

# Several parties are involved in the life of a device.

The designer, contract manufacturers, component manufactures, shipping companies, auditors, warehousing, retail, installers, owner, end user, 2nd-hand user and more.

## SEMICONDUCTOR ENGINEERING

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“Complexity is one dimension of the challenge,” said Marc Canel, vice president of security systems and technologies at [Arm](#). “There is a layering of technologies, from the physical IP, in which the key that will make the root of trust is embedded, all the way up to the application and everything in between. There also is complexity in the processes to build all of these things, to provision them, to load the code and to load the keys. One of the big challenges is there is no standardization across the overall IoT world.”

# Blockchain

A decentralized system that combines techniques from the fields of cryptography, economics and distributed systems to enable trust amongst several parties.