

SmarTone Promotes the Metaverse with 5G Technology Fostering the Development of Metaverse Ecosystems with Industry Partners

SmarTone 以 5G 推動元宇宙發展 與業界共同建構生態圈

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As we enter the metaverse era, SmarTone, a leading 5G network operator in Hong Kong, is not only providing high-speed and reliable network services to its users, but is also actively contributing to the development of the metaverse through innovative new applications and customer experience enhancements for both enterprises and consumers. To fully embrace the rich potential of this new era, SmarTone is committed to closely collaborating with a wide range of stakeholders to encourage the development of innovative 5G-driven applications, ultimately integrating them into our lives and helping to construct a metaverse ecosystem that adds even more value to Hong Kong's smart city initiatives.

Dissecting the Metaverse

When it comes to defining what the metaverse is, Mr. Norman Tam, Deputy Chief Executive Officer of SmarTone, explains that different stakeholders each have their own interpretations and perspectives. However, he believes that there are three potential directions that the metaverse roadmap will follow. The first is that the metaverse will simply be a collection of virtual worlds, the likes of which are already familiar to many people. When discussing what this kind of metaverse looks like in Hong Kong, names such as Sandbox and Roblox invariably come up in the conversation. Mr. Tam deems this metaverse as essentially an extension of virtual worlds or online games, where users enter a community or a gaming arena so that multiple interactions can take place. As such, this cannot be classified as an immersive experience.

踏入元宇宙時代，SmarTone 作為香港領先的 5G 網絡營運商，除了為用戶提供高速可靠的網絡服務外，亦積極投入元宇宙的發展，致力為企業客戶及消費者開發具創意的應用及提升客戶體驗。SmarTone 也會與不同的持份者合作，鼓勵各界以 5G 技術開發更多創新應用，將科技融入生活，構建元宇宙生態圈，進一步推動香港發展成為智慧城市。

解讀元宇宙

SmarTone 副行政總裁譚樂文先生認為，不同的持份者對元宇宙都有其解讀方式。他認為元宇宙可概括為三個發展方向。第一個是存在已久的虛擬世界 (virtual world) 概念。現時香港主流談及的元宇宙，很多人都會提及 Sandbox 和 Roblox 等。譚先生認為這類型的元宇宙基本上都是虛擬世界或線上遊戲的延伸，並非沉浸式體驗，主要是讓用戶進入一個虛擬世界內的社區或遊戲進行各種互動。

As the Covid-19 global pandemic continues to accelerate the transformation of digital landscapes, it is also fuelling the development of the metaverse. In the second potential direction for metaverse development, Mr. Tam explains that the metaverse could become a continuation of remote working, such as through video conferencing, which is now part of the new normal for many businesses. As this metaverse grows and develops, employees could collaborate in a virtual world using wearable devices that enable them to experience and interact with each other. This technology could be applied to a wide range of occasions, including corporate orientations, group events and new product launches, to name just a few. In this context, the metaverse could transform face-to-face communication into immersive engagements through virtual avatars.

Lastly, it's possible that metaverse development will be determined by the rapid growth of virtual reality (VR), augmented reality (AR) and extended reality (ER) technologies. Mr. Tam explains that this trend will entail a combination of real world and virtual world, creating brand new possibilities for interactive experiences for both enterprises and consumers. For example, while users participate in virtual fitness classes, their fitness performance could be rated and suggestions could be given for improvement through the use of AR technology, artificial intelligence and big data. Applications such as these could create many new business opportunities for SmarTone.

The Metaverse enhances SmarTone's User Experience

As an industry pioneer, SmarTone offers customers the No.1 5G network* in Hong Kong with ultra-high speed, low latency and top-notch connectivity, laying a strong and quality foundation for various emerging applications, including metaverse technologies.

SmarTone is committed to providing the best 5G metaverse experience to users, both for personal use and business purposes. Indeed, Mr. Tam believes that whenever a new application is in demand, it is SmarTone's duty to tailor the experience to its customers' needs. For instance, in response to the increasing demand for services such as online music and movie streaming, the market needs to respond with appropriate streaming packages. SmarTone is always at the ready to support more metaverse-oriented applications, such as by including wearable devices in service plans or launching dedicated service packages specifically tailored to metaverse users.

* The "Consumers No. 1 5G Network Choice" is based on the results of a survey conducted by NuanceTree, a market research company, and commissioned by SmarTone among 771 postpaid mobile service users interviewed online and on the street from July to September 2020.

* 「消費者 No.1 首選 5G 網絡」基於 SmarTone 委託 NuanceTree 市場研究公司於 2020 年 7 月至 9 月透過網上及街頭訪問 771 位後付流動服務用戶之調查結果。

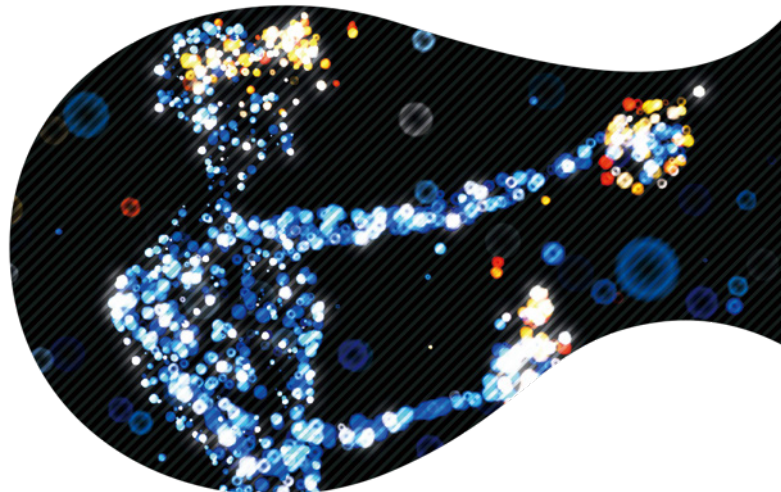
新冠肺炎疫情持續加速了數碼經濟轉型，也同時促進了元宇宙發展。譚先生認為第二個元宇宙的發展方向，延續了疫情期間成為新常態的網上工作模式，如視像會議等。於元宇宙的世代，員工們可在虛擬世界中合作，以穿戴裝置去體驗及互動，如企業的迎新會、團體活動以至新產品推出等，將人與人之間的溝通，變成以虛擬身份參與其中。

第三個發展方向便是現今的虛擬實境 (VR)、擴增實境 (AR)、以及延展實境 (extended reality) 技術。譚先生認為這是將現實世界與虛擬世界的結合，為企業及消費者帶來全新的互動體驗，例如用戶參與虛擬健身課程，可透過 AR 技術配合人工智能及大數據，為健身表現評分及提出改善建議。上述相關的應用，可為 SmarTone 帶來不少潛在商機。

元宇宙提升 SmarTone 客戶體驗

SmarTone 作為行業的先驅，為客戶帶來香港 No.1* 的 5G 網絡，以超高速、低時延及泛連接的特點，為各項新興科技及應用，包括元宇宙發展，奠定了強大及優質的網絡基礎。

SmarTone 致力為消費者及企業客戶提供最佳的 5G 元宇宙體驗。譚先生認為一項全新的應用得以普及，必須從客戶的需要出發，例如客戶對網上聽歌、看電影這些服務有需求時，市場會配合客戶口味，推出相關服務。SmarTone 一向以客為先，若有越來越多用戶參與元宇宙相關的應用，公司因應消費者的需求做好準備，例如在服務計劃中支援穿戴裝置，或推出專門針對元宇宙的服務計劃等。



SmarTone is likewise devoted to providing the highest levels of customer service, which Mr. Tam believes could enable SmarTone to further enhance interactivity with metaverse applications. For example, customers could try out products in a more active and engaging way when shopping in SmarTone's online store, ultimately even delivering an immersive exploratory shopping experience. Furthermore, the metaverse could enable the creation of approachable personalities embedded in virtual customer service ambassadors that interact with customers in real time based on artificial intelligence and big data analysis, thus enabling merchants to better understand their customers' needs. In the realm of non-fungible tokens (NFTs), which have become particularly well-liked among the younger generation, Mr. Tam envisions that the key to unleashing the full potential of the metaverse could depend on the uptake of NFT transactions on a wider range of games and platforms. Whatever form this evolution takes, the telecommunications industry is at the ready to provide the necessary assistance and support to deliver the very best value to customers.

Transforming into an ICT Service Provider

Mr. Tam stresses that SmarTone has transcended from being a network provider to an information and communications technology (ICT) service provider since the rollout of its 5G services tailored to enterprise needs. Over the past few years, SmarTone has designed and deployed many ICT applications for corporate clients, particularly for 5G-related applications. 5G's ultra-high speed, low latency and extensive connectivity provide an ideal environment for enterprises to nurture ground-breaking vertical applications that combine 5G with new technologies such as artificial intelligence, Internet of Things, big data analytics and machine learning.

Mr. Tam adds that many enterprises have put VR, AR and ER technologies into practice. ER in particular is now broadly applied to internal training in industries such as electrical engineering and construction, to the point where some forms of training no longer need to be conducted in real time or in a specific location. This has been made possible because 5G technologies can mimic any set-up and combine it with live data to achieve even greater efficiency in training. In addition, through the implementation of AR technology in the field, employees can now operate machines using wearable devices while also staying informed about all necessary information in real time.

Mr. Tam further points out that SmarTone, as a member of Sun Hung Kai Properties Group, is in a unique position to develop and promote the application of 5G technology in a wide variety of corporate settings, including construction, property management, and the retail industry. For example, touring property online is now commonplace in the housing market, yet the metaverse offers the potential to further improve the experience. Home buyers with devices will be able to get a digital sense of presence as if they were on-site in person, not only generating a positive impact among buyers, but also benefitting developers and real estate agents at every stage of the sales process.

此外，SmarTone 一直致力提供優質的客戶服務。譚先生認為公司可透過元宇宙應用進一步提升與客戶的互動體驗。例如客戶在 SmarTone 網上商店購物時，可以更互動及沉浸式的方式去試用產品，提升客戶網上購物體驗。此外，於元宇宙的世代，客戶服務員亦會變身為更具親和力的虛擬客服大使，透過人工智能及大數據分析即時與客人互動，讓客戶能夠了解客戶需要。至於近年在年輕人間十分流行的 NFT，譚先生認為當 NFT 可轉換至其他遊戲或平台上進行交易時，可望釋放相關的元宇宙應用的發展潛力，電訊業也可以提供相關服務，為客戶增值。

轉型為 ICT 服務供應商

在企業市場方面，隨著 5G 的推出，譚先生說 SmarTone 已由一間網絡供應商，轉型為資訊及通訊科技 (ICT) 服務供應商。過去數年，公司一直為不少企業設計及部署 ICT 的應用方案，特別是 5G 相關應用。5G 的超高速、低時延及泛連接的特點，讓企業能夠更容易透過 5G 結合其他嶄新技術如人工智能、IoT、大數據分析及機器學習等，開發更多創新的垂直應用。

譚先生又說，不少企業已採用虛擬實境、擴增實境及延展實境等技術。當中延展實境技術，已被技術性工種如電機工程或建築等，應用於內部員工培訓中，部份培訓現已毋須實地實時進行，而是透過 5G 技術，以模擬的環境結合現場實況，讓培訓更有效率地進行。此外，透過擴增實境技術，員工使用穿戴裝置時，更可一邊於現場實地操作機械，一面透過裝置接收操作的相關資訊。

譚先生指出，SmarTone 作為新鴻基地產集團成員一份子，積極與集團合作推動應用 5G 技術於不同的企業場景，當中涉及建築、物業管理及銷售及零售等業務範疇。舉例來說，現時網上參觀示範單位十分普遍，但若加入元宇宙元素，提供沉浸式的參觀示範單位體驗，買家戴上裝置便如同置身單位現場，為買家、發展商及地產代理帶來更多效益。

Metaverse applications could also be made relevant to urban planning and housing estate design. Mr. Tam remarks that the industry has long been using traditional three-dimensional models for display purposes, which can be time-consuming. With 5G, data stored in the cloud can be utilized to simulate how a new construction will integrate with its surroundings upon completion, and enable finer and more accurate planning with reference to the interior of the buildings. These are just a few of the practical applications of metaverse that could help property developers to achieve even greater accuracy in community-level planning.

For now, the metaverse is still in its early stages, and many users are still not trained to experience immersive journeys using wearable devices. Mr. Tam believes that device manufacturers should be actively optimizing this hardware, such as by making it lighter to entice more customers. If new hardware designs succeed in attracting a large number of users, we will likely witness an explosive growth in the metaverse.

Co-creating the Metaverse Ecosystem

As a leading 5G network provider in Hong Kong, SmarTone is committed to working with the government and industry players to uncover all the possibilities that innovative 5G applications can offer. Indeed, SmarTone is dedicated to furthering 5G penetration and driving digital transformation in all industries. Mr. Tam explains that SmarTone's 5G LAB at sky100 is already an inspirational showcase of SmarTone's innovative 5G-based applications, reflecting its proactive engagement with various stakeholders to co-build a dynamic 5G ecosystem. Since its opening, the 5G LAB has welcomed more than 400,000 visitors, and over 200 schools have visited to inspire students' interest in 5G, technology research and development. As we look to the future, Mr. Tam believes that 5G will be a critical infrastructure for driving the development of the metaverse – and SmarTone will take a leading role to support its growth, offering the best experience to consumers and corporate users, and empowering Hong Kong's development as a smart city. 🌐

另一個應用是與城市規劃或屋苑設計有關，譚先生說業界以往一直以傳統立體模型展示，往往要花上不少時間。但透過 5G 連接存放於雲端的各項數據，即可虛實結合，模擬新大廈在現場落成後，與周邊社區環境結合的實況，更可即時透視大廈內部的間格，為社區作更佳及更精準的規劃。以上所提及的都屬於元宇宙應用的雛型。

目前元宇宙還處於早期階段，不少用戶仍未適應以穿戴裝置體驗沉浸式的元宇宙應用。他認為廠商需要將裝置計得更輕巧，才能吸引用家使用。一旦新裝置的設計成功吸引大批用家，元宇宙便可望面臨一次爆發性增長。

構建元宇宙生態圈

作為香港領先的 5G 網絡供應商，SmarTone 致力與政府及業界人士合作，發掘更多具創意的 5G 應用方案，進一步提升 5G 的普及，推動各行各業數碼轉型。譚先生說 SmarTone 設於天際 100 的 5G LAB，向公眾展示各項以 5G 為基礎的創新應用，並積極與不同的持份者磋商，共同建構 5G 生態圈。開幕至今，已有逾 40 萬人到訪，及超過 200 間學校參觀，培養下一代對 5G 及科技研發的興趣。譚先生認為，5G 作為推動元宇宙發展的重要基建，SmarTone 會積極支持其發展，並繼續擔當推動者的角色，為消費者及企業客戶提供最佳的體驗，致力推動香港智慧城市的发展。 🌐