Smart Bikes & Unmatched Digital Experience

Build the Future of e-Mobility

Industry Snapshot

For e-bike OEMs, the next wave of competitive advantage is shifting from mechanical innovation to delivering a superior rider experience, strengthening brand loyalty, and unlocking recurring revenue through digital services.

Yet, many still limit IoT capabilities to basic GPS tracking or theft prevention. While important, these features only scratch the surface of what's truly possible. Without deeper connectivity – such

as real-time diagnostics, over-the-air updates, predictive maintenance, and personalized ride analytics – OEMs risk offering a static product in a market that's rapidly becoming dynamic.

The result? Lost opportunities to delight customers post-sale, reduced brand differentiation, and vulnerability to competitors who embrace full-stack digital transformation.

The Challenge

- High customer expectations for connected features
- Pressure to provide seamless digital experience across devices
- Need to remain flexible with no vendor lock-in
- Scaling fast, while maintaining security and service quality

AVSystem delivers more than just connectivity

LwM2M Protocol
Designed for battery-powered devices, supports secure telemetry, firmware updates, and analytics
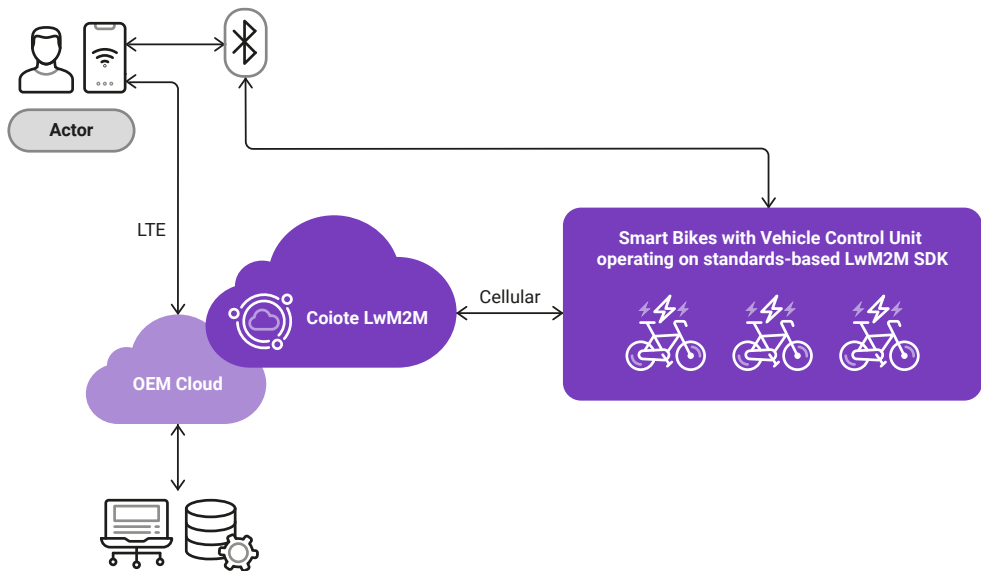
Anjay IoT SDK
Lightweight, standards-based client that simplifies integration into multiple bike lines

Coiote IoT Device Management Platform
Role-based access, sub-tenancy for resellers/distributors, and fleet grouping across regions

Architecture Visualization

Actor

LTE

OEM Cloud

Coiote LwM2M

Cellular

Smart Bikes with Vehicle Control Unit operating on standards-based LwM2M SDK

Why it works for OEMs:

- **Enhanced Rider Experience** – Real-time diagnostics, ride analytics, anti-theft features, and app integrations

- **Total Control, Zero Lock-In** – LwM2M offers standardization with flexibility across hardware and cloud partners

- **Lower TCO** – Efficient data handling and remote firmware updates reduce long-term service costs

- **Fleet Visibility & Flexibility** – Easily manage thousands of devices, distributors, and services from a single pane of glass

- **Speed to Innovation** – Quickly deploy new digital features to delight customers

Stand out in a saturated market. AVSystem helps you bring smart bikes to life – with full reliability and the digital layer today's and tomorrow's riders expect.

Wondering how this could help your business?

Contact us at sales@avsystem.com

AVSystem

We are a trusted and reliable partner for IoT deployments, offering comprehensive solutions for building and managing IoT devices.

Our products enable seamless device management, ensuring scalability, interoperability, and security for successful IoT projects.
With a proven track record and global presence, we provide expertise in device management and long-term support, making us the ideal choice for reliable IoT project partnerships.

Contact us

avsystem.com