

# Phunware Awarded Patent for Indoor/Outdoor Mobile Device Location Monitoring

## Technology Enables Optimized Real-Time Proximity-Based Mobile User Engagement

AUSTIN, Texas, Jan. 10, 2019 (GLOBE NEWSWIRE) -- Today Phunware (NASDAQ: PHUN), a leading enterprise cloud platform for mobile which provides software, solutions, data and services for brands worldwide, announced that it has been granted U.S. Patent No. 10,038,972, *Monitoring Outdoor and Indoor Regions with Mobile Devices*. This patent adds to Phunware's growing IP portfolio of 13 patents and 6 patents-pending.

The ability to engage mobile users based on their ever-changing real-time location is a core capability of Phunware's Multiscreen-as-a-Service (MaaS) platform. In daily life, mobile users constantly move between indoor and outdoor locations. Seamlessly detecting and managing location transition to enable personalized experiences based on a user's surroundings is critical for brands wanting to have proximity-based interactions with their audiences, as well as organizations that offer a combination of indoor wayfinding plus mobile messaging and engagement, such as hospital systems, residential and corporate campuses, entertainment venues, airports, retail locations and others.

Managing this using the tools from the underlying mobile operating system directly can make it very difficult to achieve a high degree of accuracy while, at the same time, balancing that with battery performance, which is why Phunware invested the research and development required to optimize this process.

Mobile operating systems allow devices to monitor location-based information associated with outdoor as well as indoor regions, but the operating system may limit the number of resources utilized to do so. As such, it is beneficial for an application operating on a mobile device to preferentially allocate that device's monitoring resources based on user location in order to ensure accuracy and to provide the most personalized and valuable experience for users.

The Phunware system and method for leveraging location-based regions and location updates from the underlying operating system is architected to efficiently minimize device resource usage, while still preserving the ability to detect if a device is inside or outside any given number of location regions.

"High quality, accurate experiences are key to success in mobile and digital transformation for brands," said Phunware's EVP of Product and Engineering, Matt Lindenberger. "Our software enables companies to take advantage of location-based information to bring those experiences to life, and the award of this patent is validation of the uniqueness of our value

proposition for our customers."

## About Phunware

Phunware is the pioneer of Multiscreen as a Service (MaaS), a fully integrated enterprise software platform for mobile that provides companies the products, solutions and data and services necessary to engage, manage and monetize their mobile application audiences globally at scale that allows brands to engage, manage and monetize their anytime, anywhere mobile application users worldwide. Phunware helps the world's most respected brands create category-defining mobile experiences, with more than one billion active devices touching its platform each month. For more information about how Phunware is transforming the way consumers and brands interact with mobile in the virtual and physical worlds, visit [www.phunware.com](http://www.phunware.com) and follow @phunware on all social media platforms.

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Source: Phunware, Inc.