



## **CxO MEETING**

**5 December 2023, Dubai, United Arab Emirates**

### **COMMUNIQUÉ**

High-level industry executives (CxOs) met with the senior management of the ITU Telecommunication Standardization Bureau to exchange views on industry priorities and related standardization activities in Dubai, UAE, 5 December 2023.

Telecom Review hosted the meeting with the support of the UAE Telecommunications and Digital Government Regulatory Authority, du, Huawei, and TELUS.

CxOs discussed the support for IMT-2030 (6G) required from optical networks, artificial intelligence (AI), and semantic communications. They also shared their outlook on addressing the digital divide, non-terrestrial networks, smart mobility (e.g., vehicle-to-everything communications and their regulatory requirements), powerline communications, disaster response, machine vision technology, blockchain, fraud mitigation, and quantum information technologies.

Ahead of the discussions, CxOs received executive briefings on ITU preparations for the AI for Good Global Summit in Geneva, Switzerland, 30-31 May 2024, and the ITU World Telecommunication Standardization Assembly and preceding ITU Global Standards Symposium in New Delhi, India, 14-24 October 2024.

#### **Optics, AI, and semantic communications for 6G**

Wireless applications envisioned for 6G and emerging applications in areas such as automated driving, smart factories and the metaverse will demand high network capacity, low and predictable latency, and optimal energy efficiency.

CxOs encouraged ITU to provide leadership in standards development for transport networks to meet the needs of 6G, highlighting that the density of 6G equipment and ambitions to achieve ubiquitous connectivity will require very large volumes of cost-effective optics.

CxOs noted the importance of associated ITU collaboration with expert communities supporting innovative optical and wireless networks (IOWN), such as the Mobile Optical Pluggable Alliance (mobile optics), Institute of Electrical and Electronics Engineers (Ethernet), Internet Engineering Task Force (MPLS, segment routing and IP), and IOWN Global Forum (All-Photonics Network, etc).

AI and machine learning are playing an increasingly important part in network optimization as networks grow in complexity to support the coexistence of a progressively diverse range of information and communication technology (ICT) applications and services.

Agreeing that this trend will continue to accelerate, CxOs encouraged ITU to launch exploratory "pre-standardization" studies to support AI-native 6G network intelligence (e.g., a focus group), machine-readable AI knowledge bases, and AI performance validation.

Semantic communications supported by a well-trained knowledge base show considerable promise to limit pressure on network capacity as the volume of network traffic continues to grow.

CxOs, again in anticipation of 6G, called on ITU to support research and development with a view to future ITU standardization work addressing the architecture and framework required for wireless networks to integrate semantic communications.

### **Adopting non-terrestrial networks**

Non-terrestrial networks leveraging satellite and airborne platforms to provide connectivity directly to mobile devices can support ICT services in remote areas and at sea, as well as a wide range of Internet of Things (IoT) devices.

CxOs agreed on the potential of NTN to contribute to ubiquitous connectivity, including massive IoT connectivity, and public safety, productivity, climate change monitoring, and other critical industrial applications.

CxOs encouraged ITU to develop guidance capable of accelerating the adoption of affordable direct-to-device connectivity, guidance that would address the intersection of new technologies, regulatory frameworks, and international standards.

Standards and associated conformance assessment could offer valuable support to solution interoperability and service quality, highlighted CxOs.

Considering the massive scale of envisioned smartphones, wearables, and IoT device deployment, and noting the relevance of 3GPP standards for IoT connectivity enabled by terrestrial and non-terrestrial networks, CxOs expressed support for rapid ITU standardization work on the convergence of fixed, mobile, and satellite networks.

### **Smart mobility**

Vehicle connectivity and automated driving to improve road safety are considered essential to the future of mobility.

CxOs expressed support for related ITU standardization work and encouraged ITU to continue providing leadership in promoting effective collaboration among relevant expert communities.

CxOs highlighted the value of the ITU-led Collaboration on Intelligent Transport System (ITS) Communication Standards (CITS) in this regard, where all standards bodies relevant to intelligent transport are represented.

CxOs also encouraged ITU to explore opportunities to expand its support to ITS innovation in collaboration with UN Economic Commission for Europe, the UN agency that provides a global regulatory structure for vehicles and road traffic.

### **Power grid communication network**

Power grid communication network underpins smart grids capable of adapting their behaviour autonomously to optimize energy efficiency and make full use of renewable and low-carbon energy.

Considering recent advances in IoT, wireless access technologies, and broadband communications, CxOs called on ITU to renew standardization studies on power grid communication network to ensure that international standards provide comprehensive support to the latest developments in the arena.

## **National public networks to respond to natural disasters**

National public networks are now fundamental to public safety, leading CxOs to assert that support to disaster response forms one of the most compelling 5G use cases and an opportunity to leverage existing ICT infrastructure in addressing a key global challenge.

CxO called on ITU to stimulate the development of a cost-effective global network to respond to natural disasters, supporting associated public-private partnerships with a standardized network approach and architecture capable of meeting the needs of all countries.

## **Machine vision technology**

Machine vision technology is finding application in areas including digital agriculture, smart factories, and smart cities. The technology will continue to grow in sophistication as network capacity grows, latency falls, and new capabilities emerge to guarantee high security and service quality.

CxOs encouraged ITU to provide comprehensive support to standardization work on machine vision technology and provide leadership in promoting collaboration among relevant expert communities. Working in partnership with the G3 Alliance, suggested CxOs, could offer valuable support to globally coordinated standardization work.

## **Blockchain**

Blockchain has the potential to fortify trust in the era of big data and AI, leading CxOs to highlight blockchain's value to the circulation of data elements.

CxOs encouraged ITU develop standards capable of supporting the data security and interoperability that today form key challenges to data element circulation.

CxOs also called on ITU standardization work to address the relationship between blockchain and the Web3.0 ecosystem, where CxOs see key challenges to be overcome with respect to interoperability, security, and the coordination of technology development.

## **Voice traffic fraud**

Losses to companies and end-users resulting from voice traffic fraud have reached an unprecedented scale. The challenge is compounded by the practice of staging attacks from abroad.

Considering the need for globally coordinated countermeasures and the inadequacies of common threshold-based rules and isolated AI-based solutions for fraud management, CxOs called on ITU to explore rapidly the potential of real-time call validation to provide a global solution.

CxOs suggested that supporting ITU standards should detail a call control protocol.

## **Biometric SIM card registration**

Mobile devices are now gateways to financial services, education, healthcare, emergency services, and much more, highlighting the importance of trusted mobile identities and the significance of threats posed by SIM card fraud.

CxOs highlighted biometric SIM identification as a solution demonstrating considerable success in alleviating such threats.

CxOs encouraged ITU to explore how international standards could support more countries around the world in taking advantage of security solutions based on biometrics.

## **Quantum information technologies**

Quantum information technologies are expected to have a transformative impact on future network architectures.

CxOs expressed support for ITU standardization work on network and security aspects of quantum information technologies and encouraged continued ITU studies on emerging and anticipated standardization demands.

CxOs also called on ITU to continue providing leadership in promoting the coordination of ongoing and future standardization projects across relevant standards bodies.

### **The participating organizations were:**

AB Handshake Corporation; Afinna One Srl; Bahrain Network; Emirates Integrated Telecommunications Company (du); FNSValue Company Limited; Global Voice Group; Globalmatix AG; Hangzhou Qulian Technology Co., Ltd.; Huawei Technologies Co., Ltd.; Japan Industrial Imaging Association; Jinan Institute of Quantum Technology; Kamaleon; Mukti Mandiri Lestari; Nippon Telegraph and Telephone Corporation; Ooredoo Group; OpenSignal Ltd.; Rohde & Schwarz Middle East & Africa; Sateliot; Senko Advanced Components (Euro) Ltd.; Skylo Technologies Inc.; SomosGov Inc.; State Grid Corporation of China; Technology Innovation Institute; Telecom Review North America; Telefon AB - LM Ericsson; TELUS Communications Inc.; The Telecommunication Technology Committee; Trace Media International FZ-LLC; Transatel; Tunisie Télécom; UAE Telecommunications and Digital Government Regulatory Authority; VIAVI Solutions; World Mobile Group Ltd.; ZTE Corporation.