

# P2418

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**Type of Project:** New IEEE Standard

**PAR Request Date:** 10-May-2017

**PAR Approval Date:** 15-Jun-2017

**PAR Expiration Date:** 31-Dec-2021

**Status:** PAR for a New IEEE Standard

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**1.1 Project Number:** P2418

**1.2 Type of Document:** Standard

**1.3 Life Cycle:** Full Use

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**2.1 Title:** Standard for the Framework of Blockchain Use in Internet of Things (IoT)

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**3.1 Working Group:** Blockchain working group (BOG/CAG/blockchain\_wg)

**Contact Information for Working Group Chair**

**Name:** Ramesh Ramadoss

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**Phone:** 510-604-2514

**Contact Information for Working Group Vice-Chair**

None

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**3.2 Sponsoring Society and Committee:** IEEE-SA Board of Governors/Corporate Advisory Group (BOG/CAG)

**Contact Information for Sponsor Chair**

**Name:** Philip Wennblom

**Email Address:** [wennblom@ieee.org](mailto:wennblom@ieee.org)

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**Contact Information for Standards Representative**

None

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**4.1 Type of Ballot:** Entity

**4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot:** 06/2019

**4.3 Projected Completion Date for Submittal to RevCom**

**Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.:** 10/2020

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**5.1 Approximate number of entities expected to be actively involved in the development of this project:** 10

**5.2 Scope:** This standard provides a common framework for blockchain usage, implementation, and interaction in Internet of Things (IoT) applications. The framework addresses scalability, security and privacy challenges with regard to blockchain in IoT. Blockchain tokens, smart contracts, transaction, asset, credentialed network, permissioned IoT blockchain, and permission-less IoT blockchain are included in the framework.

**5.3 Is the completion of this standard dependent upon the completion of another standard:** No

**5.4 Purpose:** The purpose of this project is to develop definitions and a protocol for blockchain implementations within an IoT architectural framework.

**5.5 Need for the Project:** The use of blockchain technology for IoT enables decentralized, autonomous communication (peer-to-peer, consumer-to-machine, machine-to-machine) without the need for a trusted intermediary. There is an urgent need for standards that will offer a protocol, common vernacular and support interoperability between blockchain platforms. Standardization of a framework for blockchain use in IoT will provide a base common understanding enabling innovation in IoT markets.

**5.6 Stakeholders for the Standard:** Manufacturers, service and solution providers, equipment suppliers in the robotics and users. Sectors interested in this will include IoT, Smart Cities, Smart Energy, Smart Homes, Digital Health, and Digital Citizen attributes (examples include Trust, {Identity, anonymity, pseudonymity}, Privacy, Security).

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**Intellectual Property**

**6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:** No

**6.1.b. Is the Sponsor aware of possible registration activity related to this project?:** No

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**7.1 Are there other standards or projects with a similar scope?:** No

**7.2 Joint Development**

**Is it the intent to develop this document jointly with another organization?:** No

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**8.1 Additional Explanatory Notes:** It is intended that a series of related standards be developed.