

# Improving Accountability to Affected Populations (AAP) through Citizen-Led Monitoring

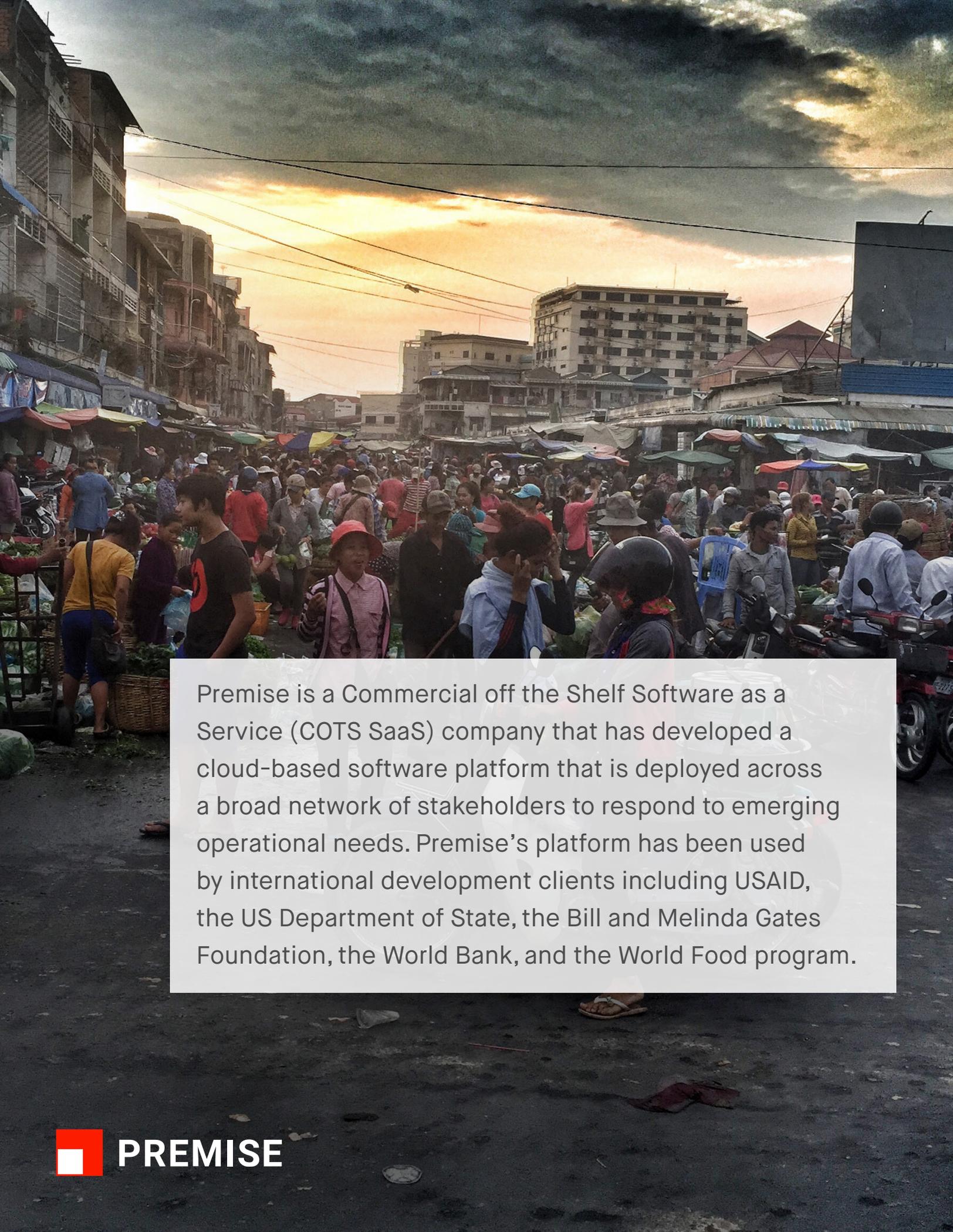
White Paper to DEVEX World Forum by  
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Premise is a Commercial off the Shelf Software as a Service (COTS SaaS) company that has developed a cloud-based software platform that is deployed across a broad network of stakeholders to respond to emerging operational needs. Premise's platform has been used by international development clients including USAID, the US Department of State, the Bill and Melinda Gates Foundation, the World Bank, and the World Food program.



**PREMISE**

# Introduction

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## PROBLEM STATEMENT

*“We need to include the people affected by humanitarian crises and their communities in our decisions to be certain that the humanitarian response is relevant, timely, effective and efficient.”*

- The Grand Bargain - A Shared Commitment to Better Serve People in Need.

All stakeholders involved in the provision of emergency response share a common desire to improve satisfaction with humanitarian assistance. Recent commitments to increase accountability to affected populations (AAP) by USAID’s Office of Foreign Disaster Assistance, DFID, WHO, and others represent a crucial step in the advancement of core humanitarian standards. Yet numerous approaches to date have focused on feedback and complaint mechanisms while missing opportunities to engage affected populations in program design, implementation, and monitoring.

Initial feedback and complaint mechanisms, especially hotlines, proved insufficient at sourcing feedback from a wide enough spectrum of affected populations. The shift to SMS-based surveys addressed this problem but the limits of such technology mean very little can be done to document, locate, or analyze data - leaving implementers with sentiment data but a lack of quantitative evidence. Such shortfalls similarly limit affected population participation in program design, implementation and monitoring.

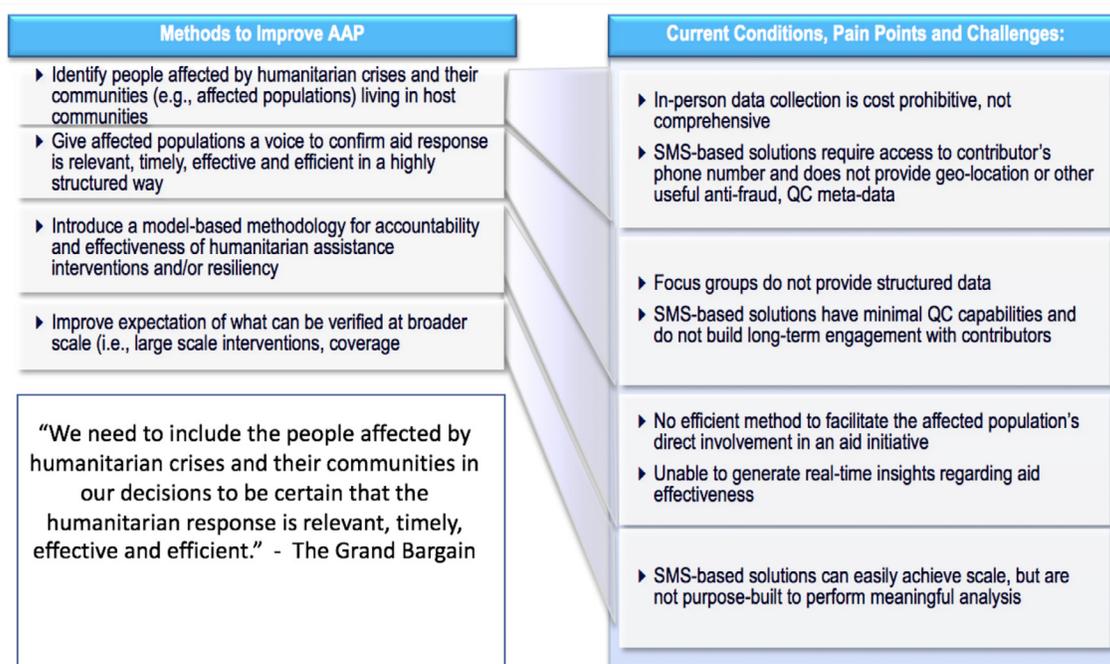
The ubiquity of smartphone ownership in developing countries, prevalence of improved wireless connectivity, the emergence of the gig economy, and innovations in data analytics have been game changers to how one might approach data collection for international aid organizations. These advancements create an opportunity to facilitate structured engagement with affected populations at scale. They improve feedback capabilities, promote engagement of affected populations in program implementation and monitoring, while offering the opportunity to use data to optimize program performance.

This white paper examines methods to improve accountability to affected populations through citizen-led monitoring. The first section analyzes alternative approaches to improve AAP, including a discussion of current conditions, pain points and challenges. The next section discusses the application of citizen-led monitoring. The remaining sections discuss capabilities and case study examples of citizen-led monitoring through use of a mobile data and analytics platform.

# OPPORTUNITIES TO IMPROVE AAP

## SUMMARY

Emerging opportunities to improve AAP center around the ability of structured crowd-sourcing technology to facilitate approaches to IASC principles 4. Participation and 5. Design, Monitoring and Evaluation at a large scale. This section of our analysis extracts a set of assumptions from the above problem statement and a review of relevant reports. These assumptions are mapped to current conditions, pain points and challenges:



## APPLICATION OF CITIZEN-LED MONITORING TO IMPROVE AAP

The concept of including people affected by humanitarian crises and their communities in programming decisions is not new. However using current in-person or SMS-based solutions pose several data collection and analytical challenges. For example, aid assistance activity in Areas Affected by Conflict can be extremely fluid and hyper-localized. Many programs struggle to manage the collection of contextual data at a frequency that is sufficient to inform program design and implementation decisions. Those

<sup>1</sup> The Grand Bargain – A Shared Commitment to Better Serve People in Need, 23 May 2016  
 Accountability to the Affected Populations in Early Recovery: Examples of Good Practice, March 2016  
 Enhancing Accountability to Affected Populations through the World Humanitarian Summit - Draft concept note, 4 August 2014  
 Tools to assist in implementing the IASC AAP Commitments, July 2012

programs that endeavor to implement flexible and iterative approaches rely on a small number of directly employed staff to provide context analysis in the form of anecdotes to understand changing contexts. These approaches can be insufficient to achieve true awareness and understanding of fluid situations, demographic or geographic variations. Through use of scalable Citizen-Led monitoring, programs can implement a context analysis strategy that gathers higher volume, broad spectrum, more frequent contextual data to improve program outcomes / implementation decisions.

The table below presents potential applications of a Citizen-Led Monitoring solution and corresponding benefits to aid organizations.

OPPORTUNITIES TO IMPROVE AAP	APPLICATION OF CITIZEN-LED MONITORING APPROACH	BENEFITS TO INTERNATIONAL AID ORGANIZATIONS
Identify people affected by humanitarian crises and their communities (e.g., affected populations) living in host communities	<p>Highly structured “crowd-sourcing” of data from ordinary residents/ visitors in their local communities can dramatically increase the granularity, frequency, and accuracy of critical implementation data.</p> <p>Affected populations can be incentivized to complete tasks as a complement to aid provided directly to them.</p>	<p>Affected populations are appropriately segmented, trained, incentivized, and “tasked” with data collection in their communities or other hard to reach areas.</p> <p>Resulting in:</p> <ul style="list-style-type: none"> <li>Improved denominator data</li> <li>• for refugees, IDPs, vulnerable populations, etc.</li> <li>Ability to “remote task” a local</li> <li>• network of contributors</li> </ul>
Give affected populations a voice to confirm aid response is relevant, timely, effective and efficient in a highly structured way	<p>Real-time data collection and quality control of citizen-led findings can be processed by automated and machine learning based controls to ensure a secondary data source can be triangulated against officially reported data in a timely manner to affect adaptive changes in implementation.</p>	<p>A “smart” mobile data collection and analytic platform is dynamic - adapting based on respondent answers/participation.</p> <p>Visualizations make data available in near-real-time and in a manner that facilitates decision-making</p> <p>Resulting in:</p> <ul style="list-style-type: none"> <li>• A conduit to meaningfully interact with affected populations</li> </ul>

OPPORTUNITIES TO IMPROVE AAP	APPLICATION OF CITIZEN-LED MONITORING APPROACH	BENEFITS TO INTERNATIONAL AID ORGANIZATIONS
<p>Introduce a model-based methodology for accountability and effectiveness of humanitarian assistance interventions and/or resiliency</p>	<p>Data collection from affected populations can be structured using analytical models, quality controlled, highly localized, and conducted more frequently.</p> <p>Campaign-based task deployment with incentives can help execute data collection against analytical models.</p> <p>Data science experts can help to generate insights from model-based analytics.</p>	<p>Aid organization is better able to monitor, iterate, adapt to optimize impact</p> <p>Resulting in:</p> <ul style="list-style-type: none"> <li>• A game changing approach and a “new normal” for dynamic, responsive survey design for evaluation and monitoring</li> </ul>
<p>Improve expectation of what can be verified at broader scale (i.e., large scale interventions, coverage</p>	<p>Broad reach to locally affected citizens can improve comprehensiveness in aid operations.</p> <p>A data science-based desired coverage model of the target population can allow for improved measurement of success against impact-level KPIs in real-time.</p>	<p>Appropriate incentives to engage citizen participation means meaningful scale can be achieved at a lower cost than ever before.</p> <p>Application of machine learning and dynamic analytic rules means a large network and QC of large datasets is performed at scale.</p> <p>Informed, adaptive actions can be performed quickly with a more comprehensive dataset.</p> <p>Resulting in:</p> <ul style="list-style-type: none"> <li>• Scalable data is more easily obtained.</li> <li>• Large quantities of diverse datasets are easily analyzed and visualized to improve decisions.</li> </ul>

**Consider a scalable, citizen-led monitoring solution to validate aid impact and effectiveness.**

Premise enables the creation of an end-to-end data collection and analytics methodology that can be used to optimize operations against an analytical coverage model to increase program impact.

The remainder of this white paper describes the products and services available for donors and humanitarian assistance implementers to improve AAP while simultaneously increasing impact.

# ABOUT PREMISE

## PREMISE MOBILE DATA COLLECTION CAPABILITIES

Premise is a full stack global analytics platform with force multiplier capabilities to international aid organizations. The key components of the Premise Platform include the: **Operations Console, Smartphone App and Analytics Dashboard & Visualization.**

Fig. 1 Premise Platform Capabilities Overview

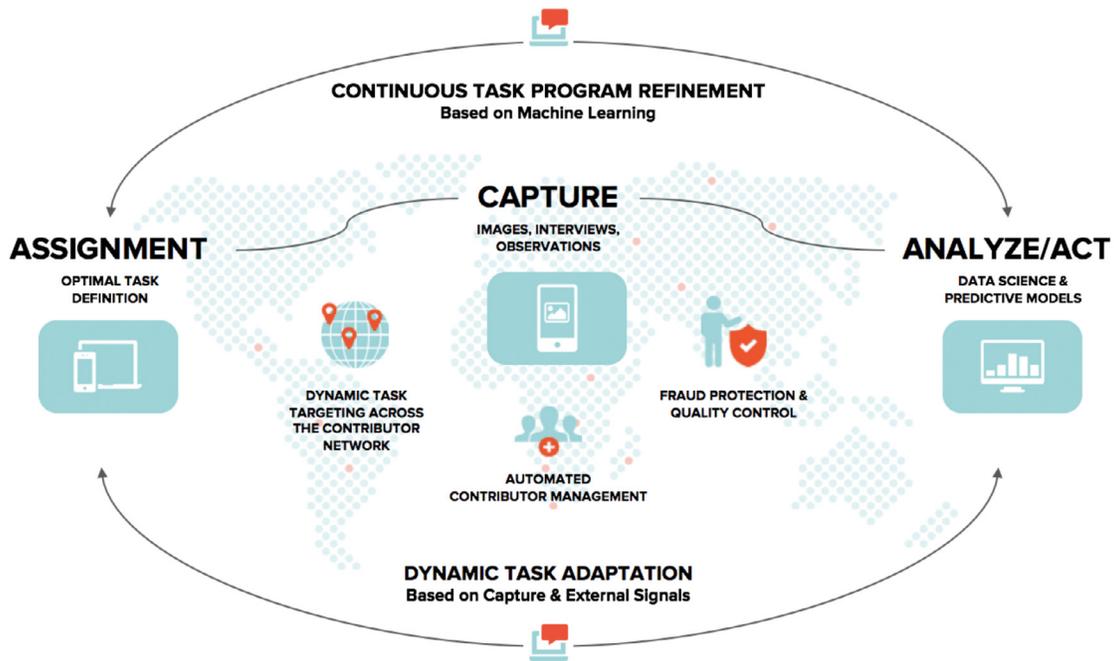


- **Operations Console:** Our end-to-end integrated operations console manages actions and quality control standards, segments users into groups, and dynamically assigns the right action to the right person at the right time.
- **Smartphone App:** Our smartphone app makes it easy for users to create profiles and sign up for actions based on identity, location, and capability. The app provides guidance, feedback, and rewards for successful actions.
- **Analytics Dashboards & Visualizations:** Our customizable analytics dashboards paint a granular, real-time picture of individual and organizational progress against key performance indicators.

### USE PREMISE TO OPTIMIZE AID EFFECTIVENESS FOR GREATER IMPACT

Premise offers a technology solution (mobile- and web-based platform) which leverages the power of software to manage the people and actions that can drive specific outcomes. We do this by building targeted activities into the Premise app, finding and/or training app users, and sending the right task to the right user at the right time. As users perform tasks, the app collects information on the specific assignment as well as contextual details around the action, such as how long the user took to complete the task and what other users in the network were doing. The Premise platform uses these data to dynamically adjust activities in the field, such as giving users more guidance, assigning new tasks, or shifting actions to a new location to achieve overall campaign objectives. These activities are shown in the figure below.

Fig. 2 Premise Technical Approach Overview



This framework is augmented by machine learning capabilities to continuously refine or adapt tasks, manage networks/ contributors and maintain high data quality standards. Trust in the data Premise’s contributors provide; all contributor findings are processed through the Premise Platform which uses a combination of manual and automatic fraud detection processes to verify acceptable photo resolution, time and location. Premise can automatically detect common fraud activities such as when a user attempts to set up multiple accounts (i.e., multiple accounts on one device, multiple users using the same cash out account), use of mock GPS to attempt to circumvent route-based or location-based tasks, and other anomalous behavior.

The features of the Premise Platform and corresponding benefits to International Aid Organizations are outlined in the table below:

FEATURES OF THE PREMISE PLATFORM	BENEFITS TO INTERNATIONAL AID ORGANIZATIONS
<b>Custom Off-The-Shelf Platform</b>	<b>Accelerated deployment.</b> Premise’s platform requires no custom development to meet a program’s data collection needs. We can rapidly configure our platform and begin data collection within days to weeks, depending on campaign complexity and local conditions.
<b>Advanced Data Quality Control</b>	<b>Increased confidence in results.</b> Premise uses automated business rule- and machine learning-based quality control capabilities to ensure the validity of surveys, locations, images, and other data - a process that saves time and takes less than 10 seconds to complete.
<b>Flexible Platform Configuration</b>	<b>Iterative survey design.</b> Premise’s COTS platform does not require hard-coding of data collection tasks. Instead, our platform allows for rapid iteration in survey design so operations can improve over time.
<b>Platform Localization</b>	<b>Decreased translation time.</b> Premise’s platform works in English as a master language and supports infinite language within the app. This means non-open-text responses can be automatically translated by the platform.

## PREMISE FOR INTERNATIONAL DEVELOPMENT

The Premise data collection and analytic framework is particularly relevant to the international development community. The Premise mobile data collection platform was purpose-built for the developing world. Premise carefully considers the prevalent mobile phone technologies and available network infrastructure in designing the platform’s application and functionality. Premise understands for many international development communities, application performance on low-cost phones is critical to the success of the platform. Low battery and memory usage, as well as offline or asynchronous mobile-based data collection are also key to support full-day operations in the field. To predict success in these environments, Premise builds test networks to replicate connectivity conditions in rural parts of the world to anticipate application performance in real-life conditions.

Premise is able to supply a variety of ground-truth data collection methods by recruiting and utilizing a local network of on-the-ground contributors. Premise’s recruitment playbook includes finding the optimal method to locate contributors in each country based on access, cultural preference, internet penetration, languages etc.

The following section discusses several successful case studies where Premise was used to support International Aid Organizations.

# CASE STUDIES

## *Cali, Colombia*

### DATA-DRIVEN ZIKA VIRUS CONTROL



Colombia had the second largest Zika virus outbreak in the world in 2016 with the City of Cali accounting for 23% of the country’s cases. With funding from USAID, Cali’s Department of Public Health and Premise are working to digitize the city’s vector control program, integrate data science into their workflows, and enlist a citizen network of Premise contributors to bolster the city’s vector surveillance program.



#### Results:

615,000+ sewage opening inspections have been performed by Cali’s Department of Public Health with

- the Premise platform

Integrating data science into city’s workflow produced a 27% decrease in Aedes risk in high risk “Hot Spots”

#### Next Steps:

- Recruit a network of 100 citizens to bolster Cali’s vector surveillance efforts
- Expand project to 2 additional Colombian cities by end of 2018

**54,000**

Citywide sewer openings requiring regular vector surveillance

**615,000+**

Vector Control Inspections with Premise platform

**-27%**

Aedes index risk reduction in high risk “hot spots”

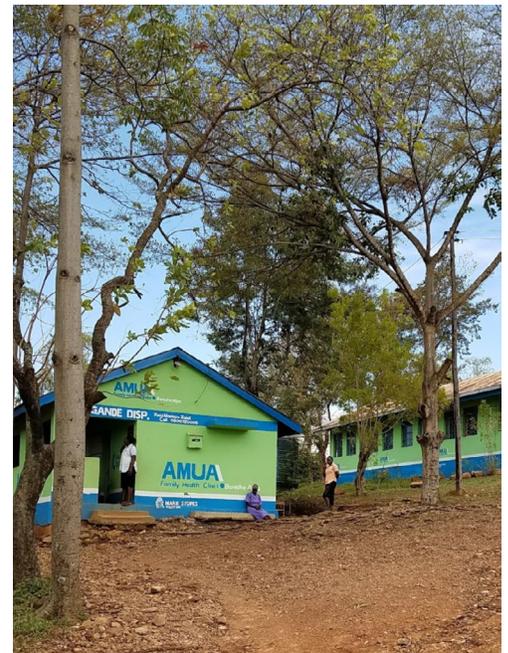
*Kenya*

**REDUCING HIV/AIDS INFECTIONS AMONG YOUNG WOMEN IN SUB-SAHARAN AFRICA**

AIDS remains the leading global cause of death among young women. Every year, 360,000 young women are infected with HIV, with 10 sub-Saharan African countries accounting for half of all new infections.

The U.S. State Department’s PEPFAR DREAMS partnership is an ambitious effort to reduce HIV infections among adolescent girls and young women in these 10 countries.

Premise is working with local health clinics in Kenya as part of PEPFAR DREAMS to digitally drive higher HIV treatment adherence by engaging HIV+ young women through the Premise app and providing clinics with real-time data visualizations and analytics dashboards.



**Results:**

- 33 participating health clinics across 3 counties in western Kenya
- 550+ HIV positive young women using Premise app have submitted 80,000 digital reports on their treatment regimens

**33**

Health Clinics

**550+**

HIV+ young women  
using the Premise app

**80,000**

Treatment reports  
submitted through the  
Premise app

## CONCLUSION

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Premise enables donors and humanitarian assistance implementers to leverage networks of local residents as primary data contributors to give affected populations a voice at scale, improve accountability and effectiveness of humanitarian assistance interventions, verify that large scale interventions are implemented effectively, and monetarily incentivize affected populations' participation in the implementation and monitoring of programs.

To learn more visit [www.premise.com/international-development](http://www.premise.com/international-development)