

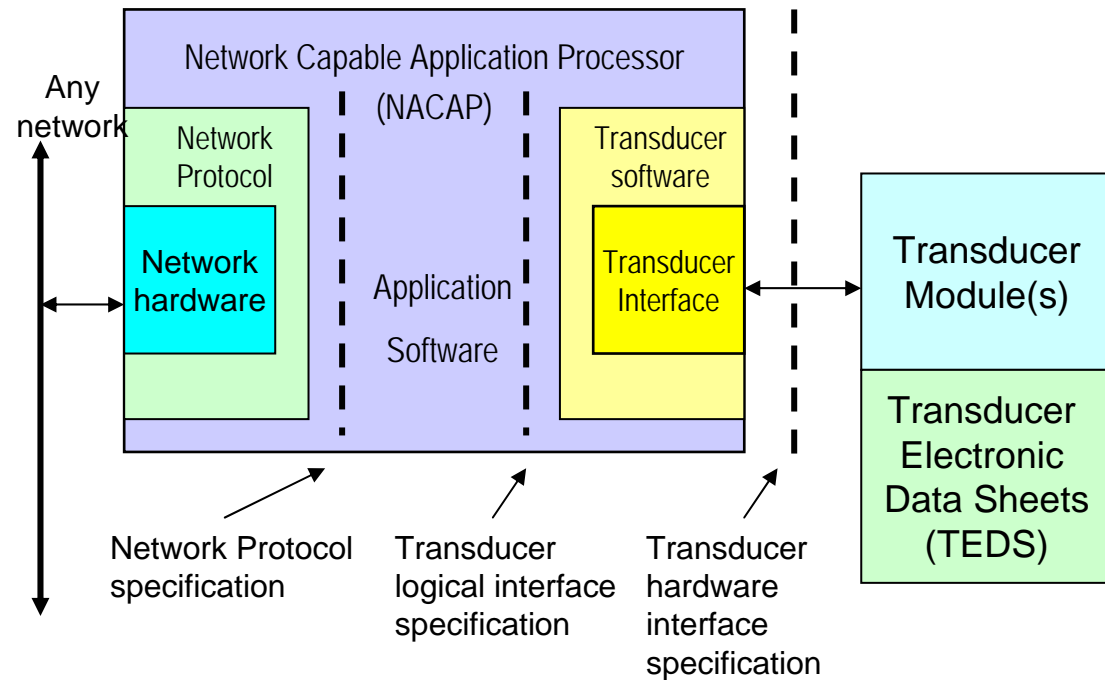
Introduction to IEEE 1451 - Family of Standards

Wireless Sensor Standard Workshop/Meeting
Sensors Expo/Conference
June 7, 2004

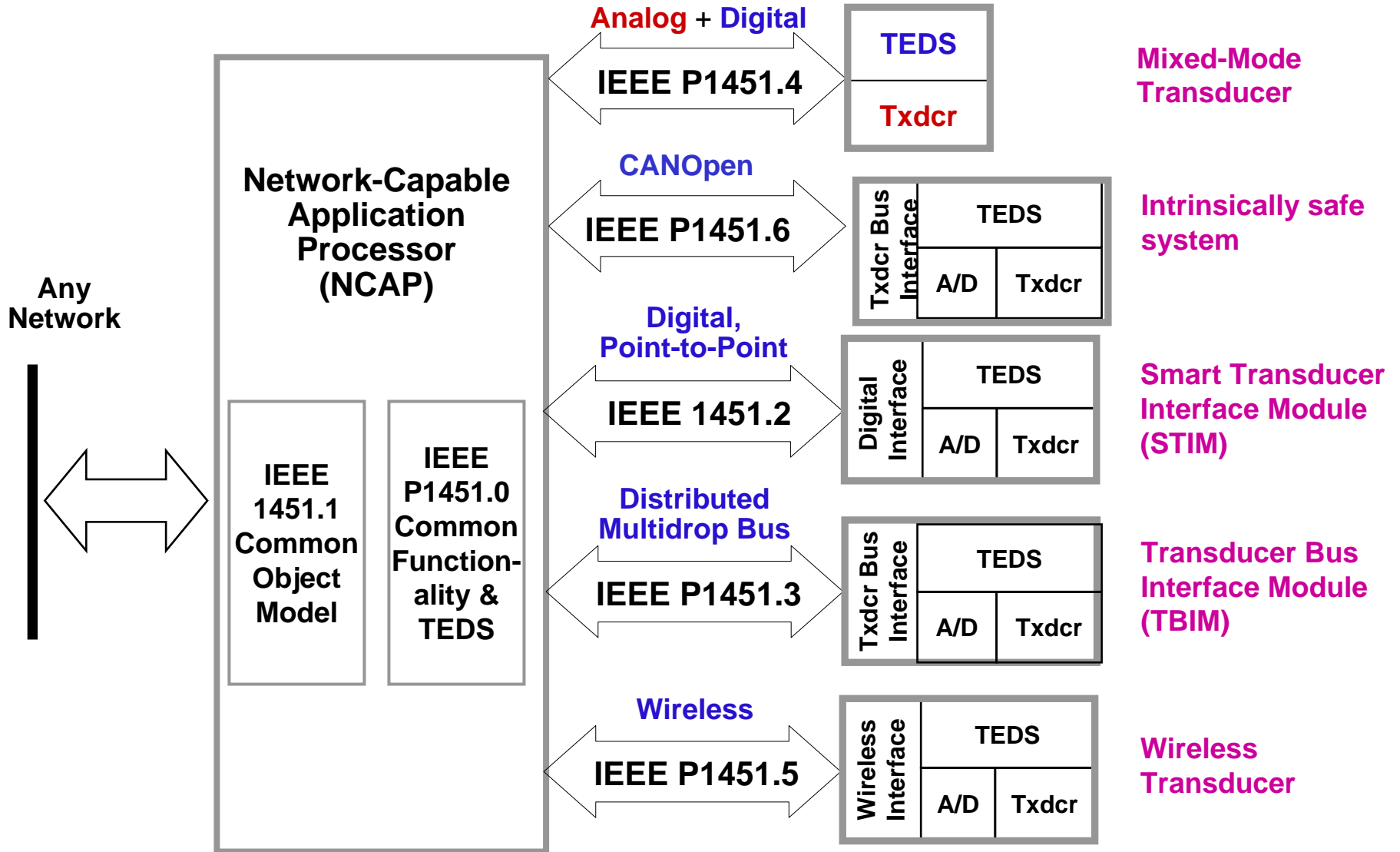
Kang Lee
Manufacturing Engineering Laboratory
National Institute of Standards and Technology

Establishment of the IEEE 1451 Smart Transducer Standard

- An industry - wide, open standard
- Providing common interfaces between sensors/actuators and instruments, microprocessors or networks.
- Analog, digital, and wireless interfaces
- Transducer Electronic Data Sheet (TEDS) enables the self-description of a sensor



IEEE 1451 Family of Smart Transducer Interface Standards



Txdcrc = Transducer (Sensor or Actuator)

What is the proposed IEEE 1451.5 Wireless Sensor Standard ?



The consensus was to adopt the popular wireless communication protocols such as

1. Bluetooth/802.15.1
2. ZigBee/802.15.4
3. WiFi/802.11

as the P1451.5 physical layers