Isp – internet service provider

Internet service provider * ISP (Internet service provider) * Regional ISPs provide Internet access to a specific geographical area * National ISPs provide Internet access in cities and towns nationwide * Online service provider (OSP) * Has many members-only features * Popular OSPs include AOL (America Online) and MSN (Microsoft Network) * Wireless Internet service provider (WISP) * Provides wireless Internet access to computers and mobile devices * May require a wireless modem An Internet service provider (ISP) is a company that provides access to the Internet.

Access ISPs directly connect customers to the Internet using copper wires, wireless or fiber-optic connections. [1] Hosting ISPs lease server space for smaller businesses and host other people servers (colocation). Transit ISPs provide large amounts of bandwidth for connecting hosting ISPs to access ISPs. [2] Internet connectivity options from end-user to Tier 3/2 ISPs * | History The Internet started off as a closed network between government research laboratories and relevant parts of universities.

As it became more popular, universities and colleges started giving more of their members access to it. As a result of its popularity, commercial Internet service providers sprang up to offer access to the Internet to anyone willing to pay for the service, mainly to those who missed their university accounts. In 1990, Brookline, Massachusetts-based The World became the first commercial ISP. [3] Access provider ISPs employ a range of technologies to enable consumers to connect to their network.

For users and small businesses, traditional options include: dial-up, DSL (typically Asymmetric Digital Subscriber Line, ADSL), broadband wireless,

cable modem, fiber to the premises (FTTH), and Integrated Services Digital Network (ISDN) (typically basic rate interface). For customers with more demanding requirements, such as medium-to-large businesses, or other ISPs, DSL (often Single-Pair High-speed Digital Subscriber Line or ADSL), Ethernet, Metropolythian Ethernet, Gigabit Ethernet, Frame Relay, ISDN (B. R. I. or P. R. I.), ATM (Asynchronous Transfer Mode) and upload satellite Internet access.

Sync-optical cabling (SONET) are more likely to be used. [citation needed] Typical home user connectivity * Broadband wireless access * Cable Internet * Dial-up * ISDN * Modem * DSL * FTTH * Wi-Fi Business-type connection: * DSL * Metro Ethernettechnology* Leased line * SHDSL Locality When using a dial-up or ISDN connection method, the ISP cannot determine the caller's physical location to more detail than using the number transmitted using an appropriate form of Caller ID; it is entirely possible to e. g. connect to an ISP located in Mexico from the USA.

Other means of connection such as cable or DSL require a fixed registered connection node, usually associated at the ISP with a physical address. Mailbox provider A company or organization that provides email mailbox hosting services for end users and/or organizations. Many Mailbox Providers are also Access Providers. Hosting ISPs Hosting ISPs routinely provide email, FTP, and web-hosting services. Other services include virtual machines, clouds, or entire physical servers where customers can run their own custom software. Transit ISPs

Just as their customers pay them for Internet access, ISPs themselves pay upstream ISPs for Internet access. An upstream ISP usually has a larger network than the contracting ISP and/or is able to provide the contracting ISP with access to parts of the Internet the contracting ISP by itself has no access to. In the simplest case, a single connection is established to an upstream ISP and is used to transmit data to or from areas of the Internet beyond the home network; this mode of interconnection is often cascaded multiple times until reaching a Tier 1 carrier. In reality, the situation is often more complex.

ISPs with more than one point of presence (PoP) may have separate connections to an upstream ISP at multiple PoPs, or they may be customers of multiple upstream ISPs and may have connections to each one of them at one or more point of presence. Peering Main article: Peering ISPs may engage in peering, where multiple ISPs interconnect at peering points or Internet exchange points (IXs), allowing routing of data between each network, without charging one another for the data transmitted—data that would otherwise have passed through a third upstream ISP, incurring charges from the upstream ISP.

ISPs requiring no upstream and having only customers (end customers and/or peer ISPs) are called Tier 1 ISPs. Network hardware, software and specifications, as well as the expertise of network management personnel are important in ensuring that data follows the most efficient route, and upstream connections work reliably. A tradeoff between cost and efficiency is

possible. Derivatives The following are not a different type of the above ISPs, rather they are derivatives of the 3 core ISP types.

A VISP is reselling either access or hosting services. Free ISPs are similar, but they just have a different revenue model. Virtual ISP Main article: Virtual ISP A Virtual ISP (VISP) is an operation which purchases services from another ISP (sometimes called a " wholesale ISP" in this context)[4] which allow the VISP's customers to access the Internet using services and infrastructure owned and operated by the wholesale ISP. Free ISP Free ISPs are Internet Service Providers (ISPs) which provide service free of charge.

Many free ISPs display advertisements while the user is connected; like commercial television, in a sense they are selling the users' attention to the advertiser. Other free ISPs, often called freenets, are run on a nonprofit basis, usually with volunteer staff. Related services * Broadband Internet access * Fixed wireless access * Cable * Triple play * Internet hosting service * Web hosting service * E-mail hosting service * DNS hosting service * Dynamic DNS