WIND RIVER AND PARKEON PARTNER TO MAKE THE "SMART CITY" A REALITY

A Global Leader in On-Street Parking Payment Solutions Selects
Wind River Professional Services to Integrate Intelligent Street Kiosks

PARKEON

Industry
Urban mobility and payment solutions

Solutions Used
- Wind River Professional Services

Benefits
- Accelerates time-to-market by 6–12 months
- Reduces development costs compared to in-house development
- Ensures a stable, proven solution at launch
- Lays the foundation for a "Smart City" development ecosystem, delivering multiple services from third-party providers via Parkeon's smart kiosks in cities worldwide

Over the last 40 years, Parkeon has become a global leader in urban mobility technology, building on its core expertise in parking payment solutions—multi-space parking meters, mobile phone payment, ticket vending machines, fare collection devices, and fare validation. Today, the French company has an installed base of some 200,000 meters in 3,500 cities and 55 countries.

But that's only the beginning.

"Our vision is to empower our devices to be the new channel for a wide range of city services, not just ticketing machines for parking spaces," explains Marc Boulanger, Parkeon's StreetSmart program director within the company's Smart City business unit. "The idea is to create a developer ecosystem, a kind of 'app store' for meters. We want to create multiservice kiosks that are fully integrated in the Smart City ecosystem and have partners build and deliver additional services through our devices. We want to provide a platform that enables cities to add new services to our meters—like bicycle rentals, for example. Anything that makes life easier and more convenient for end users."

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THE CHALLENGE
Connecting Thousands of Smart Terminals with Back-Office Systems

As a starting point toward realizing this vision, Parkeon is developing its next-generation StreetSmart terminal. A major challenge, however, is connecting and integrating the new terminals with the company's back-office business systems. "Our devices have been connected through our own network for a long time," M. Boulanger notes. "But we have seen the trend toward the Internet of Things. When we started to think about the architecture we needed in order to create the open platform we envision, we knew we needed a much stronger and more robust connectivity solution than we could build ourselves." Parkeon consulted with a few solution providers. Wind River® had already done some development work with the company and was involved with embedded applications in earlier versions of the company's meters. It became clear in discussions that Wind River had the technology and services for delivering an optimal solution for managing deployed meters and was equipped to co-design and help integrate the connectivity part of the solution.

"We have a good relationship with Wind River from our past engagement," M. Boulanger says. "We were confident that Wind River Professional Services could help deliver the end-to-end solution that we needed. It was a matter of risk reduction—Wind River has a proven record of successful solutions for connecting devices to back offices. We decided to go with Wind River and build a real partnership, because we have a common vision for what we want to create.

"We saw difficulty in integrating the other vendors' solutions with our back office architecture," M. Boulanger points out. "That's another reason we chose the Wind River solution. It was much easier to integrate."

THE APPROACH
Expert IoT System Integration Services

Wind River Professional Services works with organizations worldwide to scope solution requirements and co-create designs that enable them to accelerate time-to-market, reduce total cost of ownership (TCO), and optimize performance over the life of the system. The Wind River team has gained unique insights from working on IoT solutions with a variety of clients globally, which increases the likelihood of solution success from both a business and a technical perspective. The group is also fully conversant in security requirements and measures that can be brought to bear across every aspect of an end-to-end IoT system. The security issue was of particular concern to Parkeon. "If we're putting software developed by third parties into our devices, and we're handling sensitive banking transactions or personal data, it's critical to have a good grasp on security," M. Boulanger observes. "It was one of the more critical items of our discussion with Wind River, and it was another advantage of choosing a proven vendor with proven solutions for security, rather than doing it ourselves in-house."

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THE RESULT
Faster Time-to-Market, Lower Development Costs

Parkeon had the confidence that Wind River could deliver a solution in less time, at a lower cost, and with less project risk than developing in-house. "Before selecting Wind River, we estimated the work involved to develop a solution with our own developer pool," M. Boulanger recalls. "We figure we have saved six months to a year in

time-to-market. And in the end, we have a better solution than we could have built ourselves."

Working with Wind River has proven more cost-effective in the development phase as well, M. Boulanger says. "We definitely believe we're saving on development costs. We're spending less money to integrate the Wind River solution than trying to achieve the same results on our own."

As for the longer-term Smart City strategy, M. Boulanger sees a role for Wind River to help make it a reality. "We won't stop at connecting the devices to our architecture," he says. "We've already had discussions with Wind River about our ecosystem concept, and we expect that Wind River will help us develop that capability over the next couple of years. We definitely want to create a partnership with Wind River and show our clients, the cities, that we are building the platform that will enable them to bring new services to their end users."