

South Africa's Third-Largest City Ekurhuleni Secures Electric Power Campus Network with Huawei Wi-Fi Shield Technology

Category: Business

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Gauteng, South Africa

The City of Ekurhuleni (COE), located in Gauteng Province, South Africa, is widely recognized as one of the country's most urbanized (97%) and industrially developed core economic zones.

COE is accelerating its digital transformation, Electric power reliability is a key driver of vitality in COE. The original network equipment on COE's electric power campuses was outdated, with many devices still operating on Wi-Fi 5 standards. The resulting weak signal strength and limited coverage significantly impacted staff productivity and overall network experience. The legacy wireless campus network, With a large number of wireless network devices in operation, device-by-device manual fault troubleshooting proved time-consuming and significantly increased operational costs. Data security was also a critical concern. Due to outdated and insufficiently secured network infrastructure, senior officials in COE's electric power department remain deeply concerned about potential data breaches.

Faced with these three major challenges, Leveraging Huawei's Xinghe Intelligent High-Quality 10 Gbps Campus Network Solution, COE's electric power campuses network was centered around three core objectives.

Lightning-Fast Wi-Fi 7 Access Boosts Office Efficiency: Improving wireless office efficiency was a key priority for COE. To achieve this, it adopted Huawei Wi-Fi 7 technology for high-speed wireless access and ubiquitous network coverage—laying a solid foundation for future [business](#) growth.

Wi-Fi Shield Secures Electric Power Campus Network: wireless signals are vulnerable to eavesdropping. Huawei has pioneered an innovative Wi-Fi Shield technology. The AP precisely detects the physical location of the target user. When transmitting packet data, it simultaneously emits a randomized noise signal.

Outside of the target location, however, the noise signal persists, they are unable to extract valid packet data.

In line with specific application requirements, COE's electric power department has established Wi-Fi Shield protection zones at outdoor toll stations and office areas within the campus, effectively preventing data eavesdropping and unauthorized data storage.

The Digital Map Enhances O&M Efficiency with Full Visibility and Smart Management: Optimizing O&M was another key priority for COE. To that end, COE deployed Huawei's campus network

digital map, a platform that enables centralized device management, network visualization, and unified O&M-enhancing management efficiency while significantly reducing operational costs.

The construction of COE's high-quality 10 Gbps electric power campus network has set a benchmark for advanced infrastructure in government network rollouts. This achievement is expected to spark a wave of innovation in campus network development across the region.

