



How the Global Emancipation Network is

Using Big Data to Stop Human Trafficking with

Microsoft Azure



TECHIMPACTSM

Around the world, over 21 million adults and children are the victims of human trafficking. Of that, less than 50,000 are rescued. This devastating criminal industry must conduct business in the shadows, but even though the operations are not always easily identifiable in public, human trafficking networks develop patterns that can be tracked. Nonprofit organizations like the Global Emancipation Network identify these patterns to aid law enforcement with taking down human trafficking operations globally.

The Global Emancipation Network uses big data, collecting streams of information from law enforcement agencies, businesses, other nonprofit organizations, and ordinary people to identify patterns that are indicative of human trafficking operations.

It might surprise you to know that the Global Emancipation Network is a fairly new nonprofit, launching from its sister organization Orphan Secure in March of 2016. The organization is made up of around 25 part-time volunteers that all work remotely since the organization does not have a headquarters.

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“Everything is entirely volunteer right now. Currently, we don’t even have an operating budget so any costs have been coming out of my own pocket,” Sherrie Caltagirone, the Executive Director of the Global Emancipation Network, explains.

With no operating budget and no headquarters, the Global Emancipation Network faced the daunting task of finding an infrastructure as a service (IaaS) solution that would give them all the power of a high performance computing cluster and the built-in tools to manage and analyze the data, without the high cost.

“In 2014, we started talking about the kind of platform we needed and looking at the nonprofit offerings out there. Essentially, we needed to create an integrated platform to host large-scale data that would be a very scalable storage solution with machine learning tools,” Sherrie continues, “Fortunately, several of our volunteers work at Microsoft so we were able to hear about some of the products offered by Microsoft Philanthropy and heard about their newest offering for nonprofits, Microsoft Azure.”

In September 2016, Microsoft Philanthropy announced it would offer an annual \$5,000 Azure credit to nonprofits around the world, making the powerful cloud computing infrastructure much more accessible to the nonprofits sector.

The Global Emancipation Network uses Azure to collect raw data from a multitude of data sources using APIs. The raw data is stored in a space known as the Azure blob to be processed by the intelligence tool Splunk, and the R toolset, which are built into Azure. These tools are used to identify patterns in the massive amounts of data the organization collects and output analytics and graphical representations of the data, which goes to help other nonprofits that are working to stop human trafficking, like Orphan Secure, and law enforcement agencies.

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As their organization grows and establishes connections to more data sources the Global Emancipation Network will be able to easily scale up within Microsoft Azure.

“We would not have been able to do what we are doing today without Azure. With the amount of data we are collecting and processing, it would be very inefficient to mine manually.” Sherrie says, crediting their success to Microsoft Azure and to Microsoft Philanthropy for all the help and support they received getting started.

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