



Mobiliya

Security and Surveillance Installation Guide

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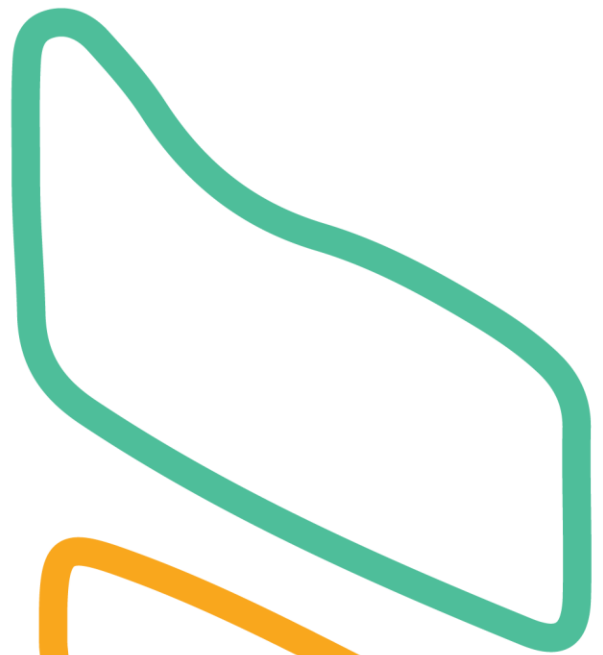


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Installation of Security and Surveillance Modules

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