



BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES – DEVELOPMENT OF INTERNATIONAL STANDARDS

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Aim of ISO/TC 307 and approach to date

Aim of TC 307 is to meet the growing need for standardization in this area by providing internationally agreed ways of working to improve security, privacy, scalability and inter-operability and so encourage the technology's widespread adoption through greater innovation, enhanced governance and sustainable development

- Technical Committee first met in Sydney in April 2017, with further meetings held in London, Tokyo, Moscow, Dublin and Hyderabad
- Formed Working/Study Groups on:
 - Foundations
 - Security, Privacy and Identity
 - Smart Contracts
 - Use Cases
 - Governance
 - Interoperability
 - Records Management
- Working closely with other ISO technical committees and have formal liaisons with other relevant organisations

TC 307: more than 50 countries participating in development of standards



Italics denote Observing members

Source: Standards Australia

ISO/TC 307: Current program of work

Working / Study Group	Projects developing international standards, technical specifications, technical reports or studies	
Foundations	<i>International Standard(s):</i>	<ul style="list-style-type: none"> • Terminology/vocabulary • Reference architecture
	<i>Technical Specification:</i>	<ul style="list-style-type: none"> • Taxonomy and ontology
	<i>Study:</i>	<ul style="list-style-type: none"> • Data flow and data taxonomy
Security, privacy and identity	<i>Technical Report:</i>	<ul style="list-style-type: none"> • Security management of digital asset custodians
	<i>Study:</i>	<ul style="list-style-type: none"> • Security evaluation of consensus models • Security issues on smart contracts
Joint Working Group	<i>(with JTC1/SC27 Information security, cybersecurity and privacy protection)</i>	
Blockchain and distributed ledger technologies and IT security techniques	<i>Technical Report(s):</i>	<ul style="list-style-type: none"> • Privacy and personally identifiable information protection considerations
		<ul style="list-style-type: none"> • Security risks, threats and vulnerabilities • Overview of existing DLT systems for identity management

Green shading denotes work at late stage of development or now completed

ISO/TC 307: Current program of work (cont.)

Working / Study Group	Projects developing international standards, technical specifications, technical reports or studies	
Smart contracts and their applications	<i>Technical Specification:</i>	<ul style="list-style-type: none"> • Legally binding smart contracts
	<i>Technical Report:</i>	<ul style="list-style-type: none"> • Overview of and interactions between Smart Contracts in blockchain and d'buted ledger technology systems
	<i>Study:</i>	<ul style="list-style-type: none"> • Supply chain management and trade facilitation
Use cases	<i>Technical Report:</i>	<ul style="list-style-type: none"> • Use cases
	<i>Study:</i>	<ul style="list-style-type: none"> • Non-functional requirements
Governance	<i>Technical Specification:</i>	<ul style="list-style-type: none"> • Guidelines for governance
Interoperability	<i>Study (for proposed Technical Specification):</i>	<ul style="list-style-type: none"> • Interoperability framework
Other	<i>Study:</i>	<ul style="list-style-type: none"> • Guidance for Auditing DLT systems
Joint Working Group	<i>(with TC 46/ SC 11 Records/archives management)</i>	
Blockchain and records management	<i>Technical Report:</i>	<ul style="list-style-type: none"> • Application of blockchain technology to records management – issues and considerations

Green shading denotes work at late stage of development or now completed

TC 307: liaisons with external organisations key to development of relevant, highest quality and widely accepted standards

Approach

- Follow relevant requirements of ISO Directives
- Relevant external organisations encourage to contribute to TC307
- Established Liaison Advisory Group within TC307 in Nov 2019 to promote liaison with more organisations
- Category A Liaisons participate in TC meetings, may appoint experts to working groups and comment on draft standards (with same treatment as those from member bodies)

External Liaisons (Category A)

- Enterprise Ethereum Alliance
- European Commission
- Global Standards One
- IEEE
- International Federation of Surveyors
- International Telecommunication Union
- International Association for Trusted Blockchain Applications
- OECD
- Small Business Standards
- SWIFT
- United Nations Economic Commission for Europe