# Statistics, Rapid Data Collection & the European Refugee Crisis

John Simion / Pathfinders Task Force
john@pathfinders.cc
561-452-1423

As an interconnected global society reaches a new frequency of events, and as consumption of statistics has become preeminent in guiding public policy and response, acquiring information is of the utmost importance. The Pathfinders Task Force is an elite group of first responders and technology innovators who have found, through 10+ years of disaster response deployments, that the availability of data and statistics to Command can make or break a developing crisis on the ground, and that the speed and coordination of this data has a large effect on the efficiency and ability to complete operational objectives. The Pathfinders Task Force (PTF) team developed the Virtual Badge software platform as a way to fill gaps in existing disaster response models by rapidly creating analytics and statistics to create a common operating picture that can be accessed by all approved stakeholders in an incident.

Virtual Badge is a mobile and web based platform that is designed to rapidly gather massive amounts of statistics. **Following Hurricane Joaquin in October 2015, the Bahamian National Emergency Management Agency (NEMA) tasked PTF to use Virtual Badge** to perform critical infrastructure, unmet needs, and damage assessments, evacuation site tracking, and supply route mapping for affected populations on seven islands. Compared to Virtual Badge, whose statistics and actionable data were available instantly for command decisions and scientific analysis, even in a 100% disconnected environment, the Bahamas' more traditional use of pen and paper forms to gather information left data unusable, unlinked to anything, and still residing on affected islands-- not in possession of Command. Virtual Badge allowed the Bahamas Command to make real-time decisions based on actionable data. Thus, statistics gathered via Virtual Badge meant the Hurricane Joaquin disaster response operation could function more efficiently, safer, and thus save lives, property, and money.
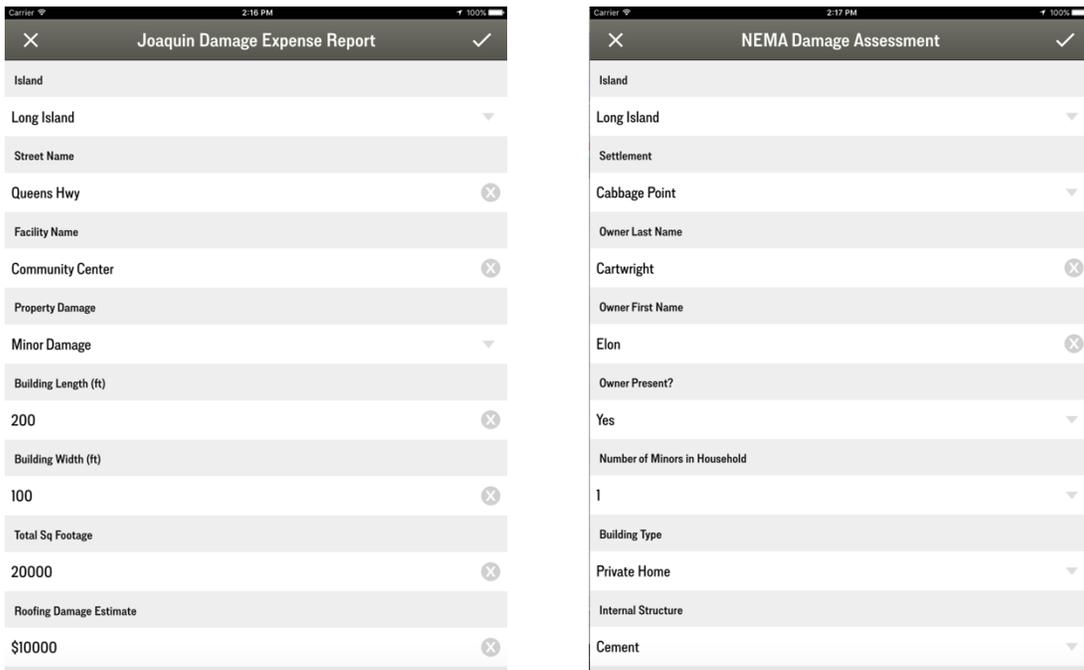
Virtual Badge is used to rapidly gather statistics and analytics during crisis events

Using Virtual Badge means that Command elements have statistical data instantly ready for analysis, reporting, and integration with other systems. Without Virtual Badge

to consolidate analytics, the traditional combinations of disparate management systems such as radio, telephone, and traditional pen-and-paper data recording fail to develop a complete operational picture as data must still be translated into a cohesive whole and there is no ready-made medium to display said data. Needing a high ratio of back and forth confirmations and utilizing non-standardized methods fails to account for details, lacks horizontal integration, and is simply not fast enough to handle emergent crises or situations.

| Building Type	Internal Structure	External Structure	Structure Damaged?	Damage Level	Comments	Completed By	Co-signed By	Photo	Photo 2
Private Home	Cement	Stucco	Yes	3 - Not Liveable, but Repairable	Major roof and window damage	John Simion	Rashard Thurston		
Private Home	Cement	Cinder Block / Concrete	Yes	2 - Obvious Damage but Liveable		PTF Matthew Campbell	RBDF Lead Mechanic R Bethel		
Private Home	Cement	Cinder Block / Concrete	Yes	2 - Obvious Damage but Liveable		PTF Matthew Campbell	RBDF Lead Mechanic R Bethel		

Virtual Badge was used to gather rapid statistics and analytics about damaged homes and affected citizens on 7 Bahamian islands following Hurricane Joaquin

The developing refugee crisis in Europe demonstrates a human movement on a scale that Europe is not prepared for. This mass migration represents a wealth of statistics that must be captured for International Security and Human Rights. National, EU and UN policy makers, executives and stakeholders must translate this movement into data if they are to have any hope of maintaining control of this situation. While border crossing estimates and makeshift asylum centers are currently alleviating the confusion, the sustained migration threatens to make the situation incomprehensible to agencies. In light of the seriousness and scale of the crisis, traditional methods of statistical gathering seem unthinkable. Administrative stakeholders managing the refugee crisis have no real handle on what's actually happening with the "Boots on the Ground" as they currently have no software linkage that can share collected analytics across national borders and among multiple involved agencies.

Virtual Badge creates real-time situational awareness by collecting time, date, and geocode information along with any other customized data

Virtual Badge creates electronic identity profiles and informational datasets, which are instantly available to the administrative command center and mobile users. Examples of refugee data that may be collected include, but are not limited to: name, gender, sex, age, family status, country of origin, physical description, employable skills, religious orientation, migratory route, countries passed through, desired destination, unmet needs, special needs, medical needs, and claimed social welfare needs, and any additional required statistical information can be added to the system in moments. All of this data can either be collected by authorized agents or can be self-registered and self reported by asylum seekers themselves. Such datasets are quickly ready for statistical processing, which allows for faster response and policy formation in regards to transportation, border action, medical treatment, supply, housing, and ultimately social welfare and employment for newly arrived persons.
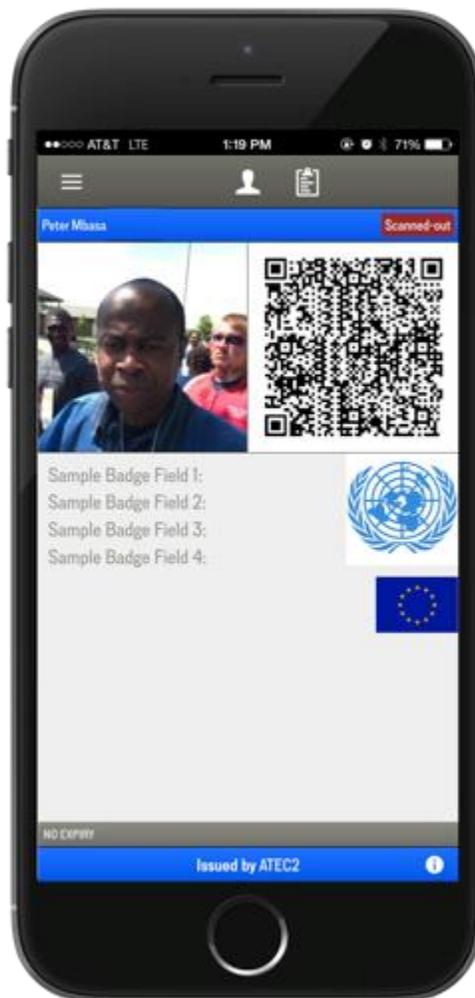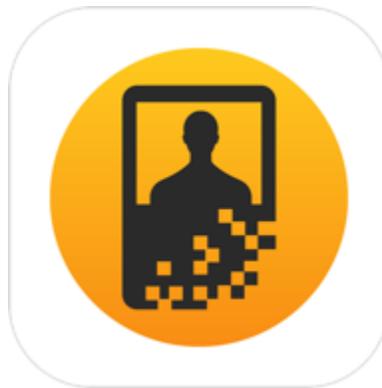

Virtual Badges can be assigned to any user, even if they don't have a smartphone. Virtual Badge user statistics are available in real-time.

Virtual Badge statistical data can be easily integrated into other GIS or analytical systems, meaning that governments could share the data, and thus know how and where to respond, and in turn, help refugees receive necessary assistance with a minimum of

delay. Virtual Badge data collection and standardized forms in the hands of various agencies will also allow for faster response at the border. Photo documentation, headcount estimates, migratory paths and border vulnerability assessments can, once again, be instantly uploaded to command and available for statistical processing, which can then inform best decisions and practices to maintain order.

If Europe's new refugees are to have any hope of a real humanitarian response, and to be welcomed into their new homes in an orderly fashion, then a statistical grasp of the situation must be made available sooner rather than later. Ultimately all action is informed- guided by information- and a global, mass society must translate that information in understandable ways. Virtual Badge represents a comprehensive, fastest process approach to yielding data as statistics. As World Statistics Day comes to a close, PTF urges UN and EU leadership reflect on what it means to have readily available statistics in light current events, and we hope that in doing so, can arrive at a truly humanitarian solution.

www.virtualbadge.com