SmarTone 5G and Enterprise Solutions
SmarTone 5G 及企業方案

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As the leading mobile operator in Hong Kong, SmarTone launched its world-class 5G network with the unique feature of Ericsson's dynamic spectrum sharing technology. 5G transforms the way we play, work and live. It opens up limitless possibilities with its ultra-high speed, low latency and massive connectivity. Increasing number of Hong Kong enterprises are proactively adopting enterprise solutions not only to improve their business efficiency, but also to fulfill specific purposes, such as improving staff safety and well-being. Digitalized solutions, especially in the areas of IoT sensors, AI-based analytics, and mobile edge computing, will be booming in the market in the next few years. SmarTone has been collaborating with multiple sectors, including construction, hospitality, property management, transportation and healthcare to develop end-to-end applications for their business needs. It is our firm belief that 5G will be a key enabler propelling Hong Kong to become a truly smart city.

作為本地具領導地位的電訊商，SmarTone 致力建構世界級 5G 網絡。配合愛立信頻譜共享技術的獨有特性，達至 5G 網絡全港覆蓋至廣。5G 不但改變了我們既有生活模式，其超高速、低時延及泛連接的特性亦帶來了無限可能。香港愈來愈多企業正積極採用不同企業方案以提升業務效率，並改善員工安全和福祉。未來幾年，物聯網傳感器、AI 分析，以及邊緣運算領域等數碼方案將會蓬勃發展。所以 SmarTone 一直與建築、酒店、物業管理、運輸及醫療等行業緊密合作，開發切合企業需要的端對端方案。我們堅信要推動香港發展成智慧城市，5G 將成一大關鍵。

SmarTone Enterprise Solutions

To integrate 5G applications at a corporate level, SmarTone and its enterprise solutions team has strategically deployed in the industry of transportation and logistics, constructions and property managements, three major aspects with the biggest impacts on everyday life, with successful solutions already in place. 5G application presents great potential in constructions and property management that are blooming and mature in Hong Kong. Enterprises are therefore more willing to invest in new technology in order to increase productivity and efficiency.

SmarTone 企業方案

SmarTone 相信良好的網絡覆蓋是開拓 5G 企業方案的先決的條件，SmarTone 及其企業方案團隊一直部署做好交通物流、建築及物業管理三個範疇。這幾方面與市民生活最息息相關，有些方案已在市場應用，成效亦非常顯著。SmarTone 認為 5G 應用於建築及物業管理行業有很大潛力，而且這兩個行業在香港發展蓬勃且成熟，有關企業相對願意投資於新科技，以提升營運效率同生產力。

SmartWorks

SmartWorks is an end-to-end solution developed by SmarTone to improve construction safety and operational efficiency. The system is based on cloud and IoT technology combined with image analysis, artificial intelligence and machine learning, boosting the well-being and productivity of construction worker through comprehensive site automation. The solution was awarded Construction Safety 1st Prize in the CIC Construction Innovation Award 2019; it is also on the pre-approved List of Construction Innovation and Technology Fund, qualifying contractors for subsidy application when adopting the system.

SmartWorks 智安建

SmarTone 開發的「SmartWorks 智安建」是一個端對端，提升建築安全及營運效率的方案，以雲端和物聯網技術為基礎，配合影像分析、人工智能及機器學習，推行地盤全面化智能管理，提升建築工人的健康安全及營運效率。SmartWorks 於 2019 年榮獲「建造業議會創新獎」中的建造安全組第一名；同時是建造業創新及科技基金的預先批核方案，採用此方案的承建商可申請資助。

Safety is priceless. SmarTone believes that incorporating technology in construction sites does not necessarily translate to a major investment. Developers can employ flexibility in choosing a suitable solution based on project needs and progress, bringing synergistic benefits through increasing management efficiency. SmartWorks incorporate a variety of functions that ensures site safety, including Smart Helmet, SmartHealth Station, Large-scale Machinery Danger Alert, Access Control, Environment Station and more. These measures are instrumental in monitoring the health and safety of construction workers, preventing accidents and providing immediate response in case of emergency.

5G's ultra-high speed and low latency can also help improve site operational efficiency – construction sites utilizing Virtual Desktop Infrastructure (VDI) can eliminate the need for repeated drawing or command input caused by unstable connection; Building Information Modeling (BIM) allows us to carry out real-time on-site editing through 5G, comparing three-dimensional site progress against BIM model; larger files such as Computer-Aided Designs (CAD), project information, construction plans and methods, as well as consulting documents can be transmitted and edited instantaneously.

安全無價，SmarTone 認為，在地盤使用科技並不一定等於龐大的投資，可根據實際需要及工程進度靈活選用合適的方案，而且科技能夠直接提升管理效能，有助掌握施工進度，令工程整體得益。SmartWorks 加入了許多保障地盤安全的功能，包括智能頭盔、健康監察站、大型機械的安全預警系統、進出管制、環境監察站等，協助安全主任監察地盤安全及工人健康，減低意外發生的機會，並在緊急情況提供即時支援。

5G 網絡的超高速及低時延的特點，亦可以增加地盤營運效率 — 地盤採用虛擬桌面（VDI），避免因為流暢度不足而需要再重畫圖畫或重複按鍵；而建築資訊模型（BIM）通過 5G 容許我們因應需要在地盤即場實時編緝，並立體化呈現地盤施工實況同 BIM 模型作比對；大型檔案圖則電腦輔助設計（CAD）、項目資料、施工計劃和方法，以及與顧問的文件往來更可即時傳輸及修改。

5G SmarTransport – Surveillance Solution

Smart mobility is one of the key elements lead Hong Kong to become a smart city. SmarTone's 5G SmarTransport – Surveillance Solution is a security enhancement solution for the main tunnels and highways in Hong Kong to monitor unauthorized access and prevent unnecessary accident.

The low latency and high bandwidth of 5G technology enable real-time transfer of video images to cloud platform and real time alert, thus facilitating deployment at remote locations which was previously impossible. Solutions built on 5G is also more scalable and expandable as it allows massive device connections. Various types of IoT motion detection cameras are installed at designated areas around major traffic spots, such as tunnels and highways, and they are connected to the cloud-based advanced video analytic engine via SmarTone 5G network to identify any suspicious objects.

5G 智慧交通方案

智慧出行是香港發展成為智慧城市的其中一個重要元素。SmarTone 的「5G 智慧交通方案」是一個有助提升交通安全及管理效率，並可應用於香港主要行車隧道及公路的方案。

方案建基於 5G 網絡，配合其高速及低時延的特性，5G 智慧交通方案有助即時監察道路或隧道限制區內的情況，如有意外發生，可即時作出應變。5G 泛連接的特性令方案能在偏遠地區應用。方案具有高靈活度及擴展性，支援各種裝置的連接。而 IoT 動態偵測相機會安裝在各主要交通點，如隧道及公路的指定區域，利用 SmarTone 5G 網路連接到雲端上的視頻分析系統，以識別任何誤闖的非道路使用者，預防意外發生。

Through the AI platform, the engine continuously receives video images where powerful cloud-based resources run rich sets of machine learning algorithms to analyze images and send out instant alert in real time. With 5G AI video analytic and the powerful machine learning, SmarTransport can now accurately detect and identify any human intruder entering the tunnel or restricted area on foot or riding a bicycle while preventing false alarms from motor cyclists or flying birds, etc. This is crucial in providing instant alerts to prevent incidents and provide immediate support when needed.

另外，人工智能（AI）平台將不斷接收視頻圖像，透過機器學習演算法去分析影像，5G 可將高質素的視頻圖像即時傳輸到雲端，提供實時警報。此系統亦能避免因電單車司機或飛鳥的進入而發出錯誤警報。

Establishing the 5G ecosystem

SmarTone is dedicated to working with local start-ups in order to bring more creative 5G applications to life and construct a 5G ecosystem. To encourage cross-industry co-operation between start-ups and our business partners, SmarTone established the Innovation Hub in 2017 to co-create 5G use cases. SmarTone is also working with different industries to cultivate innovation and potential in the next generation. The latest edition of SmarTone Hackathon with the theme of 5G and Smart City, providing a platform that encourages young people to bring creativity into technological integration. ●

建構 5G 生態圈

SmarTone 致力與本地初創合作，希望帶來更多具創意的 5G 應用，共同建構 5G 生態圈。為鼓勵與初創企業及商業夥伴的跨業界合作，SmarTone 於 2017 年成立 Innovation Hub，共同開創 5G 應用。SmarTone 亦與業界、不同行業培育下一代發揮創意同潛能，SmarTone Hackathon 程式設計比賽，以 5G 同智慧城市為主題，希望透過一個平台鼓勵年青人發揮創意，以創新意念將科技融合生活。 ●

'The Widest Coverage in HK' is based on results obtained from SmarTone's road test conducted on 3 September 2020. The road test covers major roads including expressways, trunk roads, tunnels and bridges in Hong Kong. 5G coverage is defined as spot with received 5G radio signal level not weaker than -95dBm.
「全港覆蓋至廣」是基於本公司於 2020 年 9 月 3 日進行之路測結果。路測包括全港主要公路、幹線、行車隧道及行車天橋。5G 覆蓋定義為訊號接收強度不小於 -95dBm。