

U

UART

Universal Asynchronous Receiver/Transmitter. Integrated circuit, attached to the parallel bus of a computer, used for serial communications. The UART translates between serial and parallel signals, provides transmission clocking, and buffers data sent to or from the computer.

UB Net/One

Ungermann-Bass Net/One. Routing protocol, developed by UB Networks, that uses hello packets and a path-delay metric, with end nodes communicating using the XNS protocol. There are a number of differences between the manner in which Net/One uses the XNS protocol and the usage common among other XNS nodes.

UBR

unspecified bit rate. QOS class defined by the ATM Forum for ATM networks. UBR allows any amount of data up to a specified maximum to be sent across the network, but there are no guarantees in terms of cell loss rate and delay. Compare with *ABR (available bit rate)*, *CBR*, and *VBR*.

UDP

User Datagram Protocol. Connectionless transport layer protocol in the TCP/IP protocol stack. UDP is a simple protocol that exchanges datagrams without acknowledgments or guaranteed delivery, requiring that error processing and retransmission be handled by other protocols. UDP is defined in RFC 768.

UL

Underwriters Laboratories. Independent agency within the United States that tests product safety.

ULP

upper-layer protocol. Protocol that operates at a higher layer in the OSI reference model, relative to other layers. ULP is sometimes used to refer to the next-highest protocol (relative to a particular protocol) in a protocol stack.

unbalanced configuration

HDLC configuration with one primary station and multiple secondary stations.

Underwriters Laboratories

See *UL*.

Ungermann-Bass Net/One

See *UB Net/One*.

UNI

User-Network Interface. ATM Forum specification that defines an interoperability standard for the interface between ATM-based products (a router or an ATM switch) located in a private network and the ATM switches located within the public carrier networks. Also used to describe similar connections in Frame Relay networks. See also *NNI*, *Q.920/Q.921* and *SNI (Subscriber Network Interface)*.

unicast

Message sent to a single network destination. Compare with *broadcast* and *multicast*.

unicast address

Address specifying a single network device. Compare with *broadcast address* and *multicast address*. See also *unicast*.

uninsured traffic

Traffic within the excess rate (the difference between the insured rate and maximum rate) for a VCC. This traffic can be dropped by the network if congestion occurs. See also *CLP*, *insured rate*, and *maximum rate*.

unipolar

Literally meaning one polarity, the fundamental electrical characteristic of internal signals in digital communications equipment. Contrast with *bipolar*.

unity gain

In broadband networks, the balance between signal loss and signal gain through amplifiers.

Universal Asynchronous Receiver/Transmitter

See *UART*.

Universal Resource Locator

See *URL*.

UNIX

Operating system developed in 1969 at Bell Laboratories. UNIX has gone through several iterations since its inception. These include UNIX 4.3 BSD (Berkeley Standard Distribution), developed at the University of California at Berkeley, and UNIX System V, Release 4.0, developed by AT&T.

UNIX-to-UNIX Copy Program

See *UUCP*.

unnumbered frames

HDLC frames used for various control and management purposes, including link startup and shutdown, and mode specification.

unshielded twisted-pair

See *UTP*.

unspecified bit rate

See *UBR*.

UPC

usage parameter control. See *traffic policing*.

upper-layer protocol

See *ULP*.

URL

Universal Resource Locator. Standardized addressing scheme for accessing hypertext documents and other services using a WWW browser. See also *WWW browser*.

usage parameter control

See *traffic policing*.

USENET

Initiated in 1979, one of the oldest and largest cooperative networks, with over 10,000 hosts and a quarter of a million users. Its primary service is a distributed conferencing service called news.

User Datagram Protocol

See *UDP*.

User-Network Interface

See *UNI*.

UTP

unshielded twisted-pair. Four-pair wire medium used in a variety of networks. UTP does not require the fixed spacing between connections that is necessary with coaxial-type connections. There are five types of UTP cabling commonly used: *Category 1 cabling*, *Category 2 cabling*, *Category 3 cabling*, *Category 4 cabling*, and *Category 5 cabling*. Compare with *STP*. See also *EIA/TIA-586* and *twisted pair*.

UUCP

UNIX-to-UNIX Copy Program. Protocol stack used for point-to-point communication between UNIX systems.