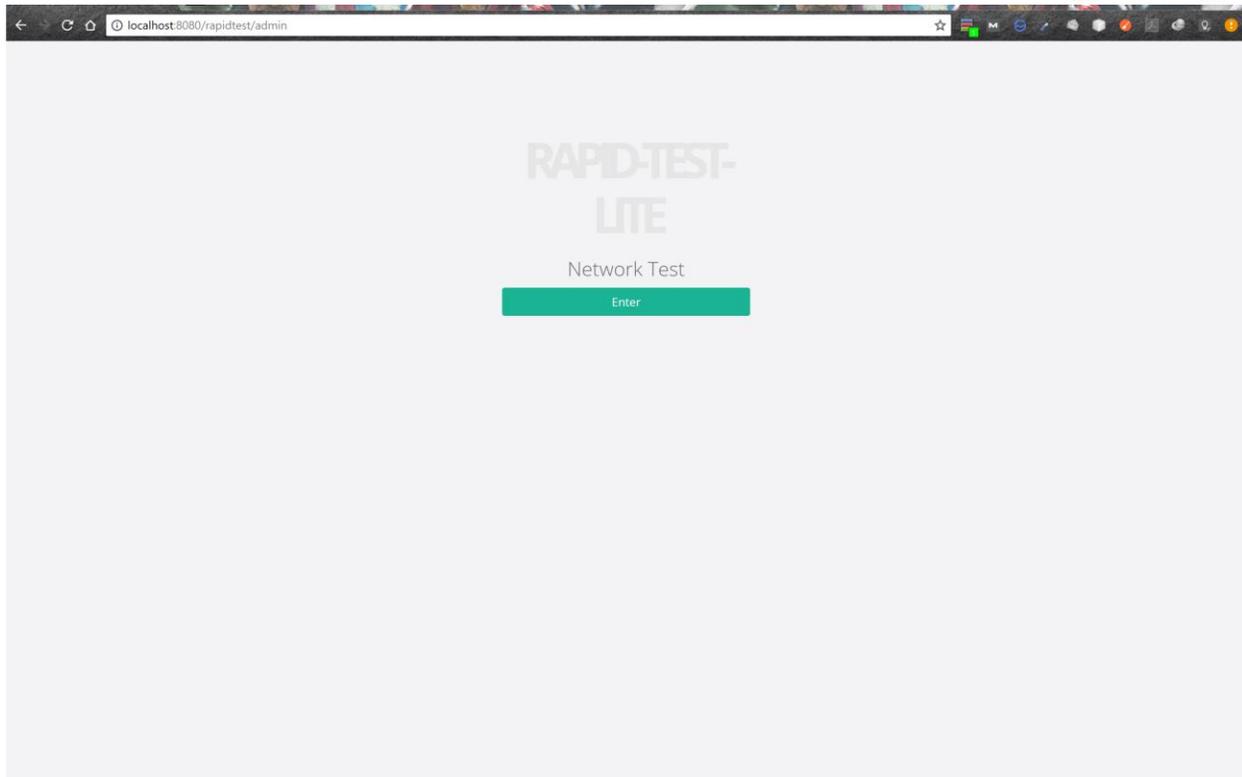
- Alternatively, you can double click on the network test app, wait for some minutes before carrying out network test. Please note, its advised to use the command prompt method.

#### ***D. Procedure to carry out network test***

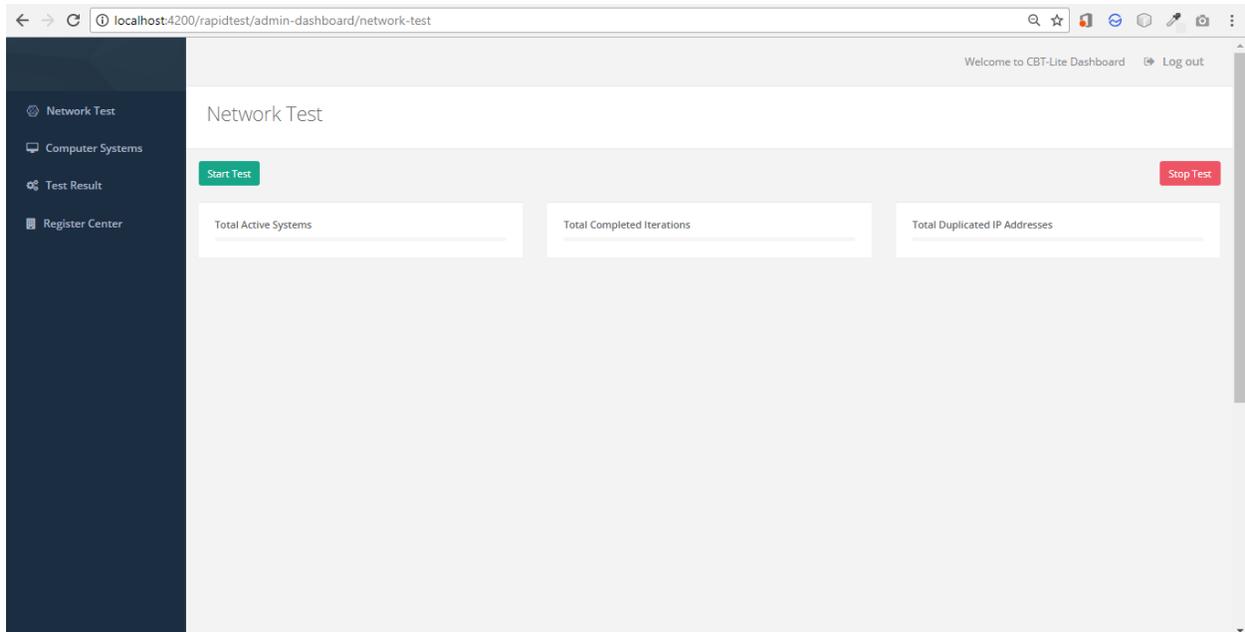
- Ensure steps 1 to 4 for candidate system custom browser network test has been carried out on all candidate systems to be used for the exam.
- Once installation of the network test app is complete on the server, open google chrome browser. Enter <http://localhost:8080> in the URL bar as seen below.



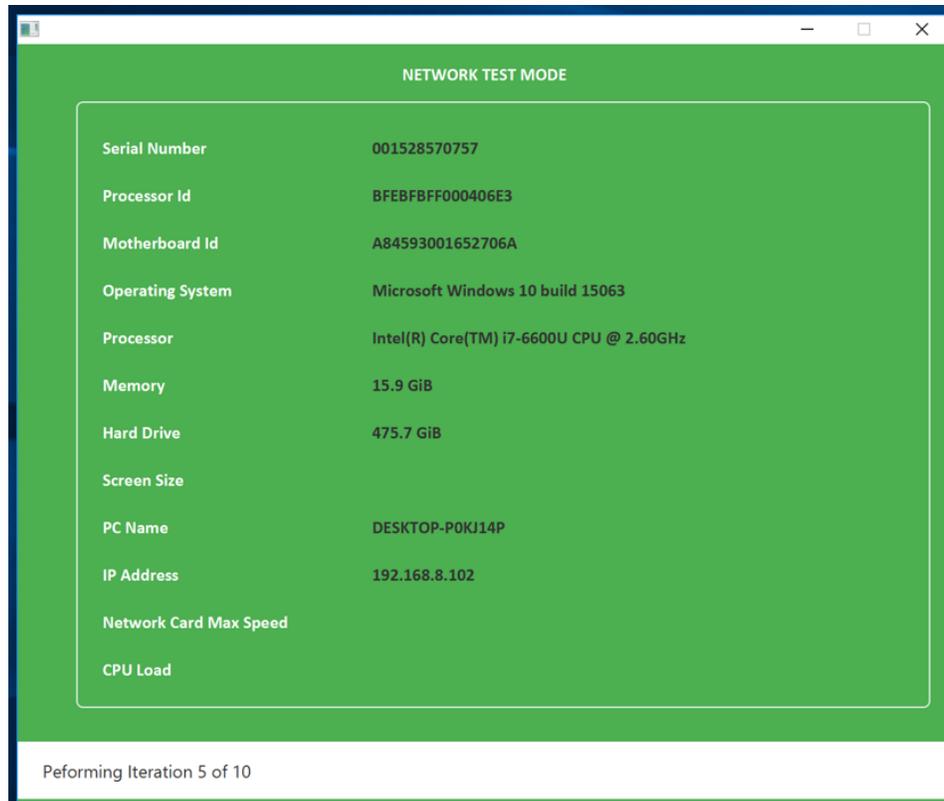
- On pressing enter key, RAPIDTEST-LITE network test page loads. Click enter.



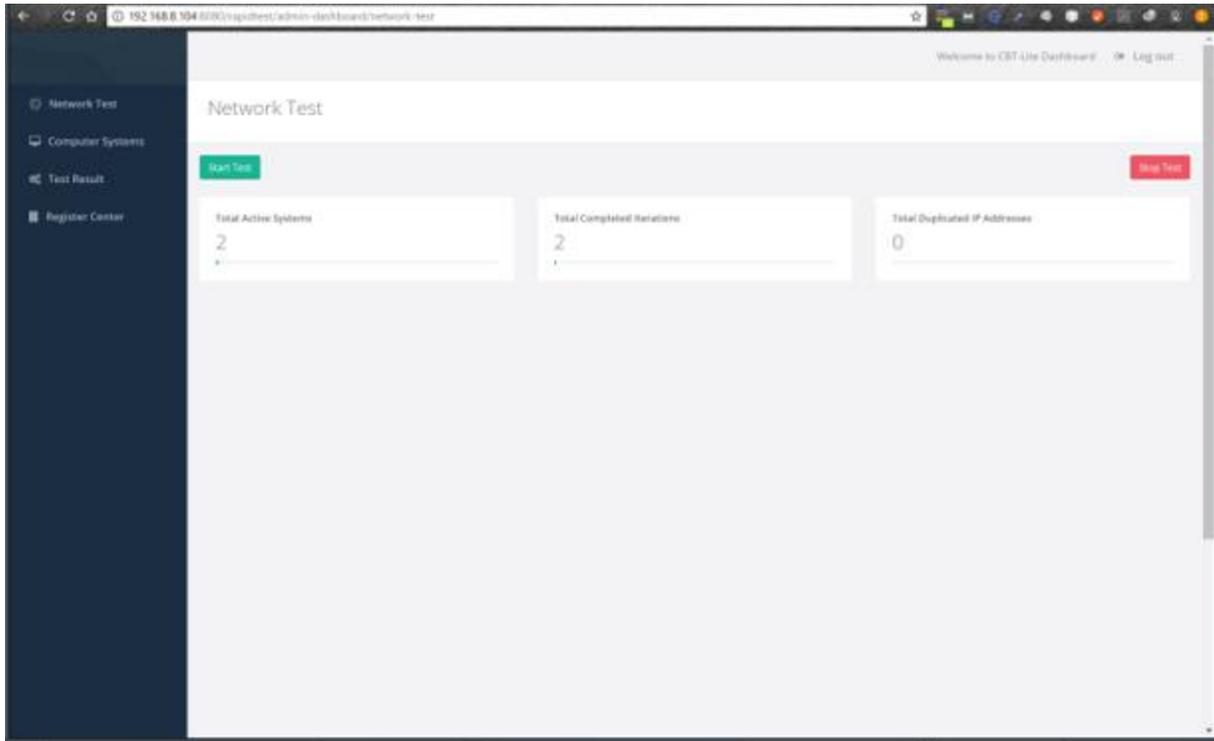
6. On getting to the dashboard, click on the **start test** button to begin network test. A pop up appears, confirming network test has begun.



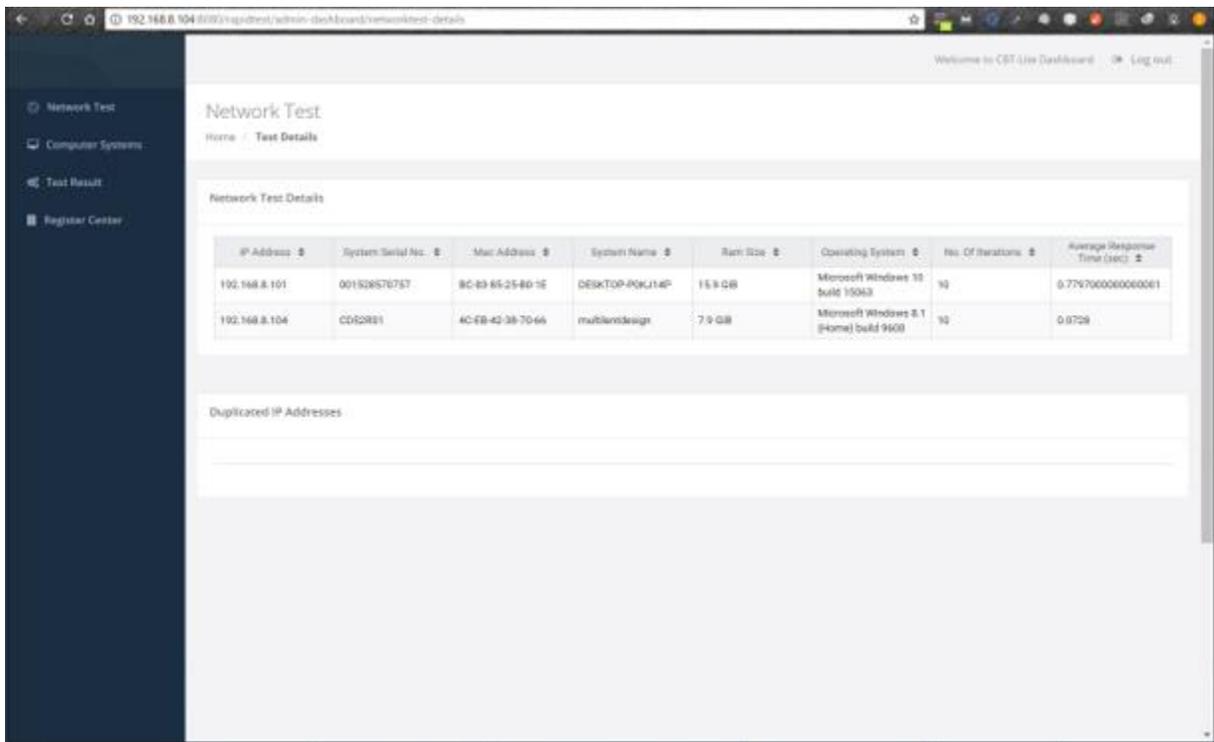
7. All candidate systems should start performing 10 iterations immediately network test begins. The picture below shows an iteration of 5 of 10.



8. Once all candidate systems have completed iterations as indicated on the dashboard, click **stop test**.



9. After clicking stop test, a new page showing the network test results appears.





- To upload your results and computer systems, go to **Register Centre**, fill out the centre registration form, and submit by clicking **add centre**. A notification will appear to confirm centre registration was successful.

The screenshot displays a web browser window at the URL `localhost:4200/rapidtest/admin-dashboard/register-center`. The page title is "Register Center". On the left, a dark sidebar contains menu items: "Network Test", "Computer Systems", "Test Result", and "Register Center". The main content area features a "Center Registration Form" with two text input fields: "Reference Number" and "Center Name". Below the "Center Name" field is a green button labeled "add center". The top right of the page shows "Welcome to CBT-Lite Dashboard" and a "Log out" link.

- To upload computer systems, go to **Computer Systems**, click **push**. A notification will appear to indicate successful push.

**Note:** push button appears only after you have successfully registered your centre.



Computer Systems

System Details (57) Systems

System Name	System Serial Number	Ip-Address	Operating System	Ram Size	MAC Address	CPU	Processor ID	Hard Disk	Motherboard ID	System type
123456-PC	To be filled by O.E.M.	172.16.1.10	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-DC-92	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.7	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-CD-50	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.3	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-4F	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.8	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C2-ED	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.2	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-5B	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.5	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-C8	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.6	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-A6	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.1.9	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C4-97	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Regular
123456-PC	To be filled by O.E.M.	172.16.0.222	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C4-A9	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	Backup

12. To upload network test results, go to **Test Result**. A list of tests carried out will appear as shown below.

Test Results

Test Details

Test ID	Date   Time	More
c53020c5-c01f-4029-b16d-435e468e36b3	2017-12-14   15:57	<a href="#">View</a>
f47f6c59-6f8b-4986-9556-c4b58eda4334	2017-12-14   17:07	<a href="#">View</a>

13. View the test result you want to upload, then click **push**. A notification will appear to indicate successful push.

**Note:** push button appears only after you have successfully registered your centre.



localhost:4200/rapidtest/admin-dashboard/test-more/c53020c5-c01f-4029-b16d-435e468e36b3

Welcome to CBT-Lite Dashboard Log out

### Test Results

Back / Details Push

Test Details (8) Systems

System Name	System Serial Number	Ip-Address	Operating System	Ram Size	MAC Address	CPU	Processor ID	Hard Disk	Motherboard ID	Response Time(sec)
123456-PC	To be filled by O.E.M.	172.16.1.9	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C4-97	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.30
123456-PC	To be filled by O.E.M.	172.16.1.2	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-5B	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.24
123456-PC	To be filled by O.E.M.	172.16.1.7	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-CD-50	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.16
123456-PC	To be filled by O.E.M.	172.16.1.6	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-A6	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.25
123456-PC	To be filled by O.E.M.	172.16.1.5	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-C8	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.14
123456-PC	To be filled by O.E.M.	172.16.1.8	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C2-ED	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.22
123456-PC	To be filled by O.E.M.	172.16.1.10	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-DC-92	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.27
123456-PC	To be filled by O.E.M.	172.16.1.3	Microsoft Windows 7 SP1 build 7601	1.6 GiB	00-E0-6F-29-C3-4F	AMD E-240 APU with Radeon(tm) HD Graphics	078BFBFF00500F20	7.4 GiB	To be filled by O.E.M.	0.18

14. Once done with the network test, logout, close the running application in command prompt by pressing Ctrl C, then type exit. Press enter to successfully close the window.

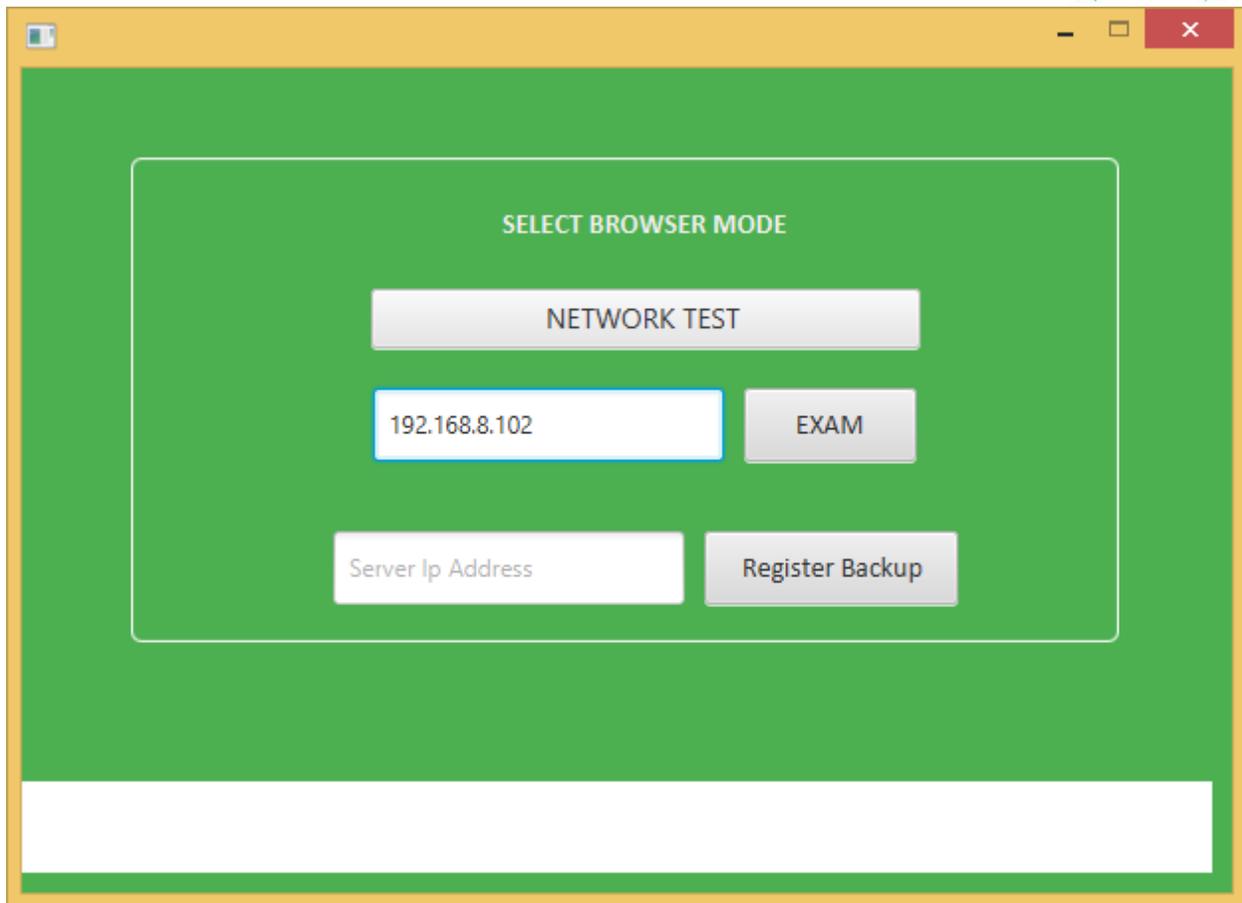
NOTE: Alternatively, you can double click on the network test app to launch it and proceed with step 4. However, it is strongly advised to use the command prompt method.

### ***Server (candidate app installation)***

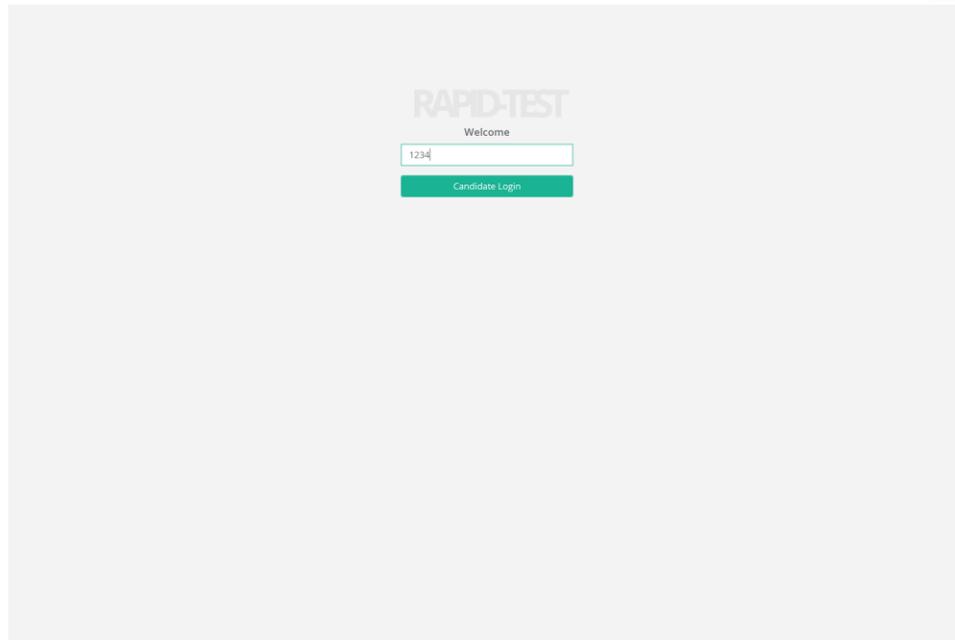
1. To start exam, repeat step 1-3 of network test. However, the command line should execute the candidate app (*rapidtestlite-candidate-o.o.1-SNAPSHOT.jar*).
2. Or double click on the *rapidtestlite-candidate-o.o.1-SNAPSHOT.jar* file. Note: the command prompt method is advised.

### **CUSTOM BROWSER (exam mode)**

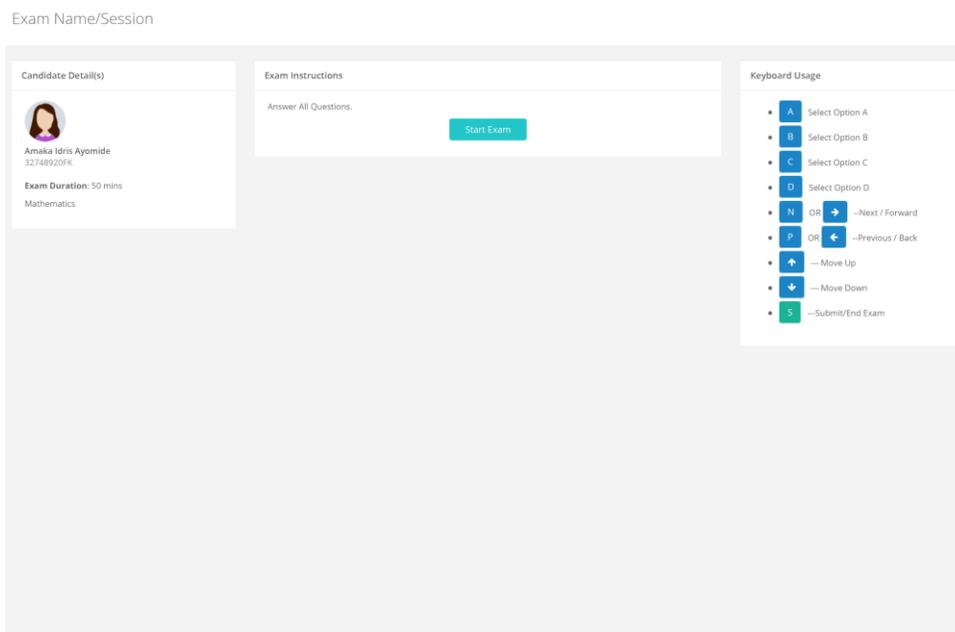
1. Launch (double click) the custom browser on the candidate systems. Enter the IP address of the server in the custom browser as seen below and click on exam.



2. Enter 1234 as registration number then click **candidate login** button.



### 3. Click start exam.





- Attempt the questions. When done, click **end exam** button.

- Click back to go back to candidate login page. To exit the app, press Ctrl + Alt + J.



6. Once done with the exam, repeat same process used for network test to exit the command prompt on the server.



## Overview

Minimum requirements for candidate system are:

1. Windows 7 Operating system or Linux.
2. 2 gb RAM.
3. Oracle Java jre-8u 151

## Installation Procedures

### **Custom Browser (v 0.2 - beta) Installation**

1. Install Oracle Java jre-8u 151 on all the candidate systems.
2. Extract the downloaded zip file from the JAMB website using any suitable application (e.g. winzip, 7-zip, Winrar etc).
3. Copy the custom browser folder on the hard drive of the candidate systems.
4. Create a shortcut of the custom browser executable file (.exe) and paste on the desktop.
5. Double click the custom browser icon on the desktop to launch the browser.
6. If a green window with network test and exam button appears, then custom browser has been successfully installed.

### **Custom Browser (v 0.2 - beta) Network Testing Mode**

To carry out network test,

- a. launch custom browser on all the candidate systems,
- b. click on network test.

A new window showing the system details will appear. Beneath the window, you will see ***Waiting for server*** an indication that the candidate system is ready for network test.

***Note:*** candidate systems to be used as backup mustn't be used for network test.



## Custom Browser (v 0.2 - beta) Register Backup

To register a backup system:

- a. launch custom browser on backup systems,
- b. enter the IP address of the server,
- c. click register backup.

## Custom Browser (v 0.2 - beta) Exam Mode

To write an examination,

- a. launch custom browser on all the candidate systems,
- b. Type in the IP address of the server, Click **Exam** (only when then server is ready)
- c. The candidate login page should appear.
- d. Enter 1234 as registration number, click **candidate login**

## Server Installations

Two applications are to be installed on the server in every examination centre. These are:

- a. The network test app: this is launched when a network test is to be carried out.
- b. The candidate app: this is launched when a test is to be written on candidate systems.

Both applications can be launched using the conventional method (double click). However, it is highly advised that the app is ran via command prompt. To run the application from command prompt, do the following:

1. Install Oracle Java jre-8u 151 on the server.
2. Copy the two applications on the hard drive of the server.
3. Open command prompt.



4. Type in **cd** / (to clear directories), press enter
5. Type **cd** (name of the folder the application is located), press enter
6. Then type **java -jar** (name of the application you want to run), press enter

### **Network Test (Server)**

To carry out network test, all candidate systems must be switched on and placed in the network testing mode. Ensure that port 8080 is unused on the server. Afterwards, repeat step 1 to 5 of server installation, then continue with the following steps:

- a. Type **java -jar rapidtest\_lite\_network-0.0.1-SNAPSHOT**, press enter,
- b. Once its done running, the last line should indicate: *Started RapidtestLiteApplication in ....seconds(JVM running for ....secs)*. This confirms that the application is running.
- c. Once the application is running, open your desktop browser (Chrome or Mozilla),
- d. Type **localhost:8080** in the URL bar of the browser, press enter,
- e. A *RapidTestLite Network Test* page should appear, click on network test,
- f. To begin network test, click on **start test** button,
- g. Number of iterations begin to appear on candidate systems, an indication that network test is going on.
- h. Once iteration is completed, click **stop test**. A page showing network test result appears.
- i. To upload your results and computer systems, go to **Register Centre**, fill the centre registration form that appears and submit by clicking **add centre**.
- j. To upload computer systems, got to **Computer Systems**, click **push**
- k. To upload network test results, go to Test Result,
- l. View the test result you want to upload, then click **push**
- m. To terminate the network test application on the server, click on **logout** from the dashboard,



- n. Go to the running command prompt, press **Ctrl + C**, type **exit**, then press enter.

### **Candidate Test (Server)**

Launch custom browser on all the candidate systems. Afterwards, repeat step 1 to 5 of server installation, then continue with the following steps:

- a. Type **java -jar rapidtest\_lite\_candidate-0.0.1-SNAPSHOT**, press enter,
- b. Once it's done running, the last line should indicate: *Started RapidtestLiteCandidateApplication in ....seconds(JVM running for ....secs)*. This confirms that the application is running.
- c. Enter server IP address in the input box of candidate systems and click exam.
- d. To terminate application after candidate examination, go to the running command prompt, press **Ctrl + C**, type **exit**, then press enter.

### **Frequently Asked Questions (FAQ)**

- a. Where can I find Oracle Java Jre-8u 151?

Visit [www.oracle.com](http://www.oracle.com).

- b. How to install Oracle Java jre-8u 151 on Windows?
  - i. Double click on the file, follow the instructions till installation is completed
- c. How to install Oracle Java jre-8u 151 on Linux?
  - i. Open terminal (Ctrl + Alt + T) and run the command: **webupd8team/java**
  - ii. Enter your password if prompted, and hit enter
  - iii. Type in: **install oracle-java8-installer**, hit enter
  - iv. Check Java version with: **java -version**



- d. Oracle Java Jre-8u 151 failed to install.
  - i. Free up more space on the hard disk
  - ii. Ensure the installation file isn't corrupted
- e. Custom browser failed to launch or isn't working.
  - i. Ensure your Operating System is windows 7 and above.
  - ii. Install required version of custom browser and launch the browser again.
  - iii. If the required version of java is installed on the system. Check the hard disk space of the system and free some memory if full.
  - iv. If situation persist, restart the system and re-install
- f. How to view the java version currently running on your system (Windows or Linux)?
  - i. Open command prompt or terminal, type **java -version**, then press enter.
- g. What to do when application truncates abruptly while running on the server?
  - i. Restart the server
  - ii. If situation persist, change the server.
- h. Network test started first iteration and stopped.
  - i. The ethernet capacity for the server is very low.
- i. Candidate system can not write exam or a white screen is showing.
  - i. Close the application, launch it again and enter the appropriate server IP address.
  - ii. If IP address is right, ping the server to ensure the system in on same network then make corrections.
- j. I couldn't open the folder I downloaded from the JAMB website.
  - i. Download winzip, 7-zip or winrar to extract the files in the zipped folder.
- k. The files in the downloaded folder is in kb.
  - i. Download the folder again