

# Schools and Libraries (E-Rate) Program

## Eligible Services List (ESL) Glossary



The following glossary contains a list of common terms that relate to the eligibility of products and services that applicants may request in the E-rate Program. This glossary should NOT be used by applicants to determine the eligibility of a service or product or to determine the E-rate category of service for a particular service or product. Instead, applicants must refer to the Eligible Services List (ESL) for a particular funding year to determine eligibility for services and products for E-rate support for that funding year. Products and services that are not listed in the ESL are presumed to be ineligible.

### **ANTENNAS**

An antenna is a device for transmitting and/or receiving radio frequency signals.

### **ASYNCHRONOUS TRANSFER MODE (ATM)**

ATM is a high-speed Digital Transmission Service that can provide bandwidth of 622 Megabits per second or higher.

### **BROADBAND OVER POWER LINES (BPL)**

Broadband over Power Lines (BPL) is a carrier current system installed and operated on an electric utility service as an unintentional radiator that sends radio frequency energy on frequencies between 1.705 MHz and 80 MHz over medium voltage lines or low voltage lines to provide broadband communications. It is also located on the supply side of the utility service's points of interconnection with customer premises.

### **CABLE MODEM**

A cable modem is a modem designed for use on a TV coaxial cable circuit and provides a high-speed data path. It can provide high-speed access to the Internet over a coaxial cable circuit.

### **CABLING**

Cabling refers to the wires or groups of wires capable of carrying voice, video, or data transmissions. Cabling provides electrical (or, in the case of fiber optics, lightwave) connectivity between points.

### **CACHING SERVICES/EQUIPMENT**

A method that stores recently accessed information locally so that the information is accessible more quickly than if transmitted across a network from a distance.

### **CELLULAR SERVICE**

Cellular service uses radio transmissions to provide a wireless telephone and data service. The voice component of cellular service is ineligible for E-rate discounts.

### **CONNECTORS**

Connectors are devices that connect wires or fibers.

### **DIGITAL SUBSCRIBER LINE (DSL)**

Digital Subscriber Line (DSL) is a technology that provides high-speed connections over telephone lines. Different types of DSL service are available, using descriptions such as ADSL, HDSL, and SDSL. The DSL family of technologies sometimes goes by the general name xDSL.

### **DS-1**

DS-1 is a type of Data Transmission Service, and stands for "Digital Signal, level 1." It operates at a bandwidth of 1.544 megabits per second. Other DS levels—DS-2, DS-3, and DS-4—operate at higher bandwidths.

### **ETHERNET**

Ethernet is a type of Data Transmission Service. Traditionally, Ethernet operates at a bandwidth commonly known as 10Base-T which is equivalent to 10 megabits per second (Mbps). 100Base-T at 100 Mbps and Gigabit (1,000Mbps) are also available.

### **FIBER OPTICS OR FIBER SERVICE**

Fiber Optics is a technology that uses light to transport information over thin strands of glass (called fiber optic cable) and can provide a Data Transmission Service.

### **FIREWALL OR FIREWALL SERVICE**

A firewall is a hardware and software combination that sits at the boundary between an organization's network and the outside world, and protects the network against unauthorized access or intrusions.

### **FRAME RELAY**

Frame relay is a type of Data Transmission Service. Frame relay networks in the United States support data transfer rates at T-1 (1.544 Mbps) and T-3 (45 Mbps) speeds.

## **INTEGRATED SERVICES DIGITAL NETWORK (ISDN)**

ISDN is a type of Data Transmission Service that uses traditional phone lines to transmit digital voice and data over telephone lines. There are two types of service. Basic Rate Interface (BRI) provides a total bandwidth of 144 kilobits per second. Primary Rate Interface (PRI) provides a total bandwidth of 1.544 megabits per second. The voice component of an ISDN is ineligible for E-rate discounts.

## **INTERNET ACCESS**

The definition of internet access comes from section 54.5 of the FCC's rules which states that internet access includes the following elements: (1) The transmission of information as common carriage; (2) The transmission of information as part of a gateway to an information service, when that transmission does not involve the generation or alteration of the content of information, but may include data transmission, address translation, protocol conversion, billing management, introductory information content, and navigational systems that enable users to access information services, and that do not affect the presentation of such information to users; and (3) Electronic mail services (e-mail).

## **LEASED DARK FIBER**

Dark fiber refers to fiber optic cable for which the service provider has not provided modulating electronics, and that is not being used to transmit data. Leased dark fiber is a type of fiber service in which the applicant leases a portion of a provider-owned and maintained fiber network, and separately pays to have that fiber lit in order to transmit information over that fiber. For the purposes of the E-rate Program, the term "leased dark fiber" includes infeasible rights of use.

## **LEASED LIT FIBER**

Lit fiber refers to fiber optic cable for which the service provider provides modulating electronics to light the fiber. Leased lit fiber is a fiber-based broadband service where the service provider owns, maintains, and manages the network, and the E-rate applicant pays a recurring fee to have data transported over the network.

## **LOCAL AREA NETWORK (LAN)**

A data\* network that provides connections generally within an eligible school or library to other locations within the school or library.

\*The voice and video components of a LAN are ineligible for E-rate discounts.

## **MANAGED INTERNAL BROADBAND SERVICES (MIBS)**

MIBS are services provided by a third party for the operation, management, and monitoring of eligible broadband internal connections components.

## **MICROWAVE**

Microwave is a wireless technology used for point-to-point communications systems.

## **OC-1**

OC-1 stands for "optical carrier 1," which is a Data Transmission Service that operates at 51.84 Megabits per second. Multiples of this bandwidth are also available, such as, OC-3 and OC-12.

## **RACKS**

A rack is a metal supporting framework for mounting cables, equipment, and/or wires.

## **ROUTER**

Routers are switching devices that can act as an interface between two networks and connect different segments, such as departments or floors in a building. Functionally, routers select the routing path for traffic.

## **SATELLITE SERVICE**

Satellite service provides communication between points on Earth by using an orbiting satellite as a communications relay point.

## **SELF PROVISIONED NETWORK**

Applicant ownership of a high-speed broadband network. The applicant hires a vendor to construct the network or a portion of the network, and thereafter completely or partially owns and maintains that network or portion.

## **SHIPPING CHARGES**

Shipping Charges are the charges associated with the delivery of products from their point of origin to the customer premises.

## **SWITCH**

A switch is a mechanical or electronic device that completes or breaks an electrical path or that selects the paths for communication. More specifically, network switches provide capability similar to a network hub but provide a dedicated bandwidth at each network port, rather than shared bandwidth among all ports.

## **SWITCHED MULTIMEGABIT DATA SERVICE (SMDS)**

Switched Multimegabit Data Service (SMDS) is a type of Data Transmission Service offered by telephone companies that operates at speeds of from 1.544 Megabits per second to 45 Megabits per second or even more.

**T-1**

T-1, which stands for Trunk Level 1, is a Data Transmission Service that operates at 1.544 Megabits per second. Greater speeds are available from other Trunk Levels, such as T-2 (6.312 Mbps) or T-3 (44.736 Mbps). Slower speeds are known as Fractional T-1.

**UNINTERRUPTIBLE POWER SUPPLY (UPS) / BATTERY BACKUP**

UPS, also called a battery backup, is a device that provides backup electric energy to a piece of equipment in the event of a power failure.

**WIDE AREA NETWORKS (WANS)**

A WAN is a data\* network that provides connections from within an eligible school or library to other locations beyond the school or library.

\*The voice and video components of a WAN are ineligible for E-rate discounts.

**WIRELESS ACCESS POINT**

A Wireless Access Point is used to distribute a wireless signal to allow devices to connect to a network and/or access the Internet within a wireless LAN.

**WIRELESS CONTROLLER SYSTEM**

A Wireless Controller System is used in conjunction with access points to create a wireless local area network.

**WIRELESS LOCAL AREA NETWORK (LAN)**

A Wireless Local Area Network provides the functionality of a local area network using wireless components rather than cabling.