

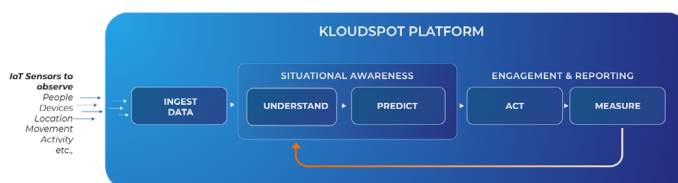
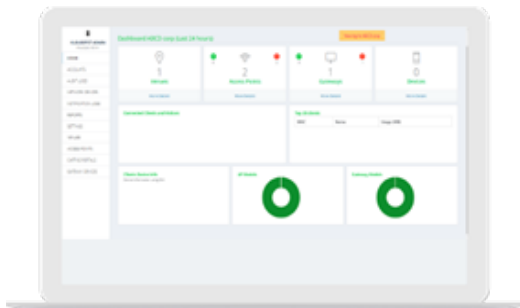
Cambium Networks and Kloudspot

Situation Awareness and Intelligence Platform for Navigating the Digital New Normal

The Digital New Normal has accelerated the use of technology to change the way we prioritize our health and safety, shifted our lifestyles, and even made where we work and study just another location. Having powerful real-time and predictive insights that can help navigate toward these new experiences is why we exist.

Founded in 2016, Kloudspot's advanced location analytics and situational awareness platform provides trusted insights and intelligence into the behavior of visitors, employees, and assets, and uses these insights to drive actions and unlock profitable business outcomes.

By converting physical movement and activity of people and devices into digital data streams, and through analysis, the platform obtains real-time situational awareness. Machine learning and artificial intelligence is used to predict future actions and needs. This insight allows businesses to design actions and responses to the situation.



Note: Kloudspot's data collection and aggregation is primarily focused on cluster information and not aimed at individual people tracking, thus providing adequate personal privacy to employees.

KEY FEATURES OF OUR SOLUTION

- Cloud-based, network-enabled, location-based services and analytics platform
- AI and Machine Learning-driven insights to identify, predict and take continuous action
- Purpose-built to enrich lifestyle, health/safety and workplace/education experiences
- Network agnostic with APIs to connect with standard business applications
- Open, rules-based engine enables customization and privacy control

HOW IT WORKS

At its core, the Kloudspot Platform converts physical movement and activity of people and devices into digital data streams. This stream is analyzed to obtain real-time understanding of the situation. Machine learning and artificial intelligence are used to predict future actions and needs. This insight allows organizations of all types to design actions and responses to the situation. The reaction is again measured for impact and used to refine system knowledge. Let's examine this a bit closer:

1. **Cognition and Data:** The Kloudspot Platform collects sensor data from connected sources including WiFi, BLE, environmental and cameras, to digitally gather information on the physical actions of people and devices, and convert them into contextual location intelligence.
2. **Situational Awareness:** Applying AI and ML intelligence, the data is analyzed to extract contextualized insights real-time about situation awareness within a perimeter space, triggering user defined actions in the physical realm. This digitally transforms experiences.
3. **Powerful Prediction Engine:** Real-time movement and historical data of people and devices predicts intent and goals via AI. Design data-driven campaigns for customer engagement and safety experiences.
4. **Engage Your Visitors, Empower Your Employees:** ML and AI-driven insights are used to predict intent and engage constituents in meaningful interactions.
5. **Measure Performance and Effectiveness:** The Kloudspot Platform is continuously learning, and collects ongoing feedback and results to improve location intelligence for future insights and predictions.

ENTERPRISE-GRADE CLOUD ARCHITECTURE

The Kloudspot Platform allows you to manage your access points, sensors, digital displays and other devices remotely from anywhere in the world. It can be envisioned as a three layer architecture. The powerful functions in the platform support a range of specialized services that can be used to build transformational solutions for various industries and organizations.

It is designed to support and be deployed on all brands of existing networks and all forms of hybrid WiFi networks. Kloudspot provides enterprise grade reliability, scalability and extensibility for your WiFi network.

The Platform can be integrated with your existing WiFi solution to make it AI-driven, freeing you from costly hardware upgrades. Kloudspot's foundation is based on software defined wireless networks. Through machine learning and artificial intelligence, Kloudspot ensures network assurance through real-time optimization of connectivity, data transfer rates and network security.

SERVICE FEATURES AND BENEFITS

Kloudspot also makes available a wide-range of multi-faceted services. These give you the flexibility to use a variety of capabilities and features based on your organizational needs. Services include:

- ✦ **KloudInsight:** The data analytics processing service central to Kloudspot. A high-speed, scalable engine powered by advanced machine learning and artificial intelligence technologies. It delivers:
 - Situational Awareness - multi-dimensional perception, location insights, predictions and suitable actions for making an organizational impact
 - Movement Analytics - analysis of real-time digital streams with complex spatial data sets, with special focus on time stamped geo location data
 - Workplace/Venue Insights - for optimizing space and infrastructure, understanding employee, staff and customer movement, observe attendance, room and parking usage, observing health and safety requirements, and more
- ✦ **KloudDisplay:** AI-enabled digital display system that delivers personalized experiences and relevant multimedia content to programmatic displays. Comes with extensive API integrations and content support for providing digital messaging or advertising effectively target the right audience:
 - Display up-to-date information from varied sources on digital screens to quickly bring your ideas and messages to life!
 - Organizational leaders can use narrowcasting to easily share context-aware, dynamic digital content, including interactive dashboards, across to their teams

- Can display optimized real-time ads - based on detected target audience - to generate revenue or influence activity

- ✦ **KloudVision:** Video data and camera analytics capabilities that securely process video feeds using edge devices:
 - Uses artificial intelligence to classify and contextualize video data
 - Extracts deep contextual information from video from virtually any connected camera
 - Creates enhanced data mashups to enable real-world engagements that measure demographics, social distancing, mask and PPE compliance, space density, and more
- ✦ **KloudPortal:** Quick and easy design, creation and publishing of customizable guest portals. Analyze the received data, and act according to the information and insights obtained:
 - Customize and publish WiFi-based captive guest portals for authenticating your audiences
 - Capture and analyze the data generated by people and devices on the portals
 - Use portal data insights to deliver compelling digital experiences and safety measures to employees, customers and visitors
- ✦ **KloudCampaign:** Create and execute engaging campaigns via captive guest portals, using the power of machine learning and artificial intelligence. Anticipate customer needs and push targeted content:
 - Guides you to build and configure the key content components for targeted campaigns based on captive audiences
 - Run your campaign on the demographics, location analytics, behavior history, zones, and particular mobile devices you are targeting
 - Store, edit, run, manage multiple campaigns as needed for your marketing objectives
- ✦ **KloudBots:** Kloudspot is also releasing a series of bots or autonomous programs that integrate with and fuel today's most popular business productivity tools, starting with KloudBot for Microsoft Teams:
 - These AI-powered KloudBots automate often-used tasks that include delivering real-time resource track and trace capabilities and analytics on the movements of people and devices from within the active productivity tools. Other key features include access to real-time heatmaps, footfall analysis, traffic movement in the office environment, status of access points and sensors, and live video feeds.



SELECTED USE CASES

Social Distancing - Real-time notification of compliance to social distancing requirements



Contact Tracing - Visualization of historical data to identify people who may have had contact with infected individuals



Kloudspot for Workspaces - Real-time spatial analytics for workspace optimization.



Movement Analytics and Customer Segmentation



Footfall and Queue Length Monitoring - Notifications on footfall and queue lengths in cafeteria, washrooms for better employee experience and cleanliness.



See more uses for Kloudspot:

- [Health and Safety](#)
- [Lifestyle Experiences](#)
- [Workspace and Education](#)

ABOUT KLOUDSPOT

Since 2016, Kloudspot's Situational Awareness and Analytics Platform has enabled the creation of intelligence systems and engagement systems using Wi-Fi and sensor networks. Organizations can leverage actionable insights to deliver compelling digital experiences and safety measures for their employees and customers. Kloudspot partners develop solutions that enhance three experiences for customers – health and safety, lifestyle, and workspace and education experiences. Email contact@kloudspot.com.

SUMMARY

Cambium Networks offers reliable high-speed infrastructure. Contact your local Distributor/Reseller to learn how Cambium Networks together with Kloudspot provides a solution that enhances the safety, lifestyle, work and education experiences for end users.

To learn more about Cambium Networks Enterprise Wi-Fi and Switching solutions, please visit:

www.cambiumnetworks.com/wifi/