MEDUSA



A National Security System

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# Introduction

The security situation in Nigeria has been quite worrisome for some time now. The evolution of the new mayhem dubbed Boko-Haram has crippled activities in the North-East part of the country with the remaining region well exposed to the spill-over of the carnage.

The security apparatus has done all in their abilities to quench the mayhem but has had little or no impact to far.

The key to arresting this kind of situation is to put in place a solid Intelligence and a monitoring and tracking solutions in place to complement the effort of the security establishments.

This is a full specification of our system dubbed ***Medusa***.

Medusa is a …

Medusa will provide a real-time search capability and also an online tracking capability.

Search fields will include

* Name – full and partial
* Nicknames
* Pictures
* Fingerprint
* Phone Number

Medusa will be required to connect to the following agencies records and databases and correlate information across all the entire data sources.

* Police & other security agencies
* Passport Office
* Driver License records
* Auto Registration/Plate Number
* Banks
* Telco’s

Medusa will posses capabilities to connect to

* RDBMS database – SQL Server, Oracle, MySQL
* Column Database
* XML/JSON data sources
* Social – twitter and Facebook
* Others with custom adapters

The features and capabilities of Medusa will include

* Ability to compile personal data from across the multiple data sources. Data sources will include RDBMS, Flat file, XML/Json/Bson, Social etc
* Ability to match fingerprint
* Ability to match images from several pictures – facial recognition
* Ability to control live camera on the field
* Ability to initiate communication and alert with security agencies via email and phone numbers or other means
* Ability to shed off computing loads to cloud services at peak period
* Ability to store images and static pictures from severally installed

# Components

The components to be used by the Medusa systems are

* Camera
* Biometric Device – Fingerprint

### Camera

This will be used to capture both video and static pictures. It is planned this will be deployed to multiple locations across the country starting with the major cities.

Planned locations are as follows

* Highways
* Ports and borders
* Government Buildings
* Motor Parks

#### Camera Capabilities

The Camera must have the following capabilities

* IP Camera with Network and/or Wi-Fi capability
* audio detection, video motion detection, auto-tracking, and active tampering
* Video, Audio and Image compression
* Ability to record video and take static pictures at the same time
* Ability to receive PAN and Zoom command i.e. respond to command (PTZ – Pan Tilt Zoom)
* Ability to switch to Night mode (ISO Capability)
* Daylight detection and capability switch accordingly
* Motion detection
* HD (1080p) Recording capability
* Facial recognition and Eye detection
* Energy Saving capability
* On-Board support battery

**Video Specification**

* 1080 Video
* MPEG4 Video

**Image Specification**

### Biometric Device

This will be used to capture fingerprint image and minutiae at the various Government locations. It will be able to capture thumbprint and remaining 4 fingers at once.