

「政府物聯通」創下里程碑 基站數目突破五百個

GWIN Reaches Milestone with Number of Gateways Exceeding 500

2020年12月，政府推出《香港智慧城市藍圖2.0》，把「政府物聯通」納入為其中一項智慧城市基礎建設，全力推動智慧城市發展。事實上，機電署早於2019年年初便以沙田區作為試點，開始安裝「政府物聯通」基站；至2020年年中，我們積極向客戶推廣利用「政府物聯通」實時監察機電設備。截至2023年年底，「政府物聯通」的基站數目已超過五百個，網絡覆蓋範圍遍布港九、新界及離島。

「政府物聯通」採用遠程的廣域網絡傳輸技術，具有低功耗及支援長距離傳輸的特點。機電署使用「政府物聯通」並配合不同傳感器，協助客戶實踐多個創新項目，包括智慧廁所、提供可用泊車位資訊，以及偏遠地區遠足人士的定位追蹤等，既可優化設施管理，也可提升公共服務質素。除了有助實踐機電數碼化外，「政府物聯通」亦支援智慧城市的物聯網應用，例如智慧渠務系統、安全智慧工地系統、年宵市場的人流計算系統等。

這些創科方案已成功實施，充分體現了機電工程營運基金第三個五年策略計劃中的「提供以客為本創新服務」及「加強多方創新協作」兩大策略。部分方案更獲得獎項，這些方案包括於2022年日內瓦國際發明展中獲得銀獎的「應用無人機技術的遠程網絡系統於偏遠地區提供位置追蹤」，以及於2023年日內瓦國際發明展中分別獲得銀獎和銅獎的「智慧廁所管理系統」和「以遠程網狀網路技術擴展鄉郊物聯網覆蓋範圍」。

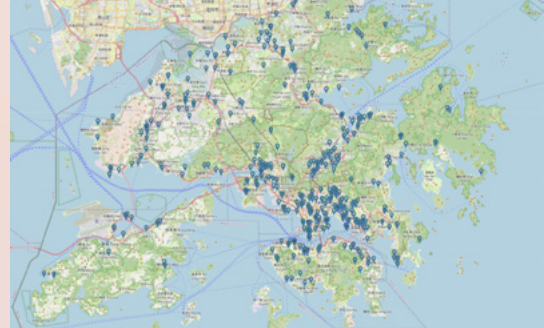
我們會繼續擴展「政府物聯通」的網絡覆蓋範圍，並收集實時運作數據，更有效協助客戶部門落實機電設備數碼化，藉此提升公共服務質素。

In December 2020, the Government launched the Hong Kong Smart City Blueprint 2.0, with the Government-Wide Internet of Things Network (GWIN) included as one of the smart city infrastructures, so as to drive smart city development. In fact, the EMSD initiated a pilot project in Sha Tin District to install gateways for the GWIN back in early 2019. By mid-2020, we actively promoted the use of GWIN for real-time monitoring of E&M equipment to our clients. As at the end of 2023, the number of GWIN gateways exceeded 500, with network coverage spanning across Hong Kong Island, Kowloon, the New Territories and the outlying islands.

The GWIN employs Long Range (LoRa) wide area network transmission technology characterised by low power consumption and long-distance transmission capabilities. Leveraging the GWIN in conjunction with different sensors, the EMSD assists clients in implementing various innovative projects, including smart toilets, provision of parking vacancy information and location tracking of hikers at remote areas, which not only optimises facility management but also enhances the quality of public services. In addition to facilitating the E&M digitalisation, the GWIN also supports smart city management by Internet of Things (IoT) applications, such as the smart drainage system, the Smart Site Safety System, the people counting system for Lunar New Year fairs, etc.

These I&T solutions have been successfully implemented, exemplifying the two key strategies of "Providing Customer-oriented Innovative Services" and "Strengthening Innovative Collaboration between Stakeholders" outlined in the third Five-year Strategic Plan of the Electrical and Mechanical Services Trading Fund. Some of the projects have even been recognised with awards and they include the Drone-based LoRa Network for Location Tracking in Remote Areas, which received the silver medal at the International Exhibition of Inventions of Geneva 2022, as well as the Smart Toilet Management System and the LoRa Mesh Technology for Extending the IoT Network Coverage to the Rural Areas, which were awarded the silver and bronze medals respectively at the International Exhibition of Inventions of Geneva 2023.

We will continue to expand the network coverage of GWIN and collect real-time operational data with a view to effectively assisting client departments in implementing E&M equipment digitalisation, thereby enhancing the quality of public services.



超過五百個「政府物聯通」基站廣泛分布在全港各區。

Over 500 GWIN gateways are widely distributed across various districts in Hong Kong.



「政府物聯通」支援各種物聯網應用，包括智慧廁所(左)、偏遠地區遠足人士的定位追蹤(中)和安全智慧工地系統(右)。

The GWIN supports a variety of IoT applications, including smart toilets (left), location tracking of hikers in remote areas (centre) and the Smart Site Safety System (right).



如欲了解第三個五年策略計劃的詳情，歡迎瀏覽專題網頁(<http://5yearplan.emsd.gov.hk>)，以及訂閱電子通訊以獲取計劃的最新消息。

For details about the third Five-year Strategic Plan, please visit the thematic website at <http://5yearplan.emsd.gov.hk> and subscribe to our e-newsletter for updates.

