Prerequisite

1. Java 1.8 or higher(To install jdk 1.8 on linux, run the following:)

```
$ sudo add-apt-repository ppa:webupd8team/java
$ sudo apt-get update
$ sudo apt-get install oracle-java8-installer
```

2. Gradle 2.3 or higher(To install Gradle on linux, run the following:)

```
$ sudo add-apt-repository ppa:cwchien/gradle
$ sudo apt-get update
$ sudo apt-get install gradle
```

3. Jython 2.7 or higher(To install Jython on linux, follow these steps:)

    - Go to the following Link and Download Jython 2.7.0 installer
    - http://www.jython.org/downloads.html
    - After download is complete, run the jar file using java-8
    - Follow the installation procedure.

4. Robot Framework

    - Go to the following link and download zip
    - https://github.com/robotframework/robotframework
    - Extract the zip file
    - Go to the root folder of robot framework, open terminal and run:

```
$ python setup.py install
```

Build Instructions

1. Go to the root folder
2. From the terminal, run:

```
$ ./build.sh
```

How to run Conformance TC

1. Go to the root folder of Conformance Test Tool

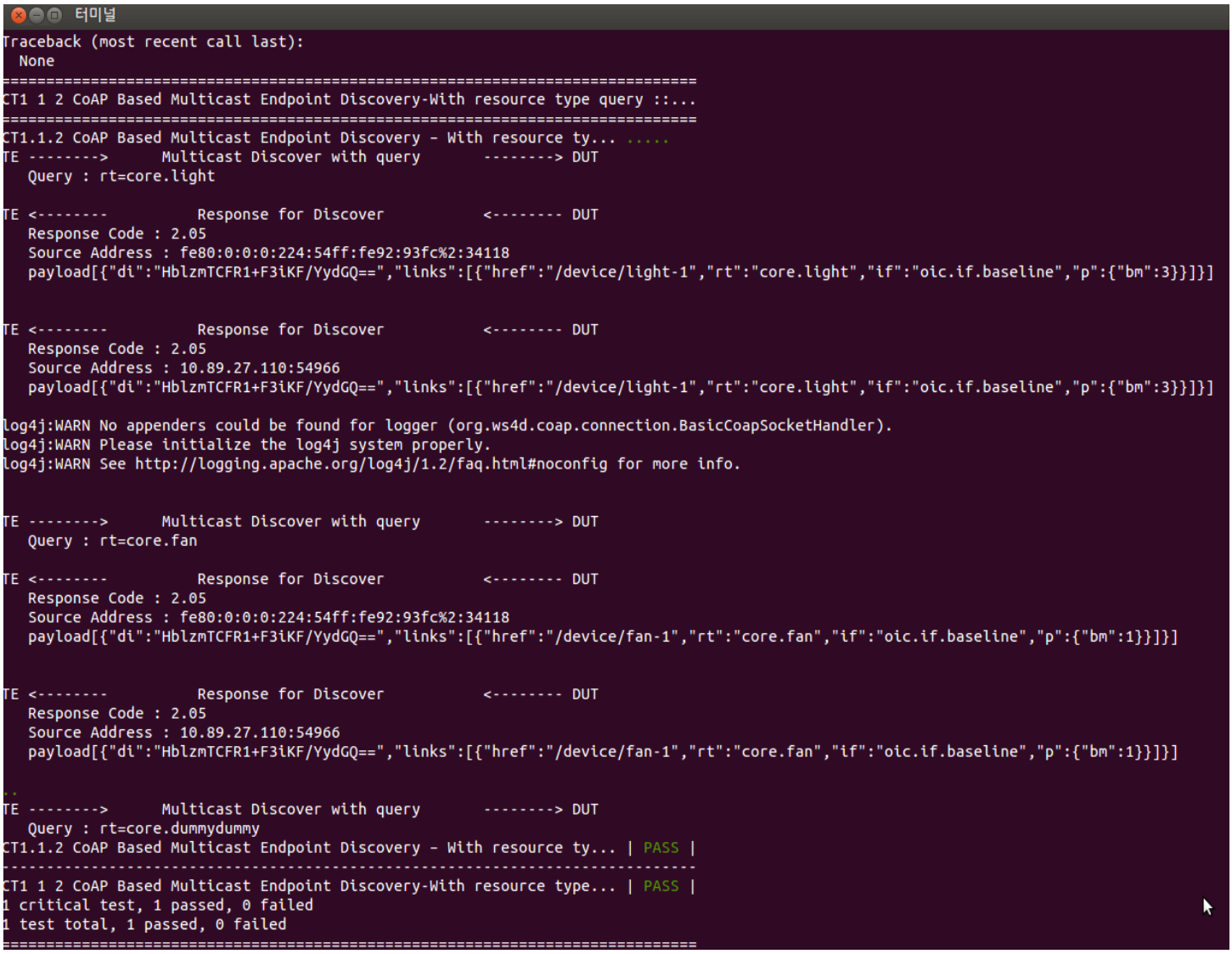
2. Then Run:

```
$ cd bin/linux/ConformanceTestTool/testsuite
$ chmod +x run_tc.sh
```

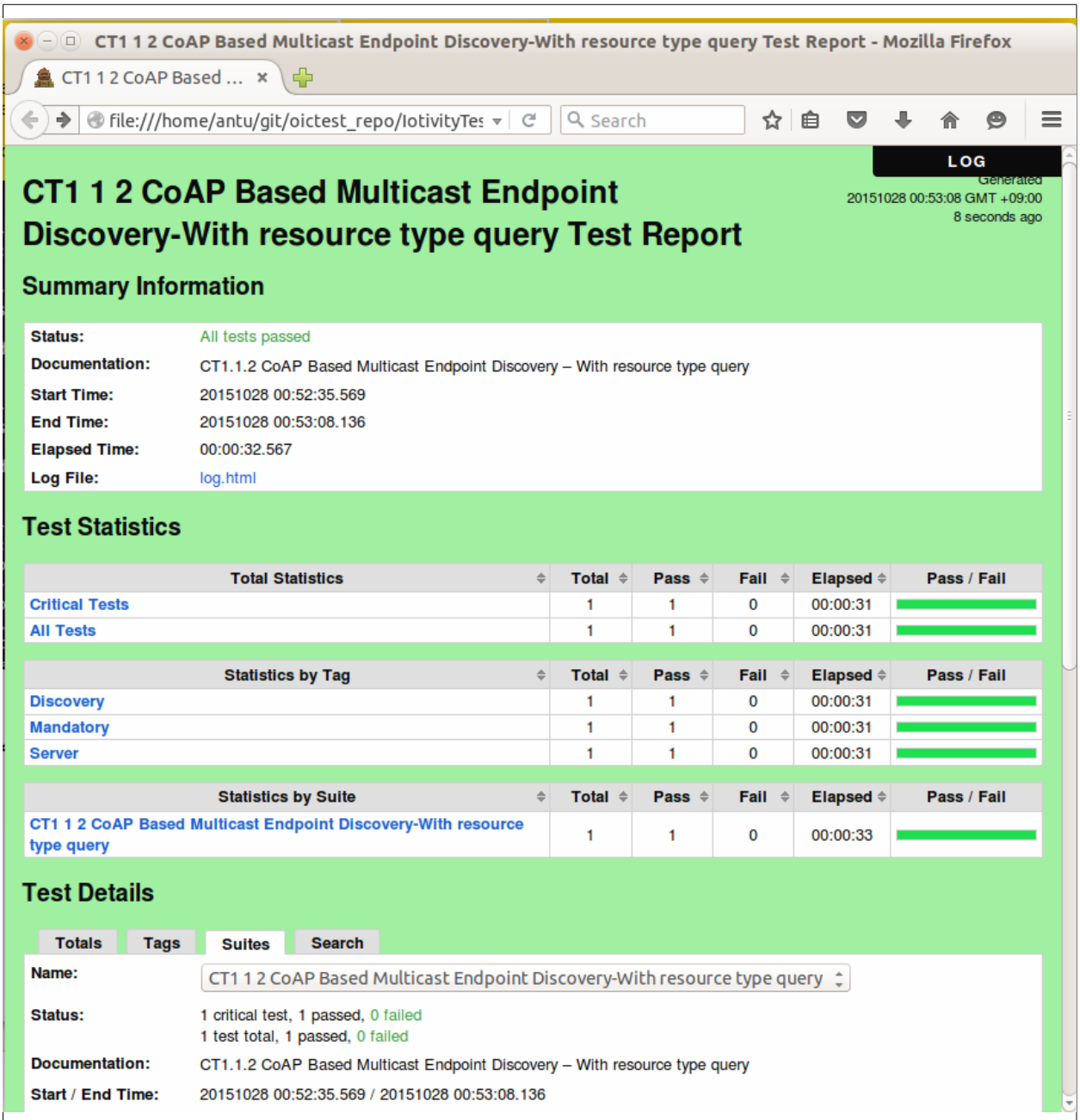
3. To run a TC file, execute ./tc_run.sh <TC_File_Name>, e.g.

```
$ ./run_tc.sh CT1_1_1_CoAP_Based_Multicast_Endpoint_Discovery-
No_Query.txt
```

4. The result report will be saved at < path_to_conformance_tool>/bin/linux/ ConformanceTestTool/testreport/<timestamp>/



< Illustration 1: TC Execution Using Conformance Test Tool >



< Illustration 2: View of Conformance Test Tool TC Execution Result >

Pre-requisite for ConformanceSimulator:

5. scons is required to build ConformanceSimulator
6. ConformanceSimulator is based upon Iotivity. So Iotivity project must be built for linux
    a. Go to the top(root) directory of 'iotivity' project.
    b. Follow the pre-requisite steps described ifor IoTivity project.
    c. Run the below command (for non-secured resource):

        $ scons TARGET_OS=linux

        (Note: C sdk requires tinycbor. Please follow the instruction in the build message to install tinycbor).

    d. To build Iotivity using Secured resource option, run the below command:

        $ scons TARGET_OS=linux SECURED=1

How to build ConformanceSimulator :

3. Go to the top(root) directory of 'ConformanceSimulator' project.
4. Run the below command to build Conformance simulator

    $ scons

5. Help:

    $ scons -h

6. Clear:

    $ scons -c

How to run ConformanceSimulator:

5. From the top(root) directory of ConformanceSimulator, go to linux binary folder:

    $ cd bin/linux/

6. Append the library location of iotivity to system library path:

    $ export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<path-to-iotivity-root>/out/linux/x86/release/

7. Alternatively, for 64 bit operating system:

   $ export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<path-to-iotivity-root>/out/linux/x86_64/release/

8. To run ConformanceSimulator indefault settings(NON-confirmable, IPv6, non-secure server):

   $ ./SonformanceSimulator

9. General command to run ConformanceSimulator:

   $ ./ConformanceSimulator [QoS<0/1>] [IP_Version<4/6>] [Security<0/1/2>]

   QoS: 0 = NON, 1 = CON

   IP_Version: 4 = IPv4, 6 = IPv6

   Security: 0 = unsecure, 1 = Secure_client, 2 = Secure_server

10. e.g.,to Run IpV4 non-secure NON-type server:

    $ ./ConformancSiulator 0 4 0

11. Alternatively,

    $ ./ConformancSiulator 0 4

12. To run IpV6 secure CON-type client:\

    $ ./ConformancSiulator 1 6 1

13. To run IpV6 secure CON server:

    $ ./ConformancSiulator 1 6 2

< Illustration 3: Conformance Simulator Execution >