**Steps followed in porting Retail Smart Vending Machine(RSVM) into Verizon cloud**

Assuming that server (Ubuntu 10.04) is already created on the cloud and it is accessible remotely using Putty software.

To port **RSVM** on to this server, we need to install Node.js, Express, Python & Mongo DB .

Please find the steps mentioned below to install above mentioned packages into the server (Ubuntu 10.04 )

For Microsoft Azure.. all instructions remain same, except apt-get use yum

**Install Git**

**Download and install github client git :-**

1. sudo yum install git

Or if you’re on a Debian-based distribution like Ubuntu, try apt-get:

1. sudo apt-get install git

**Download Source Code from Github:-**

1. Use below command to download the source code from github

git clone <https://github.com/adityadhawan/SmartVendingMachine.git>

**Configuration from Bugswarm**

1. Login in your BugSwarm Account.
2. Create a resource and make it both producer as well as consumer and add to swarm.
3. Copy the configuration key, participation key, Swarm ID and Producer-Consumer Resource ID.
4. put the configuration key, participation key and swarm id in Python/config.cfg file

[Keys]

configuration = <configuration key>

participation = <participation key>

[Swarm]

swarm\_id = <Swarm ID>

1. Also put configuration key, participation key, swarm id and Consumer Resource ID in RSVM/resource/config.js file.

config.swarm = {

apikey: ‘<participation key>’, //input producer API key

resource:'<Producer-Consumer ResourceID>',

swarms: [‘<Swarm Id>’] //keep blank - set in app.js

};

config.header = {"x-bugswarmapikey": "<configuration key>"};

**Installing Node.js:-**

1. $ sudo apt-get install python-software-properties
2. $ sudo add-apt-repository ppa:chris-lea/node.js
3. $ sudo apt-get update
4. $ sudo apt-get install nodejs
5. $ sudo apt-get install nodejs-dev

**Installing Express:-**

$ npm install express@3.4.7 -g

1. Using express command line tool to generate a project bootstrap

$ express RSVM -e

1. Copy the contents of RSVM folder downloaded from GitHub and past into newly created RSVM folder.
2. Move to RSVM folder.
3. Need to update project dependency

$ npm install

**Install MongoDB**

1. **Import the public key used by the package management system**.

$sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv 7F0CEB10

1. Create a list file for MongoDB.

$echo 'deb http://downloads-distro.mongodb.org/repo/ubuntu-upstart dist 10gen' | sudo tee /etc/apt/sources.list.d/mongodb.list

1. Reload local package database

$sudo apt-get update

1. Install the MongoDB packages

$sudo apt-get install mongodb-org

### Start MongoDB.

$sudo /etc/init.d/mongod start

**To Start Node.js**

**1)Change localhost/IP address with new mongoDB server IP in /RSVM/resource/config.js**

config*.mongodb = 'mongodb://localhost:27017/RSVM\_DB'*

**2)Change Port No. with new port No in /RSVM/resource/config.js**

*config.port = process.env.PORT || 3000;*

**3) Run following command**

$ nohup node app.js

1. Go to URL

http:// ”IP address of server”:PortNo/

**Install Python**

**To download Python from command line, follow the following steps:-**

1. wget http://www.python.org/ftp/python/2.7.6/Python-2.7.6.tgz
2. tar -xzf Python-2.7.6.tgz
3. cd Python-2.7.6

**To install Python, follow the following steps:-**

1. ./configure
2. sudo make install

**To Start Python server**

1. Change IP address and Port No in /Python/server.py file.

HOST, PORT = "<IP Address>" , <Port No>

1. Run the following command

$nohup python server.py

**To clean the database and remove all resources from Swarm**

1) change IP address in following files

- SmartVendingMachine/Python/insertIntoDBTables.sh

- SmartVendingMachine/Python/dropDBTables.sh

2) Run python VendingMachine/Python/CleanUp.py

**To clean only** **Database**

1) change IP address in following files

- SmartVendingMachine/Python/insertIntoDBTables.sh

- SmartVendingMachine/Python/dropDBTables.sh

2)Run following commands

- sh SmartVendingMachine/Python/dropDBTables.sh

- sh SmartVendingMachine/Python/insertIntoDBTables.sh