

Plan, Do, Check, Act

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Author Note

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Abstract

The purpose of this paper is to summarize the general contents of ISO/IEC 8208:2000 and explain the manner in which it seeks to establish a security framework for data communications.

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ISO/IEC 8208:2000 is an international standard that regulates data communications, specifically the packet layer protocols for data terminal equipment (DTE). The standard covers usage of DTE at the packet layer by means of a circuit-switched connection or data, packet layer procedures for two DTEs communicating directly, and private networks that use ITU-T (Telecommunication Standardization Sector) recommendation X.25.

Packet Layer Protocols for DTE

ISO/IEC 8208:2000 regulates a multitude of functions of DTE and the packet layer. The standard gives a description and regulation for capabilities from the procedures for its optional user facilities to the applications of any network that can connect to a packet-switched public data network and can also offer an X-25 interface to a DTE (International Organization for Standardization, 2007). It also employs a number of naming conventions and general regulations for terminology to ensure a uniformity across packet information throughout the technological world. Additionally, it also provides a variety of procedures that act as strictures for objects such as bit-error rates, out-of-sequence rates, and duplication rates. Finally, the standard gives regulations for packet layer procedures for DTEs, specifically ensuring that they conform to Recommendation X.25, provide an opportunity for a recovery from error conditions without data loss as the packet layer itself, better align some services provided by the packet layer with the network layer, lessen certain differences between operating with a packet-switched network and another DTE, and generally work to more accurately follow Recommendation X.25

These conventions employed in the International Standard all work to ensure a greater level of uniformity and compatibility to ensure that this segment of the packet layer's functions work identically enough to the point that they can be understood and utilized by any seeking to,

no matter the nationality of who is employing the machine that data communication is being sent to or from. It also makes further development easier, as virtually everyone working with the same framework of packet-layer data communication will ensure that any further innovation made on such a level can be universally applied.

Secondary Standards

While ISO/IEC 8208:2000 primarily focuses on regulating the procedures of DTE and its interactions with the packet layer, it also produces standards for a number of alternative procedures for data communication. Specifically, it applies a number of standards regarding data and interrupt transfer procedures, virtual call setup and the logical channels utilized for it, restart procedures used to initialize or reinitialize the packet layer DTE/DXE interface, and flow control (International Organization for Standardization, 2007). All of these procedures vary toward how they individually effect the subject of their regulation, but generally they all work to accomplish the same end goal of the DTE and other packet layer regulation: to produce an International Standard that allows for compatibility and understanding across the technological world.

Its other most notable regulations are its procedures meant for optional user facilities and packet formats, that restrict and arrange the layout of the user facilities and packet formats themselves. No matter the product involved, all machines that can be classified under the OSI (Open Systems Interconnection) model are made to follow these regulations in their very physical production to ensure complete conformity across the international world.

Conclusion

ISO/IEC 8208:2000 is but one of many international standards set forward to promote conformity and uniformity within the computing industry, but its specialization within the realm of data communication within and surrounding the packet layer ensures a level of base

cooperation that allows for the compatibility of computing devices that is seen in the world today.

References

International Organization for Standardization.

(2007). *Catalogue*. [https://standards.iso.org/ittf/PubliclyAvailableStandards/c033080_ISO_IEC_8208_2000\(E\).zip](https://standards.iso.org/ittf/PubliclyAvailableStandards/c033080_ISO_IEC_8208_2000(E).zip)