



Introduction to Smart Parking

Smart parking solutions are taking hold in cities across the US, with the nascent industry expected to reach worldwide revenue of \$356.5 million annually by 2020, according to a study from Navigant Research.

These systems hold great promise with their ability to improve quality of life by reducing parking congestion and increasing turnover for merchants, delivering more revenue for municipalities, mitigating air pollution, and using analytics to provide pricing and policy data.

With the deployment of Internet of Things (IoT) and machine-to-machine (M2M) devices such as sensors and monitors, parking data can be sent over cellular networks in cities so information is delivered reliably and in real-time. Applications are being developed to enable data management and leverage analytics for new uses. With new smart parking applications, drivers can receive information to find empty parking spaces, workers can manage parking facilities, and collections can be enhanced, to name a few new uses.

To take advantage of this burgeoning market, smart parking solution providers need to select IoT / M2M communications services with the experience to ensure successful deployments. These features, however, can be difficult to achieve.

FAST TIME TO MARKET

All IoT / M2M devices must be certified for use on a cellular network. This certification ensures that the device and application will not harm the carrier's network and will function at a basic level. This can be a long, painful process with many carriers because they are generally set up for consumer handsets, not IoT / M2M devices. Mobile Network Virtual Operators (MNVOs) and large network carriers can take months to certify devices.

OPERATIONAL SERVICE

Accustomed to the needs of the consumer handset market, typical mobile operators may not have processes and tools optimized for servicing IoT / M2M deployments, where issues can be a complex mix of network, application, and device interplay.

This problem is exacerbated by the inability of remote sensors to communicate key debugging information, thereby placing tremendous importance on the underlying tools and technology to provide critical and timely information to quickly fix problems. The result of substandard support can be devastating for IoT / M2M deployments, resulting in increased downtime, reduced operational efficiency, and lost revenue.

COSTS

The cost of a smart parking system deployment can vary widely and mean the difference between success and failure. For example, carriers can charge tens of thousands of dollars in certification fees. They can also levy overage fees, some of which lead to excessive charges, or carriers can charge extra for mid-cycle rate plan changes, special services, or unauthorized use.

RELIABLE NETWORKS

Solution providers need to be able to count on cellular networks for always-on service. This is important for mission-critical applications like parking expiration times or to pinpoint open spaces. Traditional carriers may only optimize their cellular coverage based on their cost of delivery, and they always prefer to leverage their own towers in their markets, even if the coverage they provide is weak or intermittent.

MVNOs do not own or operate their own core network. Since MVNOs provide service using somebody else's network, they do not own any elements of the network infrastructure.



Thus, the networks, the systems, the connectivity, the numbers in the cellular devices, etc., are generally owned and operated by the underlying carrier. Therefore, MVNOs cannot create the custom solutions that IoT / M2M customers need, nor can they provide detailed reports on devices.

THE AERIS SOLUTION

Aeris ensures that smart parking providers receive the best results in each of these areas. We operate the only cellular network designed and built exclusively for machines, and our focus is on delivering what IoT / M2M customers need most.

We do nothing but machine applications, and our device certification process is designed for machines. Aeris offers the quickest time to market. We commit to a 10-day turnaround on device certifications. In addition to basic tests of functionality and safety, we provide suggestions for improvements that will reduce your data-usage costs and enhance performance.

For operational service, Aeris Infinity Support is unmatched. Offered in three packages, Infinity Support includes five-minute response time, five days a week, with proactive monitoring and issue identification. Staffed by IoT / M2M experts and powered by Aeris' proprietary technology stack, Infinity Support sets a new standard in the industry.

Through our flexible pricing and rating plans, Aeris ensures you are not hit with unexpected costs. [Click here for a report on Aeris' lowest Total Cost of Ownership.](#)

Aeris owns and operates the largest North American cellular network built from the ground up exclusively for machines and is expanding globally. To ensure network reliability, we do not support any consumer traffic or handsets. Our solutions include both the network services and the tools necessary for the most demanding and mission-critical IoT / M2M communications.

“The result of substandard support can be devastating for M2M deployments, resulting in increased downtime, reduced operational efficiency, and lost revenue.”

Because Aeris operates the underlying network infrastructure, we are able to make rapid modifications to meet customers' changing requirements. Aeris is, in fact, carrier-agnostic. If our network does not reach a spot and another carrier does, we provide the strongest signal from the nearest tower for you, with no interruption in service.

AERIS	TRADITIONAL CARRIERS
COMPLETE SOLUTION	
Aeris has a complete stack of solutions including CDMA and GSM for 2G, 3G, and 4G connectivity, plus a management platform and an application development platform. Our platforms are prepared for the most complex solutions and unlimited scalability.	Traditional carriers may have cobbled together their technology through acquisition or by converting consumer solutions for machine-to-machine programs.
TIME TO MARKET	
Aeris offers the fastest program development times. We do nothing but machine applications, and we commit to a 10-day turnaround on device certifications.	Large network carriers can take months to certify devices on a network.
COST	
Aeris offers the lowest total cost of ownership (TCO) with no hidden or unexpected fees. We don't charge for many of the services that other carriers do. Click here for a report about the Aeris TCO difference.	Traditional cellular carriers can charge tens of thousands of dollars in certification fees, overage fees, mid-cycle rate plan changes, special service fees, and unauthorized use fees.
CONNECTIVITY	
Aeris ensures network reliability with the largest North American cellular network exclusively for machines. Aeris is carrier-agnostic. If our network does not reach a spot and another carrier does, we provide the strongest signal from the nearest tower, with no interruption in service.	Traditional carriers optimize their cellular coverage based on their cost of delivery, and they always prefer to use their own network, even if the coverage they provide is weak or intermittent.
SUPPORT	
Aeris Infinity Support includes five-minute response times, five days a week, with proactive monitoring and issue identification. Staffed by IoT / M2M experts and powered by Aeris' proprietary technology stack, Infinity Support sets a new standard in the industry.	Traditional carriers and MVNOs are notorious for their poor support of IoT / M2M programs. Why? Because these companies were created for consumer devices, not IoT / M2M programs.
M2M EXPERTISE	
Aeris operates the only cellular network designed and built exclusively for machines, and our focus is on delivering the best results for IoT / M2M solution providers.	Accustomed to the needs of the consumer handset market, typical mobile operators may not have processes and tools optimized for servicing IoT / M2M deployments.

ABOUT AERIS

Aeris is a pioneer and leader in the market of the Internet of Things – as an operator of end-to-end IoT and M2M services and as a technology provider enabling other operators to build profitable IoT businesses. Among our customers are the most demanding users of IoT services today, including Hyundai, Acura, Rand McNally, Leica, and Sprint. Through our technology platform and dedicated IoT and M2M services, we strive to fundamentally improve their businesses – by dramatically reducing costs, improving operational efficiency, reducing time-to-market, and enabling new revenue streams.

Visit www.aeris.com or follow us on Twitter @AerisM2M to learn how we can inspire you to create new business models and to participate in the revolution of the Internet of Things.

Get in touch



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