

Schools & Libraries

Eligible Services List Schools and Libraries Support Mechanism for Funding Year 2007

Overall Eligibility Requirements for All Categories of Service:

The Eligible Services List indicates whether specific products or services may be able to receive discounts under the Schools and Libraries Support Mechanism.

The List is organized into four sections that represent the four funding categories established by the Federal Communications Commission plus a Miscellaneous section that is applicable to multiple categories:

[Telecommunications Services](#)
[Internet Access](#)
[Internal Connections](#)
[Basic Maintenance of Internal Connections](#)
[Miscellaneous](#)

In addition, the following sections are provided:

[Special Eligibility Conditions](#)
[Glossary](#), providing additional information about
the terms used in this Eligible Services List
[Index](#)

Funding may be provided only for eligible products or services for educational purposes. See 47 C.F.R. §§ 54.500(b), 54.504. The conditions for eligibility are described in the specific entries of this Eligible Services List. Services that are not eligible are listed at the end of each category.

All applicants are reminded to review the Special Eligibility Conditions at the end of this Eligible Services List in addition to all of the entries applicable to the services or products they are requesting. The USAC website at www.usac.org/sl may contain additional information about eligibility requirements, but those documents are not incorporated by reference into the Eligible Services List.

This version of the Eligible Services List is dated October 19, 2006. Some eligibility information in this List represents a change from prior funding years and applies to funding requests for Funding Year 2007.

Telecommunications Services

Eligibility Requirements for All Telecommunications Services:

To be eligible for support, Telecommunications Services must be provided by a telecommunications carrier, that is, one who offers telecommunications on a common carriage basis.

A telecommunications service is "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public..." [47 U.S.C. 153(46)]. Telecommunications is defined as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received" [47 U.S.C. 153(43)].

All telecommunications carriers are required under FCC rules to be common carriers and to file FCC Form 499A (*Telecommunications Reporting Worksheet*).

Except as otherwise indicated in this section, support in this funding category is only available for telecommunications services or for services that are an integral component part of a telecommunications service. Support in this category of service is not available for equipment purchases by applicants.

In addition, some service offerings provide a combination of both Internet Access and Telecommunications Services. For example, a service provider may offer local phone service, long distance service, cellular service, and Internet access for one price. For administrative convenience, such a combined offering, if provided by an eligible telecommunications carrier, may be requested in the Telecommunications Services category of service. Alternatively, funding may be requested as two separate requests, with the price of the offering appropriately allocated between the Telecommunications Services and Internet Access categories.

If Internet access is being requested in the Telecommunications Services category, applicants must indicate that Internet access is being sought when filing FCC Form 470. Please note that funding of Internet access in the Telecommunications Services category does not relieve applicants of responsibilities they may have under the Children's Internet Protection Act.

Function	Description
Digital Transmission Services	A telecommunications service that provides transmission from an eligible school or library facility to other locations beyond the school or library is eligible for discount. Digital transmission services refer to data links that connect multiple points using any available technology. An eligible digital transmission service may be used to connect an eligible location to the Internet or Internet2 . Digital transmission services used to link

	local networks are commonly called “wide area networks” (WANs). Eligible digital transmission technologies include, but are not limited to: • Asynchronous Transfer Mode (ATM) • Digital Subscriber Line (DSL) • DS-1, DS-2, DS-3 • Fiber optics • Frame Relay • Integrated Services Digital Network (ISDN, BRI, PRI) • OC-1, OC-3, OC-12, OC-n • Satellite service • Switched Multimegabit Data Service (SMDS) • T-1, T-2, T-3, Fractional T-1 • Wireless Components required as an integral part of a digital transmission service are eligible for discount, such as: • costs of a permanent virtual circuit (PVC) • costs of trunk lines • reasonable installation costs The telecommunications component of: • a distance learning capability, • video service, or • interactive television is eligible for discount.
Paging	Paging services are eligible when integral, immediate, and proximate to the education of students. Services occurring at eligible locations are presumed to meet this standard, as well as, for example, paging services used by a bus driver delivering students to school, a library staff member in a mobile van, and teachers on field trips.
Telephone Service	“Telephone Service” refers to communication that takes place using the public switched telephone network. Costs to subscribe to a telephone service are generally eligible for discount. Examples of telephone services include: • 800 service • Centrex • Local phone service • Long distance telephone service • POTS (“Plain Old Telephone Service”) • Radio loop • Wireless telephone services, e.g., cellular service and Personal Communications Services (PCS) • Shared telephone service (only that portion of the shared service relating to the eligible use and location is eligible) • Telecommunications services and voice mail services

	used to provide a homework hotline service are eligible. For example, a toll-free telephone number for students to contact school regarding questions about homework Various payment options may be used with these eligible services, and phone bills may include billing terms such as flat rate, local measured service, and message rate service. Phone calling cards may be used if they are used for an educational purpose. Service to an eligible location for educational or library purposes can provide voice communication, fax connections, modem connections, 911/E911 trunks/lines or an alarm telephone line.
Telephone Service Components	Telephone features indicated in this section are eligible for discount if they are a component part of a telephone service. Generally, this requirement means that these charges will appear on the same bill as the telephone service itself. • 900/976 call blocking • Custom calling services • Direct Inward Dialing (DID) • Directory assistance charges • Inside wire maintenance plan. An inside wire maintenance plan is eligible as a component part of a telephone service only if charges are minimal. • Installation charges—see the entry for “Installation and Configuration” in the Miscellaneous section • Network access register charges • PIC change charge
Other Eligible Telecommunications Services	The telecommunications component of voice or video conferencing services that provide a means for multiple users to participate in group discussions can be eligible if the services are limited only to eligible educational or library purposes or if an auditable monitoring system is in place that provides a way to allocate between eligible and ineligible uses. Maintenance and technical support appropriate to maintain reliable operation is eligible for discount when provided as a component of an eligible telecommunications service. Please see the Miscellaneous section of this document for additional entries applicable to Telecommunications Services, such as charges for installation and configuration.
Ineligible for E-rate Funding as Telecommunications Services (Not Eligible)	The following services are NOT ELIGIBLE for discount: • 900 /976 charges • Dark fiber service • Direct Broadcast Satellite and other services that provide broadcast content or cable television • Directory advertising • Extra costs for directory listings

- [Payphone telephone service](#)
- [Reverse directory assistance](#)
- [Non-telecommunications components](#) of a distance learning service, video service, or interactive television service, such as a scheduling service or services for creation, maintenance, and storage of content
- [Internet2](#) membership dues
- [Residential telephone service](#) is not eligible except in cases where state or local law or tariffs allow a school or library to receive local service at the residential rates
- Charges for creation, configuration, or maintenance of content
- Services that go beyond a telecommunications service, such as monitoring services for 911, E911, or an alarm telephone line
- Services that connect to a residential facility or home
- Services that provide voice, video, or data connectivity exclusively within school or library grounds are not eligible for funding as Telecommunications Services but may be eligible as Internal Connections
- Services to ineligible locations, such as telephone service to residential facilities

Please see the [Miscellaneous](#) section of this document for additional entries applicable to Telecommunications Services. For example, finance charges and termination charges are not eligible.

Internet Access

Eligibility Requirements for All Internet Access Services:

Internet access is an information service. Briefly, an information service is “the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications....” [47 U.S.C. 153(20)].

Support in this funding category is only available for basic conduit access to the Internet or for services that are an integral component part of basic conduit access. Support in this category of service is not available for content, equipment purchases by applicants, or services beyond basic conduit access to the Internet.

To qualify as Internet access, all services must reach the boundary of public Internet space.

Service providers for Internet access need not be telecommunications carriers.

Function	Description
E-mail Service	Internet-based e-mail service is eligible. Such a service is often included in the cost of basic conduit access to the Internet or may be provided at a separate cost, either as a fixed charge and/or on a per-user or other basis. Some e-mail services may include substantial ineligible features, such as calendaring functions, collaboration tools, and services to ineligible users. Funding is limited strictly to the eligible e-mail portion. Any cost allocation must be based on tangible information that provides a reasonable and appropriate delineation between the eligible and ineligible components.
Internet Access	Basic conduit access to the Internet is eligible regardless of technology platform. Access technologies include but are not limited to: • Telephone dial-up • T-1 lines • Digital Subscriber Line (DSL) • Cable Modem • Wireless Eligible Internet access may include features typically provided for adequate functionality and performance when provided as a standard component of a vendor's Internet access service. Such features may include Domain Name Service (DNS), Dynamic Host Configuration Protocol (DHCP), and firewall

	protection against unauthorized access. A wireless Internet access service is eligible under the same provisions as wired access to the Internet. Wide Area Network facilities can be eligible for funding as a part of Internet access if the service is limited to basic conduit access to the Internet and the offering is the most cost-effective means of accessing the Internet. GSP (Global Service Provider) fees necessary to obtain Internet access are eligible. A wireless Internet access service designed for portable electronic devices is eligible to be funded if used for educational purposes.
Web Hosting	A web hosting service that provides a means for a school or library to display content on the Internet is eligible. Domain name registration necessary for the creation of a school or library website is eligible for discount. Funding is limited strictly to the eligible web hosting function. Some web hosting services may include ineligible features, such as software applications and content editing features. Funding will not be provided for such features. Any cost allocation must be based on tangible information that provides a reasonable and appropriate delineation between the eligible and ineligible components.
Other Eligible Internet Access Services	Maintenance and technical support appropriate to maintain reliable operation is eligible for discount when provided as a component of an eligible Internet access service. Please see the Miscellaneous section of this document for additional entries applicable to Internet access, such as charges for installation and configuration.
Ineligible for E-rate Funding as Internet Access Services <i>(Not Eligible)</i>	The following services are NOT ELIGIBLE for discount: • Internet content or charges for the creation or display of information. Internet access that provides features or content that go beyond basic conduit access to the Internet is not eligible for funding. (E-mail service and e-mail account fees, however, are not considered Internet content. Applicants may accept an Internet Access service with minimal content included if the content meets the limitations for Ancillary Use. See Special Eligibility Conditions below for Ancillary Use.) • Costs attributable to the creation or modification of information, such as a web site creation fee or content maintenance fee • Charges to access Internet content or limited-access

	information • Software, services, or systems used to create or edit Internet content • Internet2 fees • Dark fiber service • Training in the use of the Internet • Costs for training provided via the Internet • Services that go beyond basic conduit access to the Internet • Point-to-point connectivity of data, video, or voice applications that are to be provided only by eligible telecommunications carriers • Specialized services that go beyond basic conduit access to the Internet, such as Virtual Private Network services • Web site creation fee • Electronic library/on-line public access and associated software Separate pricing for the following components when not included in the standard configuration of an Internet access service is NOT ELIGIBLE: • Caching service • Content filtering service • Web Casting Please see the Miscellaneous section of this document for additional entries applicable to Internet access. For example, finance charges and termination charges are not eligible.
--	--

Internal Connections

Eligibility Requirements for All Internal Connections:

Internal Connections are components located at the applicant site that are necessary to transport information to classrooms, publicly accessible rooms of a library, and to eligible administrative areas or buildings. Internal Connections include connections within, between or among instructional buildings that comprise a school campus or library branch, but do not include services that extend beyond the school campus or library branch.

Components at the applicant site are eligible only if they are an essential element in the transmission of information within the school or library. The components must be necessary to transport information all the way to individual classrooms or public areas of a library.

Internal Connections do not include services that extend across a public right-of-way beyond the school or library facility.

Funding for Internal Connections is subject to the provisions of the "[Two-in-Five Rule](#)."

Function	Description
Cabling/ Connectors	Cabling, connectors, and related components used for eligible voice, video, and data transmission within an eligible location are eligible for discount. Eligible components include: • Cable (e.g., copper, fiber, coax, twisted pair) • Connectors and couplers • Jacks, panels, faceplates and wire managers • Conduit and raceway • Other cabling components necessary to transport information all the way to individual classrooms or public areas of a library. Consumable components are eligible only when included as part of the original installation of eligible components. <u>Eligibility limitations</u> If cabling or cabling components are used for both eligible and ineligible purposes, the cost of the ineligible portion must be cost allocated.
Circuit Cards/ Components	Circuit cards and related components, such as memory modules/Random Access Memory (RAM) are eligible if they are necessary for adequate performance of an eligible component, such as an eligible PBX, router, or server. Network interface cards (NICs) that are separately priced or used in eligible equipment are eligible.

	Processors and a processor terminator card are eligible if used in an eligible component. Phone modems can be eligible if used with an eligible file server or other eligible device for providing remote dial-in network access, if the remote access is limited to connections from eligible locations.
Data Distribution	Components used to distribute information from telecommunication or Internet access facilities all the way to individual classrooms or public areas of a library are eligible. Such components may include: • Access Point used in a LAN environment • Hub • Multiplexer used as part of a LAN • Network Switches are eligible for discount when used for an eligible purpose • Routers are eligible for a discount when used for an eligible purpose Voice/Video over IP (VoIP) components are eligible as Internal Connections. Components such as those indicated above are typically configured into a local area network or wireless local area network. Some products may have modules or features that are not eligible, (e.g., content filtering, network management, and caching). If these ineligible components are available separately, or the applicant specifically seeks the ineligible functions, their cost must be subtracted from the amount eligible for discount.
Data Protection	Data protection components are used to ensure the continued operation of eligible equipment by protecting equipment and computer files from environmental or security hazards. The following components are eligible if used to provide basic and reasonable measures for data protection: • Firewall • Proxy Server • Tape Backup when used as part of an eligible server • Virtual Private Network (VPN) Components • Tape backup cartridge units are eligible when used as part of an eligible server. A cartridge included with a tape backup may be provided as an integral component of the backup unit, if the cartridge is part of the standard product configuration and provided at no additional cost.

	An Uninterruptible Power Supply (UPS)/Battery Backup that protects eligible equipment is eligible as a data protection component, but no funding will be provided for UPS systems that can provide continued backup power for substantial periods in excess of that necessary for basic power protection. The following components used for the reliable operation of a UPS are eligible: • UPS Interface Expander • Relay I/O Module
Interfaces, Gateways, Antennas	Interfaces, gateways, and antennas represent miscellaneous components that are eligible when used for an eligible purpose to transport telecommunications or Internet access information all the way to individual classrooms or public areas of a library. The following components are generally eligible: • Bridge • Cable Modem (but not for receipt of cable TV service; may also be leased as part of Internet access service) • Channel Service Unit/Data Service Unit (CSU/DSU) (may also be leased as part of Priority One service) • Copper-to-Fiber (TX-to-FX) converter • FRAD • Gateway • Interface/Edge Device • Network Interface Device • Media Converter • Terminal Adapter • Transceiver • Voice/Fax network module <u>Eligibility limitations for antennas</u> Antennas and related components, such as satellite dishes used for eligible purposes, are eligible for discount if they are priced separately on a contract or are sold separately. Antennas embedded in ineligible equipment such as computer workstations are not eligible. Antennas and other components used for the receipt of over-the-air radio and television broadcast signals or for radio signals from cable television operators are not eligible. While an antenna mast that supports eligible Internal Connections is eligible, large antenna towers are not eligible as Internal Connections.
Servers	Computers used as servers or similar centralized functions are eligible if the use is necessary to transport information all the way to individual classrooms or public areas of a library.

	A server can be eligible or not eligible, depending on how it is used. An eligible server must serve as a conduit for information rather than as a source for content. Servers typically provide multiple functions. If servers are used for both eligible and ineligible purposes, the cost of the ineligible portion must be cost allocated. The following uses are eligible: • Dynamic Host Configuration Protocol (DHCP) • Domain Name Service (DNS) • E-mail • Firewall or Proxy Server The following servers are eligible only in certain cases: Remote Access Components— Eligible if steps are taken to ensure that remote access is limited to connections from eligible locations. Remote access cannot be provided to homes or other non-school or non-library sites. Terminal Server— Eligible to the extent that the use meets the other eligible server types indicated in this section but not eligible as a source for ineligible software applications or other ineligible uses. Web Server— Eligible if used to provide content to users of the Internet but not eligible as a source for software applications, database functions, or storage of end-user files. One monitor per eligible server or other eligible component requiring a visual display is eligible for discount. However, special-purpose devices, such as large screen monitors, are not eligible. A KVM switch (“keyboard-video-mouse” switch) is eligible if cost-effective in comparison to the individual components that would otherwise be necessary.
Software	Some types of computer software are eligible for discount. Operating system software, such as network operating system software required to obtain operation of an eligible component, is eligible, including functionality provided with the core operating system at no cost. Additional software products available separately that provide optional operational features are not eligible for discount. E-mail software that is a server-based, shared product is eligible. If such a software product provides substantial additional functionality that is not eligible, such as database, workflow, or groupware features, only the e-mail portion of the product is eligible and the cost of the ineligible portion must be cost allocated. E-mail software or other eligible components that include content filtering as an integral component part are eligible, but a separately priced content filtering module or product is not

	eligible. Software for a server-based, shared voice mail system is eligible. Client Access Licenses for eligible software products are eligible, but Client Access Licenses for ineligible software products are not eligible.
Storage Devices	Storage devices provide electronic data storage on magnetic or other media. Devices include hard disk drives, CD ROM drives, DVD drives, and floppy disk drives. Storage products may be used to store the operating system of an eligible product, such as a network server used for an eligible purpose. (See the entry for Servers for further information.) In addition, storage products may be used for eligible e-mail files. An eligible server or other eligible component that provides a storage product such as a DVD drive as an integral component part at no additional cost is eligible.
Telephone Components	Centralized components that are an essential element in the transport of telephone services within a school or library are eligible. This includes: • Private Branch Exchange (PBX) • Key System (KSU) • Voice Mail Components • Wireless PBX Adjunct In addition, the following features are eligible: • Automatic Route Selection (ARS) • E911 Reader Board • Voice Compression Module • Voice Interface Card One switchboard/attendant console necessary for operation of each eligible PBX or eligible Centrex telephone service is eligible. An intercom system that is an integral component of a PBX or other eligible product can be included in the cost of the eligible component.
Video Components	Centralized video components necessary to transport information all the way to individual classrooms or public areas of a library are eligible. This includes: • CODEC / video encoder • Master Control Unit • Multipoint Control Unit

	• PVBX • Video Amplifier • Video Channel Modulator • Enhanced Multimedia Interface Equipment that is used to control the programming, distribution, and selection of video content can be eligible if used in the transport of information to individual classrooms or public areas of a library, however such components are not eligible if used in end-user equipment and/or are operated directly by end-users.
Other Eligible Internal Connections Components	Documentation in hard copy or electronic form is eligible for discount if it is basic and is provided as part of the purchase of eligible components. Racks and cabinets are eligible only to the extent that the components they contain are eligible. A surge protector provided as an integral component of a rack or cabinet without separately identifiable cost can be included in the cost of the rack or cabinet, but a separately-priced surge protector is not eligible. System improvements and upgrades to eligible components are eligible for discount. Memory upgrades, for example, to eligible servers are eligible, but memory upgrades would not be eligible in end-user workstations. Please see the Miscellaneous section of this document for additional entries applicable to Internal Connections, such as charges for installation and configuration.
Ineligible Internal Connections Components (Not Eligible)	Products and services are only eligible as Internal Connections if they are an essential element in the transmission of information within the school or library. The following components are NOT ELIGIBLE: • Asbestos removal • Broadcast and cable television equipment • Electrical system upgrades • Multimedia content, such as encyclopedias on CD ROM, video information, etc., also including multimedia kits • Intercom and public address (PA) system • Spare parts • External speakers (except when provided at no cost as an integral part of an eligible component) • Test Equipment • Consumable Kits which contain installation tools • Wiring and components providing electrical service or for radio or television broadcast or cable services • Network interface cards that are embedded in ineligible

	equipment (such as end-user equipment) or included in the pricing for ineligible equipment • Phone modems that are provided in or with end-user equipment, or used to provide dial-in access from ineligible locations such as homes or other non-school or non-library sites • Lightning Arrestor • Surge Protector • Power Strips • Disaster Recovery • Environmental Monitoring components • Components that are installed in standby mode, redundant, not active and online, or otherwise not an essential element in the transmission of information within the school or library <u>Ineligible Servers:</u> • Storage of application software, databases accessed by end users, or end-user files other than e-mail files • End-user personal computers/workstations, even if the device also provides server functionality • Caching server and print server. (However, caching and print server features provided by the core network operating system may be utilized if the principal function of the server is for other purposes that are eligible). • Laptop/notebook computer (presumed to not be eligible because a laptop is typically used as an end user workstation). <u>Ineligible Software:</u> • All end-user software • Application Software other than server-based, shared e-mail • Developmental software • Network management software • Operating system software for end-user computers • Security software • Utility software, such as anti-virus software <u>Ineligible Storage:</u> • Devices used to supplement storage requirements of personal computers on a network. For example, storage devices are not eligible if used to store the following information: end-user files other than e-mail files; application software; other ineligible software; archival information; caching information • Storage devices in end-user components, such as end-user computer workstations
--	---

- Consumable [storage media](#), such as floppy disks, recordable CD ROM media, and [cartridge magnetic tape](#)

Ineligible Data Protection Components:

- Tape backup cartridge units when part of a PC or workstation
- Cost of purchasing additional or separate tapes

Ineligible Telephone Components:

- [Automatic Call Distribution System \(ACD\)](#)
- [Call Accounting System](#)
- [Call Sequencer](#)
- [Homework Hotline Equipment](#)
- [Station Message Detail Recording \(SMDR\)](#)
- An [intercom](#) or [public address](#) system

Ineligible End-user Equipment:

- [Computer workstations](#)
- End-user telephone sets
- [Fax machine](#)
- Cameras
- Microphones
- Videotape recorders
- [Personal digital assistant \(PDA\)](#)
- [CD/DVD player](#)
- [Pager](#)
- [Printer](#)
- [Two-way radio](#)
- End-user [telephones](#) and end-user [voice mail components](#) such as answering machines are not eligible. In addition, telephone components not essential for the transport of telephone services within the school or library are not eligible (unless included as an integral component of a standard product offering for an eligible product at no additional cost).

Ineligible Video Components:

- End-user video equipment and equipment for the creation of video content is not eligible for discount. Examples include video monitors, televisions, video cameras, and video recorders and playback devices.
- [Broadcast and cable television equipment](#) used for the display or distribution of broadcast and cable television signals

See the [Miscellaneous](#) section of this document for additional entries applicable to Internal Connections. For example, finance charges and termination charges are not eligible.

Basic Maintenance of Internal Connections

Basic Maintenance ensures the necessary and continued operation of eligible internal connection components at eligible locations.

Basic maintenance services are generally provided by contract. No funding for a technical support contract will be provided if it includes services that exceed basic maintenance as defined in this section.

All requests in this category are for services to be delivered within the July 1 to June 30 Funding Year.

Although Internal Connections is subject to the provisions of the [“Two-in-Five Rule,”](#) this rule does not apply to Basic Maintenance.

Maintenance and Technical Support of Internal Connections

Necessary basic maintenance services are defined as follows: “but for the maintenance at issue, the connection would not function and serve its intended purpose with the degree of reliability ordinarily provided in the marketplace to entities receiving such services without E-rate discounts.” The following maintenance services are eligible:

- Repair and upkeep of eligible hardware
- Wire and cable maintenance
- Basic technical support
- Configuration changes

Basic maintenance is eligible for discount only if it is a component of a maintenance agreement or contract for eligible components. The agreement or contract must specifically identify the eligible components covered, including product name, model number, and location.

Ineligible Basic Maintenance of Internal Connections

The following products and services are **NOT ELIGIBLE**:

- On-site technical support (*i.e.*, contractor duty station at the applicant site) when off-site technical support can provide basic maintenance on an as-needed basis.
- Services such as network management and 24-hour network monitoring.
- Help desks that provide a comprehensive level of support beyond basic maintenance of only eligible components.
- Technical support contracts that are more than basic maintenance.

In addition, software [Client Access Licenses](#) are not eligible as Basic Maintenance. However, Client Access Licenses for eligible software products may be eligible in the Internal Connections funding category.

	Eligible basic maintenance does not include services to maintain ineligible equipment, to enhance the utility of equipment beyond the transport of information, or to provide diagnostic services in excess of those necessary to maintain the equipment's ability to transport information.
--	--

Miscellaneous	
The service category for entries in this section should reflect the same category as the product or service being installed or obtained--Telecommunications Services, Internet Access, or Internal Connections.	
Product Type (Function)	Description
Interconnected Voice over Internet Protocol (Interconnected VoIP) Services	Funding requests for interconnected VoIP services may be submitted in the Internet Access category. ¹
Installation and Configuration	Installation, activation, and initial configuration of eligible components are eligible if they are part of a contract or bid for those eligible components. Such eligible services may include basic design and engineering costs and basic project management costs if these services are provided as an integral component part coincident with installation. In addition, on-site training is eligible as a part of installation services but only if it is basic instruction on the use of eligible equipment, directly associated with equipment installation, and a part of the contract or agreement for the equipment. Training must occur coincidently or within a “reasonable time after installation.”
Miscellaneous Fees and Charges	Fees and charges that are a necessary component of an eligible product or service are generally eligible, including: • Change fees • Freight assurance fees • Shipping charges The following fees and charges are eligible only if a contract with a vendor for eligible product or services specifically

¹ We include [interconnected VoIP](#) as an eligible service irrespective of whether this service is a telecommunications service or an information service. The Commission has included both information services (*i.e.*, Internet access and voicemail services) and telecommunications services as Priority One services eligible for discounts under the universal service support mechanism. *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Second Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 9202, 9212, para. 29 (2003). As such, the regulatory classification of [interconnected VoIP](#) service does not affect our inclusion of these services as eligible services here. The Commission plans to take all necessary actions to conform its rules to this decision.

	provides for these costs: • Per diem • Travel time Extended warranties and service contracts are eligible only for that portion associated with the relevant funding year. However, a manufacturer's multi-year warranty provided as an integral part of an eligible component without separately identifiable cost can be included in the cost of the component. Lease fees to rent or lease eligible components are eligible. Taxes, surcharges, and other similar, reasonable charges incurred in obtaining an eligible product or service are eligible. This includes customer charges for universal service fees but does not include additional charges for universal service administration. A reasonable contingency fee is eligible only if it is a regular business practice of the service provider.
Voice Mail Service	A voice mail service is eligible. Funding requests for a voice mail service may be submitted in the Telecommunications Services category of service if provided by an eligible telecommunications carrier or may be submitted in the Internet Access category of service if provided by any service provider. In addition, voice mail equipment may be requested in the Internal Connections category of service, but funding is not available for end-user products such as answering machines.
Other Miscellaneous Ineligible Components <i>(Not Eligible)</i>	In addition to components indicated in other sections of this Eligible Services List, the following components are NOT ELIGIBLE for discount: • Interest or finance charges • Late payment fees • Performance bond • Termination charges Duplicative services are not eligible. Any service that is duplicative of a service already requested or being used by the applicant will not be eligible. Services that provide necessary bandwidth requirements consistent with an applicant's Technology Plan, such as multiple T-1 lines when appropriate for the population served and the services to be received, are not duplicative. Broadcast television, cable television, Instructional Television Fixed Service (ITFS), and satellite television are not eligible

	for discount. Creation of software programs or functions such as through computer programming is not eligible. <u>Ineligible Installation and Configuration:</u> Consulting services not directly tied to and coincident with basic installation and configuration of eligible services are not eligible. Services that are NOT ELIGIBLE include but are not limited to the following: • Initial planning to determine the technology and/or components to be deployed. • Network architecture design. • Development of technology plans. • Application assistance, program advice, and other activities not tied directly to actual installation and initial configuration of components. In addition, the following Installation and Configuration components are NOT ELIGIBLE: • Labor costs for school and library personnel. • Costs for contractor personnel to operate components. • Costs for network management software, services, and equipment. • Test equipment and tools. • End-user training, such as training of teachers and staff in the use of covered services in their programs of instruction or for professional development. • Construction costs, other than incidental charges to restore a facility to pre-installation conditions.
--	---

Special Eligibility Conditions

The Universal Service Administrative Company maintains additional documentation regarding the administration of the Schools and Libraries Support Mechanism at the Schools and Libraries Division website, available at <http://www.usac.org/sl/>. These documents are not included by reference in this ESL.

Ancillary Use	If a product or service includes ineligible functionality, then, in general, the proportionate cost of this functionality must be removed from funding requests through a cost allocation process. However, in certain limited cases, if any ineligible functionality is not significant and strictly ancillary to the principle uses of the product or service, the full product or service may be eligible for discounts. The following conditions are considered when evaluating whether ineligible functionality is ancillary: (1) a price for the ineligible component cannot be determined separately and independently from the price of the eligible components, and (2) the specific package remains the most cost-effective means of receiving the eligible services, without regard to the value of the ineligible functionality. In addition, the applicant may not be specifically seeking one or more of the ineligible components. Funding requests that include only a single price for components that contain both eligible and ineligible functionality, and fail to meet the requirements for Ancillary Use, are fully ineligible. Therefore, applicants are encouraged to utilize a cost allocation process to remove ineligible functionality whenever feasible. For further information, see Cost Allocation Guidelines for Products and Services.
Cost Allocation	If a product or service contains both eligible and ineligible features, an applicant may use cost allocation to provide a fair delineation of the eligible and ineligible components so that partial funding can be provided. When no cost allocation is provided for funding requests that require cost allocation, USAC will contact the applicant to request such cost allocation. See the web document "Cost Allocation Guidelines for Products and Services" for additional information.
Cost Allocation for File Servers	File servers and other components can be used simultaneously for multiple purposes, some of which are eligible and some not eligible. Cost allocation is required to remove any ineligible functionality from funding

	requests. However, the exact usage of a file server or other product with multiple uses may be difficult to determine before the product is installed and utilized. A simplified method of cost allocation is available to accommodate this situation. It is based on a simple averaging process of the different functions of the product that is described more fully in the web document "Cost Allocation Guidelines for Products and Services".
Eligible Users and Locations	Eligible users and locations are those that are involved with activities that are integral, immediate, and proximate to the education of students or the provision of library services to patrons. The presumption is that activities on school or library property meet this standard. The term "school or library property" includes a District Office of similar facility, but does not include businesses or organizations separate from a school or library organization. For example, the facilities of a business that has contracted with a school to provide bus service do not constitute a location eligible for E-rate support. Employees of a school or library with a normal duty station at an eligible location are eligible users. Employees of a non-school or non-library activity, even if located on school or library property, such as a state government office with responsibilities other than education or library services (e.g., a division of motor vehicles), are not eligible users. For example, wireless telephone services outside of a school or library location can be eligible for discount in certain cases. Examples include: • Use by a school bus driver while delivering children to and from school. • Use by a library staff person in a library mobile unit van. • Use by teachers or other school staff while accompanying students on a field trip or sporting event.
Internet Access with Ineligible Features	Some Internet Access services may include features that are not themselves eligible, such as specialized content, caching services, and/or filtering services. In general, funding requests that provide only a single price for a product or service that contains both eligible and ineligible functionality are fully ineligible. However, cost allocation may be used to provide separated pricing for the eligible and ineligible components. In addition, in certain limited cases, an eligible product or service can include ineligible components on an ancillary

	basis. See the Special Eligibility Condition for Ancillary Use for additional information about the conditions and limitations of the Ancillary Use approach.
Lease of Wide Area Network Infrastructure	Facilities that provide a Wide Area Network may only be leased by applicants--not purchased. Limitations apply to the reimbursements that are available for initial implementation costs (leased equipment and its installation) of service provider infrastructure. The Wide Area Network Fact Sheet has full details about exclusive access limitations, amortization requirements, and other eligibility conditions for lease of Wide Area Network functionality.
Two-in-Five Rule	“Two-in-Five Rule” for Internal Connections indicates that each eligible entity may obtain support for Internal Connections funding requests every two out of five years. This limitation applies only to Internal Connections and not to requests appropriately categorized as Telecommunications Services, Internet Access, or Basic Maintenance of Internal Connections.
Wide Area Networks	The Wide Area Network (WAN) Fact Sheet contains additional information about eligibility requirements for Wide Area Network services. For example, reimbursement for up-front infrastructure costs of service providers installing a telecommunications or Internet access service is limited.
WAN Versus LAN Components	For data and other networks, the distinction between Wide Area Network (WAN) functionality and Local Area Network (LAN) functionality can be essential for selecting the proper Category of Service for funding requests—Telecommunications Services, Internet Access, or Internal Connections. FCC rules establish a rebuttable presumption that a connection does not constitute an Internal Connection if it crosses a public right of way. That is, the Local Area Network is considered to be the part of the network on school or library property, and hence is considered under the eligibility requirements for Internal Connections. The Wide Area Network constitutes the connection that runs from a demarcation point at the school or library property to a point outside of the school or library property (<i>i.e.</i>, across a public right of way) and is not funded as Internal Connections. In order to determine what may be properly funded as Internal Connections, a demarcation point between a Wide Area Network service and the Local Area Network components must be established. This approach is described more fully in the web document On-premise

	Priority 1 Equipment located in the SLD Reference Area of the USAC web site.
--	--

Glossary

800 Service (Telephone Service)	800 Service provides toll calling that is paid by the called party rather than the calling party. The name comes from the original Area Code used for all toll-free numbers. Current and future “800 Service” area codes use the convention 8NN, when N is a specific digit, for example 888, 877, and 866.
900/976 Call Blocking (Telephone Service Components)	Call Blocking is a monthly or recurring telephone company charge for the blocking of calls, such as to 900 or 976 numbers. The blocking prevents callers from completing calls to 900 or 976 numbers.
900/976 Charges (Ineligible Telecommunications Services)	“900” is an area code used to reach a wide range of information providers. Examples of the information that may be provided via a 900 number are adult content programming, weather reports, lottery results, or caller voting for various topics such as television polls. 900 Service calls are charged to the party originating the call. Charges for accessing 900 calls are often included in the toll charges on the local telephone bill. 976 service provides a local, pay-per-call telephone service.
911/E911 Trunks/Lines (Telephone Service)	911 and E911 trunks or lines are dedicated telecommunications links specifically or exclusively used for connection between a school/library and a Public Safety Answering Point (PSAP).
Access Point (Data Distribution)	An Access Point is a base station in a wireless LAN. Access points are typically stand-alone devices that may plug into an Ethernet hub or server or may provide a repeater function for wireless networks.
Alarm Telephone Line (Telephone Service)	An alarm telephone line is a telecommunications line specifically dedicated to a school or library burglar or fire alarm system. It may be the equivalent of a POTS line or a dedicated line between the school or library and the alarm company.
Antennas (Interfaces, Gateways, Antennas)	An antenna is a device for transmitting and/or receiving radio frequency signals.
Application Software (Software —Ineligible)	Application software applies to software accessed directly by end users, such as word processors, spreadsheets, utility, anti-virus, and graphics programs.
Asbestos Removal (Ineligible Internal Connections Components)	Some older buildings were constructed using products that contain asbestos, which has been determined to be harmful to health. Renovations and installations in such buildings require special treatment such as asbestos removal.

Asynchronous Transfer Mode (ATM) (Digital Transmission Services)	ATM is a high-speed Digital Transmission Service that can provide bandwidth of 622 Megabits per second or higher.
Automatic Call Distribution System (ACD) (Telephone Components —Ineligible)	An Automatic Call Distribution (ACD) system, typically used with a PBX, provides a means of automatically distributing calls evenly, on a next available agent basis so that productivity is maintained and inbound calls are handled efficiently. The system also allows the monitoring of operation on a real-time basis. Additionally, some systems compile historic reports that enable better utilization of resources in the handling of incoming calls.
Automatic Route Selection (ARS) (Telephone Components)	Automatic Route Selection (ARS) is a PBX and Centrex service that allows for automatic selection of the most efficient and cost-effective route. It may also be referred to as "least cost routing". By using the ARS feature, outgoing phone calls from PBX and Centrex stations are routed to the most cost-efficient service or facilities.
Bridge (Interfaces , Gateways , Antennas)	A bridge is a data communications device that connects two or more network segments, often translating information from one type of network protocol to another.
Broadcast and Cable Television Equipment (Video Components —Ineligible)	Broadcast/cable equipment applies to equipment used in the transmission or receipt of broadcast TV, broadcast radio, broadcast satellite, or cable television service.
Cable Modem (Internet Access) (Interfaces , Gateways , Antennas)	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 cable television line.
Cabling (Cabling/Connectors)	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 (Servers —Ineligible) (Storage Devices —Ineligible)	Caching is a method that stores recently accessed information. Caching components such as caching servers store information locally so that the information is accessible more quickly than if it must be transmitted across a network from a distant server.
Caching Service (Ineligible Internet Access Services)	A caching service is a special high-speed storage mechanism at the border of a network and the Internet that holds frequently accessed Internet information, thereby reducing retrieval times for information often requested from the Internet.
Call Accounting	A Call Accounting System records information about

System (Telephone Components — Ineligible)	telephone calls. It can provide comprehensive information about call costs by associating call records with users, phone extensions, or profiles. Such systems may include Station Message Detail Recording (SMDR) or Call Detail Recording (CDR), which are software/hardware PBX components that provide the capability to generate reports on call details such as call duration, PBX station number, time and date, dialed number, and cost of call.
Call Sequencer (Telephone Components — Ineligible)	An Automatic Call Sequencer is a component used with a PBX or Key system. The call sequencer distributes incoming telephone calls among a select number of stations or telephones. Some call sequencers are designed to generate statistical reports on number of calls and how calls were handled.
Cartridge Magnetic Tape (Storage Devices — Ineligible)	Cartridge magnetic tape is used in tape backup devices, and provides replaceable and archivable storage capacity.
CD/ DVD Player (Ineligible Internal Connections Components)	A Compact Disc or Digital Video Disc (CD/DVD) Player is a device that plays or reproduces the music, voice, and/or video from a CD or Digital Video Disc.
Cellular Service (Telephone Service)	Cellular Service uses radio transmissions to provide a wireless telephone service.
Centrex (Telephone Service)	Centrex is a business telephone service that consists of a wide variety of features, such as call forwarding and call transfer, provided by central office software.
Change Fees (Miscellaneous Fees and Charges)	Change fees are charges imposed for the modification of an existing service.
Channel Service Unit /Data Service Unit (CSU/DSU) (Interfaces, Gateways, Antennas)	A CSU/DSU is a device that terminates a digital channel at a customer's premises. A CSU/DSU often serves as a demarcation between a local network and wide area network facilities.
Circuit Cards (Circuit Cards/ Components)	Circuit cards provide microprocessors, transistors, and other components on a circuit board. Circuit cards often are designed to fit into a slot of a larger component, such as a telephone PBX, router, or computer.
Client Access Licenses (Software)	A Client Access License is a software licensing approach used by some vendors that provides authorization to access a software product.
CODEC / Video Encoder (Video Components)	A CODEC (coder/decoder), also known as a video encoder, is a device comprising an encoder and decoder in the same equipment. The CODEC produces a coded

	output and compresses and decompresses audio and video signals.
Conduit and Raceway (Cabling/Connectors)	Conduit and raceway are metal or plastic pipe or channels used to protect cable.
Conferencing Services (Other Eligible Telecommunications Services)	Conferencing Services provide a means for multiple users to participate in group discussions via telephone circuits or video facilities.
Connectors (Cabling/Connectors)	Connectors are devices that connect wires or fibers.
Consumable Components (Cabling/Connectors)	Consumables consist of miscellaneous components that are depleted with use, such as tape, splicing materials, labels, and wire wrap.
Contingency Fee (Miscellaneous Fees and Charges)	A contingency fee is a specific dollar allowance for possible unforeseeable elements that may occur within the scope of a project.
Copper-to-fiber (TX-to-FX) Converter (Interfaces, Gateways, Antennas)	A Copper-to-fiber converter, also known as a TX-to-FX converter, is a device that converts a copper connection to a fiber optic connection.
Couplers (Cabling/Connectors)	Couplers are passive devices that accepts one input broadband signal and replicate it onto another or multiple outputs.
Custom Calling Services (Telephone Service Components)	Custom calling services extend the features available with telephone service. Features available include (but are not necessarily limited to) call waiting, 3-way calling, speed calling, distinctive ring, and call forwarding.
Dark Fiber Service (Ineligible Telecommunications Services) (Ineligible Internet Access Services)	Dark fiber refers to fiber optic cable for which the service provider has not provided modulating electronics.
Digital Subscriber Line (DSL) (Telecommunications Service/Internet Access)	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.

Direct Broadcast Satellite (DBS) (Ineligible Telecommunications Services)	Direct Broadcast Satellite (DBS) is a technology that uses satellite to transmit TV programs to subscribers. The transmitted signals are received using individual rooftop antennas. Program reception of the subscriber is limited to those channels broadcast by a specific provider.
Direct Inward Dialing (DID) (Telephone Service Components)	Direct Inward Dialing (DID) service allows outside calls to be directed to a Private Branch Exchange station line without the use of an operator.
Directory Advertising (Ineligible Telecommunications Services)	Directory Advertising is advertising in a telephone directory yellow pages, Internet, or elsewhere. This may be provided by the telephone company or another entity.
Directory Assistance Charges (Telephone Service Components)	Directory Assistance Charges are those charges assessed for calls made to 411 or other Directory Assistance numbers such as (201) 555-1212 for information. Typically charges are assessed on a per call basis.
Directory Listings (Ineligible Telecommunications Services)	A telephone company directory contains an alphabetical listing, by name, of all telephone subscribers except those requesting unlisted or non-published service. Typically, the initial directory listing is provided free of charge to the subscriber, but extra-cost services are available, such as additional listings, unlisted or non-published numbers, and bolded entries.
Disaster Recovery (Data Protection —Ineligible)	Disaster recovery describes a means of restoring service to a computer network that has suffered a disaster. Such costs may include the rental of a site that houses links and equipment that is modeled after the damaged network.
Distance Learning (Digital Transmission Services)	Distance Learning utilizes video and audio technologies to allow students who are remotely located from other students or the lecturer to participate interactively with the class.
Documentation (Other Eligible Internal Connections Components)	Documentation includes support material provided in the form of paper or electronic media. It may include diagrams, blueprints, equipment specifications, or instruction manuals for services and products.
Domain Name Registration (Web Hosting)	A Domain Name indicates an address of location on the Internet. For the e-mail address portion of a symbolic abc@xyz.org, the domain name is xyz.org. Domain Name Registration is the registering of the name and the charge associated with the registration process.
Domain Name Service (DNS)	Domain names, such as www.fcc.gov , are alphabetic, so they are easier to remember than the IP addresses on

(Internet Access) (Servers)	which the Internet is based. A Domain Name Service translate the alphabetical names input by users into the IP addresses used by Internet devices.
DS-1 (Digital Transmission Services)	DS-1 is a type of Digital 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.
Duplicative Services	Duplicative services are those that deliver the same functionality to the same population in the same location during the same period of time.
Dynamic Host Configuration Protocol (DHCP) (Internet Access) (Servers)	Standard networks need each computer to have a unique address for communication to take place. Dynamic Host Configuration Protocol (DHCP) is a system that provides this unique address from a central computer, so that each individual computer does not need to be separately configured.
E911 Reader Board (Telephone Components)	The E911 Reader Board is adjunct hardware for a PBX and is used to access E911 Emergency service.
Electrical System Upgrades (Ineligible Internal Connections Components)	Electrical system upgrades refer to products and services that provide, upgrade, or enhance the provision of electrical power.
E-mail (Software) (Servers)	E-mail stands for “electronic mail.” E-mail, or electronic mail, is a system for sending text messages and other information across a network.
E-mail Service (E-mail Services)	An e-mail service provides for the transmission of text messages and other embedded data such as file attachments. It enables the transmission of messages over a local or world-wide computer network.
Environmental Monitoring Components (Data Protection —Ineligible)	Environmental monitoring components provide information about heat, humidity, or other factors in order to provide a warning system for conditions that may affect the correct operation of equipment. For example, an environmental monitoring card is sometimes available as an optional feature of an uninterruptible power supply and is used to monitor the environmental conditions of a rack, computer room, or data center.
Faceplates (Cabling/Connectors)	Faceplates are covers that fit over a jack, outlet, or dial.

Fax Machine (Ineligible Internal Connections Components)	A facsimile, or fax, machine is a device in which the image of a document is electronically transferred over the telephone network and printed out elsewhere.
Fiber Optics (Digital Transmission Services)	Fiber Optics is a technology that uses light to transport information and can provide a Digital Transmission Service. Large amounts of data can be transmitted over long distances using thin filaments of glass.
Filtering Service (Ineligible Internet Access Services)	A filtering service protects users from dangerous or inappropriate content most often by selectively blocking certain words or certain Internet sites.
Firewall (Internet Access) (Data Protection) (Servers)	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.
Flat Rate (Telephone Service)	Flat Rate is a billing method for telephone service that, for a set price per month, provides a user an unlimited number of local calls.
FRAD (Interfaces , Gateways , Antennas)	A Frame Relay Assembler/Disassembler (FRAD) is a communications device that breaks a data stream into frames for transmission over a Frame Relay network and recreates a data stream from incoming frames. A Frame Relay router serves the same purpose but provides more intelligence in avoiding congestion.
Frame Relay (Digital Transmission Services)	Frame relay is a type of Digital 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.
Freight Assurances (Miscellaneous Fees and Charges)	Freight assurance fees are fees assessed to the purchaser for the guarantee of safe delivery to their premises of goods, <i>i.e.</i> , they provide shipping insurance.
Gateway (Interfaces , Gateways , Antennas)	A gateway is a network device that acts as an entrance to another network and often is used to connect two otherwise incompatible networks.
GSP fees (Internet Access)	A Global Service Provider (GSP) provides connection between the Internet service provider's facilities and the global Internet network. In some cases, there can be separate charges for this component of Internet access.
Hard Disk Drives (Storage Devices)	Hard disk drives are storage devices that consist of magnetic platters that spin like a record player and magnetic pickup devices, called heads, that are like the needle of a record player. All this is sealed in a vacuum in order to maintain tight tolerances and enhance service life.
Homework Hotline	Homework Hotline equipment provides an automated

Equipment (Telephone Components — Ineligible)	response or call routing system that provides information to callers about school assignments.
Homework Hotline Service (Other Eligible Telecommunications Services)	A Homework Hotline Service is typically provided as a toll-free telephone number for students to contact the school regarding questions on homework.
Hub (Data Distribution)	Hubs are central connection points for some types of local area networks with interconnecting cabling from many individual devices, such as computer workstations, printers, servers, and other hubs.
Inside Wire Maintenance Plan (Telephone Service Components)	An Inside Wire Maintenance Plan is a monthly recurring charge that provides for the repair, replacement, and maintenance of customer owned inside-premise wire. Cost of the service is sometimes included in regular monthly bills for local and long distance telephone services.
Integrated Services Digital Network (Digital Transmission Services)	Integrated Services Digital Network (ISDN) is a type of Digital 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.
Interactive Television (Digital Transmission Services)	Interactive TV (ITV) provides a means for a viewer to interact with the television set in ways other than controlling the channel and the volume and handling videotapes. In an education setting, such as in a school, ITV provides a means for teachers and students who are remotely located in different places to conduct a class and to interact with each other. ITV requires a special “set-top box” to be added to the existing television set.
Intercom (Telephone Components — Ineligible) (Ineligible Internal Connections Components)	An intercom is an internal communication system, originally consisting of multiple speaker/microphone devices connected into an amplifier system. Now most intercoms are a part of telephone systems, although separate intercom systems continue to be used in many schools.
Interconnected Voice over Internet Protocol (Interconnected VoIP) (Internet Access)	Interconnected VoIP is defined as a service that (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user’s location; (3) requires Internet protocol-compatible customer premises equipment (CPE); and (4) permits users generally to receive calls that originate on the

	public switched telephone network and to terminate calls to the public switched telephone network.
Interface/Edge Device (Interfaces , Gateways , Antennas)	An Interface or Edge Device is a physical device that can pass packets between some types of networks and an Asynchronous Transfer Mode (ATM) network. The device may be a router or Ethernet-to-ATM switch that directly connects to an ATM network.
Internet Access (Internet Access)	Internet access provides a connection to the Internet, which is the publicly available worldwide system of interconnected computer networks that uses agreed-upon technical standards based on the Internet Protocol (IP). Internet access provides a connection to a vast quantity of information and services, such as electronic mail and the documents and features of the World Wide Web. Service Providers for Internet access need not be telecommunications carriers.
Internet Content (Ineligible Internet Access Services)	Internet Content refers to all forms of information that are available on the Internet, such as text, pictures, sound recordings, animation, and video clips.
Internet2 (Ineligible Internet Access Services)	Internet2 is a consortium of universities, industry, and government for development and deployment of advanced network applications and technologies.
Key System (KSU) (Telephone Components)	A Key System, also known as Com Key System or a KSU, is a type of phone system that permits more than one telephone line, PBX extension, private line, or intercom line to appear on a single telephone.
KVM Switch (Servers)	A keyboard-video-mouse (KVM) switch is a switchbox that is used to control two or more computers from a single keyboard, monitor, and computer mouse.
Laptop / Notebook Computer (Servers —Ineligible)	A laptop or notebook computer is a lightweight portable computer designed for mobility.
Lightning Arrestor (Data Protection —Ineligible)	A lightning arrestor is a device that protects equipment from lightning strikes and static.
Local Area Network (Data Distribution)	A Local Area Network (LAN) is a short distance data communications network used to link together computers and peripheral devices under some form of standard control. The LAN is most often connected by cabling or wireless links within the same building. A LAN consists of several components, including cabling, servers, computer workstations, network interface cards, printers, and data distribution equipment, such as network switches, hubs, and routers.
Local Measured Service	Local telephone companies use several methods to bill for local phone service, such as Flat Rate, Message Rate,

(Telephone Service)	Measured Rate, and Local Measured Service. Local Measured Service typically allows an unlimited number of incoming calls. Outgoing calls beyond a certain threshold result in extra charges.
Local Phone Service (Telephone Service)	Local phone service is a service provided by a local exchange carriers (LEC). Phone lines from homes and businesses terminate at a central office of a LEC, which in turn connects to other local exchanges and to carriers for long distance service.
Long Distance Telephone Service (Telephone Service)	Long distance telephone service is provided by interexchange carriers and provides telephone service outside of a local calling area.
Mast (Interfaces , Gateways , Antennas)	A mast is a pole or structure on which an antenna is placed.
Master Control Unit (Video Components)	A Master Control Unit (MCU) is a device that controls the main operating functions of a video system.
Media Converter (Interfaces , Gateways , Antennas)	A media converter is a module that converts one type of media to another type of media for network compatibility. The actual media can vary, such as fiber, coax, or twisted pair.
Memory Modules / Random Access Memory (RAM) (Circuit Cards/ Components)	A memory module is the electronic holding place for instructions and data that a computer's microprocessor can reach quickly. The module usually holds multiple Random Access Memory (RAM) chips. Common types are SIMM, DIMM, RDRAM, SDRAM.
Message Rate Service (Telephone Service)	Local telephone companies use several methods to bill for local wireline service, such as Flat Rate, Message Rate, Measured Rate, and Local Measured Service. Message Rate Service provides a certain number of "call units." Various call lengths and distances can use a different number of call units. Calls in excess of the message rate allocation result in additional charges.
Monitor (Servers)	A monitor is the video display unit (television screen) that is used to display information from a computer.
Multimedia Kits (Ineligible Internal Connections Components)	Multimedia kits provide a package of hardware and software that adds multimedia capabilities to a computer. A multimedia kit may include a CD ROM or DVD player, a sound card, speakers, and a bundle of CD ROMs.
Multiplexer (Data Distribution)	A multiplexer is electronic equipment that allows two or more signals to pass over one communications circuit. The circuit may be a telephone line, dedicated line, or radio signal. It provides an economic approach for transporting, for example, up to 24 voice-grade lines on a single circuit.

Multipoint Control Unit (Video Components)	A Multipoint Control Unit (MCU) is a bridging or switching device used for multipoint videoconferencing.
Network Access Register (Telephone Service Components)	Used with Centrex service, the Network Access Register (NAR) provides access to and from the telephone company central office. The number of simultaneous calls to and from the public switched telephone network is equal to the number of NARs the Centrex customer subscribes to. NARs also may be used with other eligible telecommunications services, such as Network Access Service and Network Access Register Usage Package.
Network Interface Cards (NICs) (Circuit Cards / Components)	Network interface cards (NICs) are electronic devices that connect workstations, servers, or other devices to a network. NICs work with the network software and computer operating system to transmit and receive messages on the network.
Network Interface Device (Interfaces, Gateways, Antennas)	A Network Interface Device (NID) is a component installed between a telephone network and the inside wire of a customer premises. The NID is usually provided by the telephone company and is the transition, or demarcation point, between the company's network and the customer's inside wiring.
Network Management (Software —Ineligible)	Network Management is a system of equipment or software used in monitoring, controlling, and managing a communications network.
Network Switch (Data Distribution)	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.
OC-1 (Digital Transmission Services)	OC-1 stands for “optical carrier 1,” which is a Digital Transmission Service that operates at 51.84 Megabits per second. Multiples of this bandwidth are also available, such as OC-3 and OC-12.
Operating System Software (Software)	Operating System software enables the basic operations of a computer system or other electronic device. For example, it can configure the communication paths between memory and storage, and provides basic functions for other software to operate correctly.
Pager (Ineligible Internal Connections Components)	A Pager (also known as a Beeper) is the receiving end of a paging service and is a small device worn on the belt or carried in a handbag. Pagers provide text or voice messages or both.
Paging Services (Paging)	Paging is a service designed to deliver a message to a person whose exact location is unknown. The service employs radio signals that activate a paging receiver

	carried by the intended recipient to deliver a text, numeric, or voice message.
Payphone Telephone Service (Ineligible Telecommunications Services)	Payphone (or coin) telephone service is provided in a public or semi-public place and requires the use of coins, credit card, pre-paid card, or other means of payment at the time of placing the call.
Per Diem (Miscellaneous Fees and Charges)	Per diem is a dollar amount designated to a vendor for daily expenses such as lodging and food. It may or may not include travel time.
Performance Bond (Other Miscellaneous Ineligible Components)	A Performance Bond, also known as a Bid Bond, is a legal obligation, generally obtained by the vendor or contractor from a third party, that guarantees the terms of the contract or agreement are met. In the event of default or failure to meet the terms, the bond would be used to complete the contracted work.
Permanent Virtual Circuit (PVC) (Digital Transmission Services)	Permanent Virtual Circuits (PVCs) are shared connections between end-points. PVCs play a central role in Frame Relay networks. They're also supported in some other types of networks, such as X.25.
Personal Communications Services (PCS) (Telephone Service)	Personal Communications Services (PCS) is a digital wireless telecommunications service, similar to cellular service, but operating on different radio frequencies.
Personal Computers/ Workstations (Servers —Ineligible) (Ineligible Internal Connections Components)	Personal computers, or workstations, are computers designated or designed as end-user equipment. They may operate in a stand-alone environment or may be connected to a host computer as part of a network. They are differentiated from computers configured as servers that are designed to route information to and from end-user equipment.
Personal Digital Assistant (PDA) (Ineligible Internal Connections Components)	A Personal Digital Assistant (PDA) is a handheld device that can provide several functions such as calendaring, telephone, and e-mail. Some PDAs have wireless networking features.
Phone Calling Cards (Telephone Service)	Phone Calling Cards generally have the appearance of a credit card and provide a means to make long distance calls from any phone. Charges for the call are subtracted from the calling card balance or are included in the calling card subscriber's monthly phone bill.
Phone Modems (Circuit Cards/ Components)	Phone modems are devices that convert data signals into suitable form for transmission and receipt over a telephone line.
PIC Change Charge (Telephone Service)	The Primary Interexchange Carrier (PIC) is the long distance company to which traffic from a given location

Components)	is automatically routed when dialing 1 in an equal access area. The selection of the carrier is done by the local telephone customer and becomes a part of the telephone company's records for routing long distance calls made from the customer's number. When the PIC is changed from one long distance company to another at the request of the customer, there is a one-time PIC Change Charge assessed by the local telephone company to cover the cost of reprogramming the telephone company central office switch.
POTS (Telephone Service)	"POTS" stands for "Plain Old Telephone Service" and provides local telephone dial-tone service.
Printer (Ineligible Internal Connections Components)	A printer is a device that receives computer information and prints it on paper.
Private Branch Exchange (PBX) (Telephone Components)	A PBX is a centralized telephone switching system located at a business or organization site. The PBX provides internal station-to-station dialing and access to the public switched network.
Processor Terminator Card (Circuit Cards/ Components)	A processor terminator card is a device installed in a multi-processor computer to signal the computer that only one processor is installed.
Proxy Server (Data Protection) (Servers)	A proxy server is a device that sits between "trusted clients" (e.g., workstations inside an organization) and "untrusted clients" (e.g., the Internet) and provides security features and oftentimes address translation. To the untrusted clients, communication appears to be taking place with the proxy, even though the communication is passed to and from the trusted clients.
Public Address (PA) System (Telephone Components — Ineligible) (Ineligible Internal Connections Components)	A Public Address System allows the user to make announcements through the use of amplifiers and speakers.
PVBX (Video Components)	A Private Video Branch Exchange (PVBX) is a PBX designed for video information. A PVBX can link classrooms or other locations together and can interconnect end-user and other equipment, such as cameras, monitors, and videocassette recorders.
Racks and Cabinets	A rack is a metal supporting framework for mounting

(Other Eligible Internal Connections Components)	cables, equipment, and/or wires. A cabinet is an enclosure for equipment, terminating cables, connection devices, and/or wires.
Radio Loop (Telephone Service)	Radio Loop is provided by a local exchange telecommunications carrier and is also called Basic Exchange Telecommunications Radio Service (BETRS). BETRS is used by local telephone companies to provide dial tone to subscribers in certain circumstances, such as when it is either not technically possible or not cost-effective to provide the service by conventional means.
Relay I/O Module (Data Protection)	A Relay I/O Module allows protection by an Uninterruptible Power Supply (UPS) for equipment not pre-designed for a UPS interface
Remote Access Components (Servers)	Remote access components, such as a remote access router or communications server, allow users to access network resources by dialing in from an off-site location in order to connect their local computer with network devices. Dialing in most typically utilizes standard telephone lines but, in some cases, can be based on other technologies.
Residential Telephone Service (Telephone Service)	Residential telephone service is designed for homes and residences, but not commercial establishments.
Reverse Directory Assistance (Ineligible Telecommunications Services)	Reverse Directory Assistance is a service that can use a phone number to provide the name and, in some cases, the address of the owner of that phone number.
Router (Data Distribution)	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, may provide features such as load balancing, and can provide trouble-shooting diagnostic capabilities.
Satellite Dishes (Interfaces, Gateways, Antennas)	Satellite Dishes are antennas capable of receiving signals from and, in some cases, transmitting signals to communications satellites.
Satellite Service (Digital Transmission Services)	Satellite service provides communication between points on Earth by using an orbiting satellite as a communications relay point.
Servers (Servers)	Servers are computers on a local area network that can provide access to files, software, printers, or other features that are shared among multiple users.
Shipping Charges	Shipping Charges are the charges associated with the

(Miscellaneous Fees and Charges)	delivery of products from their point of origin to the customer premises.
Software (Software)	Software refers to the detailed instructions that operate a computer, distinct from the computer hardware.
Spare Parts (Ineligible Internal Connections Components)	Spare parts are components on hand to replace hardware that fails.
Speakers (Ineligible Internal Connections Components)	Speakers are the components that provide sound from a computer, phone, intercom, or other device.
Station Message Detail Recording (SMDR) (Telephone Components —Ineligible)	Station Message Detail Recording (SMDR) and Call Detail Recording (CDR) are software/hardware PBX components that provide the ability to generate reports on call details. Those details include, but are not limited to, call duration, PBX station numbers, time and date, trunk route, dialed number, and cost of call.
Storage Media (Storage Devices —Ineligible)	Storage media includes products such as floppy disks and recordable CD ROM that provide replaceable storage.
Surge Protector (Data Protection —Ineligible)	Surge protectors provide electrical AC power outlets with circuitry that protects equipment against voltage spikes and electrical disturbances.
Switchboard / Attendant Console (Telephone Components)	The operation of a PBX or Centrex system may require the use of a switchboard or attendant console for the transfer of incoming calls to the appropriate extension when systems are not equipped with Direct Inward Dialing. The switchboard or attendant console may include Direct Station Selection (DSS), which provides an easy means for transferring calls.
Switched Multimegabit Data Service (SMDS) (Digital Transmission Services)	Switched Multimegabit Data Service (SMDS) is a type of Digital 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.
System Improvements and Upgrades (Other Eligible Internal Connections Components)	A system improvement or upgrade provides enhanced functionality to an existing product or configuration of products.
T-1 (Digital Transmission)	T-1, which stands for Trunk Level 1, is a Digital Transmission Service that operates at 1.544 Megabits

Services)	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.
Tape Backup (Data Protection)	Tape Backup units provide copies of computer files on magnetic tape, for protection against a catastrophic failure. Tape backup technologies include QIC, DAT, 8mm, DLT, AIT, and ADR.
Telephones (Telephone Components —Ineligible)	Telephones, also known as telephone sets, telephone instruments, digital voice terminals, and voice terminals, are the end-user equipment used to transmit and receive telephone communications.
Terminal Adapter (Interfaces , Gateways , Antennas)	A Terminal Adapter (TA) is a device that connects a computer to an external digital communications line, such as an ISDN line.
Terminal Server (Servers)	A Terminal Server is a specialized server that connects multiple terminals into a network. Traditionally, terminal servers were used to connect multiple “dumb” terminals into network resources but today are additionally used to provide increased connectivity and performance for older computer workstations or to provide remote access .
Termination Charges (Other Miscellaneous Ineligible Components)	Termination charges are fees assessed for the removal or discontinuation of a product or service.
Test Equipment (Ineligible Internal Connections Components)	Test Equipment is used to test hardware, software, cable continuity, telecommunications links, etc.
Transceiver (Interfaces , Gateways , Antennas)	A transceiver is a device that transmits and receives analog or digital signals. The term is used most frequently to describe the component in local area networks (LANs) that actually applies signals onto the network wire and detects signals passing through the wire. For many LANs, the transceiver is built into the network interface card (NIC).
Travel Time (Miscellaneous Fees and Charges)	Travel time refers to the time required for service provider personnel to travel to and/or from locations necessary to provide eligible services.
Trunk lines (Digital Transmission Services)	A trunk line is a communications path between two switching systems, such as equipment in a telephone company central office and a Private Branch Exchange (PBX). Central Office trunks connect a PBX to the central office switching system at the central office. Tie trunks connect two PBXs together.

Two-Way Radio (Ineligible Internal Connections Components)	Two-way radios are wireless end-user devices used to communicate, typically over short distances.
Uninterruptible Power Supply (UPS) / Battery Backup (Data Protection)	An Uninterruptible Power Supply (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.
UPS Interface Expander (Data Protection)	A UPS Interface Expander allows an Uninterruptible Power Supply (UPS) to provide power management to multiple devices.
Video Amplifier (Video Components)	A Video Amplifier is a device that strengthens the level of a video signal.
Video Channel Modulator (Video Components)	A Video Channel Modulator is a distribution box that takes standard video and audio input from video cameras, recorders, and other video components and distributes the signals to end users.
Video Components (Video Components)	Video components provide the capabilities and technologies to enable moving images on television screens or computer monitors.
Video Service (Digital Transmission Services)	Video services involve the transmission of visual images.
Virtual Private Network (VPN) Components (Data Protection)	A Virtual Private Network (VPN) uses encryption and/or tunneling services in order to provide highly secure communication over the public Internet or in some cases over point-to-point links.
Voice Compression Module (Telephone Components)	A Voice Compression Module allows voice and fax traffic to share the same lines as data and LAN traffic.
Voice Interface Card (Telephone Components)	Voice Interface Cards (VIC) are usually components of a router or PBX system that interface with internal systems and the public switched telephone network. Examples are FXO Cards, E&M Cards, and FXS Cards.
Voice Mail Components (Telephone Components)	Voice mail components allow users to receive voice messages left by telephone callers and may have other features, such as message forwarding.
Voice Mail Service (Voice Mail Service)	A voice mail service allows users to receive voice messages left by telephone callers and may have other features such as message forwarding. A voice mail service is classified as an information service that is distinct from a telecommunications service or Internet access.

Voice/Fax Network Module (Interfaces , Gateways , Antennas)	A Voice/Fax module is an access product that enables the transmission of multiprotocol data--voice, fax and LAN--over telecommunications services.
Voice/Video over IP (VoIP) Components (Data Distribution)	Voice/video over IP (VoIP) components refer to equipment that utilizes the TCP/IP suite of protocols to provide voice and/or video communications.
Web Casting (Ineligible Internet Access Services)	Web Casting is a service provided over the Internet that delivers news or other content via web browser software or to an E-mail address. A user accesses a Web Casting site and chooses what news or content he/she wants to be informed about. Information content is then periodically delivered by the Web Casting supplier.
Web Hosting (Web Hosting)	Web Hosting provides a school or library website at an external location outside of the school's or library's premises. A website is a location (such as www.schoolname.org) for World Wide Web content made available to those accessing the site.
Web Server (Servers)	A web server is a computer server used to provide information to Internet users and can also be used to provide web-based software applications and other web-based functions.
Web Site Creation Fee (Ineligible Internet Access Services)	A web site creation fee is a separate charge for creating a website.
Wide Area Networks (WANs) (Digital Transmission Services)	A wide area network is a voice, data, and/or video network that provides connections from within an eligible school or library to other locations beyond the school or library.
Wire Managers (Cabling/Connectors)	Wire managers are wire restraints to house or arrange wiring and cabling. They can be aluminum or plastic and may be rack-mountable.
Wireless Local Area Network (Data Distribution)	A Wireless Local Area Network provides the functionality of a local area network using wireless components rather than cabling.
Wireless PBX Adjunct (Telephone Components)	A Wireless PBX Adjunct functions in conjunction with a Private Branch Exchange to enable use of cordless telephones on an organization's premises.
Wireless Telephone Services (Telephone Service)	Wireless telephone services provide connection to the public switched telephone network similar to traditional phone service, but utilize portable electronic devices and radio frequencies rather than hard-wired handsets.

Workstation (Ineligible Internal Connections Components)	See the entry for Personal Computers/Workstations .
---	---

Index

- 3-Way Calling, 29
- 800 Service, 3, 26
- 900 Calls, 26
- 900/976 Call Blocking, 4
- 900/976 Charges, 4
- 911, 4, 26
- Access Point, 10, 26
- ACD, 16, 27
- Activation, 19
- Administration, 20, 22
- Alarm, 4, 26
- Alarm Systems, 26
- Ancillary Use, 7, 22, 24
- Answering Machines, 16, 20
- Antennas, 11, 26, 27, 28, 29, 30, 32, 34, 35, 36, 39, 41, 43
- Anti-Virus, 15, 26
- Application Assistance, 21
- Application Software, 15, 26
- Archival Information, 15
- Asbestos Removal, 14, 26
- Asynchronous Transfer Mode, 3, 27, 34
- ATM, 3, 27, 34
- Attendant Console, 13, 40
- Automatic Call Distribution System, 16, 27
- Automatic Route Selection, 13, 27
- Basic Conduit, 6, 7, 8
- Basic Maintenance, 17, 18, 24
- Basic Maintenance of Internal Connections, 1, 17, 24
- Battery Backup, 11, 42
- Beeper, 36
- Blueprints, 30
- BRI, 3, 33
- Bridge, 11, 27
- Broadcast Equipment, 27
- Broadcast Television, 14, 20, 27
- Burglar Alarm, 26
- Cabinet, 14, 38
- Cable, 9, 11, 16, 17, 29, 39, 41
- Cable Equipment, 27
- Cable Modem, 6, 11, 27
- Cable Services, 14
- Cable Television, 4, 11, 14, 16, 20, 27
- Cabling, 9, 27, 29, 31, 43
- Caching, 10, 15, 27
- Caching Service, 8, 23, 27
- Calendaring Functions, 6
- Call Accounting System, 16, 27
- Call Blocking, 4, 26
- Call Detail Recording, 28, 40
- Call Forwarding, 28, 29
- Call Sequencer, 16, 28
- Call Transfer, 28
- Call Waiting, 29
- Calling Cards, 4, 37
- Cameras, 16, 38, 42
- Cartridge Magnetic Tape, 16, 28
- CD, 13, 14, 16, 28, 35, 40
- CD or DVD Players, 16, 28, 35
- CD ROM, 13, 14, 16, 35, 40
- CDR, 28, 40
- Cellular Service, 2, 3, 28, 37
- Centrex, 3, 13, 27, 28, 36, 40
- Change Fees, 19, 28
- Children's Internet Protection Act, 2
- Circuit, 3, 27, 28, 29, 35, 36, 37, 38, 40
- Circuit Cards, 9, 28, 35, 36, 37, 38
- Client Access Licenses, 13, 17, 28
- Coax, 9, 35
- CODEC, 13, 28
- Coincident with Installation, 19
- Collaboration Tools, 6
- Compact Disc, 28
- Components, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44
- Computer Workstations, 11, 15, 16, 33, 34, 41
- Conduit and Raceway, 9, 29
- Conferencing Services, 4, 29
- Configuration, 4, 5, 6, 7, 8, 10, 14, 17, 19, 21, 31, 40
- Connectors, 9, 27, 29, 31, 43
- Construction Costs, 21

Consulting Services, 21
 Consumables, 9, 14, 16, 29
 Content, 2, 4, 5, 6, 7, 8, 10, 12, 14, 16, 23, 26, 32, 34, 43
 Content Filtering, 8, 10, 12
 Contingency Fee, 20, 29
 Contractor Duty Station, 17
 Contractor Personnel, 21
 Copper, 9, 29
 Copper-to-Fiber Converter, 11, 29
 Cost Allocation, 6, 7, 9, 12, 22, 23
 Cost-Effective, 7, 12, 22, 27, 39
 Couplers, 9, 29
 Creation Configuration, 5
 Creation Maintenance, 5
 Creation of Video Content, 16
 CSU/DSU, 11, 28
 Custom Calling Services, 4, 29
 Dark Fiber, 4, 8, 29
 Data Distribution, 10, 26, 33, 34, 35, 36, 39, 43
 Data Distribution Equipment, 34
 Data Protection, 10, 11, 16, 30, 31, 32, 34, 38, 39, 40, 41, 42
 Design, 19, 21
 DHCP (Dynamic Host Configuration Protocol), 6, 12, 31
 Diagnostic Services, 18
 Diagrams, 30
 DID, 4, 30
 Digital Subscriber Line, 3, 6, 29
 Digital Transmission Services, 2
 Digital Video Disc, 28
 Direct Broadcast Satellite, 4, 30
 Direct Inward Dialing, 4, 30, 40
 Direct Station Selection, 40
 Directory Advertising, 4, 30
 Directory Assistance Charges, 4, 30
 Directory Listings, 4, 30
 Disaster Recovery, 15, 30
 Distance Learning, 3, 5, 30
 Distinctive Ring, 29
 DNS (Domain Name Server), 6, 12, 30
 Documentation, 14, 22, 30
 Domain Name, 6, 7, 12, 30, 31
 Domain Name Registration, 7, 30
 DS-1, 3, 31
 DS-2, 3, 31
 DS-3, 3, 31
 DSL, 3, 6, 29
 Duplicative Services, 20, 31
 DVD, 13, 16, 28, 35
 E911, 4, 5, 13, 26, 31
 Electrical Power, 31
 Electrical System Upgrades, 14, 31
 Eligible Users and Locations, 23
 E-Mail, 6, 7, 12, 13, 15, 30, 31, 37, 43
 E-Mail Services, 6, 31
 Encyclopedias, 14
 End-User Equipment, 14, 15, 16, 37, 41
 End-User Products, 20
 End-User Training, 21
 Engineering, 19
 Environmental Monitoring, 15, 31
 Extended Warranties, 20
 Faceplate, 9, 31
 Fax Machines, 4, 16, 32
 Fiber Coax, 9, 35
 Fiber Optics, 3, 27, 29, 32
 File Servers, 22
 Filtering Service, 8, 23, 32
 Finance Charges, 5, 8, 16, 20
 Fire Alarm, 26
 Firewall, 6, 10, 12, 32
 Flat Rate, 4, 32, 34, 35
 Floppy Disk Drive, 13
 Floppy Disks, 16, 40
 Fractional T-1, 3, 41
 FRAD, 11, 32
 Frame Relay, 3, 32, 37
 Freight Assurance Fees, 19, 32
 Gateways, 11
 Global Service Provider, 7, 32
 Glossary, 1, 26
 GSP, 32
 GSP Fees, 7, 32
 Hard Disk Drive, 13, 32
 Homework Hotline Equipment, 16, 32
 Homework Hotline Service, 4, 33
 Hubs, 33, 34
 Incidental Charges, 21
 Ineligible Components, 20
 Ineligible Features, 23
 Ineligible Services, 4, 7
 Infrastructure, 24
 Initial Configuration, 19, 21
 Initial Planning, 21
 Inside Wire Maintenance Plan, 4, 33
 Installation, 3, 4, 7, 9, 14, 19, 21, 24, 26
 Installation Tools, 14
 Instruction, 19, 20, 21, 30
 Instructional Television Fixed Service, 20

Integral Component, 2, 6, 10, 12, 13, 14, 16, 19
 Integrated Services Digital Network, 3, 33
 Interactive Television, 3, 5, 33
 Intercom, 13, 14, 16, 33, 34, 40
 Interconnected VoIP, 19, 33
 Interest, 20
 Interface/Edge Device, 11, 34
 Interfaces, 11, 26, 27, 28, 29, 32, 34, 35, 36, 39, 41, 43
 Internal Connections, 1, 5, 9, 10, 11, 14, 16, 17, 19, 20, 24
 Internet, 2, 5, 6, 7, 8, 12, 19, 27, 30, 31, 32, 33, 34, 38, 42, 43
 Internet Access, 1, 2, 6, 7, 8, 10, 11, 19, 20, 23, 24, 27, 29, 31, 32, 33, 34, 42, 43
 Internet Content, 7, 8, 34
 Internet2, 2, 5, 8, 34
 ISDN, 3, 33, 41,
 ITFS, 20
 ITV, 33
 Jacks, 9
 Key System, 13, 28, 34
 Keyboard, 11, 34
 KVM Switch, 12, 34
 Labor, 21
 LAN, 10, 24, 26, 34, 41, 42, 43
 LAN Components, 24
 Laptop Computer, 15, 34
 Late Payment Fees, 20
 Lease fees, 20
 Lightning Arrestor, 15, 34
 Local Area Network, 10, 24, 33, 34, 39, 41, 43
 Local Measured Service, 4, 34, 35
 Local Network, 28
 Local Phone Service, 2, 3, 34, 35
 Long Distance, 2, 3, 32, 33, 35, 37, 38
 Maintenance, 1, 4, 5, 7, 17, 18, 24, 33
 Master Control Unit, 13, 35
 Mast, 11, 35
 MCU, 35, 36
 Media Converter, 11, 35
 Memory, 9, 14, 35, 36
 Message Rate Service, 4, 35
 Microphones, 16, 33
 Miscellaneous Components, 11, 29
 Miscellaneous Fees and Charges, 19
 Miscellaneous Section, 1, 4, 5, 7, 8, 14, 16
 Modem, 4, 6, 10, 11, 15, 27, 37
 Modulating Electronics, 29
 Module, 9, 10, 11, 12, 35, 39, 42, 43
 Monitor, 12, 16, 31, 34, 35, 38, 42
 Monitoring, 4, 5, 15, 17, 27, 31, 36
 Multimedia, 14, 35
 Multimedia Kits, 14, 35
 Multiplexer, 10, 35
 Multipoint Control Unit, 13, 36
 Network Access Register, 4, 36
 Network Architecture, 21
 Network Interface Cards, 9, 14, 34, 36
 Network Interface Device, 11, 36
 Network Management, 10, 15, 17, 21, 36
 Network Switch, 10, 34, 36
 NIC, 9, 36, 41
 Notebook Computer, 15, 34
 Numeric Message, 36, 37
 OC-1, 3, 36
 OC-12, 3, 36
 OC-3, 3, 36
 OC-n, 3
 Off-Site Location, 39
 On-Site Technical Support, 17
 On-Site Training, 19
 Operating System, 12, 13, 15, 36
 Operating System Software, 12, 15, 36
 Optic Cable, 29
 Other Eligible Telecommunications Services, 4, 36
 Pagers, 16, 36
 Paging Service, 3, 36
 Panels, 9
 Payphone, 5, 37
 PBX, 9, 13, 27, 28, 31, 34, 38, 40, 41, 42, 43
 PCS, 3, 37
 PDA, 16, 37
 Per Diem, 20, 37
 Performance Bond, 20, 37
 Permanent Virtual Circuits, 3, 37
 Personal Communications Services, 3, 37
 Personal computers, 15, 37, 44
 Personal Digital Assistant, 16, 37
 Phone Calling Cards, 4, 37
 Phone Modems, 10, 15, 37
 PIC, 4, 37, 38
 PIC Change Charge, 4, 37, 38
 Plain Old Telephone Service, 3, 38
 Point-to-Point, 8, 42
 POTS, 3, 26, 38

Power Strips, 15
 PRI, 3, 33
 Primary Interexchange Carrier, 37
 Printers, 16, 33, 34, 38, 39
 Private Branch Exchange, 13, 30, 38, 41, 43
 Processor Terminator Card, 10, 38
 Processors, 10, 26, 28
 Program Advice, 21
 Programming, 14, 21, 26
 Project Management, 19
 Proxy Server, 10, 12, 38
 PSAP, 26
 Public Address System, 16, 38
 Public Safety Answering Point, 26
 PVBX, 14, 38
 PVC, 3, 37
 Rack, 14, 31, 38, 43
 Radio, 11, 14, 16, 26, 27, 28, 35, 36, 37, 39, 42, 43
 Radio Loop, 3, 39
 Recorders, 16, 38, 42
 Redundant, 15
 Relay I/O Module, 11, 39
 Remote, 10
 Remote Access, 10, 12, 39, 41
 Remote Access Components, 12, 39
 Remote Access Router, 39
 Repair and Upkeep, 17
 Residential Telephone Service, 5, 39
 Reverse Directory Assistance, 5, 39
 Routers, 9, 10, 28, 32, 34, 39, 42
 Satellite, 3, 4, 11, 20, 27, 30, 39
 Satellite Dishes, 11, 39
 Satellite Television, 20
 Scheduling Service, 5
 Security Features, 38
 Security Hazards, 10
 Servers, 9, 10, 11, 12, 13, 14, 15, 22, 26, 27, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 43
 Service Contracts, 20
 Shipping Charges, 19, 39
 SMDR, 16, 28, 40
 SMDS, 3, 40
 Software, 7, 8, 12, 13, 15, 17, 21, 26, 28, 31, 32, 35, 36, 39, 40, 41, 43
 Software Applications, 7, 12, 43
 Spare Parts, 14, 40
 Speakers, 14, 35, 38, 40
 Specialized Services, 8
 Speed Calling, 29
 Standby, 15
 Station Message Detail Recording, 16, 28, 40
 Storage, 5, 12, 13, 15, 27, 28, 32, 36, 40
 Storage Media, 16, 40
 Surcharges, 20
 Surge Protectors, 14, 15, 40
 Switch, 3, 10, 12, 34, 36, 38, 39, 41, 42, 43
 Switchboard or Attendant Console, 13, 40
 Switched Multimegabit Data Service, 3, 40
 System Improvements, 14, 40
 System Upgrade, 14, 31, 40
 T-1, 3, 6, 20, 32, 40
 T-2, 3, 41
 T-3, 3, 32, 41
 Tape Backup, 10, 16, 28, 41
 Taxes, 20
 Technical Support, 4, 7, 17
 Technology Plans, 21
 Telecommunications, 2, 3, 4, 5, 6, 8, 10, 11, 20, 24, 26, 34, 36, 37, 39, 41
 Telecommunications Services, 1, 2, 3, 4, 5, 19, 20, 24, 36, 37, 42, 43
 Telephone, 3, 4, 5, 6, 13, 16, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
 Telephone Components, 4, 13, 16
 Telephone Features, 4
 Telephone Service, 3, 4, 5, 13, 16, 23, 26, 28, 29, 32, 33, 35, 37, 38, 39, 43
 Telephone Sets, 16, 41
 Television, 3, 4, 5, 11, 14, 16, 20, 26, 27, 33, 35, 42
 Terminal Adapter, 11, 41
 Terminal Server, 12, 41
 Termination Charges, 5, 8, 16, 20
 Test Equipment, 14, 21, 41
 Text Messages, 31
 Text Paging, 36, 37
 Toll Charges, 26
 Toll-Free, 4, 26, 33
 Tools, 14, 21
 Towers, 11
 Training, 8, 19, 21
 Transceiver, 11, 41
 Travel Time, 20, 37, 41
 Trunk Lines, 3, 41
 Trunk Route, 40

Twisted Pair, 9, 35
 Two-in-Five Rule, 9, 17, 24
 Two-Way Radios, 16, 42
 TX-to-FX, 11, 29
 Uninterruptible Power Supply, 11, 31, 39, 42
 Universal Service Fees, 20
 Upgrade, 14, 31, 40
 UPS, 11, 39, 42
 Video, 4, 5, 8, 9, 10, 12, 13, 14, 16, 27, 28, 29, 30, 33, 34, 35, 36, 38, 42, 43
 Video Amplifier, 14, 42
 Video Channel Modulator, 14, 42
 Video Components, 13, 16, 27, 28, 35, 36, 38, 42
 Video Encoder, 13, 28
 Video Services, 3, 5, 42
 Videocassette Recorders, 16, 38
 Virtual Private Network, 8, 10, 42
 Voice Compression Module, 13, 42
 Voice Interface Card, 13, 42
 Voice Mail, 3, 13, 16, 20, 42
 Voice Mail Components, 13, 16, 42
 Voice Message, 36, 37, 42
 Voice/Fax Network Module, 11, 43
 Voice/Video over IP (VoIP) Equipment, 10, 43
 Voice/Video over IP (VoIP) Services, 19, 33
 VPN, 10, 42
 WAN, 3, 24, 43
 WAN Components, 24
 Warranty, 20
 Web Casting, 8, 43
 Web Hosting, 7, 30, 43
 Web Server, 12, 43
 Web Site Creation Fee, 7, 8, 43
 Wide Area Network, 3, 7, 24, 28, 43
 Wide Area Network Infrastructure, 24
 Wide Area Networks, 3, 24, 43
 Wire, 4, 7, 17, 27, 29, 33, 33, 35, 36, 39, 41, 43
 Wire Managers, 9, 43
 Wireless, 3, 6, 7, 10, 13, 23, 26, 28, 34, 37, 42, 43
 Workstation, 15, 16, 44
 Workstations, 11, 14, 15, 16, 33, 34, 36, 37, 38, 41, 44
 Yellow Pages, 30