**C module**

It is a procedure oriented language handle, so the we have to create a separate message handler.

On the message handler we have to operate with specific functions like connect(),open(),close() publish() and subscribe().

In the asynchronous mode the callback function are handled using a function pointer. There will be no maps in C, hence we have to create maps. The application developer calls the specific function while developing code. Here we have implemented data structure such as hash map and access the maps through the set of codes.

**C++ module**

It is object oriented programming language, hence there is lot of readily available libraries, we manage with abstraction.

Abstraction is achieved by creating wrapper class. Boot maps is used to manage the callback function in C++.

In the hash map implementation we have to create a hash function. We use binary tree for logging. In C and C++ we create a shared objects or static libraries.

**JAVA module**

Java and we expose our header files to C++, they provide containers called dictionary which we make use to develop code. To get connected with the producer or consumer we write functionalities, those are API’s which helps to communicate over the bus.

We create JAR files ,we give the JAR files, it takes JAR files as input.

FUTURE ENHANCEMENT

We can provide API’s for Perl,Python ,Andriod ,IOS.

Suppose to provide API’s for android we provide an interface to communicate with the C, C++ code.

Interface is set of interactions which supports C, C++ codes.