COMP3310/6331 – MQTT lab

7 May 2018 (okl)

Introduction

This MQTT lab is intended to introduce the student to the MQTT server for Assignment 3 without *writing any code*. Getting Started, in particular, is useful to familiarising the student to the MQTT server (3310exp.hopto.org) hosted at Amazon Web Services (AWS) Elastic Computing Cloud (EC2).

(Getting Started: https://github.com/eclipse/paho.mqtt-spy/wiki/GettingStarted)

Preparation

Install default JDK on Ubuntu 16.04.

vagrant@vagrant16**:**~$ sudo apt-get update

vagrant@vagrant16:~$ sudo apt-get install default-jdk

vagrant@vagrant16:~$ java -version

openjdk version "1.8.0_162"

OpenJDK Runtime Environment (build 1.8.0_162-8u162-b12-0ubuntu0.16.04.2-b12)

OpenJDK 64-Bit Server VM (build 25.162-b12, mixed mode)

Stage 1

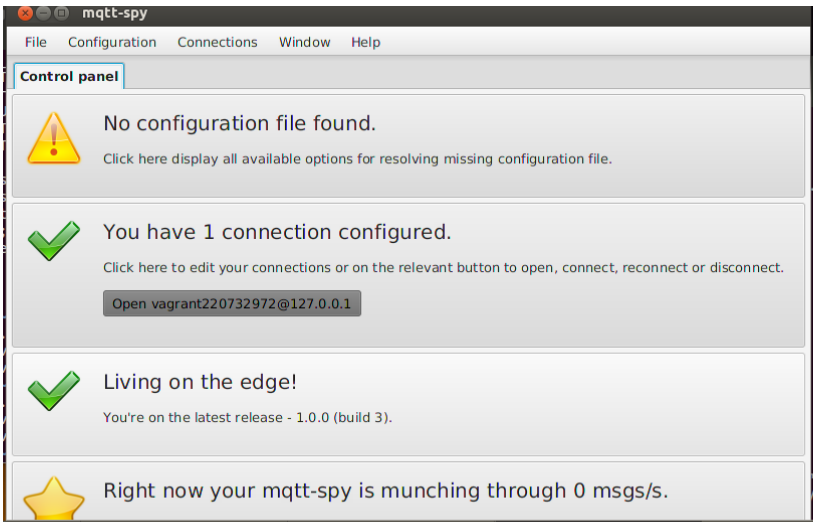
1. Go to https://github.com/eclipse/paho.mqtt-spy/wiki/Downloads and download mqtt-spy-1.0.0.jar file.

2. Install the JavaFX package

vagrant@vagrant16:~$ sudo apt-get install openjfx

3. Run the jar file

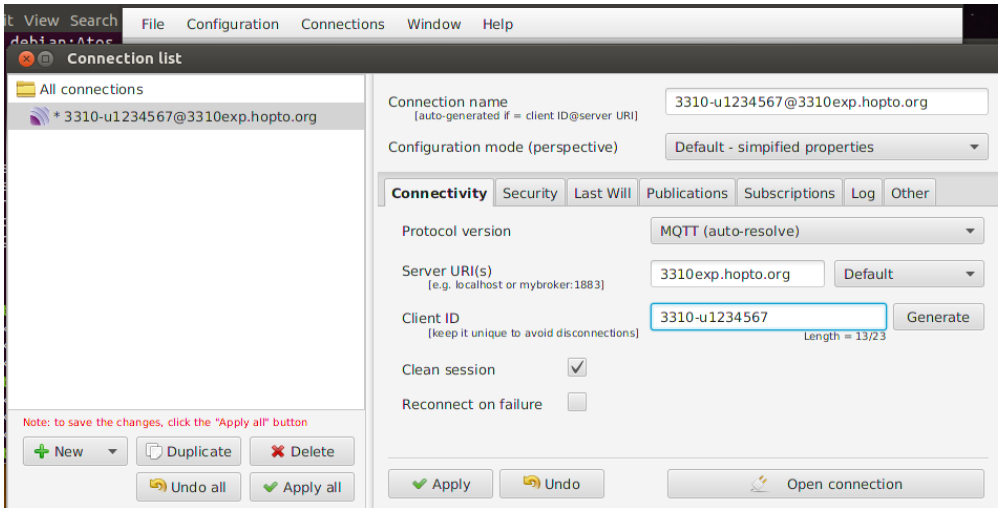
vagrant@vagrant16:~$ java -jar mqtt-spy-1.0.0.jar



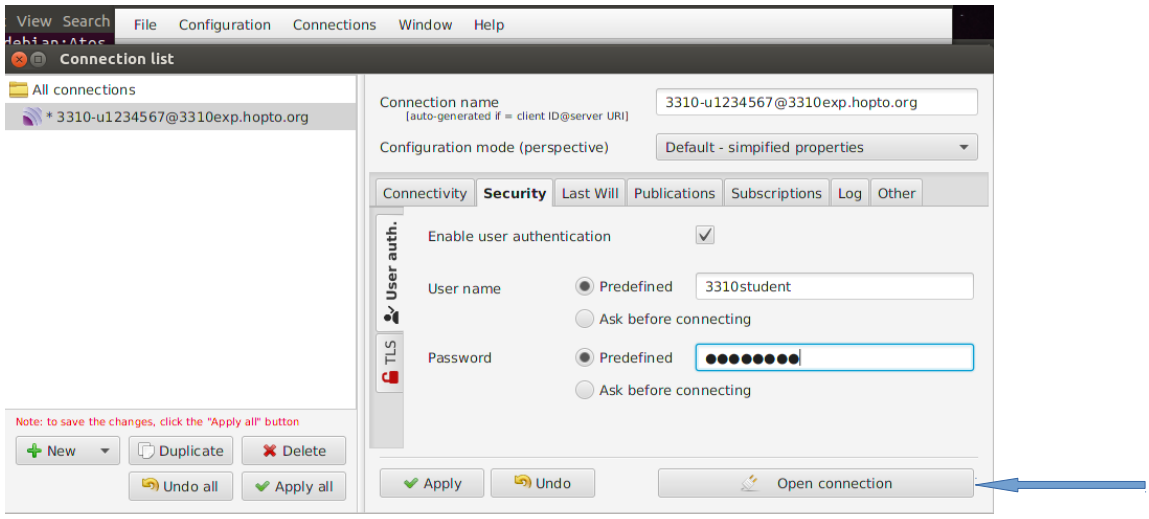
<A user interface of mqtt-spy-1.0.0.jar >

Stage 2

Now, we are ready to configure mqtt-spy. Start with creating a connection.



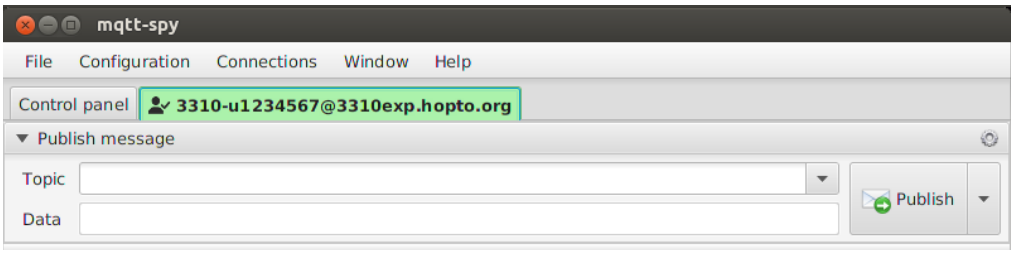
Enter user name (3310student) and password (comp3310).



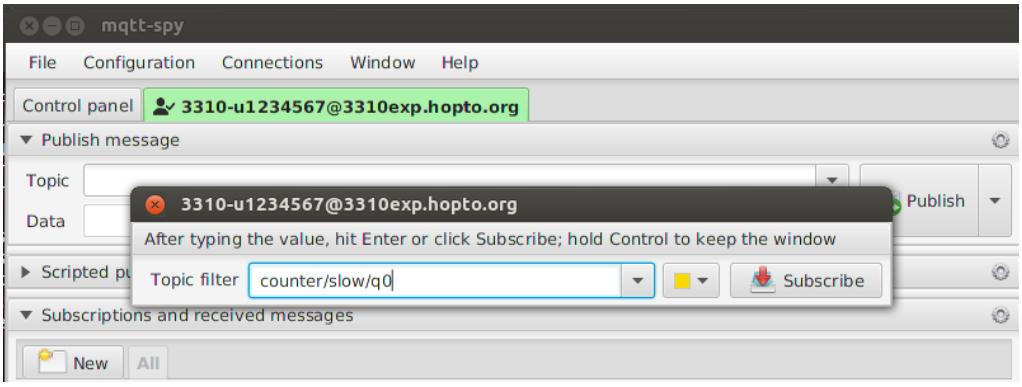
Stage 3

Now, subscribe to the following topics:

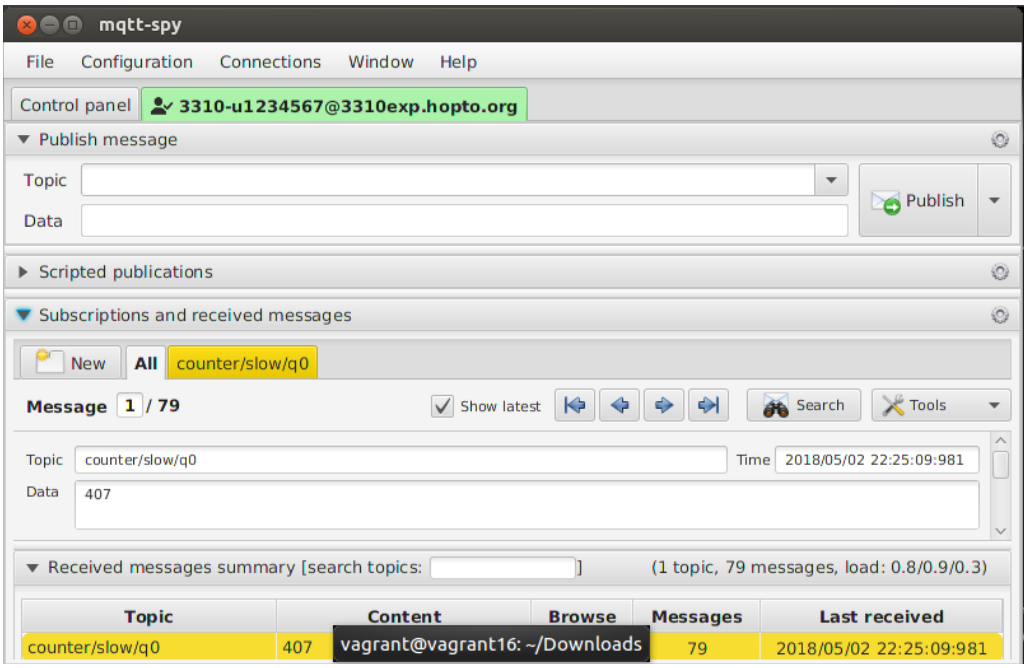
- counter/slow/q0, counter/slow/q1, counter/slow/q2
- counter/fast/q0, counter/fast/q1, counter/fast/q2



Press the green tab and press “New” subscription button.



Press the Subscribe button and you will have the message from the MQTT server.



Stage 4

Repeat the process (Stage 3) with other topics.

Stage 5

Run wireshark and observer the traffic.

$ gksudo wireshark