

NSTX Computing Terminology

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Most descriptions are excerpts from 'wikipedia' <http://en.wikipedia.org> .

Term	Description
Apple Remote Desktop (ARD)	Apple Remote Desktop (ARD) is a Macintosh application produced by Apple Computer. Aimed at computer administrators responsible for large numbers of computers and teachers who need to assist individuals or perform group demonstrations, Apple Remote Desktop allows users to remotely control or monitor other computers over a network.
Authentication	Authentication is the process of attempting to verify the digital identity of the sender of a communication such as a request to log in. The sender being authenticated may be a person using a computer, a computer itself or a computer program .
Deprecated	A feature or method marked as deprecated is one which is considered obsolete, and whose use is discouraged.
DHCP	Dynamic Host Configuration Protocol , or DHCP is a client-server networking protocol . A DHCP server provides configuration parameters specific to the DHCP client host requesting, generally, information required by the client host to participate on an IP network. DHCP also provides a mechanism for allocation of IP addresses to client hosts.
<i>domain</i>	<p>A Windows Server domain or Windows NT Domain is a logical group of computers running versions of the Microsoft Windows operating system that share a central directory database. This central database (known as the Active Directory starting with Windows 2000^[1]) contains the user accounts and security information for the resources in that domain. Each person who uses computers within a domain receives his or her own unique account, or user name. This account can then be assigned access to resources within the domain.</p> <p>The benefits of a domain are:</p> <ul style="list-style-type: none">• Centralized Administration - Management of the entire domain can be done with access to one database.• Single Logon Process - Access to network resources can be granted through a single logon.• Scalability - Very large networks can be created.
DNS	The domain name system (DNS) stores and associates many types of information with domain names , but most importantly, it translates domain names (computer hostnames) to IP addresses . In providing a worldwide keyword-based redirection service, DNS is an essential component of contemporary Internet use.

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Firewall	A firewall is a piece of hardware and/or software which functions in a networked environment to prevent some communications forbidden by the security policy. The ultimate goal is to provide controlled connectivity between zones of differing trust levels through the enforcement of a security policy and connectivity model based on the least privilege principle.
IP Address	An IP address (Internet Protocol address) is a unique number that devices use in order to identify and communicate with each other on a computer network utilizing the Internet Protocol standard (IP). Any participating network device – including routers , computers , time-servers, printers , Internet fax machines, and some telephones – must have its own unique address.
MAC Address	In computer networking a Media Access Control address (MAC address) is a unique identifier attached to most forms of networking equipment. On broadcast networks such as Ethernet the MAC address allows each host to be uniquely identified and allows frames to be marked for specific hosts. The MAC addresses are assigned by the IEEE to each company producing network equipment, but it has been reported that some companies simply copy other vendors' numbers. Should this occur at PPPL it would obviously create a problem.

Term	Description
Network Registration	<p>Network Registration (Netreg) is a project that the Computer Division is implementing to both improve the flexibility of our network and to comply with requirements from DOE. This will involve a reconfiguration of PPPL's network and how devices get connected to our network. It will be deployed throughout PPPL, August 2006 through December. This project has two main parts:</p> <p>Registration:</p> <ul style="list-style-type: none"> o All devices connected to our network must be registered in a database. o Must insure all network devices are secure from cyber attacks. <p>Segmentation:</p> <ul style="list-style-type: none"> o Our network must be split to protect sensitive systems. This will be accomplished by using virtual networks. o Visitors (without PPPL computer accounts) can not have access to PPPL's internal network. They will have access to the internet.
Organizational Unit (OU)	A Windows OU is an organization unit (a directory container) for grouping similar accounts or machines. OUs are used to provide a means of delegating authority over a group of accounts or machines to a person (the local administrator).

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packet	A packet is a formatted block of information carried by a computer network . When data is formatted into a packet, the network can transmit longer messages more efficiently and reliably.
rdesktop	rdesktop is an open source client capable of natively speaking Remote Desktop Protocol (RDP) in order to present the user's (Windows) desktop. rdesktop currently runs on most UNIX based platforms with the X Windows.
Router	A router is a computer networking device that forwards data packets across an internetwork toward their destinations, through a process known as routing .
Subnet	Subnetting an IP network allows a single large network to be broken down into what appear (logically) to be several smaller ones. It was originally introduced before the introduction of classful network numbers in IPv4 , to allow a single site to have a number of local area networks .
Switch	A network switch (or just switch for short) is a networking device that performs transparent bridging (connection of multiple network segments with forwarding based on MAC addresses) at full wire speed in hardware. The use of specially designed hardware also makes it possible to have large numbers of ports
Total Cost of Ownership (TCO)	Total cost of ownership (TCO) is a financial estimate designed to help consumers and enterprise managers assess direct and indirect costs related to the purchase of any capital investment, such as (but not limited to) computer software or hardware .
tcp/ip	Transmission Control Protocol / Internet Protocol. Today, as many of us know, this protocol is used as the basis for the internet. Because it must span such large distances and cross multiple, smaller networks, TCP/IP is a routable protocol, meaning it can send data through a router on its way to its destination.
IT (Information Technology)	IT is a broad subject concerned with technology and other aspects of managing and processing information, especially in large organizations. In particular, IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information.

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VLAN	A VLAN consists of a network of computers that behave as if connected to the same wire - even though they may actually physically connect to different segments of a LAN. Network administrators configure VLANs through software rather than hardware, which makes them extremely flexible.
VPN	A virtual private network (VPN) is a private communications network usually used within a company, or by several different companies or organizations, to communicate over a wider network. VPN message traffic can be carried over a public networking infrastructure (e.g. the Internet) on top of standard protocols. VPN involves two parts: the protected or "inside" network, which provides physical and administrative security to protect the transmission; and a less trustworthy, "outside" network or segment (usually through the Internet).
Virus/ Worm/ Spyware	<p>In computer security, a computer virus is a self-replicating computer program that spreads by inserting copies of itself into other executable code or documents.</p> <p>Trojan horses</p> <p>A Trojan horse is just a computer program. The program pretends to do one thing (like claim to be a picture) but actually does damage when one starts it (it can completely erase one's files). Trojan horses cannot replicate automatically.</p> <p>Worms</p> <p>A worm is a piece of software that uses computer networks and security flaws to create copies of itself. A copy of the worm will scan the network for any other machine that has a specific security flaw. It replicates itself to the new machine using the security flaw, and then starts replicating.</p> <p>E-mail viruses</p> <p>An e-mail virus will use an e-mail message as a mode of transport, and usually will copy itself by automatically mailing itself to hundreds of people in the victim's address book.</p> <p>Spyware</p> <p>Spyware is a type of program that watches after what users do with their computer and then send this information to a hacker over the internet. More malicious versions can try to record what a user types to try to intercept passwords or credit card numbers. Spyware differs from viruses and worms in that it does not usually self-replicate.</p> <p>See a list of Timeline of notable computer viruses and worms .</p>