Additional IoT Reference Models

In addition to two IoT reference models, several other reference models exist. These models are endrosed by various organizations & standard bodies & are often specific to certain industries or IoT applications. The below headings highlight these additional IoT reference models.

Purdue Model for control Hierarchy

The Purdue Model for control Hierarchy is a common & well-understood model that segments devices & equipment into hierarchical levels & functions. It is used as the basis for ISA-95 for control hierarchy, & in turn for the IEC-62443 (formerly ISA-99) cyber security standard. It has been used as a base for many IoT-related model

and standards across industry. The Purdue Model's application to IoT is discussed in detail in Manufacturing & Oil & gas.

The Industrial Internet Reference Architecture (IIRA) by Industrial Internet Consortium (IIC)

The IIRA is a standards-based open architecture for industrial Internet Systems (IISs). To maximize its value, the IIRA has broad industry applicability to drive interoperability, to map applicable technologies, & to guide technology & standard development. The description & representation of the architecture are generic and at a high level of abstraction to support the requisite broad industry applicability. The IIRA distills and abstracts common characteristics, features & patterns from use cases well understood at this time, predominantly those that have been defined in IIC.

Internet of Things Architecture (IoT-A)

IoT-A created an IoT architectural reference model and defined an initial set of key building blocks that are foundational in fostering the emerging Internet of Things. Using an experimental paradigm, IoT-A combined top-down reasoning about architectural principles & design guidelines with simulation & prototyping in exploring the technical consequences of architectural design choices.