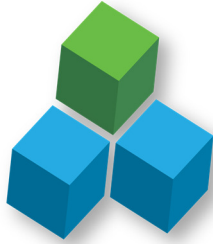


## Case Study



# ManuLogix

Transform Your *Ideas!*

## Smart Gun Safety Solutions



Inprint



Inprint Micro



Drug Dispensary Safes

**SMART GUN  
SAFETY SOLUTIONS**  
SECURED BY:  
**WIRELESS PRODUCTS INC.**



Home



Office



Law Enforcement

**Custom Biometric Safes**  
- with SMS capability of Alerts  
delivery

16 Overlook Drive Tyngsboro MA 01879  
978.649.0303 [www.manulogix.com](http://www.manulogix.com)

## CASE STUDY

## AZURE APP – MONITORING REMOTE SAFE

### EXECUTIVE SUMMARY

**Client:** Smart Gun Safety Solutions LLC

**Location:** Cleveland, OH

**Customer Since:** May, 2012

#### Challenge

Client needed a software solutions provider to team up and work with their hardware development in designing a Cloud based portal for monitoring safes.

- Biometric sensor messages
- SMS/Email Alerts Delivery
- Register 15 finger prints on the device
- Setup and monitor any number of safes
- Monitor Motion, Power/Ethernet failure, Temperature, Humidity, Fingerprint, device door locked/unlocked/open/close
- WiFi connection

### COMPANY'S PROFILE

Smart Gun Safety Solutions is a new startup company with a concept of monitoring a gun storage safe. The founder had backing from a group of investors that wanted to develop a proof of concept.

### SMART GUN SAFETY SOLUTIONS – AZURE BASED CLOUD APP

Smart Gun Safety Solutions does not have development in software solutions. We did not have experience in working with Hardware products/protocols. We also did not know how to implement Azure based applications.

We suggested the azure cloud based application. We worked with their hardware team to develop a protocol that is efficient at processing short messages sent to a remote listener.

**What you should know about our approach:** At the time of this project, we did not work with Azure service or Windows Cloud apps. We figured it out and implemented a multi-threaded processor to process 1000 messages per minute. It means we can remotely monitor 1000 devices at any time. Each safe/device has an Ethernet board that is sending a heartbeat packet every minute, along with any other activity.

Goal#1: Get a portal solution within the budget, in time for a show in Las Vegas.

Goal#2: Process messages from several devices that emit messages every minute.

Goal#3: From quick and easy setup of the safe to registering finger prints and monitoring within minutes via SMS to a cellphone.

### SOLUTION

The portal should provide ability to monitor one or more safes per user. Each safe may be accessible by one or more members. Safes may or may not be in the same location.

Ex: A small police station has few users. One of them administers one or more safes. Each safe storage may hold 1 or more guns. Each safe may have registered few of the

officers and the safe should be managed by the ones that are registered with the safe.

#### Highlights:

- ✓ Azure Cloud based portal
- ✓ Biometric sensing safe
- ✓ Service bus for message QUEUE/processing
- ✓ Onboard Video buffering to cloud
- ✓ Hi/Lo triggers for Temperature, Humidity
- ✓ SMS Alerts Motion, Open/Close, Temp/Humidity sensors
- ✓ Secure Ecommerce with Recurring Billing
- ✓ GPS monitoring
- ✓ Hi/Lo Decibel audibles

## CASE STUDY

## AZURE APP – MONITORING REMOTE SAFE

**During the development, we made several minor enhancements, not impacting their budget.**

### Project Outcome:

The project has been successfully implemented with the prototype device. Client has acquired outside investors and funding successfully.

Client is currently working on a new device that uses M2M technologies, Bluetooth, separate camera and a GPS. We are currently doing a specification for the next generation protocol.

An IPAD application with app notification is currently

being designed.

### Additional Challenge encountered from field trial:

We get messages to the cloud based QUEUE, 1 heartbeat every minute, however we synthesized an alert: PWR\_FAILURE, if the heartbeat misses for 5 mins in a row, we had to figure out that WiFi Connectivity was disrupted and send an alert, which required more processing of the big data with time constraints for us.

### TECHNOLOGY

	WEB APPLICATION
Platform	ASP.NET/C#, IIS7.0, SQLServer 2008
Tools	Visual Studio 2010, Azure Cloud, Service Bus
Others	JQuery/JavaScript, HTML5, CSS3.0, Ajax, XML/JSON

## Next Steps

If you like our solution and approach, please contact us:

1. We will have a phone conversation to assess your needs. We don't hesitate to contribute/enhance your ideas.
2. We can sign an NDA
3. Depending on your project, we may need to meet with your team to understand clearly your business processes and any specific requirements
4. We will give you a proposal and milestone payments schedule
5. Once the contract is signed, we will work on mock screens to begin the development process
6. You will be continuously involved during the development with Weekly or bi-monthly sprints to get your feedback in development

### ManuLogix Inc

Established: Jan 2010

16 Overlook Drive  
Tyngsboro, MA 01879

**Employees:** 19

### PRODUCT ENGINEERING

**Technologies:** .NET MVC, PHP Zend Web Applications, REST services, Ajax, JQuery, IOS Apps, Android, Windows Azure, SliverLight and more

**Call Us for a Quote:  
We can sign an NDA.  
ManuLogix, Inc**

**978.944.2460**  
[sales@manulogix.com](mailto:sales@manulogix.com)