TENCENT and SIRADEL partner to plan and optimize LoRa network in Shenzhen

Tencent, leading provider of Internet value-added services, and Siradel, provider of advanced wireless network design and smart city planning tools, partner to design the new LoRa network in key areas of Shenzhen City.

Tencent, who joined LoRa Alliance last summer, started the deployment of its first LoRa network for IoT in Shenzhen. Tencent and Siradel, also member of LoRa Alliance and provider of unique LoRa network design solutions, collaborate to design an optimal network in Shenzhen.

As part of the network design, Siradel carried out a study aiming to evaluate and optimize the existing IoT network based on LoRaWAN technology.

SIRADEL's S_IoT tool, relying on the company's leading 3D ray-tracing propagation model, Volcano, and advanced 3D visualization capabilities, was used to assess the current outdoor and indoor coverage and to simulate the future coverage after integration of additional gateways.

Capable of estimating a large number of dedicated IoT metrics such as the impact of the gateway geographical distribution, S_IoT also considers geolocation accuracy as a dimensioning indicator enabling use cases with mobile equipment.

Considering both outdoor and indoor configurations, the study allowed to determine precisely the location and number of gateways needed to achieve effective coverage targets for each scenario and for a wide range of applications including smart parking, smart metering or smart building.

At present, Tencent has constructed China's largest LoRa network in Shenzhen. The simulation results of S_IoT tool show that the existing LoRa network has achieved continuous coverage of Shenzhen key areas and deep indoor coverage in some areas. Taking Nanshan District of Shenzhen as an example, the proportion of outdoor uplink SF≤10 is more than 99%.

Now that the first stage of the network deployment in a smart community of Nanshan District has been completed, based on the study report of S_IoT tool, Tencent is planning to optimize the entire network using SIRADEL's S_IoT tool to facilitate, speed up and reduce overall cost of the entire project and to improve the network coverage performance and user experience.

 "Siradel assists operators, worldwide, in the design and optimization of their IoT network, with turn-key, time and cost saving planning solutions. We are excited to collaborate with Tencent on the deployment of their first LoRa network." says Vincent Weis, Technical Account Management Director at Siradel.

"The results of these first steps in Nanshan District provide us with a valuable reference for planning and optimizing Shenzhen's entire LoRa network. The Siradel study helps us to have a clear vision of the different deployment requirements for outdoor and indoor scenarios. S_IoT is a powerful tool." Says Yachen Wang, Director of TEG Network Platform Department at Tencent

About Tencent Holdings Limited

Tencent uses technology to enrich the lives of Internet users. Our social products Wechat and QQ connect users to each other and link users to a rich digital content catalogue including games, video, music and books. Our proprietary targeting technology helps advertisers reach out to hundreds of millions of consumers in China. Our infrastructure services including payment, security, cloud and artificial intelligence create differentiated offerings and support our partners' business growth. Tencent invests heavily in people and innovation, enabling us to evolve with the Internet. Tencent was founded in Shenzhen, China, in 1998. Shares of Tencent (00700.hk) are traded on the Main Board of the Stock Exchange of Hong Kong.
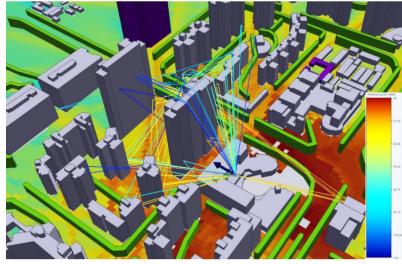
About Siradel

Expert in propagation modeling with Volcano 5G propagation model and in IoT network design & optimization, with his planning tool S_IoT, SIRADEL has a solid experience in LoRAWAN network densification.
Siradel produces 3D digital twins of cities, data-driven collaborative platforms with simulations and big data capabilities for smarter infrastructure networks and the improved well-being of inhabitants.
As a subsidiary of the Engie group with references in more than 60 countries, Siradel works with national and local authorities, telecom and mobility operators, utilities, urban planners, to make cities more sustainable and connected but also, resilient and safe.
Our transversal approach enables all city stakeholders to share the same referential of public/private data to design or upgrade infrastructures, and co-construct urban redevelopment projects: connectivity (4G, 5G ready, IoT, WiFi, etc.), public lighting, energy performances or new mobility.
See more: https://www.siradel.com   Twitter   LinkedIn   YouTube

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Tencent's LoRa gateway deployment

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