ITU Accelerates Study of Smart City Data Management

Open group to identify standardization demands of data-driven smart cities

ITU has established a new Focus Group to research data processing and management in the context of smart cities. The group is open to participation by any interested party, leading a consultation process to identify the aspects of data management to benefit from ITU standardization.

The integration of information and communication technologies (ICTs) into city systems will map these systems in the virtual world, improving our understanding of how complex city ecosystems behave. Efficient data management will yield new insight into where public and private-sector innovation could spur environmentally sustainable growth in our cities.

"Advances in data collection and analysis are opening up new frontiers in sustainable development," said ITU Secretary-General Houlin Zhao. "ITU standardization aims to assist the development of a shared, integrated data ecosystem, one that will support data-driven innovation in all segments of the public and private sector."

"In our knowledge-driven modern economies, data is quickly becoming our most valuable natural resource," said Chaesub Lee, Director of the ITU Telecommunication Standardization Bureau. "Common technical standards will help us to draw maximum possible value from our fast-growing wealth of data by preventing the emergence of data 'silos' in different segments of smart cities."

The Focus Group will be chaired by Gyu Myoung Lee of the Korea Advanced Institute of Science and Technology. It will review existing technical platforms and related guidelines for data processing and management, with a view to identifying standardization demands to be addressed by ITU's expert group for 'Internet of Things, Smart Cities and Communities', ITU-T Study Group 20.

"Data is the key to smart governance," said Nasser Al Marzouqi, Chairman of ITU-T Study Group 20. "Efficient data management will improve the efficiency and sustainability of public services, and e-governance models and open data will encourage citizens to play an active role in addressing the challenges most relevant to their communities."

A key priority of the Focus Group will be to propose mechanisms supporting the interoperability of datasets and data-management systems. The group will investigate established data-management technologies as well as emerging trends such as blockchain, promoting efficient, scalable approaches to the management of systems data.

The group will seek out innovations with potential to increase security and trust in data management, including advances in digital identification and certification. This analysis will also review technical challenges to be overcome in relation to data formats, metadata and data protection.

The establishment of the Focus Group was agreed by a meeting of ITU-T Study Group 20 in Dubai, United Arab Emirates, 13-23 March 2017. The meeting was preceded by an ITU forum on data management for the Internet of Things and smart cities sponsored by Etisalat and Du, 12 March 2017, which helped identify the need for the new Focus Group.

The ITU forum and the meeting of ITU-T Study Group 20 were kindly hosted by the Telecommunication Regulatory Authority of the United Arab Emirates.

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