New Digital Twin Consortium Working Group Targets Telecommunications

Leveraging digital twins to solve complex market challenges

BOSTON, MA – MARCH 16, 2023 – Today, the **Digital Twin Consortium**® (DTC®) announced a new working group to address the application and adoption of digital twins in the telecommunications market.

Telecommunication providers are critical for society as they enable people to connect and communicate with each other regardless of physical distance. As our world becomes increasingly connected and reliant on technology, telecommunication providers will continue to play a crucial role in facilitating communication and enabling access to essential services.

However, according to **Analysys Mason's research predictions for the telecoms, media, and technology sectors in 2023**, the telecommunications sector is dealing with rising inflation, particularly from the energy sector. Moreover, market challenges are already hampering telecom providers from delivering services, opening new revenue streams, and returning value to shareholders.

Dan Isaacs, the GM and CTO of the Digital Twin Consortium, said, "Current networking infrastructures often face fragmentation issues that make it difficult to support new network rollouts, expand capacity, and introduce new features that can help address societal challenges. Digital twins provide a 360-degree view of network performance and usage patterns, enabling improved analysis, optimal coverage, accurate predictive analytics, and effective management approaches."

By using a virtual model of an entire area or process, management can visualize and test out different initiatives, making data-driven decisions based on billions of network performance data points. These initiatives can then be evaluated through more precise enterprise-level analytics and location intelligence, to help identify optimal implementation scenarios.

Digital twins can simulate the propagation of radio waves in various environments and identify the optimal placement of antennas and repeaters for maximum coverage and signal strength. A digital twin of a satellite communications system or cellular tower can monitor its performance in real time and identify potential issues or faults before they become critical. By

using digital twins to optimize satellite communications systems and overall constellation performance, companies can provide more reliable and consistent service to their customers, especially in remote or difficult-to-reach areas.

"EDX builds planet-scale 3D geospatial digital twins that are game-changers in key industries, such as wireless, utilities and smart cities," said Anoop Kaur Bowdery, COO, EDX Wireless, Inc. "3D geospatial digital twins can significantly improve decision-making, collaboration, and planning for mobile network operators."

The **DTC Telecommunications Working Group** plans to embark upon telecommunications market challenges using digital twins, including:
- Platform development for emerging technologies
- Enabling smart city's economic and societal structure improvements
- Sustainable energy reuse
- Bridging the gap to non-IP-based networking
- Creating a faster path to information/intent-based networking
- Providing transparent 360 cyber security
- Creating novel design paradigms, including AI and machine learning, to help address societal challenges and more.

The new working group will define and identify digital twin applications for the telecommunications industry. It will explore implementation scenarios utilizing extended reality (XR) capabilities and advanced simulation perspectives, ensuring a secure, scalable solution for enterprise-level XR data visualization for geospatial analytics and location intelligence. The new telecom group will also investigate use cases and reference implementations for intelligent infrastructure, smart cities, and beyond. These include network design optimization, operations, and capacity planning.

About Digital Twin Consortium

Digital Twin Consortium is The Authority of Digital Twin. It coalesces industry, government, and academia to drive consistency in vocabulary, architecture, security, and interoperability of digital twin technology. It advances digital twin technology in many industries, from Aerospace to natural resources. Digital Twin Consortium is a program of Object Management Group. For more information, visit **https://www.digitaltwinconsortium.org**.