

DATA ANALYTICS CENTER PROJECT IN COTE D'IVOIRE FUNDING OPPORTUNITY #95332418N0003

EXECUTIVE SUMMARY

Africa has a big data management problem. For years, Africa's adoption of mobile technology has challenged even Western standards of market growth with its truly exponential innovations. Worldwide recognition of programs that have created deep social impact include MPesa that has transformed cash transfers, Eneza that has pushed education out to the remotest villages, M-Farm that allows farmers to receive real time produce at market prices, and MedAfrica that provides mobile health information.

With the rapid and ever growing mobile services and the technology leap beyond mainframes and Information Technology ("IT") system management, Africa has inadvertently created an enormous data structure void. This gap in data management is becoming more apparent as vast amounts of data are being generated, but are not being structured into an actionable system. Simply put, while an endless volume of data is available, very little of it is being utilized. A significant reason for low utilization is that big data is driven by Silicon Valley, and that market has been focused mainly on the USA. Rippleni is **focused solely on Africa** and has created a big data solution by developing **Fusion Centers** and will be referred to as **Data Analytics Center**. The fusion centers concept was originally created by the United States Department of Justice to become an information-sharing center for all law enforcement agencies to collaborate. Since then, the IT industry has adopted the basic fundamentals and expanded fusion centers to be the epicenter for the decision-making process to address the magnitude of big data management issues.

In Africa today, big data is nothing but a buzzword because the market does not understand the full value chain from initial acquisition to management, processing and eventual application. Instead, new users jump straight to the analytics segment of the value chain neglecting the fact that the most successful solutions are those where all aspects of the process are integrated. Big data fusion centers solve this issue. Every aspect of technology acquisition, management and implementation will be centralized so that customers can focus on what is most important for them – data analytics.

A **Data Analytics Center powered by RippleNami** will crystalize the big data market for Africa. Multiple reports show that there is a \$500 Billion to \$1 Trillion-dollar big data market potential in Africa. The **Data Analytics Center's** primary function is to provide its customers, governments and citizens access to the resources they need and to manage the three core technologies: big data, mobility and cloud.

BIG DATA ANALYTICS CENTERS

The need for a centralized **Data Analytics Center** is clearly evident. Given the lack of existing IT infrastructure for big data, the **Data Analytics Center** will capitalize on the next generation of decentralized systems, namely cloud computing, servers, switches and storage. This set of technologies not only fills the infrastructure gap, but future proofs the center by eliminating the requirements for hardware purchases, maintenance and upgrades. The **Data Analytics Center** can generate revenue by providing comprehensive real time customized big data services to include: Business intelligence; Data management; Asset management; Social media management; Government support services; NGO support services; Foreign aid support services

TECHNOLOGY OVERVIEW

The **Data Analytics Center's** services will be rendered leveraging the following world class technology platforms:

- 🔗 **RippleNami** www.ripplenami.com developed a cloud based SaaS blockchain + data visualization + analytics platform that ingests and aggregates unlimited data sources in any format to provide geo tagged information on a map. RippleNami will be the primary interface for customer interaction, solving the issues of where are people, places and things.
 - **Unlimited data sources** include blockchain, open source data, proprietary data, social media streams, satellite, drone, proximity sensors, application program interfaces (API) from other software programs (i.e. flight tracking, etc.), photos, videos, reports, and global situational awareness live data for natural (i.e. weather, fire, floods, etc.) and man made threats (i.e. terrorism, crime, medical, security, etc.).
- 🔗 **IBM** www.ibm.com/blockchain developed a blockchain based SaaS digital ID, smart contracts, document, supply chain and financial distributed management platform. Blockchain resolves a myriad of problems involving data veracity, document control, database management, property protection, and economic identity management through an incorruptible network.
 - **What is an economic identity?** An economic identity is the digital or electronic credentials needed to gain financial access and economic empowerment. Today, over 3.5 billion people lack an economic identity. Additionally, over \$2 billion dollars annually are lost or misused in the developing world due to lack of a verifiable identity. It is a record of a person's financial history, occupation, critical life events and daily transactions, such as: land/property records; harvest history, crop insurance, market access; micro finance; birth registration, immunization, health history; education and job skills; movable and other collateral for asset financing.
 - **What is blockchain?** The blockchain is a decentralized database or ledger that maintains a continuous list of records or transactions. Its unique features (as indicated below) in distribution, permission, security, trust and automation make it distinct from traditional databases. The RippleNami blockchain-enabled network is based on the **network effect**—as more participants join the network, the more value it will have. It is able to integrate with existing networks and traceability systems, and has the ability to integrate with additional networks as they develop.
- 🔗 **Amazon Web Service (AWS)** www.aws.amazon.com provides service throughout 16 world geographic regions. AWS provides a series of cloud services to fill and replace the hardware technology deficiencies in developing countries. AWS will provide the fusion center elastic cloud computing, distributed short and long-term cloud storage, scalable database servers and real-time analytics.
- 🔗 **Google Enterprise Services** www.enterprise.google.com -- Google has invested USD\$625 million in the Google Enterprise Services, which simplifies base mapping, data generation, data integration, and data analytics. The fusion center will have the power of Google not otherwise visible to the region.

Platform

Our platform provides organizations with the situational and resource awareness in today's world for staff and partners to **collaborate and know exactly the what, where and impact of information** in a rapidly changing world. In addition, our platform allows the users to **store relevant operation documents** and resources such as policies and procedures, emergency protocols, reports or contract lists along with the mapping aspect.

Key Features

- **Software as a Service (SaaS)** product that provides a common platform to centralize data allowing users to collaborate and share critical information and resources with the people who need them most.
- Hosted in a **secure environment** accessed by users using a thin client via a web browser or mobile application.
- **Multiple levels of user access** for every piece of data to allow non-private data with public citizens
- **Universal Languages**
- Flexible, **platform agnostic** and operates on various devices, manufacturers and web browsers such as:
 - Devices - Mobile, Laptops, Tablets, Desktops or Command and Control Centers
 - Manufacturers – Apple, Google, Microsoft, Samsung and LG
 - Browsers - Chrome, Mozilla, Internet Explorer and Windows 10
- **Notifications and tasking** communication
- Does **not require extensive training** or licenses to set up or utilize.

- **Empowers key decision makers** with actionable, real time data.
- **Unlimited users, organizations and data layers.**
- **Ease of data input.**
- **Powerful artificial intelligence analytics.**

Approach

Our technology was built by experts in Humanitarian, Government and Relief efforts. Based upon our expertise, we would approach this project similar to our Smart Country program including digital identity and needs assessment programs. To begin with, RippleNami would work to provide the local partner and train them on our simple to use technology platform. We start to ensure citizens have a digital identity. We often discover a significant percentage of our citizens don't have any documents that can verify their identity such as a birth certificate, national id or license. Without identities, citizens limit their ability to utilize banks and inhibits access basic rights like healthcare, education, employment, voting, education and travel.

If digital identities are needed, our local partners can capture the biometrics with our mobile data collection application called **rCapture™**. With a digital identity, citizens are able to capture meaningful life events that can be leverage to thrive in local and global economies. For example, citizens can prove their ownership of assets such as property, livestock, crops, etc., they will be able to quantify the asset values and have up to date information about the market value, making it easier and less costly to secure a loan. RippleNami's **rCAPTURE** is a flexible intuitive data collection application for mobile and tablet devices. Customized data fields can be created within hours, not days, and distributed instantly to different groups to meet rapid deployment needs.

Data can be captured in on-line or off-line mode. Off-line data is synced to the central database with just a click of a button when network access is available. Next, our local partner will input the current data available into the data ingestion engine. RippleNami's **rWAVES™** is our intuitive data ingestion and visualization platform. A map will display the current resources and assets available within the government and ministries listed below then layer in key demographic statistics to determine needs assessment. **rCAPTURE** is coupled with RippleNami's **rWAVES**, so that users can instantly see captured data in a real-time mapping visualization application. **rWAVES** allows users to see their own generated geocoded data in a variety of customized mapping formats/layers to easily analyze results. Data collection results can be viewed by all team members, since **rWAVES** distributes captured mapping results on multiple devices simultaneously securely through blockchain. Data can be collected and assimilated from unlimited sources such as UN, World Bank, public government, private company, etc. to understand all the current resources available. In real-time, current resources, assets and citizens are visualized on a map with reporting on the elements and preform needs assessment resulting as they occur in real-time. Finally, we have a powerful artificial intelligence analytics engine call **rANALYZE™** to analyze, report and monitor. We will pre-define dashboards for each user of the platform. These dashboards are all available from separate tabs in our easy-to-use portal, which includes filters for easy control of data displayed.

IMPLEMENTATION PLAN

At RippleNami, we understand implementing a new technology can be viewed as one of the most challenging processes your staff will undertake. With that in mind, RippleNami has created a team of Implementation Specialists with Humanitarian, Disaster Relief and Data Science expertise to assist our local partner throughout the process. Because of the sophistication of the system, users despite their skill set can utilize the system eliminating the need for GIS engineers or data scientists. From the moment, we sign a contract, our team will be a visible and powerful resource in making this transition a non-stressful event. Our team will train and work with the local partner every step of the way. When we are ready to launch the software, our staff will be there and will stay on-site until our local partner is comfortable with all aspects of the software. Our typical implementation can be achieved in approximately 1-3 months. The schedule can vary based on the amount of work involved and on the availability of the local partner to provide us with timely responses to our requests that are necessary to adding the necessary layers. A detailed estimation of the timeline for your implementation process will be further defined after Phase One.

LOCAL PARTNER

To date, we have been unable to find a local partner. We would like assistance regarding locating a great local partner as we work with in many African countries but no one in Cote d'Ivoire. We made several requests to MCC-PEPFAR Partnership and received information regarding LeadCom (www.leadcom-is.com) headquartered in Israeli. After calling the corporate office, we were informed the company had been acquired by Tech Mahindra (www.technahindra.com) based in India. We contacted Tech Mahindra and they informed us the Cote d'Ivoire office had closed down. Next, we reached out the United States Commerce Department who connected us with the United States State Department. Neither party could offer us any local partners. State Department did provide a list of 10 attorneys to which we reached out to. Eight out of the 10 emails bounced back and we did not hear back from the two emails which went through. We reached out by phone, unable to connect with anyone.

CHALLENGES

Never has there been a more opportune time to create a **Data Analytics Center**. The country as a whole is truly seeing significant gaps in data management and is scrambling to fill those voids by trying to emulate first world legacy systems. However, there are challenges. The primary challenge is the culture of mistrust and aggressive competition; meaning companies internally and externally are unwilling to share data because they do not understand that larger data sets provide better results. This short sightedness needs to be overcome and one strategy is to emphasize that regardless of whether they share data, international organizations already have this information.

Secondarily, there is a significant skills gap. University graduates with technology degrees are significantly undereducated in the region. Most of this is caused by lack of interaction with the global tech community and lack of infrastructure. This challenge can be overcome by using platforms that simplify the user interfaces. Lastly, government interference should be noted. Call it corruption or call it a legacy system of government that is paranoid. Unless it is properly articulated, the Fusion Center could run into interference. The key to overcoming this is to create a public-private partnership with the government and potentially create a secure facility for government data management.

CONCLUSION

The country's first **Data Analytics Center** will dynamically change how governments, NGOs and corporations do business. A Data Analytics Center investment, together with the power of RippleNami, will allow the center to be integrated into every sector throughout the country. The market for big data management and financial potential is endless due to the fact that this is an overlooked and untapped market. A RippleNami powered **Data Analytics Center** will finally crystalize the big data market for Africa. Decision making and communication are everything—that's why RippleNami has developed a first-of-its-kind visualization platform that is simple, smart, secure and cost-effective—so you can visualize information that's relevant for your employees, volunteers, aid recipients, communities and across other organizations—and act. We are specifically focused on leading edge organizations, as we know they are essential members providing critical services to those in the local community. The **Data Analytics Center** will accelerate a visible world of trust by capturing meaningful life events the poor can leverage to thrive in local and global economies then visualizing big data allowing anyone to map their world.