Based on use cases submitted to the NIST Big Data Working Group and initial extraction of requirements, we have identified initially some IEEE standards and standards projects that may be relevant for the SDO section of the roadmap. This list may be augmented as the work progresses within the NISTBDWG.

**Note for use cases- cargo shipping industry and multiple use cases where sensors or sensor networks are mentioned**

ISO IEEE 21451 series of sensor standards and standards projects e.g.ISO IEEE 21451-2 Information technology -- Smart transducer interface for sensors and actuators -- Part 2: Transducer to microprocessor communication protocols and Transducer Electronic Data Sheet (TEDS) formats and ISO ISO IEEE 21451-7 Standard for Information Technology - Smart Transducer Interface for Sensors and Actuators - Transducers to Radio Frequency Identification (RFID) Systems Communication Protocols and Transducer Electronic Data Sheet Formats

**Note for use case - Netflix**

IEEE 2200-2012 Standard Protocol for Stream Management in Media Client Devices

Also IEEE P2200 revision project

**Note for use cases - Pathology Imaging and statistical Relational AI for Health Care**

IEEE P3333.1 Standard for the Quality Assessment of Three Dimensional (3D) Contents based on Psychophysical Studies

IEEE P3333.2 Standard for Three-Dimensional Model Creation Using Unprocessed 3D Medical Data

**Note for use cases Electronic Medical Record (EMR), Individualized Diabetes Management (Healthcare), Statistical Relational AI for Health Care**

ISO IEEE 11073 series of standards for medical device communications

**Note for use case Social Contagion Modeling**

For the utility data (e.g. Power Grid), the IEEE smart grid standards at

http://smartgrid.ieee.org/standards

**For multiple use cases** **with regard to networking** - the IEEE 802 wired and wireless standards

**For multiple use cases** **where secure storage** is required, the IEEE 1619 series i.e. IEEE 1619 Standard for Cryptographic Protection of Data on Block-Oriented Storage Devices, IEEE 1619.1 Standard for Authenticated Encryption with Length Expansion for Storage Devices, IEEE 1619.2 Standard for Wide-Block Encryption for Shared Storage Media

Also for **Cloud Computing**, IEEE has the active project IEEE P2302 Standard for Intercloud Interoperability and Federation (SIIF).

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