

## A Breakthrough in RFID Industrial Parking Management

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Vizbee, an end-to-end RFID solution, has revolutionized parking management by creating an airtight system combining passive RFID tags and intelligent RFID handheld readers, dramatically improving car retrieval time results.

The Vizbee Industrial Parking Management System (VIPMS) is a patent-pending solution that has been successfully tested in - 2010 by several car manufacturers and rental companies. VIPMS is based on RFID handheld readers utilizing sophisticated embedded software programs to synchronize in real-time with a central server, diminishing the potential human errors to nil.



### System components

Three elements are involved in Vizbee's new system – a passive RFID tag or barcode on each vehicle, functioning as the Vehicle Identification Number (VIN); a rugged UHF RFID tag or unique barcode installed on the ground by each parking spot representing the Parking Place Identification Number (PPIN); and handheld RFID readers used by parking valets, or jockeys.

### How it works

The jockey scans the VIN of the car he is parking or retrieving using his handheld reader, and then scan the corresponding PPIN, thus linking between the two. That data is stored on the handheld reader and then uploaded to the VIPMS - via GPRS, Wi-Fi or Bluetooth, depending on the handheld reader - making the exact location of every vehicle immediately accessible. Once a car is moved, the system will automatically register its space as vacant. Having the handheld passive RFID readers synchronized with the VIPMS turns them into intelligent, programmable devices that deliver real-time functions and features.

### Amazing results

In pilot test-runs conducted by Vizbee the average time it took to locate and retrieve a car in a lot of 6000 vehicles using VIPMS was below seven minutes, compared to 20-30 minutes other methods take.

"The existing localization systems are far from being cost-effective, require heavy infrastructure and have not proven accurate or even close to the individual cell level", said Vizbee CEO Abraham Blonder. "Our system, which entails lower operation costs and smaller staff, is what car manufacturers, dealers, ports, rental companies and other facilities with large vehicle lots need to attain swift ROI."

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## Other Advantages

Besides the system being able to pinpoint the car that needs to be moved, VIPMS has been developed to ensure the jockeys' collaboration. So long that the jockey hasn't scanned both the VIN and the PPIN, the system assumes he is still busy parking the car. An alert to the supervisor is automatically sent if it takes more than a predefined maximum time period.. "This way, we can also rule out human error as well as enforce the personnel's cooperation," Blonder added.



Another advantage to the system is providing safety and security. Since every car has a passive RFID tag on it, it is possible to coordinate the entrances and exits to the VIPMS, so that the vehicle wouldn't be able to drive away.

Up to this point, cars were parked in groups according to their model, color and so forth, to ease the process of locating them. This led to parking cars in remote areas, while much closer parking places remained vacant, and only partial utilization of the parking area.

With VIPMS allowing cell level location accuracy, cars from different manufacturers, models and colors can be parked in the same areas. VIPMS will automatically indicate to the jockey the closest vacant parking place, thereby significantly reducing the average parking time per car, as well as reducing the total parking area necessary for one thousand cars to only one thousand parking spots.

## Summary

Through the novel combination of existent RFID technologies with sophisticated yet user-friendly software, Vizbee has succeeded in creating an exciting product, one that ensures the full utilization of the two most valuable assets in large parking lots – the space, that will no longer go to waste in the form of empty spots; and the time the jockeys spend on locating and moving the cars, with their next mission ready the moment their previous task is completed.

Read more about our ground-breaking Parking Management solution and our other flexible RFID Applications that can be implemented in days risk-free.