

In telecommunications and computer networking, connection-oriented communication is a communication protocol where a communication session or a semi-permanent connection is established before any useful data can be transferred. Connection-oriented communication may be implemented with a circuit switched connection, or a packet-mode virtual circuit connection. In the latter case, it may use either a transport layer virtual circuit protocol such as the TCP protocol, allowing data to be delivered in order. The established connection ensures that data is delivered in the correct order to the upper communication layer.