CONSUMER INTERNET

DSL (Digital Subscriber Line)—Shares an analog phone line with normal consumer voice traffic. The voice uses lower frequencies, the data uses higher ones. Customer needs to be fairly close (kilometers) from the telco facility to avoid losing high frequencies and with them, speed.

DSLAM (DSL Access Multiplexer)—At the telco, phone lines connect to the DSLAM, which splits voice from data

ADSL (Asymmetric DSL)—Faster download (toward the customer) than upload. Well suited to home web browsing, where the requests are simple addresses and the responses are entire multimedia web pages.

Cable Internet—Asymmetric. Faster than DSL. Simply reserves a frequency (channel) for data.

Mobile Phone 3G/4G
* LTE (Long-Term Evolution)—Part of 4G

Fiber —Usually Ethernet over fiber. In some markets, called "fiber to the home."

VPNS

VPN (Virtual Private Network)—an encrypted link between sites (sometimes called a tunnel) can use the notoriously public internet as a transmission medium to provide many of the advantages of a truly private connection, such as a leased line:
* Confidentiality—a Man In The Middle (MITM) eavesdropping on the link will be stuck with encrypted data
* Authentication—legitimate stations are able to prove their identity, preventing impersonation attacks
* Data Integrity—Data can be verified upon receipt to prove that it wasn't changed en-route
* Anti-Replay—an attacker cannot simply record and replay traffic to impersonate a legitimate endpoint or transaction

ASA (Adaptive Security Appliance)—A Cisco marketing term for a firewall appliance. Can serve as one end of a VPN tunnel, just like a router can.

IPSEC

IPsec—A framework that lays out each of the steps necessary for a VPN tunnel, with specific technology options for each. For example, you can choose from many encryption algorithms.

Session Key—AKA "shared key" for encryption. Packet is encrypted, IP headers and all, and encapsulated with a VPN header and a new IP header.

SSL (Secure Socket Layer) VPNs—Same as HTTPS. In fact, you can terminate HTTPS connections (TCP port 443) at a router or ASA, taking the crypto load off of your web server.

- Alternative to IPsec
- Used by Cisco's VPN client (AnyConnect is current)—All traffic to the remote site is tunneled, regardless of which application the data belongs to