Empowering XPENG's Connected Car Journey Across APAC with Seamless IoT Solutions

In today's hyperconnected world, employees, clients, and critical activities rely on uninterrupted mobile connectivity. The surge in network traffic from business-critical applications, such as infrastructure monitoring, emergency response systems, and productivity tools, significantly strains traditional networks. If left not addressed, this could lead to potential disruptions in business operations.

About XPENG

Guangzhou Xiaopeng Motors Technology Co., Ltd. (XPENG) is a leader in electric vehicle innovation, harnessing AI technologies to redefine connected mobility. Established in China, XPENG is rapidly expanding to Europe, the Middle East, and the Asia Pacific, leveraging its advanced connected vehicle platforms to deliver seamless in-car experiences.

XPENG's vehicles are equipped with cutting-edge telematics and infotainment systems that require robust IoT connectivity to function effectively across diverse geographies. XPENG's entry into these markets signifies its dedication to sustainable transportation and delivering innovative consumer solutions.

Business needs

XPENG's rapid expansion into the Asia Pacific presented unique challenges. Unlike the more homogeneous markets like the US or EU, APAC is highly fragmented, with diverse regulatory frameworks, numerous mobile network operators (MNOs), and varied infrastructure capabilities. These complexities posed significant hurdles in ensuring consistent and secure IoT connectivity for its connected cars.

As a manufacturer of intelligent electric vehicles (EVs), XPENG requires a robust connectivity solution to enable seamless vehicle functionality across multiple geographies.
Regional operations often involve navigating:

- Complex negotiations with various MNOs.
- Disparate SIM management platforms.
- Rising costs and inefficiencies due to roaming charges and fragmented supply chains.

In addition, XPENG faced operational challenges, such as:

- Managing multiple SIM profiles for each target country, leading to logistical inefficiencies.
- Ensuring compliance with strict and varied data localisation and roaming regulations across APAC.
- Securing IoT connections while maintaining performance and reliability across regions.

XPENG's vision required an innovative IoT solution to streamline regional operations and support scalable growth. The company sought a partner capable of harmonising the fragmented connectivity landscape and enabling seamless integration for its connected vehicles.

Key challenges:

Regional complexity
Multiple contracts, diverse operational processes, and varying compliance hurdles.

Roaming inefficiencies
Unsustainable costs coupled with inconsistent performance.

Platform fragmentation
Incompatible MNO platforms necessitating additional integration efforts.

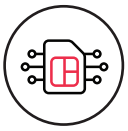
Singtel's solution

To address these challenges, Singtel implemented its Multi-Domestic Connectivity, a comprehensive IoT connectivity solution tailored to XPENG's operational needs. This solution redefined how XPENG managed IoT connectivity for its connected vehicle deployments across APAC.

By leveraging Singtel's and Bridge Alliance's extensive regional networks, Singtel provided a unified, scalable IoT connectivity platform. This approach replaced traditional roaming solutions with localised connectivity enabled by eSIM technology, helping XPENG overcome operational inefficiencies and regulatory barriers.

Singtel centralised XPENG's connectivity management into a seamless platform that aligns with the automaker's technological and commercial objectives. This solution allowed XPENG to focus on its core priorities—advancing vehicle innovation and enhancing customer experiences—while Singtel managed the complexities of multi-country IoT connectivity operations.

With this partnership, XPENG can accelerate its expansion across APAC, ensuring its connected vehicles deliver reliable performance and a consistent user experience in diverse markets.

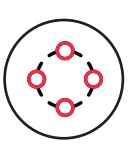


Unified eSIM integration
Leverage a unified eSIM that dynamically connects to local networks in target countries, simplifying connectivity and eliminating roaming complexities.

Centralised management platform
Access a single-pane dashboard for SIM lifecycle management, traffic monitoring, and IoT service optimisation.

Enhanced security framework
Ensure secure communication between connected vehicles and the cloud with end-to-end encryption via private APNs and IPSEC/MPLS VPNs.

Localisation & regulatory compliance
Achieve seamless integration with local MNOs to ensure full compliance with country-specific regulatory requirements.



Bridge Alliance collaboration
Singtel partners with tier-1 MNOs to optimise local operator relationships and support localisation.

Business outcomes

The partnership between XPENG and Singtel has significantly improved operational efficiencies and laid a robust foundation for business growth. Singtel's Multi-Domestic Connectivity solution provided strategic advantages, enabling XPENG to accelerate its vision while focusing on its core strengths—advancing vehicle technology and scaling its presence in new markets.

Simplified operations and harmonisation

Singtel's solution eliminated the complexity of managing multiple MNO relationships, contracts and fragmented platforms across different regions.

- Centralised connectivity management via a single-pane dashboard streamlined operations, reducing administrative overheads.
- A unified SIM SKU simplified logistics, inventory management, and distribution.
- A single point of contact for all connectivity-related issues ensured efficient troubleshooting and support.

Cost efficiency and business growth

By replacing traditional roaming with localised connectivity, XPENG achieved substantial cost savings while maintaining high performance.

- Elimination of roaming charges, a key cost driver for multi-region IoT deployments, contributed to significant savings.
- Reduced integration and platform management costs with a harmonised solution.
- Lowered subscription management costs by standardisation of eUICC-compliant SIMs for connected vehicles.

Enhanced security and compliance

XPENG vehicles benefited from comprehensive security measures that safeguarded data and ensured compliance with diverse regulatory requirements.

- Secure communication between vehicles and the cloud via private APNs and VPNs ensured data integrity.
- Simplified regulatory compliance through partnerships with tier-1 MNOs in each market.
- Strengthened device security, fostering customer trust and safeguarding sensitive data.

Looking towards the future

With Singtel's solutions enabling localised connectivity, XPENG is now exploring expansion into markets like Indonesia and Thailand. These efforts align with XPENG's vision of advancing smart mobility and tapping into the growing demand for EVs across the APAC region.

"Singapore is an important market for EV companies with its vibrant innovation atmosphere, a tech-savvy consumer base, and favourable government policies towards sustainable transportation," remarked **Mr. James Wu, Vice President of Finance & Overseas Strategic Support Office at XPENG Motors.**

For more information Contact us https://www.singtel.com/business/iot

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