Web Server for Qubic

1. A dynamic web server is created on cloud or on premises. (A dynamic web server is one which not only shares files to its clients but can also do some processing like checking the correctness of incoming data to server, maintaining data records in database etc.)

2. This web server is able to accept data from a number of Qubic units in a fixed format. Typical format of message from Qubic is: 'QubicID:A123(string having some MAX_LEN),PackingNo=(string having some MAX_LEN)ABCD1234,YY/MM/DD:HH/MM/SS,Height=234(Double),Length=345(Double),Width=123(Double),Weight=12.3(Double),Volume=0.256(Double)

   Note: The format is customizable. For example, the Packing Number can contain the transporter ID, Location code etc.

3. Image/s of the package can also be uploaded to the web server.

4. This data is stored in a database present on the cloud/On premises web server

5. The data pertaining to a specific Qubic unit is accessible by a web service by specifying the Qubic ID. The web service is a software module which enables customer's software to communicate with the web server. Customer's application can only GET the data from server but cannot POST or DELETE data from server.

6. To access the data the web service needs to send a string to the web server in a prescribed format. The web server, on receipt of this request from the web service, fetches the required data from the database and sends it in a formatted string to the web service. Format of this string is also customizable but will generally match the one at '2' above.

7. The web server can deal with error conditions like break in internet connection, incorrect request from web service etc.

The system architecture is shown on the next page.

Architecture of system: