Premise Crowdsourced Data Collection Software-as-a-Service (SaaS) License

G-Cloud 12 Service Definition

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PREMISE

185 Berry Street, San Francisco, CA 94107
Point of Contact: Eric Grenlin, Sales Operations
E: eric.grenlin@premise.com P: 202.677.8715

Summary

Premise is a San Francisco-based software-as-a-service (SaaS) technology company that uses data science and machine learning (ML) to collect data from a global, rapidly-scalable, and dynamically-taskable network of more than two (2) million human contributors via the Premise smartphone app and digital task marketplace. Premise's advanced computational infrastructure (built with a $70M investment) enables strategic reach combined with tactical precision – we leverage data science to focus our collection strategies and ML to process the data we collect into high-confidence information. Premise's industry-leading capabilities are completely unique in the market.

This document outlines an approach which enables a customer to select data collection locations from across a target area using a firm-fixed-price (FFP) schedule. It includes a clear and flexible pricing framework designed to facilitate rapid geographic re-tasking and scaling across the Premise data contributor network to more effectively adapt data collection campaigns against quickly-changing, high-consequence mission requirements.

Capability Overview

Premise's human contributors can collect data on their local environment, taking photos, finding locations, traveling identified routes, asking questions, and mapping wireless networks. Premise contributors can perform any combination of those tasks, in any sequence, across an identified geographic area in a target country.

Premise seeks to make remote information gathering, analysis, decision support, and measures of effectiveness (MOEs) more accurate and more timely, reducing the need for a physical presence to maintain access and increase situational awareness (SA). In a target country, Premise will align its data contributors with customer-identified problem sets and data requirements. Premise will work with the customer to identify physically-observable phenomena (people, places, things) that an average citizen would be able to record and report against.

Premise is able to dynamically flex and re-task our contributors as information requirements change. If an approach is ineffective, Premise will adjust our tasks as needed, in real-time, to gather the required information or achieve the desired effects.

Below, we have described the technical processes employed to meet customers' needs.

Software-as-a-Service (SaaS) License

Each SaaS license provides a pool of submission credits to be used to create and execute data collection campaigns. Collection campaign locations may be changed no more than once every 90 days. All Premise data collection campaigns are geographically defined using the International Organization for Standardization (ISO) 3166-2. The ISO 3166-2 standard defines codes for identifying the subdivisions of provinces or states of all the countries coded in ISO 3166-1.

Pricing

Premise SaaS licenses range from £24,000 – £750,000+ based on submission credit and geographical collection requirements. Multiple Premise Support Package subscriptions are available at additional cost, starting at £33,837. Please refer to the Premise Crowdsourced Data Collection Software-as-a-Service (SaaS) License Pricing Description for more information.

No additional individual user licenses are necessary; each Premise license is provisioned per enterprise. Prior to campaign execution, Premise assigns a project name to be used internally, with only key Premise personnel (e.g., program director, contracting) aware of the true end-users. All data collected is controlled by the end-user (with limited data

rights reserved by Premise to maintain basic network functionality) and can be shared as widely as desired. Premise will facilitate requested data transfers and cross-domaining if authorized in writing by the designated program authority.

The key Premise SaaS license components are described below:

1. *The Mobile Application.* This is the Premise smartphone application (iOS™ and Android™) through which tasks are delivered to users based on a quantitative model for high-frequency monitoring.
2. *The Task Flow Manager.* Run-time execution of tasks. All aspects of the form (designed within the Form Manager) are enforced for structured data gathering, such as required check-in points, structured surveys, and automatic quality control rules. (Also, Task Flow Management functions in offline mode, managing business policies such as task expiration dates, GPS tracking, and geofence enforcement.)
3. *The Contributor Manager.* All aspects of contributor profile management, contributor history, and contributor performance tracking. The Contributor Manager enables the Premise platform to continuously learn about contributor skills, and increase or decrease trust and capability scores based on historical performance.
4. *The Network Manager.* Enables managing contributors and quality control workers in groups to be targeted for discrete activities. For example, contributors associated with a private network would be grouped and defined as a targetable network using the Network Manager. Individuals can be associated with multiple networks, requiring a flexible interface to create networks associated with trust, skill, or group affiliation.
5. *The Campaign Manager.* Enables deployment of tasks against specific groups within the overall network based on geography, demographic profile, training completion, and user score. This also governs required task volumes, duration, and frequency.
6. *Data Acquisition.* Collection of the following types of data: images, survey responses (text files), GPS locations, and smartphone metadata. All data types are machine-readable by our software platform. Customers have access to a submission credit burn-down dashboard in the Premise web-based user interface (UI) allowing them to track expended and remaining contributor submission credits. See *Annex II: Premise Task Descriptions* for more in-depth descriptions and examples of each Premise task type.

Table 1. Premise Task Type-Submission Credit Crosswalk

TASK TYPE	DESCRIPTION	CREDITS
Tier 1	Survey – *Per contributor survey, not per survey question.*	1
Tier 2	Discovery Observational Tasks (Predetermined Radius)	2
Tier 3	Route-based Observational Tasks (Place-based)	4
Tier 4	Route-based Observational Tasks with Additional Degrees of Difficulty	16

Data Collection Campaign Planning & Program Setup

The seven (7) program setup components below describe the Premise approach to building and executing data collection campaigns. This general approach is common to each geography covered, but operational setup in specific locations will vary given local conditions.

1. *Program, Task, & Incentive Design*

   Premise offers a library of forms to push tasks into the Premise Task Marketplace to achieve program outcomes. The specific forms to be used and the configuration of those forms is the responsibility of the Premise Customer Success Team. Form design addresses the unique operational flows and capacities of a program and its target networks. Working with the customer, the Premise Customer Success Team will configure form templates to address a customer's program needs – including downstream operational capacities that must be activated for program delivery.

   Program design also encompasses the overall definition of a program's goals, target network contributors, required data/behavioral changes, and desired outcomes. The Premise Customer Success Team assesses customer needs and recommends a suite of products and configurations to meet those needs. This collaborative approach ensures Premise capabilities are organized to achieve the customer's objectives.

   Incentive design motivates Premise contributors to deliver on program effects. Premise's Operations and Growth Team interfaces with the Premise Data Science Team to design incentives through a formulaic approach which calculates a minimum incentive for contributors to complete a task according to the difficulty

and accessibility of the task, weighted on a combination of labor market, human development, cost of living, and contributor engagement measures.

The Premise team will typically design an overlying, proxy activity set of infrastructure-focused observations for each route (e.g., bus stops, electricity lines, financial access points) in order to provide adequate incentive to traverse the whole route and take photos, engage Premise contributors, ensure data remains high quality, and provide a clear purpose to the activity that the contributors can understand and communicate to others.

2. *Route Configuration & Task Implementation*

After designing tasks to meet the collection requirements, Premise will then use the customer's data collection objectives to generate approaches for route configuration and task implementation.

There are four (4) key elements:

2.1. Receive customer's guidance on data and analytics needs including coverage goals

2.2. Based on analytics needs, select an appropriate algorithm for route creation. There are three main approaches Premise can implement:

- 2.2.1. Spatially-balanced coverage
- 2.2.2. Balance spatial coverage with areas of higher route concentration based on external, existing information (e.g., concentrate more routes in areas with higher population or commercial areas)
- 2.2.3. Adaptive coverage: Begin with equal spatial coverage and adapt route locations over time as we learn which areas have higher data density

2.3. Ingest and cleaning of data for route creation, including:

- 2.3.1. Information provided by customer or publicly available third-party data (previously collected data such as population information, commercial zoning boundaries, known locations, or areas of interest)
- 2.3.2. Street location data

2.4. Generate routes based on processed data and selected approach

3. *Contributor Recruiting & Management*

   After route configuration and task implementation, Premise's Operations and Growth Team will establish a network model to identify a contributor market for a specific geography, define local operational idiosyncrasies, mitigate any legal risks, and produce a funnel optimization strategy.

   Our approach to contributor recruiting and management is executed in five (5) phases:

   1. Understand local conditions. Investigation of context specific-needs to localize content and experience
   2. Define compliance & privacy policies. Identify operational compliance needs to minimize risk
   3. Establish identity verification. Ability to do instant background checks for global network
   4. Set benchmarks and timeline. Outline goals refining network size, per contributors costs, and network scaling cadence based on historical contributor retention data
   5. Develop funnel targeting strategy. Thorough framework following benchmarks with automated engagement interventions by funnel stage

4. *Payment Network Setup (Regional / National)*

   Premise must also develop new partnerships as needed with local payment providers to facilitate in-app micropayments and create effective incentive models for each locale.

   1. Understand the local context. Identify popular and trusted transaction methods for our target contributors
   2. Ensure in-country compliance. Understand in-country regulatory environment to minimize risk
   3. Evaluate regional micropayment landscape. Apply a validated framework to select the right partner(s) for contributors incentive model needs
   4. Secure payment partner(s). Negotiate favorable terms
   5. Determine geographical and program-specific incentive model. Formulaic approach weighted on a combination of human development factors and contributors engagement needs

5. *Contributor Marketing (Initial & Ongoing)*

   Premise always pursues a multi-channel marketing strategy to recruit potential contributors while maintaining a low acquisition cost.

   1. Release targeted paid acquisition. Launch ad campaigns tailored to customer needs and optimized for context leverage social proofing techniques, such as using photos of local contributors in front of known landmarks
   2. Support automated drip campaigns. Cultivate contributors engagement with platform from sign up
   3. Pursue localized acquisition channels. Develop alternative recruitment methods, as necessary, to reach the last mile, including push notifications, flyering, newspaper ads, radio ads, freelancer job board posts, etc.
   4. Develop strategic partnerships. Partner as necessary with on-the-ground organizations to enhance reach into the target demographic

6. *Contributor Activation*

   This program set-up component develops a base of contributors who have experienced Premise's value proposition and provide high-quality data.

   1. Cultivate social proof. Develop popular social media pages and friend referrals to refine Premise's value
   2. Provide tailored onboarding. Contextualized training process based on user segmentation
   3. Deliver consistent support. Support contributors within a 12-hour issue turnaround time accompanied with a localized in-app Help Center
   4. Establish on-the-ground resources. Trained global workforce that assists with localized support, including translations, local context knowledge, and contributor outreach
   5. Prove value for contributors. Through multiple incentives, accelerate contributors toward cementing the monetary value and benefit provided by Premise

7. *Contributor Engagement*

   Premise continually engages contributors to keep them engaged with the platform. This cultivates a base of consistent and high-quality data contributors who can be rapidly trained and deployed for tasks ranging in difficulty.

   1. Automate drip engagement campaigns. Outreach triggered by milestones (e.g., first cashout, 100 accepted observations) or signals of reduced engagement (e.g., 5+ days of inactivity) to prevent disengagement
   2. Deploy retention strategies. Strengthen standing with less engaged contributors through custom strategies, including 1-1 outreach, social media interaction, and retargeting ads

On-Site Support, Remote Support & Training

Premise offers several levels of support. Included in the cost of the SaaS license, Premise assigns each customer a Customer Success program manager who provides basic user training, assists the customer with task publication to the marketplace, and works with the customer to create appropriate dashboards and visualization to deliver collected data (also available in other forms, i.e. CSV, KMZ, JSON).

The Premise Platform Support Package is a subscription to technical expert reachback based on daily allotments (up to 52, 130, or 260 days per subscription). This reachback ensures successful technology deployments, data quality control, and analytics implementation. These packages are composed of a number of core functions performed through a combination of labor and technology.

The support package includes:

- Localization. Ensuring the Premise App and associated training materials use language easily understood in the local context and in the appropriate dialect.
- Analytical Database Configuration. Configuring the forms, tasks, campaigns, submission manager, dashboards, and analytics tools to the specific needs of the program and by appropriate role.
- Training & Onboarding. Training analysts and other designated users on the dashboards and database functions.
- Communication & Support. Providing continual user support to ensure app contributors, project staff, and customers have favorable experiences with the app and dashboards.

- Contributor Management. Deploying best-practice strategies to keep app contributors engaged and committed to using the app. These strategies are regularly updated using insights generated by Premise deployments worldwide as determined by Premise's Growth and Operations Team.
- Network Engagement and Insights. Analyzing and reporting on data-driven insights into local conditions.
- Ongoing Analytical Model and Task Configuration. Premise's cleared technical experts and Data Science Team will collaborate with the customer to analyze collections and refine tasks based on network contributions. This can include refinement of analytical models based on historical trends, incorporation of third-party data provided by the customer or other stakeholders and ad hoc investigative collection as required.

Premise also offers on-site support through our Field Support Representative (FSR) subscription. FSRs provide on-site technical support to assist end-users in integrating Premise capabilities into customer systems, planning processes, and operational solutions. General FSR requirements include experience as a commissioned or non-commissioned military officer in an intelligence, plans, or operations role. This subscription provides up to eight (8) hours per day, five (5) business days per week of field support services on a customer site.

In addition to basic user training, Premise offers two (2) formal training courses: Premise Bootcamp Training, and Premise Integrator Training.

1. Premise Bootcamp Training. Premise Bootcamp Training is designed for end-users and will orient them to the Premise platform and capabilities. Premise Bootcamp is a one (1) day training course that covers the following subjects: data collection campaigns, task creation for the marketplace, contributor network capabilities and limitations, app navigation, and software and visualization familiarization. The training can either be delivered on-site or virtually. Travel expenses are not included in the training price.
2. Premise Integrator Training. Premise Integrator Training is designed to train a customer's program manager (PM) and/or other identified personnel, referred to as "Integrators", over two (2) days of instruction by Premise technical experts, providing students with a clear understanding of the capabilities of the Premise platform and the knowledge to effectively employ it. Upon completion of this training, an Integrator will have the ability to: utilize Premise software; design tasks for publication to the marketplace, access historical data, and view data using Premise dashboards and other visualization methods as new capabilities are added. Integrator training can be conducted on-site or at a Premise facility. Travel expenses are not included in the training price.

Route & Task Program Operations

Data collection operations at scale require ongoing, active management by Premise personnel, supervised by the Premise Customer Success Team. The key elements of that management are described here.

Task / Submission Compensation

Contributors will be assigned to walk specific routes in an area. Along these routes, they will be asked to submit tasks related to infrastructure, financial services, commodity prices, etc. For example, a contributor might be asked to walk along a road and complete a task observing whether a bus stop is present. The contributor could be asked to take a photo of the bus stop, note the bus lines serviced, and describe the number of people waiting at the stop. Every task, as well as route, is compensated if the data meets quality standards. Premise will manage its active contributors to complete a predetermined number of routes and submissions per week. The active tasks ensure higher quality network information collection, helps overlay information for the infrastructure data, and most importantly, the active tasks gives the data contributor a rationale for the work, enabling them to remain engaged as contributors with a clear sense of purpose and contribution to their communities.

Contribution Quality Control (QC)

Premise implements quality control measures to ensure data contributors remain engaged, active, and adhere to instructions. Premise confirms that routes are followed as outlined, and every task is reviewed to ensure high data quality. As described, only conforming contributions qualify for payment. Premise makes a decision to accept or reject submissions based on whether instructions were followed and the quality of data. All inputs of the submission are evaluated, including the photo, location, and manual inputs. Route and task level feedback is then provided to contributors in order to improve their efficiency and effectiveness.

Contributor Support

The Premise Operations and Growth Team provides support to data contributors for our mobile application to ensure the experience is as seamless as possible. Contributors vary in skill level, literacy, self-sufficiency, and app familiarity. As such, we provide personalized and rapid email support (less than a 12-hour turnaround) to guide contributors. Premise has a comprehensive framework to address all support issues including but not limited to troubleshooting, onboarding, points of confusion, and technical escalations.

Data Transmission

The Premise mobile app collects a rich set of data submitted with the active observations collected by our contributors, as well as passive information collected such as location, cellular network, WiFi network, and power information. This information is periodically uploaded to our cloud-based systems for analysis and consolidation when a contributor has appropriate connectivity. These are rationalized into an easy-to-access data warehouse for analysis, visualization, and insight.

Premise can deliver data through a number of mechanisms depending on customer needs, to include: real-time dashboards (providing charts/graphs; CSV flat files); enriched executable files (KMZs); and secure cloud bulk raw data (JSON) transfer.

Ordering

Please refer to the Premise SaaS License Terms of Service document for information regarding ordering, contracting, invoicing, and termination. All Premise offerings are based on a 12-month subscription model unless otherwise noted. All costs are firm-fixed-price and invoiced upon subscription activation. Please contact Premise to schedule a capabilities briefing and demonstration.

Annex I: Route / Observations Data Collected

These are data types Premise collects and makes available for transmission.

Category	Name	Description	Type	Example	Andoird	iOS	Notes
Location Info	bearing	Direction the contributor is traveling when their location was captured. This is a value between 0 and 360 with 0 and 360 representing a North bearing North and values between 0 and 360 representing the degree deviation from North.	float	90	Y	Y	
	latitude	A geographic coordinate that specifies the north-south position of a point on the Earth's surface	double precision	12.3456789	Y	Y	
	longitude	A geographic coordinate that specifies the east-west position of a point on the Earth's surface	double precision	-123.456789	Y	Y	
	altitude	The actual elevation above mean sea level	double precision	-5.5	Y	Y	
	speed	Speed the user was traveling determined since last location capture and measured in meters per second.	float	5	Y	Y	
	location_accuracy	Determined using on-device location measured in meters	numeric	4.6	Y	N	While iOS does not tell us if the location is being mocked it can tell us if the device is "jail broken" which would be grounds for not accepting any content from a contributor.
	mocked	Determination of a device's location information is being falsified/compromised	boolean	FALSE	Y	Y	
	quality	Combined qualification rating for overall location information. Response options are "good", "not improving", "closed window", "failed", "no response", "null location", "improving" or "unknown"	character varying (1024)	good	Y	Y	
	name	Cellular network provider name	character varying (1024)	Verizon	Y	Y	
	device_id*	Unique identifier for the physical device on the cellular network	character varying (1024)	12345	Y	Y	
	subscriber_id*	Unique identifier for the subscriber to the cellular network provider	character varying (1024)	12345	Y	N	
	data_state	Point-to-point data state value from the CDMA mobile network provider. Values will be 0 - Stopped, 1 - Connecting or 2 - Connected.	integer	2	Y	N	
	line_1_number*	Phone number for the device as determined by the cellular provider	integer	1235551212	Y	N	
	base_station_id	Unique identifer for the primary celltower providing service to this device.	integer	46978	Y	Y	

Mobile Networks	system_id*	The System Identification Number is a 15 bit number (0-32,767) transmitted by base stations that identifies a wireless system that conforms to a TIA cellular or PCS standard. The SID is used by mobiles to recognize when they are in their home system (e.g. it controls the "roam" light). SID codes are assigned by the national telecom regulator, a designated organization or, failing that, by IFAST if the national authority is unwilling or unable to perform this task or if the operator wants a range directly from IFAST (e.g. a mobile satellite operator).	character varying (1024)		Y	Y	
	cid	A GSM Cell ID (CID) is a generally unique number used to identify each base transceiver station (BTS) or sector of a BTS within a location area code (LAC) if not within a GSM network.	character varying (1024)		Y	Y	
	lac	Location Area Code	character varying (1024)		Y	Y	
	latitude	A geographic coordinate that specifies the north-south position of a point on the Earth's surface. As determined by cell tower triangulation.	double precision	12.3456789	Y	Y	
	longitude	A geographic coordinate that specifies the east-west position of a point on the Earth's surface. As determined by cell tower triangulation.	double precision	-123.456789	Y	Y	
	mcc	Mobile Country Code	character varying (1024)		Y	Y	
	mnc	Mobile Network Code	character varying (1024)		Y	Y	
	network_asu_level	Arbitrary Strength Unit (ASU) is an integer value proportional to the received signal strength measured by the mobile phone.	integer	16	Y	N	
	network_id	The Network Identity Number is made up of 16 bits, with 0 and 65535 reserved. 0 is used to represent those base stations in a certain SID area not belonging to a specific NID area. 65535 is used to indicate that a mobile user can roam in the whole SID area.	integer	0	Y	Y	
	network_level	Maximum strength capacity for the network represented in integer value.	Integer	3	Y	N	
	network_type	Classification of the network type for the provider such as "GSM", "CDMA", "LTE", "WCDMA"	character varying (1024)	CDMA	Y	Y	
	pci	Physical Cell ID (PCI) is the Unique identifier for the physical device on an LTE network.	character varying (1024)		Y	Y	
	psc	In UMTS, the PSC is a kind of local cell identifier. It is "locally" unique in that all neighboring cell, as well as all neighbors of these cells, are guaranteed to have a different PSC than the current cell.	character varying (1024)		Y	Y	
	tac	The Type Allocation Code (TAC) is the initial eight-digit portion of the 15-digit IMEI and 16-digit IMEISV codes used to uniquely identify wireless devices.	character varying (1024)		Y	Y	
WiFi Access Points	bssid	The MAC address of the wireless access point (WAP) generated by combining the 24 bit Organization Unique Identifier (the manufacturer's identity) and the manufacturer's assigned 24-bit identifier for the radio chipset in the WAP	character varying (1024)	00:00:00:00:00:00	Y	Y	
	capabilities		character varying (1024)	[WPA2-PSK-CCMP][WPS][ESS]	Y	N	
	channel_width	WiFi channel width determining how broad the signal is for transferring data	integer	1	Y	N	
	display_name	WiFi host's custom defined display name	character varying (1024)	My Netgear Router	Y	N	
	frequency		integer	2462	Y	N	
	level		integer	-78	Y	N	
	ssid	The primary name associated with an 802.11 wireless local area network (WLAN) including home networks and public hotspots	character varying (1024)	Netgear3214	Y	Y	
Battery Status	is_charging	Identifies if the device was plugged in at the time of submission	boolean	FALSE	Y	Y	
	charger_type	Indicated the charger type value as AC, USB, Wireless, or None	character varying (1024)	USB	Y	N	
	level	Current charge level for the device (%)	integer	44	Y	Y	
	scale	Maximum charge potential for the device	integer	100	Y	Y	

Device Info	server_upload_time	Amplitude timestamp (UTC) of when our servers received the event.	timestamp w/o time zone	2015-08-10T12:00:00.000000	Y	Y	
	event_id	Unique ID for this data capture event from the OS.	character varying (1024)	1	Y	Y	
	session_id	The session start time in milliseconds since epoch (Holocene Epoch of the Quaternary Period).	bigint	1396381378123	Y	Y	
	event_type	The assigned type of event.	character varying (1024)	"Sentiment Survey"	Y	Y	
	amplitude_event_type	Specific identifiers based on events Amplitude generates. This is a legacy field so event_type should suffice for all queries.	character varying (1024)		Y	Y	
	first_event	True if the event is the first event for a given amplitude_id, otherwise none (null).	boolean	TRUE	Y	Y	
	version_name	The app version.	character varying (1024)	"1.0.0"	Y	Y	
	os_name	OS name.	character varying (1024)	"Android"	Y	Y	
	os_version	OS version.	character varying (1024)	"7.1.2"	Y	Y	
	device_brand	Device brand.	character varying (1024)	"Samsung"	Y	Y	
	device_manufacturer	Device manufacturer.	character varying (1024)	"Samsung"	Y	Y	
	device_model	The device model.	character varying (1024)	"Galaxy S6"	Y	Y	
	device_family	Device family	character varying (1024)	"Samsung Galaxy"	Y	Y	
	device_type	Device type	character varying (1024)	"Samsung Galaxy S6"	Y	Y	
	device_carrier	Device carrier	character varying (1024)	"Verizon"	Y	Y	
	country	Country	character varying (1024)	"United States"	Y	Y	
	language	Language	character varying (1024)	"English"	Y	Y	
	device_density	Screen density for the device	string		Y	Y	
	device_width	Screen width for the device	integer		Y	Y	
	device_height	Screen height for the device	integer		Y	Y	
	available_space_mb	Available storage space on the device measured in mb.	integer	150000	Y	Y	
	total_space_mb	Total storage space on the device measured in mb	integer	256000	Y	Y	
	available_space_percent	Percentage of available space to total space.	float	50%	Y	Y	
	revenue	Revenue generated by a revenue event	double precision	1.00	Y	Y	
	product_id	Product ID of a revenue event	character varying (1024)	"Task Submission"	Y	Y	
	quantity	Quantity of a revenue event.	integer	1	Y	Y	
	price	Price of a revenue event	double precision	1.00	Y	Y	
	location_lat	A geographic coordinate that specifies the north-south position of a point on the Earth's surface. As determined by the devices location services.	double precision	12.3456789	Y	Y	
	location_lng	A geographic coordinate that specifies the east-west position of a point on the Earth's surface. As determined by the devices location services.	double precision	-123.456789	Y	Y	
	location_mode	Indicates the enabled location mode level for the device with options of "High Accuracy", "Battery Saving" and "Device Only"	integer	High Accuracy	Y	N/A	
	mobile_data_enabled	Are cellular services enabled for the device	bool	Y	Y	Y	
	wifi_enabled	Are WiFi services enabled for the device	bool	Y	Y	Y	

	id	A deprecated column	bigint		Y	Y	
	uuid	A unique identifier per row (event sent).	character varying (2048)	bf0b9b2a-304d-11e6-934f-22000b56058f	Y	Y	
	app	Project ID	integer	12456	Y	Y	
	amplitude_id	An internal ID used to count unique users	bigint	1234567890	Y	Y	
	device_id*	The device specific identifier	character varying (1024)	C8F9E604-F01A-4BD9-95C6-8E5357DF265D	Y	Y	
	user_id	A readable ID specified by you	character varying (1024)	datamonster@gmail.com	Y	Y	
	advertising_id	Provides apps with access to an identifier that can be used only for serving advertisements, as well as a flag that indicates whether a user has limited ad tracking.	character varying (1024)	38400000-8cf0-11bd-b23e-10b96e40000d	Y	Y	
	event_time	Timestamp (UTC) which is the client_event_time adjusted by the difference between server_upload_time and client_upload_time, specifically: event_time = client_event_time + (server_upload_time - client_upload_time)	timestamp w/o time zone	2015-08-10T12:00:00.000000	Y	Y	
	network_time	Is the phone's time set by network "Y" or manually set "N"	boolean	Y	Y	N	
	client_event_time	Local timestamp (UTC) of when the device logged the event.	timestamp w/o time zone	2015-08-10T12:00:00.000000	Y	Y	
	client_upload_time	The local timestamp (UTC) of when the device uploaded the event.	timestamp w/o time zone	2015-08-10T12:00:00.000000	Y	Y	

	sim_card_state	Defined state of the SIM card on the device with options such as "Abesent", "Restricted", "Locked", Ready", etc.	integer	Ready	Y	Y	
	battery_saver_enabled	Is "Battery Saver Mode" enabled on the device.	bool	N	Y	Y	
	airplane_mode_enabled	Is "Airplane Mode" enabled on the device?	bool	N	Y	N	For iOS we can calculate best guess when bluetooth, wifi, and location services are turned off.
	developer_mode_enabled	Is the device currently placed into "Developer Mode"	bool	N	Y	N/A	
	device_rooted	Determines if the device has been rooted (Adnroid) or jail broken (iOS)	boolean	N	Y	Y	
	ip_address	IP address	character varying (1024)	"123.11.111.11"	Y	Y	
	event_properties	JSON string of event properties.	character varying (65535)	{"load_time": 0.8371, "cause": "button"}	Y	Y	
	user_properties	JSON string of user properties.	character varying (65535)	{"cohort": "Test A", "gender": "female"}	Y	Y	
	region	Region	character varying (1024)	"California"	Y	Y	
	city	City	character varying (1024)	"San Francisco"	Y	Y	
	dma	Designated marketing area (DMA)	character varying (1024)	"San Francisco-Oakland-San Jose, CA"	Y	Y	
	paying	True if the user has ever logged any revenue, otherwise none (null)	boolean	TRUE	Y	Y	
	platform	Platform	character varying (1024)	"iOS", "Android"	Y	Y	
	start_version	App version the user was first tracked on.	character varying (1024)	"1.0.0"	Y	Y	
	user_creation_time	Event_time (UTC) of the user's first event.	timestamp w/o time zone	2015-08-10T12:00:00.000000	Y	Y	
	library	Library being used to send the event data.	character varying (1024)	"amplitude-js/2.5.0", "http/1.0"	Y	Y	
	steps	Pedometer readout for defined time period	integer	115	Y	Y	
	permission_denied	User disabled permissions after initially granting	string	"YES"	Y	Y	Permissions granted is reported via background analytics. permissions denied is reported when user interactively denies a permission that we asked for via the popup dialog (foreground)
	e_type	Example custom event property 'type'. Any custom event property you have instrumented will be prefixed with "e_".	character varying (1024)		Y	Y	
	e_length	Example custom event property 'length'. Any custom user property you have instrumented will be prefixed with "e_".	character varying (1024)		Y	Y	
	u_age	Example custom user property 'age'. Any custom user property you have instrumented will be prefixed with "u_".	character varying (1024)		Y	Y	
	u_gender	Example custom user property 'gender'. Any custom user property you have instrumented will be prefixed with "u_".	character varying (1024)		Y	Y	

Annex II: Premise Task Descriptions

Task Type	Description	Example
Tier 1: Survey Tasks	Longer format surveys or questionnaires posed to contributors to capture a series of answers on related topics. These tasks can range from 5-15 questions and typically take less than 5 minutes to complete.	• Tell us about trust in the local police. • Tell us about your political participation. • Tell us about your preferred news sources. • Tell us about vandalism or graffiti in your neighborhood.
Tier 2: Discovery Observational Tasks – Predetermined Radius	Require contributors to provide direct observation (i.e., photos) or provide feedback on a particular topic, but contributors are given the freedom to select how to capture the observation or feedback. Self-Defined Observational Tasks may require a contributor to travel to a specific location, and typically take less than 10 minutes to complete.	• Report on media coverage of local crime and answer a few questions about your sentiments. • Report on housing that you see on the market, including houses, condos and apartments. • Report on banks, ATMs, or mobile money locations. Identify and answer questions about a financial access point that is a bank, ATM, or mobile money location.
Tier 3: Route-based Observational Tasks	Require contributors to go to a specific location such as a store, a public landmark or along a designated route to perform a task. Targeted Observational Tasks may require significant commitment from contributors such as travel, multiple photos or descriptive text submissions. Usually takes less than 15 minutes to complete.	• Report on the condition of buildings (e.g., vandalism) along a specific route in your city. Take multiple photos and answer several questions about the route being walked, driven, etc.
Tier 4: Route-based Observational Tasks with Additional Degrees of Difficulty	Require contributors to go to a specific location and perform a task over an increased time period, higher level of interaction, or increased distance, etc. These tasks take up to 30 minutes.	• Go to a new neighborhood, take photos of a specific intersection, and ask three other people how they feel about crime in the neighborhood. • Interview another person (direct interaction). • Go inside a location.