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| The International Teleocmmunication Union - Connecting the World. | **International telecommunication union****Telecommunication Standardization Bureau** |  |
|  | Geneva, 28 July 2025 |
| **Ref:**  | TSB Circular 64TSB Events/XY | **To:**- Administrations of Member States of the Union;- The State of Palestine (Res. 99 (Rev. Dubai, 2018));- ITU-T Sector Members;- ITU-T Associates;- ITU Academia**Copy to:**- The Chairs and Vice-Chairs of Study Groups;- The Director of the Telecommunication Development Bureau;- The Director of the Radiocommunication Bureau;- The Directors of the ITU Regional Offices |
| Contact: | **Xiaoya Yang** |
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| **Subject:** | **Fourth ITU-T X.509 Day (2025) event (Fully virtual, 5 September 2025)** |
| Dear Sir/Madam,1 I am pleased to inform you that the International Telecommunication Union (ITU) is organizing the **Fourth ITU-T X.509 Day** that will take place virtually on **5 September 2025 from 1300 to 1600 hours (Geneva time).**2 [ITU-T X.509](https://www.itu.int/ITU-T/recommendations/rec.aspx?id=14033&lang=en) is the common global language for public key infrastructure (PKI) and privilege management infrastructure (PMI) – the fundamental framework for digital certificates and trust management. First developed by CCITT in 1988, ITU-T X.509 has evolved through nine editions (the latest approved in October 2019), jointly developed by ITU and ISO/IEC. A tenth edition is currently under study to address emerging needs such as quantum-safe cryptography. The X.509 certificate and the Certificate Revocation List (CRL) structures, known for their extensibility, underpin secure transactions in business-to-business (B2B), business-to-consumer (B2C), and government-to-citizen (G2C) interactions. This robust standard provides a reliable foundation for a wide range of industries – from agriculture and finance to healthcare, transport, and utilities – and is vital to businesses, consumers, and governments worldwide. With over 37 years of successful implementation, X.509 has become a universal enabler of interoperability and security in countless applications. To honour its legacy, ITU has been organizing **ITU-T X.509 Day** events since 2022, celebrating the standard's enduring impact and achievements each year.3 The objectives of this fourth ITU-T X.509 Day (2025) event include:1. reviewing the progress of ITU-T X.509 since the third ITU-T X.509 Day in 2024, including updates from ongoing work and collaborations,
2. assessing post-quantum cryptography (PQC) readiness in the X.509 ecosystem,
3. exploring developments in decentralized PKI (DPKI) and trust models,
4. discussing cross-border digital identity frameworks and global trust networks, highlighting how X.509 certificates enable interoperability of digital identities across borders and sectors,
5. strengthening trust in AI-enabled systems by leveraging X.509,
6. showcasing real-world adoption across sectors through case studies, and
7. identifying future development directions for ITU-T X.509 and opportunities for collaboration.

4 All relevant information pertaining to the event (draft programme, list of speakers, registration link, and remote connection details) will be made available on the event webpage at <https://www.itu.int/en/ITU-T/Workshops-and-Seminars/2025/0509>. The webpage will be updated regularly as more information becomes available, and participants are encouraged to check periodically for the latest information.5 Registration to the event is **mandatory** and can be accessed here: <https://www.itu.int/net/CRM/js/sr/C-00015613>.6 Participation is free of charge and open to all interested stakeholders including ITU Member States, Sector Members, Associates and Academic Institutions and to any individual from a country that is a member of ITU and who wishes to contribute to the work.A black text on a white background  AI-generated content may be incorrect.Yours faithfully,Seizo OnoeDirector of the TelecommunicationStandardization Bureau |