Current Event Article

**Difference between types of protocols (TCP/IP and Ethernet)**

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Difference between types of protocols “TCP/IP and Ethernet”

**Abstract**

When we think of Internet and how secure our data is, any tech savvy will know the importance of TCP/IP protocol and the Ethernet. From the beginning of internet history, it was established that a secure network is required to safeguard your network. Here is an article I find very interesting where is simplify the difference between TCP/IP and Ethernet.

The article "Understanding TCP/IP, CIP, and Ethernet/IP: Key Differences and Applications" by Zero Instrument (2024) provides an in-depth explanation of the differences between TCP/IP, CIP, and Ethernet/IP protocols. These protocols are fundamental components of industrial automation and computer networks, and understanding their differences is crucial for designing, implementing, maintaining efficient systems and securing data. According to Zero Instrument, TCP/IP (Transmission Control Protocol/Internet Protocol) is a suite of protocols that governs how data is transmitted over the internet. CIP (Common Industrial Protocol, “the book has not mentioned it”) is a protocol that provides a set of common services and interfaces for industrial automation devices. Ethernet/IP is an industrial networking protocol that combines TCP/IP and CIP to provide a robust and reliable communication platform and gives the security to safeguard any companies or institutions network service.

The article highlights the key differences between these protocols, including their application layers, data transfer methods, and network architectures. Zero Instrument also explains the advantages and disadvantages of each protocol, as well as their typical applications in industrial automation and computer networks. This article relates to the topic of computer networks and protocols, which is covered in Chapter 3 of our textbook. The article provides a clear explanation of the differences between TCP/IP, CIP, and Ethernet/IP protocols, which is essential for understanding how industrial automation systems and computer networks operate. It is also important for a network Administrator or a Network Specialist to understand how TCP/IP and Ethernet play a crucial role in industries and automation systems. How TCP/IP and Ethernet keeps data transfer secure and reliable is essential to understand.

**Reference**

https://zeroinstrument.com/understanding-tcp-ip-cip-and-ethernet-ip-key-differences-and-applications/