Mobiliya

Security and Surveillance Installation Guide

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Installation of Security and Surveillance Modules

A. Cloud Services Deployment:

Prerequisite:

1. PowerBI account.
2. Registered application
3. PowerBI Reports url

Please refer user document at $(repo_url)/PowerBI

RestServer, FaceComputeEngine and Webapp will be deployed on Cloud. Please refer ARMScripts at $(repo_url)/ARMScripts to deploy Webapp, RestServer, ComputeEngine, and Database.

B. Compute Engine Module Setup.

Prerequisite:

Compute-Engine Module for Human/Object Detection is needed to be installed on Nvidia Jetson Device.

Refer document - **Jetson-Flashing.docx** for Jetson board preparation and perform following steps in command-line shell :

1. **Clone the Compute Engine Repository-**

$ git clone $(repo_url)/Compute-Engine-Yolo

2. **Install Cmake, GIT and Curl :**

$ sudo apt-get install cmake curl git

3. **Install Node Js:**

$ curl -sL https://deb.nodesource.com/setup_6.x | sudo -E bash -

$ sudo apt-get install -y nodejs

4. **Install JSON library for C:**

$ sudo apt-get install -y libjson0 libjson0-dev

$ sudo apt-get install -y libjson0-dbg

5. **Install Curl library**

$ sudo apt-get install -y libcurl4-gnutls-dev

6. **To make executable files:**

$ cd Compute-Engine-Yolo && cd darknet

$ make

7. **Install npm modules.**

$ cd ../jetsonNodeServer

$ sudo npm install

8. **Start the server**

$ node jetsonServer.js

9. **To start server in background download forever npm package and start server as follows:**
$ sudo npm install forever -g
$ forever start jetsonServer.js

C. Aggregator Module Setup.

Pre-requisites:
Aggregator Module needs to setup on an Ubuntu system with following software components:
Node Js (4.0.0 and above) (Follow step **B.3** to install Node JS)
Python (2.7 and above)
OpenCV 3+ (Steps to install OpenCV are mentioned in sub-step **C.2**)

Perform following steps in command-line shell:

1. **Clone the repository:**
$ git clone $(repo_url)/jetson-device-client

2. Install OpenCV
$ cd jetson-device-client
$ mv install-opencv.sh ~/
$ cd ~/
$ chmod +x install-opencv.sh
$ ./install-opencv.sh

3. Install npm packages.
$ cd jetson-device-client
$ npm run pythonPackages
$ npm install

4. Starting the Aggregator server:
$ node aggregatorServer.js

5. To start server in background:
$ sudo npm install forever -g
$ forever start aggregatorServer.js

D. Starting the Web Application.

Please refer User Guide/Demo Video for Portal details