



2019 CYBER PRESENTATION



Cal Anderson, OTARMA IT Risk Control Specialist



Cal Anderson Bio 

- 20 plus years of industry experience in Information Systems, Cyber Security & Risk Management
- Specialize in performing Cyber Security, SOX IT, enterprise IT audits and enterprise IT risk assessments of Fortune 500, mid-range and small scale IT environments.
- Specialize in Data Governance, Data validation and flowcharting business processes from beginning to end.
- Certified: CISA, CRISC, CWM, CSQL
- Certified Notary Public for the state of Ohio

Goal 

- Provide overview of IT Risk Control Specialist function
- Provide overview of the IT Risk assessment process
- Provide overview of IT Risk Control Specialist function conducting training and providing IT information to the OTARMA member bases.
- Provide comprehensive Cyber Security educational content for managing cyber threats.

IT RISK CONTROL SPECIALIST FUNCTION

High-Level Tasks perform by the IT Risk Control Specialists:

- Conduct IT Risk Assessment
 - Identification/PII Risks
 - Analyze risks and how it will affect the member
- Risk Evaluation
 - Costs
 - Legal Requirements
 - Environmental Factors
 - Members handling of risks
- Provide recommendations to address IT issues and deficiencies.
- Consult with members to answer their questions and to educate/promote awareness.
- Conduct IT training

IT Risk Assessment Process

Members Base Management

- Visit Scheduling
- Visit Confirmation

Onsite IT Risk Assessment

- Assessment
- Activities

Member Base Management

Visit Scheduling

- Call or email member to set appointment

Visit Confirmation

- Once confirmed an email is sent the member to confirm the visit.

Member Base Management Cont...



Onsite IT Risk Assessment Process

- Perform IT Risk Assessments of:
 - Website and Hosting
 - Network and Wireless
 - Policies and Surveillance
 - Accounts and Passwords
 - Asset Management
 - Operating Systems
 - Software and Applications
 - Records Management
 - Imaging and Printers
 - Disaster and Breach Recovery
 - Telework and Communications
 - Anti-Virus and Firewall
 - Encryption and Hacking
 - IT Purchasing and Projects

Member Base Management Cont...



Onsite IT Risk Assessment Process

- Issue Recommendations
 - Discuss with Member
 - Recommendations and letter are sent to the member & broker
 - SOAT (Statement of Action)
 - 60 days follow-up letter
 - 90 days notify Underwriter

Cyber Security Is Everyone's Responsibility

Security is an Executive Level Matter

>> VIRUS <<

Ohio ranks 8th worst for cybercrime victim count and 14th worst for total cybercrime loss in the U.S.

Cyber Threat Facts



Cyber criminals don't care about age, gender, race, culture, beliefs or nationality. They care about opportunity and other **weak** financial gain.
Identity + Credentials = \$\$MONEY\$\$ or POWER to INFLUENCE
 The U.S. had the most data breaches of any other country.

Cyber Security Funding

- **Well-funded and well-organized.**
 - The Cyber Black Market is now
 - more profitable than the illegal drug trade.



Total Cybercrime Market
IN U.S. DOLLARS
 Projected to be \$6 trillion by 2021

SIZE OF GLOBAL CYBERCRIME MARKET	RUSSIAN CYBERCRIME MARKET
\$12.5 billion	\$2.3 billion
	RUSSIAN SPEAKING CYBERCRIME MARKET
	\$4.5 billion

Cyber Buying Activity

Cyber criminals are the biggest buyers. A single "zero day" exploit sells for as much as \$300,000.



WHAT HACKERS CAN BUY ON THE BLACK MARKET

- SOFTWARE THAT CREATES & MANAGES ATTACKS
- BOTNETS: A network of computers infected with malicious software and controlled as a group without the owner's knowledge.
- HACKERS FOR HIRE
- STOLEN PERSONAL DATA
- COMPROMISED NETWORK INFORMATION

A zero day exploit is an attack that occurs on the same day a weakness is discovered in software before the fix becomes available from its creator.

Checkout using Bitcoin on Black Market

Quantity: 1
 Price Each: \$1.00
 Shipping Cost: \$1.00
 1 Bitcoin Exchange Rate: \$487.28
 Total Cost, BTC: 0.0041

First Name: Last Name:
 Tom Thompson

Address Line 1:
 123 Main St.
 Address Line 2:

City: State/Province:
 Anytown AK
 Postal Code: Country:
 83723 USA

Completed Order on Cyber Black Market

Quantity: 1
 Price Each: \$1.00
 Shipping Cost: \$1.00
 1 Bitcoin Exchange Rate: \$487.28
 Total Cost, BTC: 0.0041

First Name: Last Name:
 Tom Thompson

Address Line 1:
 123 Main St.
 Address Line 2:

City: State/Province:
 Anytown AK
 Postal Code: Country:
 83723 USA

Last 30 Days of FBI Cybercrime via FBI



-  Two Chinese Advanced Persistent Threat 10 hackers indicted for conspiracy to commit intrusion, wire fraud, and aggravated identity theft stealing hundred of gigabytes of info from 45 organizations.
-  Seven Chicago residents and two Nigerians arrested for international online romance scams and mystery shopper schemes through Match.com, Facebook, Instagram, U.S. Mail.
-  Arkansas resident was sentenced to 262 months in Federal prison & \$10,000 fine for enticement of a minor using Facebook Messenger.
-  Puerto Rican resident indicted for threatening to injure the Secretary of Public Safety via Facebook. He faces 10 years in prison.
-  California resident sentenced to five years in prison for ATM Skimming Fraud Scheme possessing over 500 fraudulent cards.
-  Indiana resident, who has a prior conviction, indicted for possession and transportation of child pornography to an online service.
-  Pennsylvania resident sentenced for distributing multifunction Bugat Malware to steal banking credentials to initiate fraudulent electronic funds transfers of millions of dollars from victim's bank accounts.

North Carolina Onslow Water and Sewer Authority Ransomware Attack



In October 2018, the ONWSA's servers and computers were hit with a ransomware attack after an Emotet Trojan infection leaving them with limited computer capabilities. All activities were being conducted manually while the databases and network were getting rebuilt. They're actively working with the FBI, Department of Homeland Security, State of North Carolina and security companies to investigate the attack.



Georgia Hit with Ransomware Attack Encrypting Some Government Systems



In March, Georgia was hit with a ransomware attack. The city had a deadline to transfer 6 bitcoins, worth \$51,000, to a bitcoin wallet disabled days before the deadline. The hackers encrypted some government systems. Municipal court, business licensing, and utility payment services went down. DHS, FBI, and Secret Service are involved.



Oregon State Employee Resigned After Unauthorized Records Transfer



In February, an Oregon state employee was placed on paid administrative leave and later resigned for an unauthorized transfer of Department of Revenue records on approximately 36,000 people to personal cloud storage. The employee moved 60 spreadsheets to a personal Google Drive account so he could use them as "templates for his work at a future employer".



U.S. Military Now Given Authority to Launch Preventative Cyberattacks



Pentagon's new stance is "Defend Forward" to allow the U.S. Military to disrupt or halt malicious cyber activity at its source, including activity that falls below the level of armed conflict.



Authorizes Military to wipe out the enemy computer network in a friendly country. Example: Russian hackers building a computer network in a second country like Germany to launch an attack on a third country like the United States.

Top 10 States by Number of Victims via FBI IC3 Report



Ohio had 8,157 victims with \$30,672,149 million in losses.




Ohio Cyber Victim Count by Type via FBI IC3 Report




Crime Type	Victim Count	Crime Type	Victim Count
Advanced Fee	445	Identity Theft	363
BEG/EAC	390	Investment	36
Charity	11	Lottery/Sweepstakes/Inheritance	104
Civil Matter	25	Malware/Scareware/Virus	94
Confidence Fraud/Romance	382	Misrepresentation	137
Corporate Data Breach	67	No Lead Value	1,010
Credit Card Fraud	314	Non-payment/Non-Delivery	2,123
Crimes Against Children	28	Other	251
Criminal Forums	0	Overpayment	653
Denial of Service/DDoS	35	Personal Data Breach	782
Employment	338	Phishing/Vishing/Smishing/Pharming	1,026
Extortion	352	Ransomware	39
Gambling	4	Re-shipping	23
Government Impersonation	232	Real Estate/Rental	206
Hacktivist	3	Spoofing	0
Harassment/Threats of Violence	391	Tech Support	292
Health Care Related	7	Terrorism	4
IPR/Copyright and Counterfeit	50		
Descriptors*			
Social Media	513	Virtual Currency	82

Ohio Cyber Victims by Age Group via FBI IC3 Report



Victims by Age Group		
Age Range	Count	Amount Loss
Under 20	217	\$165,616
20 - 29	851	\$935,065
30 - 39	1,004	\$5,671,025
40 - 49	1,013	\$4,081,118
50 - 59	1,024	\$3,531,892
Over 60	1,756	\$8,738,338

Township Policy Recommendations



The five basic cyber security policies that should be in place no matter the size of the member.



1. Password Policy
2. Antivirus Policy
3. Backup Policy
4. Physical Security Policy
5. Clean Desk Policy



Combating Cyber Attacks



- Protect against viruses, spyware, and other malicious code
- Secure your networks
- Establish security practices and policies to protect sensitive information
- Educate employees about cyber threats and hold them accountable
Require employees to use strong passwords and to change them often

Combating Cyber Attacks Cont...



- Make backup copies of important business data and information
- Control physical access to computers and network components
- Create a mobile device action plan
- Protect all web pages on your public-facing websites with Secure Socket Layer (SSL) certificates

Combating Cyber Attacks Cont...



USE COMMON SENSE:

1. Don't leave passwords laying around out in the open!
2. Use a password manager app
3. Always use a password for your computer
4. Don't let children or guests access a computer that houses sensitive information
5. Always lock your computer when you leave it unattended
6. Shut down your computer if you are not using it
7. Regularly backup up your computer to an external drive and store that drive in a fireproof safe or cabinet

Backup Basics



Flash Drive



External Drive



Cloud



Pros and Cons of Flash & External Drives

Pros

External Drive
 Much bigger capacities @ lower cost per GB
 Much better for large files
 Better suited to write size intensive applications

USB Flash Drive
 Much better portability
 Easy to carry many for different purposes, file systems, programs, etc.

Cons

External Drive
 Bulky
 3.5 inch in size on the average

USB Flash Drive
 Limited write / rewrite cycle so no good for write intensive applications
 Cheap, poor quality flash storage chips leading to short lifespan and high error rate




Pros and Cons of Cloud Storage




With any kind of platform, there are pros and cons that should be considered in determining if cloud storage is the right match for your township's IT infrastructure. Listed here are the **advantages** and **disadvantages** of cloud storage.

Pros of Cloud Storage



Cloud: The Good

- Accessibility
 - Accessed from anywhere with an internet connection
- Cost Savings
 - Little or no costs
- Disaster Recovery
 - Create a second copy of important files
 - Store second copy off site
- Scalability
 - Pay only for storage you use
- Speed
 - Multiple servers can backup data simultaneously much quicker than backing up to a disk.
- Storage immortality
- No need to buy hardware that soon becomes obsolete

Cons of Cloud Storage



Cloud: The Bad

- Security & Privacy
 - Giving sensitive information to a third party
 - Choose a reliable service provider
- Bandwidth Limits
 - If you surpass the allowance then charges could be costly
- Vulnerable to Attacks
 - Internet is not completely secure
- Data Management
 - Existing storage management system may not integrate well with cloud vendor's system.
- Lifetime Cost
 - Price will increase over the years

Cons of Cloud Storage



Do the pros of cloud storage outweigh the cons?

- Cost Savings
- Accessibility
- Disaster Recovery



Social Engineering



Social Engineering



Social engineering is the art of manipulating people so they give up confidential information.

- Criminals are trying to trick you into giving them your password or bank information.
- Criminals are trying to access your computer to install malicious software.
- Use Social Engineering Tactics
 - Easier to exploit natural inclination to trust than it is to discover ways to hack into your computer.

Social Engineering Cont...



- Security is all about knowing who and what to trust.
- The weakest link is the person who accepts a person or scenario at face value.

Social Engineering Cont...



What Does a typical Social Engineering Attack Look Like?

- **Email from a friend**
 - Hacker has access to contact list
 - Hacker has access to social network contacts as well
- Once the criminal has your email account they can send emails to the person's contacts and hack into their accounts

Social Engineering Training Video Resources

Social Engineering Video Training Links

1. The Busy Bee's Guide to Social Engineering
101:<https://www.youtube.com/watch?v=IYZ0cOnWnpi&list=PLBilwEFUl-qa8WeQP8NfFwKPlx9mUu98>
2. Social Engineering
101:<https://www.youtube.com/watch?v=XegdPElp81A>
3. Explained: What is Social Engineering:
<https://www.youtube.com/watch?v=r3qD48AUy8U>
4. Tips on withstanding Social Engineering:
<https://www.youtube.com/watch?v=uV5fzPboVms>

Social Engineering Prevention Tips

- Slow Down
 - Spammers want you to act first and think later
- Research the facts
 - Be suspicious of any unsolicited messages
- Don't let a link be in control of where you land
 - Find websites yourself using search engines you know are safe
- Email Hijacking
 - Hackers, spammers, and social engineers take over control of your email.
- Beware of any downloads
 - If you don't know the sender personally AND expect a file from them, downloading anything is a mistake.
- Foreign offers are fake
 - If you receive an email from a foreign lottery or sweepstakes, money from an unknown relative, or requests to transfer funds from a foreign country for a share of the money it is guaranteed to be a scam.

Website Creation Overview

When creating a new website, the following considerations should be taken in to account in order to ensure your community members have the best experience upon visiting your website.

- Purchase your domain from a reputable third party.
- When you purchase your domain, sign-up for the annual renewal option.
- Assemble your web content
- Design layout of website on paper first
- Sign up and utilize an easy website template service
- Begin to construct your website
- Keep your website simple
- Once your website has been constructed save your web pages in a secure folder and make a copy

Secure Wireless



Network Key



- Change router's default Admin username to something more secure.
- Activate encryption on the router. Preferably 802.11ax technology.
- Change password to a password that's also in line with the password policy.



Broadcasting



- Do not broadcast the network name, otherwise called a Service Set Identifier (SSID).
- Router should support ability to schedule certain times of the day the network is available.
- Verify Remote Access, Remote Administration or Remote Management is disabled.



Guest Access



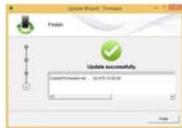
- Use router that supports an isolated network zone for private versus guests.
- Should have a network zone for business users to access.
- Should have a separate network zone for guest users to access.



Firmware



- Updates should complete automatically or
- Manually update them on a monthly basis.
- Call manufacturer to walk through how to update the firmware.



Secure Card Payments



Payment Processing Policy 

Privacy & Confidentiality Policy

- Create a Privacy and Confidentiality policy or include in Acceptable Use policy.
- Include guidelines for the secure handling of payment cards.

Third Parties 

- Verify the identity of any third party before allowing access to device(s).
- Require the third party to have a contract.
- Evaluate their own security controls before signing a contract with them.



Approvals 

- Obtain approval from the business owner before installing, replacing or returning device.
- October 1st was the deadline set by major U.S. credit card issuers to be in compliance. Fraud liability now shifts to party who is least compliant in transaction.
- Should use secure chip technology instead of using the magnetic strips.



Tamper Stickers



- Always be suspicious of anyone trying to unplug or open a credit card processing device.
- Use tamper-prevention stickers on devices.
- Show if someone opened the device and potentially installed a skimmer.



Disposal



- Contact manufacturer to see if they provide a recycle process and send it back.
- Contact waste disposal service that can recycle e-waste.
- Obtain document of receipt to indicate they will dispose of the device properly.



UAN Basics



The Uniform Accounting Network (UAN) is a user-friendly financial software package created by the Auditor of State's office to support the accounting, payroll and financial management activities of local governments in Ohio.

UAN, along with computer equipment and technical support provided by the Auditor of State's office, makes it easier for public officials to apply the required accounting standards to their financial record keeping. Currently, more than 1,000 Ohio townships, villages, public libraries and special districts are using UAN in their daily operations.

Can I use the computer and software for other purposes?

Yes. The UAN software allows for word processing, spreadsheet analysis and presentation development. Also, UAN distributes additional applications as new uses are discovered that may benefit local governments.

Can I add software or hardware to the UAN system?

UAN clients are required to submit a letter to UAN asking for approval to add software or hardware to the system. UAN will approve such requests if there are no conflicts between the UAN software and the additional software or hardware. Local governments are responsible for troubleshooting and maintaining any additional software or hardware added to the UAN system.

Computer Basics - UAN Cont...



When is the support service available to clients?

The support line provides assistance through the use of your phone, modem and/or email. Local governments can contact the support line directly during hours of operation.

Monday - Thursday 7:30 a.m. to 5:30 p.m.
 Friday 7:30 a.m. to 5 p.m.
 Saturday 8 a.m. to noon
 Sundays/Holidays Closed

Requests received outside normal hours are monitored and handled on a priority basis the next business day.

NOTE: UAN OPER (Ohio Public Employee Retirement) ECS file – Monthly Contributions for Employees. The UAN system creates this file and places it on the local c: drive folder . These files contain Social Security numbers and should be deleted from the C: drive once the file has been uploaded. Once deleted, these files should also be deleted from the user's recycle bin.

Basic IT Glossary



- ❑ **Router** - A device used for connecting two Local Area Networks (LANs); routers can filter packets and forward them according to a specified set of criteria.
- ❑ **Network Switch** - A network **switch** (also called **switching** hub, bridging hub) is a **computer** networking device that connects devices together on a **computer** network. Also, call "**hard wiring**" computers together.
- ❑ **Server** - A computer that is responsible for responding to requests made by a client program (e.g., a web browser or an e-mail program) or computer. Also referred to as a "file server".
- ❑ **Firewall** - a firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules.
- ❑ **SSL** - Secure Sockets Layer (SSL) is a computer protocol that helps secure communications over computer networks, and is most often used with e-mail. An SSL certificate is a digital document that ensures the content provided is from the correct (verified) sender.

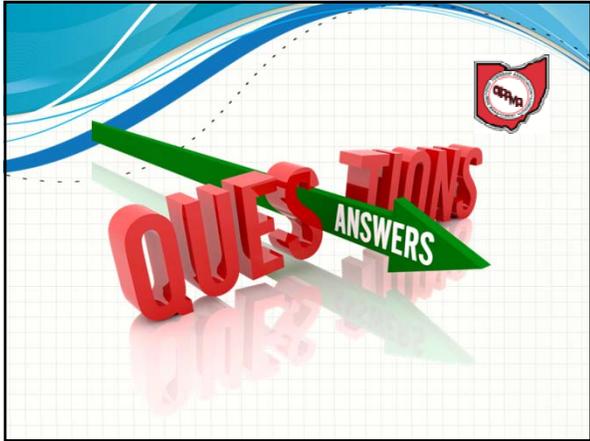
See Expanded IT Glossary for more IT Terms

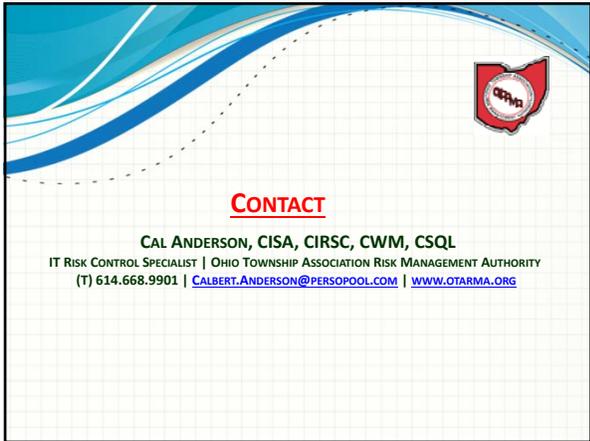
Resources



- External Drives Amazon
https://www.amazon.com/s/ref=nb_sb_noss_1/138-2896150-8275459?url=search-alias%3Daps&field-keywords=external-drives
- External Drives Microcenter
http://www.microcenter.com/search/search_results.aspx?N=4294863597+4294898491&Ntt=external+hard <hyperlink here>
- External Drives Walmart
https://www.walmart.com/search/?query=external%20drives&cat_id=0 <hyperlink here>









IT Glossary

A

access point:

A device that allows wireless-equipped computers and other devices to communicate with a wired network.

accessibility:

As specified in Section 508 of the 1998 Rehabilitation Act, the process of designing and developing Web sites and other technology that can be navigated and understood by all people, including those with visual, hearing, motor, or cognitive impairments. This type of design also can benefit people with older/slower software and hardware.

ActiveX:

A technology from Microsoft that links desktop applications to the World Wide Web. Using ActiveX tools, interactive web content can be created. Example: In addition to viewing Word and Excel documents from within a browser, additional functionality such as animation, credit card transactions, or spreadsheet calculations.

address:

Identifies the location of an Internet resource. Examples: an e-mail address (sales@dataprise.com); a web address (http://www.dataprise.com); or an internet address (192.168.100.1).

alias:

A short, easy to remember name created for use in place of a longer, more complicated name; commonly used in e-mail applications. Also referred to as a "nickname".

anonymous FTP:

Archive sites where Internet users can log in and download files and programs without a special username or password. Typically, you enter anonymous as a username and your e-mail address as a password.

Anti-Spam

To prevent e-mail spam, both end users and administrators of e-mail systems use various anti-spam techniques. Some of these techniques have been embedded in products, services and software to ease the burden on users and administrators. No one technique is a complete solution to the spam problem, and each has trade-offs between incorrectly rejecting legitimate e-mail vs. not rejecting all spam, and the associated costs in time and effort. Dataprise Cloud-Based Anti-SPAM e-mail service eliminates the problem almost entirely. Our state-of-the-art solution lets users see only the e-mail they want — and filters out all of the viruses and e-solicitations they don't want before they reach user's computers and mobile devices.



IT Glossary

applet:

A program capable of running on any computer regardless of the operating system. Many applets can be downloaded from various sites on the Internet.

application:

A program designed for a specific purpose, such as word processing or graphic design.

ASCII file:

A file that can be opened and read by standard text editor programs (for example, Notepad or Simple Text) on almost any type of computer. Also referred to as "plain text files". Examples: documents saved in ASCII format within word processors like Microsoft Word or WordPerfect; e-mail messages created by a program like Outlook; or HTML files.

AT command set:

An industry standard set of commands beginning with the letters "AT" that are used to control a modem. Example: ATDT tells the modem to dial (D) using touch-tone dialing (T). ATDP specifies pulse dialing (P). Also referred to as the "Hayes Command Set".

attachment:

In this context, a file that is sent along with an e-mail message. ASCII (plain text) files may be appended to the message text, but other types of files are encoded and sent separately (common formats that can be selected include MIME, BinHex, and Uuencode).

authentication:

The process of identifying yourself and the verification that you're who you say you are. Computers where restricted information is stored may require you to enter your username and password to gain access.

B

backbone:

A term that is often used to describe the main network connections that comprise the Internet or other major network.

bandwidth:

A measurement of the amount of data that can be transmitted over a network at any given time. The higher the network's bandwidth, the greater the volume of data that can be transmitted.

BCP:

Business Continuity Plan, or "BCP," is a set of documents, instructions, and procedures which enable a business to respond to accidents, disasters, emergencies, and/or threats without any stoppage or hindrance in its key operations. It is also called a business resumption plan, disaster recovery plan, or recovery plan.



IT Glossary

BI:

Business Intelligence - A recognized industry term for organizational analytics, including historical, current, and predictive views of business operations. To learn more please [click here](#).

binary file:

A file that cannot be read by standard text editor programs like Notepad or Simple Text. Examples: documents created by applications such as Microsoft Word or WordPerfect or DOS files with the extension ".com" or ".exe".

BinHex:

A common file format for Macintosh computers; it enables a binary file to be transferred over the Internet as an ASCII file. Using a program like Stuffit, a file can be encoded and renamed with an ".hqx" extension. The recipient uses a similar program to decode the file.

bit:

A binary digit (either 0 or 1); it is the most basic unit of data that can be recognized and processed by a computer.

blended learning:

Instruction that combines aspects of both face-to-face (F2F) and online learning experiences. An increasing number of courses at OSU now offer this type of mix.

blog:

Refers to a weblog, a web page that contains journal-like entries and links that are updated daily for public viewing.

bluetooth:

A wireless networking technology that allows users to send voice and data from one electronic device to another via radio waves.

BMP:

Bitmap file; a common image format on Windows computers. Files of this type usually have the suffix ".bmp" as part of their name.

bookmark:

A feature available in certain programs like Internet Explorer, Firefox, and Acrobat Reader; it is a shortcut you can use to get to a particular web page (IE and Firefox) or to a specified location within a document (PDF).

boolean logic:

A form of algebra in which all values are reduced to either true/false, yes/no, on/off, or 1/0.



IT Glossary

bounce:

A term applied to an e-mail message when it is returned to you as undeliverable.

bridge:

A device used for connecting two Local Area Networks (LANs) or two segments of the same LAN; bridges forward packets without analyzing or re-routing them.

broadband connection:

A high-speed Internet connection; at present, cable modems and DSL (Digital Subscriber Lines) are the two technologies that are most commonly available to provide such access.

browser:

A program used to access World Wide Web pages. Examples: Firefox, Safari or Internet Explorer.

buffer:

On a multitasking system, a certain amount of RAM that is allocated as a temporary holding area so that the CPU can manipulate data before transferring it to a particular device.

buffered:

Data that is collected but not made immediately available. Compare to a language translator who listens to a whole statement before repeating what the speaker has said rather than providing a word-by-word translation. Example: Streaming media data viewable using a tool like RealMedia Player is buffered.

business continuity:

Business continuity is the activity performed by an organization to ensure that critical business functions will be available to customers, suppliers, regulators, and other entities that must have access to those functions. These activities include many daily chores such as project management, system backups, change control, and help desk. Business Continuity is not something implemented at the time of a disaster; Business Continuity refers to those activities performed daily to maintain service, consistency, and recoverability. To learn more please click [here](#).

business continuity plan:

Business Continuity Plan or "BCP" is a set of documents, instructions, and procedures which enable a business to respond to accidents, disasters, emergencies, and/or threats without any stoppage or hindrance in its key operations. It is also called a business resumption plan, disaster recovery plan, or recovery plan. Also see above explanation. To learn more please click [here](#).

BYOD:

Bring Your Own Device or "BYOD" is a business and technology policy that allows employees to bring in personal mobile devices and use these devices to access company data, email, etc.



IT Glossary

byte:

A group of adjacent binary digits that a computer processes as a unit to form a character such as the letter "C". A byte consists of eight bits.

C

cable modem:

A special type of modem that connects to a local cable TV line to provide a continuous connection to the Internet. Like an analog modem, a cable modem is used to send and receive data, but the difference is that transfer speeds are much faster. A 56 Kbps modem can receive data at about 53 Kbps, while a cable modem can achieve about 1.5 Mbps (about 30 times faster). Cable modems attach to a 10Base-T Ethernet card inside your computer.

cache:

Refers to: 1) a region of computer memory where frequently accessed data can be stored for rapid access; or 2) a optional file on your hard drive where such data also can be stored. Examples: Internet Explorer and Firefox have options for defining both memory and disk cache. The act of storing data for fast retrieval is called "caching".

captcha:

A challenge-response test in the form of an image of distorted text the user must enter that to determine whether the user is human or an automated bot.

carrier services

As authorized agents for the biggest names in the telecommunications industry, Dataprise will deliver the most appropriate and cost-effective carrier solutions for your organization. Dataprise will design, implement and support all of your Data, Internet, Voice and Conferencing solutions. To learn more please click [here](#).

case-sensitive:

Generally applies to a data input field; a case-sensitive restriction means lower-case letters are not equivalent to the same letters in upper-case. Example: "data" is not recognized as being the same word as "Data" or "DATA".

CBT:

Computer-Based Training; a type of training in which a student learns a particular application by using special programs on a computer. Sometimes referred to as "CAI" (Computer-Assisted Instruction) or "CBI" (Computer-Based Instruction), although these two terms may also be used to describe a computer program used to assist a teacher or trainer in classroom instruction.



IT Glossary

CD-R drive:

A type of disk drive that can create CD-ROMs and audio CDs. CD-R drives that feature multi session recording allow you to continue adding data to a compact disk which is very important if you plan on using the drive for backup.

CD-ROM:

Compact Disk, Read Only Memory; a high-capacity secondary storage medium. Information contained on a CD is read-only. Special CD-ROM mastering equipment available in the OIT Multimedia Lab can be reserved for creating new CDs.

CD-RW, CD-R disk:

A CD-RW disk allows you to write data onto it multiple times instead of just once (a CD-R disk). With a CD-R drive you can use a CD-RW disk just like a floppy or zip disk for backing up files, as well as for creating CD-ROMs and audio CDs.

CGI:

Common Gateway Interface; a mechanism used by most web servers to process data received from a client browser (e.g., a user). CGI scripts contain the instructions that tell the web server what to do with the data.

chat:

Real-time communication between two or more users via networked-connected computers. After you enter a chat (or chat room), any user can type a message that will appear on the monitors of all the other participants. While most ISPs offer chat, it is not supported by OIT. However, the campus CMS (Carmen) supported by TELR does provide the capability for live chat among students participating in online courses.

client:

A program or computer that connects to and requests information from a server. Examples: Internet Explorer or Firefox. A client program also may be referred to as "client software" or "client-server software".

client-server technology:

Refers to a connection between networked computers in which the services of one computer (the server) are requested by the other (the client). Information obtained is then processed locally on the client computer.

cloud:

(See below): a common shorthand for a provided cloud computing service (or even an aggregation of all existing cloud services) is "The Cloud". To learn more please [click here](#).



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cloud computing:

A general term used to describe Internet services such as social networking services (e.g., Facebook and Twitter), online backup services, and applications that run within a Web browser. Cloud computing also includes computer networks that are connected over the Internet for server redundancy or cluster computing purposes.

CMS:

'Content Management System' is the collection of procedures used to manage work flow in a collaborative environment. In a CMS, data can be defined as nearly anything: documents, movies, pictures, phone numbers, scientific data, and so forth. CMSs are frequently used for storing, controlling, revising, semantically enriching, and publishing documentation. Serving as a central repository, the CMS increases the version level of new updates to an already existing file. Version control is one of the primary advantages of a CMS.

compress:

The process of making a file smaller so that it will save disk space and transfer faster over a network. The most common compression utilities are Winrar for PC or compatible computers (.zip files) and or Stuffit (.sit files) for Macintosh computers.

connect:

A term that commonly refers to accessing a remote computer; also a message that appears at the point when two modems recognize each other.

cookie:

A small piece of information you may be asked to accept when connecting to certain servers via a web browser. It is used throughout your session as a means of identifying you. A cookie is specific to, and sent only to the server that generated it.

courseware:

Software designed specifically for use in a classroom or other educational setting.

CPU:

Central processing unit; the part of a computer that oversees all operations and calculations.

CSP:

Cloud Service Provider; a business model for providing cloud services. To learn more please click here.

CSS:

Cascading Style Sheet; A set of rules that define how web pages are displayed using CSS, designers can create rules that define how page



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cursor:

A special symbol that indicates where the next character you type on your screen will appear. You use your mouse or the arrow keys on your keyboard to move the cursor around on your screen.

cyberspace:

A term describing the world of computers and the society that uses them

D

DaaS:

Desktop-as-a-Service - Also called virtual desktop or hosted desktop services, it is the outsourcing of a virtual desktop infrastructure (VDI) to a third- party service provider. To learn more please click here.

daemon:

A special small program that performs a specific task; it may run all the time watching a system, or it can take action only when a task needs to be performed. Example: If an e-mail message is returned to you as undeliverable, you may receive a message from the mailer daemon.

database:

A collection of information organized so that a computer application can quickly access selected information; it can be thought of as an electronic filing system. Traditional databases are organized by fields, records (a complete set of fields), and files (a collection of records). Alternatively, in a Hypertext database, any object (e.g., text, a picture, or a film) can be linked to any other object.

data center:

A data center (data centre / datacentre / datacenter) is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices. To learn more please click here.

decompress:

Opposite of compressing a file; the process of restoring the file to its original size and format. The most common programs for decompressing files are Winrar for PC and compatible computers (.zip files) and Stuffit Expander (.sit files) for Macintosh computers.

defragmentation:

The process of rewriting parts of a file to contiguous sectors on a hard drive to increase the speed of access and retrieval.



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degauss:

A process used to remove magnetism from a computer monitors. Note flat-panel displays do not have a degauss button since magnetism doesn't build up in them.

desktop:

On computers like IBM PC or compatibles and Macintoshes, the backdrop where windows and icons for disks and applications reside.

DHCP:

Dynamic Host Configuration Protocol; a protocol that lets a server on a local network assign temporary IP addresses to a computer or other network devices.

dialog box:

Sometimes referred to as a window; on a graphical user interface system, an enclosed area displayed by a program or process to prompt a user for entry of information in one or more boxes (fields).

Dial-Up Adapter:

A network component within Windows that enables you to connect to a dial up server via a modem. Users running dial-up connections on Windows computers must have Dial-Up Adapter installed and properly configured.

dial up connection:

A connection from your computer that goes through a regular telephone line. You use special communications software to instruct your modem to dial a number to access another computer system or a network. May also be referred to as "dial up networking".

digital asset:

Intellectual content which has been digitized and can be referenced or retrieved online; for example, PowerPoint slides, audio or video files, or files created in a word processing application, etc.

digitize:

Sometimes referred to as digital imaging; the act of translating an image, a sound, or a video clip into digital format for use on a computer. Also used to describe the process of converting coordinates on a map to x,y coordinates for input to a computer. All data a computer processes must be digitally encoded as a series of zeroes and ones.

DIMM:

Dual In-line Memory Module; a small circuit board that can hold a group of memory chips. A DIMM is capable of transferring 64 bits instead of the 32 bits each SIMM can handle. Pentium processors require a 64-bit path to memory so SIMMs must be installed two at a time as opposed to one DIMM at a time.



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directory:

An area on a disk that contains files or additional divisions called "subdirectories" or "folders". Using directories helps to keep files organized into separate categories, such as by application, type, or usage.

disaster recovery

Disaster recovery is the process, policies and procedures related to preparing for recovery or continuation of technology infrastructure critical to an organization after a natural or human-induced disaster. Disaster recovery is a subset of business continuity. While business continuity involves planning for keeping all aspects of a business functioning in the midst of disruptive events, disaster recovery focuses on the IT or technology systems that support business functions. Dataprise's specialist Disaster Recovery Consulting Team can help you devise a near bulletproof Disaster Recovery Plan, so that you can have total piece of mind that your critical systems and processes are safe, and/or can recover from any potential data loss situation. To learn more please [click here](#).

disaster recovery planning

Also referred to as "DRP". Please see above explanation.

discussion group:

Another term for an online newsgroup or forum.

distance education:

May also be referred to as "online learning" or "eLearning." A means of instruction that implies a course instructor and students are separated in space and perhaps, in time. Interaction may be synchronous (facilitated) or asynchronous (self-paced). Students can work with various course materials, or they may use tools like chat or discussion groups to collaborate on projects.

distance learning:

The goal of distance education; distance learning and distance education are often used interchangeably.

dither:

A means by which the illusion of new colors and shades is created by varying the pattern of dots; the more dither patterns a device or program supports, the more shades of gray it can represent. Also referred to as halftoning in the context of printing.

DNS:

Domain Name System; a service for accessing a networked computer by name rather than by numerical, (IP) address.

domain:

Part of an Internet address. The network hierarchy consists of domains and subdomains. At the top are a



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number of major categories (e.g., com, edu, gov); next are domains within these categories (e.g., ohio-state); and then there are subdomains. The computer name is at the lowest level of the hierarchy.

download:

The process of transferring one or more files from a remote computer to your local computer. The opposite action is upload.

dpi:

Dots per inch; a measure of a printer's resolution. The higher the number, the better the print quality. A minimum of 300 dpi usually is required for professional quality printing.

DRaaS

Disaster Recovery as a Service; a service that helps recover data in the event of a server failure or natural disaster. To learn more click [here](#)

drag and drop:

The act of clicking on one icon and moving it on top of another icon to initiate a specific action. Example: Dragging a file on top of a folder to copy it to a new location.

DSL:

Digital Subscriber Line; an always on broadband connection over standard phone lines.

DVD:

Digital video disk; a type of compact disc that holds far more information than the CD-ROMs that are used for storing music files. A DVD can hold a minimum of 4.7 GB, enough for a full-length movie. MPEG-2 is used to compress video data for storage on a DVD. DVD drives are backward-compatible and can play CD-ROMs.

DVD-RW, DVD-R disk:

A DVD-RW disk allows you to write data onto it multiple times instead of just once like on a DVD-R disk. A DVD disk can hold a minimum of 4.7GB which is enough to store a full-length movie. Other uses for DVDs include storage for multimedia presentations that include both sound and graphics.

E

EAP:

Extensible Authentication Protocol; a general protocol for authentication that also supports multiple authentication methods.



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EGA:

Extended Graphics Adapter; a card (or board) usually found in older PCs that enables the monitor to display 640 pixels horizontally and 350 vertically.

eLearning:

Electronic learning; applies to a wide scope of processes including Web-based learning, computer-based instruction, virtual classrooms, and digital collaboration. Content may be delivered in a variety of ways including via the Internet, satellite broadcast, interactive TV, and DVD- or CD-ROMs.

e-mail:

Electronic mail; the exchange of messages between users who have access to either the same system or who are connected via a network (often the Internet). If a user is not logged on when a new message arrives, it is stored for later retrieval.

e-mail archiving:

Email archiving is typically a stand-alone IT application that integrates with an enterprise email server, such a Microsoft Exchange. In addition to simply accumulating email messages, these applications index and provide quick, searchable access to archived messages independent of the users of the system, using different technical methods of implementation. The reasons a company may opt to implement an email archiving solution include protection of mission critical data, record retention for regulatory requirements or litigation, and reducing production email server load. Dataprise Cloud-based e-mail archiving service offers you the latest storage technologies in a secure, redundant and easy-to-use format. We take care of all the fine details, from configuring our archiving software to automatically transferring the files to our secure remote servers. To learn more please [click here](#).

emoticon:

A combination of keyboard characters meant to represent a facial expression. Frequently used in electronic communications to convey a particular meaning, much like tone of voice is used in spoken communications. Examples: the characters :-) for a smiley face or ;-) for a wink.

emulation:

Refers to the ability of a program or device to imitate another program or device; communications software often include terminal emulation drivers to enable you to log on to a mainframe. There also are programs that enable a Mac to function as a PC.

encryption:

The manipulation of data to prevent accurate interpretation by all but those for whom the data is intended.

EPS:

Encapsulated PostScript; a graphics format that describes an image in the PostScript language.



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Ethernet:

A popular network technology that enables data to travel at 10 megabits per second. Campus microcomputers connected to a network have Ethernet cards installed that are attached to Ethernet cabling. An Ethernet connection is often referred to as a "direct connection" and is capable of providing data transmission speeds over 500 Kbps.

Ethernet card:

An adapter card that fits into a computer and connects to Ethernet cabling; different types of adaptor cards fit specific computers. Microcomputers connected to the campus network have some type of Ethernet card installed. Example: computers in campus offices or in dorms rooms wired for ResNet. Also referred to as "Ethernet adapter".

expansion card:

Also referred to as an expansion board; a circuit board you can insert into a slot inside your computer to give it added functionality. A card can replace an existing one or may be added in an empty slot. Some examples include sound, graphics, USB, Firewire, and internal modem cards.

extension:

A suffix preceded by a period at the end of a filename; used to describe the file type. Example: On a Windows computer, the extension ".exe" represents an executable file.

E

female connector:

A cable connector that has holes and plugs into a port or interface to connect one device to another.

field:

A single piece of information within a database (e.g., an entry for name or address). Also refers to a specific area within a dialog box or a window where information can be entered.

file:

A collection of data that has a name (called the filename). Almost all information on a computer is stored in some type of file. Examples: data file (contains data such as a group of records); executable file (contains a program or commands that are executable); text file (contains data that can be read using a standard text editor).

filter:

Refers to: 1) a program that has the function of translating data into a different format (e.g., a program used to import or export data or a particular file); 2) a pattern that prevents non-matching data from



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passing through (e.g., email filters); and 3) in paint programs and image editors, a special effect that can be applied to a bit map.

finger:

A type of directory service on many UNIX systems. Queries take the format `firstname_lastname` (e.g., `jane_doe`) or for more complete information, `=firstname.lastname` (e.g., `=jane_doe`).

firewall:

A method of preventing unauthorized access to or from a particular network; firewalls can be implemented in both hardware and software, or both.

FireWire:

A way to connect different pieces of equipment so they can quickly and easily share information. FireWire (also referred to as IEEE1394 High Performance Serial Bus) is very similar to USB. It preceded the development of USB when it was originally created in 1995 by Apple. FireWire devices are hot pluggable, which means they can be connected and disconnected any time, even with the power on. When a new FireWire device is connected to a computer, the operating system automatically detects it and prompts for the driver disk (thus the reference "plug-and play").

flash drive:

A small device that plugs into computer's USB port and functions as a portable hard drive.

flash memory:

A type of memory that retains information even after power is turned off; commonly used in memory cards and USB flash drives for storage and transfer of data between computers and other digital products.

folder:

An area on a hard disk that contains a related set of files or alternatively, the icon that represents a directory or subdirectory.

font:

A complete assortment of letters, numbers, and symbols of a specific size and design. There are hundreds of different fonts ranging from businesslike type styles to fonts composed only of special characters such as math symbols or miniature graphics.

frames:

A feature of some web browsers that enables a page to be displayed in separate scrollable windows. Frames can be difficult to translate for text-only viewing via ADA guidelines, so their use is increasingly being discouraged.



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freeware:

Copyrighted software available for downloading without charge; unlimited personal usage is permitted, but you cannot do anything else without express permission of the author. Contrast to shareware; copyrighted software which requires you to register and pay a small fee to the author if you decide to continue using a program you download.

fragmentation:

The scattering of parts of the same disk file over different areas of a disk; fragmentation occurs as files are deleted and new ones are added.

FTP:

File Transfer Protocol; a method of exchanging files between computers via the Internet. A program like WS_FTP for IBM PC or compatibles or Fetch for Macintosh is required. Files can contain documents or programs and can be ASCII text or binary data.

G

GIF:

Graphics Interchange Format; a format for a file that contains a graphic or a picture. Files of this type usually have the suffix ".gif" as part of their name. Many images seen on web pages are GIF files.

gigabyte (Gig or GB):

1024 x 1024 x 1024 (2 to the 30th power) bytes; it's usually sufficient to think of a gigabyte as approximately one billion bytes or 1000 megabytes.

GPS:

Global Positioning System; a collection of Earth-orbiting satellites. In a more common context, GPS actually refers to a GPS receiver which uses a mathematical principle called "trilateration" that can tell you exactly where you are on Earth at any moment.

greyware

Greyware (or grayware) refers to a malicious software or code that is considered to fall in the "grey area" between normal software and a virus. Greyware is a term for which all other malicious or annoying software such as adware, spyware, trackware, and other malicious code and malicious shareware fall under.

GUI:

Graphical user interface; a mouse-based system that contains icons, drop-down menus, and windows where you point and click to indicate what you want to do. All new Windows and Macintosh computers currently being sold utilize this technology.



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H

handshaking:

The initial negotiation period immediately after a connection is established between two modems. This is when the modems agree about how the data will be transmitted (e.g., error correction, packet size, etc.). The set of rules they agree on is called the protocol.

hard disk:

A storage device that holds large amounts of data, usually in the range of hundreds to thousands of megabytes. Although usually internal to the computer, some types of hard disk devices are attached separately for use as supplemental disk space. "Hard disk" and "hard drive" often are used interchangeably but technically, hard drive refers to the mechanism that reads data from the disk.

hardware:

The physical components of a computer including the keyboard, monitor, disk drive, and internal chips and wiring. Hardware is the counterpart of software.

header:

The portion of an e-mail message or a network newsgroup posting that precedes the body of the message; it contains information like who the message is from, its subject, and the date. A header also is the portion of a packet that proceeds the actual data and contains additional information the receiver will need.

help desk:

A help desk is an information and assistance resource that troubleshoots problems with computers or similar products. Corporations often provide help desk support their employees and to their customers via a toll-free number, website and/or e-mail. Dataprise offers 3 types of help desk service: 24 x 7 Support365™, Outsourced and private labeled. To learn more about our services please click here.

helper application:

A program used for viewing multimedia files that your web browser cannot handle internally; files using a helper application must be moved to your computer before being shown or played. Contrast to a plug-in which enables you to view the file over the Internet without first downloading it.

home page:

A document you access using a web browser like Firefox or Internet Explorer. It usually refers to the first page of a particular web site; it also is the page that automatically loads each time you start your browser.



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host:

A computer accessed by a user working at a remote location. Also refers to a specific computer connected to a TCP/IP network like the Internet.

HTML:

HyperText Markup Language; a language used for creating web pages. Various instructions and sets of tags are used to define how the document will look.

HTTP:

HyperText Transfer Protocol; a set of instructions that defines how a web server and a browser should interact. Example: When you open a location (e.g., enter a URL) in your browser, what actually happens is an HTTP command is sent to the web server directing it to fetch and return the requested web page.

hyperlink:

Connects one piece of information (anchor) to a related piece of information (anchor) in an electronic document. Clicking on a hyperlink takes you to directly to the linked destination which can be within the same document or in an entirely different document. Hyperlinks are commonly found on web pages, word documents and PDF files.

hypertext:

Data that contains one or more links to other data; commonly seen in web pages and in online help files. Key words usually are underlined or highlighted. Example: If you look for information about "Cats" in a reference book and see a note that says "Refer also to Mammals" the two topics are considered to be linked. In a hypertext file, you click on a link to go directly to the related information.

hypervisor:

A hypervisor, also called virtual machine manager (VMM), is one of many hardware virtualization techniques that allow multiple operating systems, termed guests, to run concurrently on a host computer. It is so named because it is conceptually one level higher than a supervisory program. The hypervisor presents to the guest operating systems a virtual operating platform and manages the execution of the guest operating systems. Multiple instances of a variety of operating systems may share the virtualized hardware resources. Hypervisors are installed on server hardware whose only task is to run guest operating systems. Non-hypervisor virtualization systems are used for similar tasks on dedicated server hardware, but also commonly on desktop, portable and even handheld computers.

I



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laaS:

Infrastructure as a Service; In the most basic cloud-service model, providers of laaS offer computers - physical or (more often) virtual machines - and other resources. To learn more please [click here](#).

icon:

On a system like Windows or Macintosh that uses a graphical user interface (GUI), a small picture or symbol that represents some object or function. Examples: a file folder for a directory; a rectangle with a bent corner for a file; or a miniature illustration for a program.

ICS:

Internet Connection Sharing; a feature in Windows that when enabled, allows you to connect computer on your home network to the Internet via one computer.

IEEE 1394 port:

An interface for attaching high-speed serial devices to your computer; IEEE 1394 connectors support plug and play.

image map:

A graphic overlay that contains more than one area (or hot spot) which is clickable and links to another web page or anchor. Image maps provide an alternative to text links for directing the user to additional information.

IMAP:

Internet Message Access Protocol. A method of accessing e-mail messages on a server without downloading them to your local hard drive; it is the main difference between IMAP and POP3 which requires messages to be downloaded to a user's hard drive before the message can be read.

Internet:

A worldwide network based on the TCP/IP protocol that can connect almost any make or model of popular computers from micros to supercomputers. Special programs called "clients" enable users with a network connection to do things like process e-mail or browse web sites using the familiar interface of a desktop computer.

Internet Domain Management:

For a comprehensive overview of Dataprise's Internet Domain Management services, please [click here](#).

Internet Explorer:

A client program from Microsoft that comes pre installed on most new PC or compatible computers; enables you to browse the World Wide Web.



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Internet radio:

An audio broadcasting service transmitted via the Internet; broadcasts consist of a continuous stream. A drawback is the inability to control selection as you can when listening to traditional radio broadcasting.

IP address:

Internet Protocol address; every computer connected to the Internet has a unique identifying number. Example: 192.168.100.2.

IRC:

Internet Relay Chat; a system that enables two or more Internet users to conduct online discussions in real time.

IRQ:

Interrupt request; refers to a number associated with a serial port on an PC or compatible computer. It usually can be changed by flipping a dip switch. Occasionally, when you're using a modem connect to the Internet, you may need to adjust the IRQ number assigned to the serial port which connects the modem to avoid conflicts with another device like your mouse.

ISP:

Internet Service Provider; an organization or company that provides Internet connectivity.

IT Assessment:

An IT Assessment is the practice of gathering information on part or whole of a IT network infrastructure, and then presented in a detailed report. This report typically analyzes the current state or health of technology or services and identifies areas needing improvement or prepare for a some type of system or application upgrade. A IT Assessment can be performed in-house or outsourced to an IT vendor. Dataprise has developed a comprehensive assessment process that includes conducting thorough, in-depth reviews all of your critical technology areas, evaluating them against best practices and then providing you with a roadmap to better leverage your IT as a competitive advantage. To learn more please click here.

IV&V:

Independent Verification and Validation (IV&V) is the process of checking that a project, service, or system meets specifications and that it fulfills its intended purpose. If you've recently implemented a new technology solution, you may want an independent party to assess the quality of the work. To learn more please click here.

J



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Java:

A general purpose programming language commonly used in conjunction with web pages that feature animation. Small Java applications are called Java applets; many can be downloaded and run on your computer by a Java-compatible browser like Firefox or Internet Explorer.

JavaScript:

A publicly available scripting language that shares many of the features of Java; it is used to add dynamic content (various types of interactivity) to web pages.

JPEG:

Joint Photographic Experts Group; a graphics format which compresses an image to save space. Most images imbedded in web pages are GIFs, but sometimes the JPEG format is used (especially for detailed graphics or photographs). In some cases, you can click on the image to display a larger version with better resolution.

justified:

A word processing format in which text is formatted flush with both the left and right margins. Other options include left justified (text is lined up against the left margin) and right justified (text is lined up against the right margin).

K

K:

An abbreviation for kilobyte; it contains 1,024 bytes; in turn 1,024 kilobytes is equal to one megabyte.

Kbps:

Kilobits per second; a measure of data transfer speed; one Kbps is 1,000 bits per second. Example: a 28.8 Kbps modem.

Kerberos:

An authentication system developed at the Massachusetts Institute of Technology (MIT); it enables the exchange of private information across an open network by assigning a unique key called a "ticket" to a user requesting access to secure information.

kerning:

The amount of space between characters in a word; in desktop publishing, it is typically performed on pairs of letters or on a short range of text to fine-tune the character spacing.



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keyword:

Most often refers to a feature of text editing and database management systems; a keyword is an index entry that correlates with a specific record or document.

kilobyte (K, KB, or Kb):

1,024 (2 to the 10th power) bytes; often used to represent one thousand bytes. Example: a 720K diskette can hold approximately 720,000 bytes (or characters).

knowledge base:

A database where information common to a particular topic is stored online for easy reference; for example, a frequently-asked questions (FAQ) list may provide links to a knowledge base.

L

LAN:

Local area network; a network that extends over a small area (usually within a square mile or less). Connects a group of computers for the purpose of sharing resources such as programs, documents, or printers. Shared files often are stored on a central file server.

laser printer:

A type of printer that produces exceptionally high quality copies. It works on the same principle as a photocopier, placing a black powder onto paper by using static charge on a rolling drum.

leading:

The vertical space between lines of text on a page; in desktop publishing, you can adjust the leading to make text easier to read.

learning management system (LMS):

Software used for developing, using, and storing course content of all types. Information within a learning management system often takes the form of learning objects (see "learning object" below).

learning object:

A chunk of course content that can be reused and independently maintained. Although each chunk is unique in its content and function, it must be able to communicate with learning systems using a standardized method not dependent on the system. Each chunk requires a description to facilitate search and retrieval.

link:

Another name for a hyperlink.



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LINUX:

An open-source operating system that runs on a number of hardware platforms including PCs and Macintoshes. Linux is freely available over the Internet.

ListProcessor:

A program that manages electronic mailing lists; OIT is responsible for the ListProcessor software and also handles requests from the OSU community or new mailing lists.

LISTSERV, Listserver:

An electronic mailing list; it provides a simple way of communicating with a large number of people very quickly by automating the distribution of electronic mail. At OSU, mailing lists are used not only for scholarly communication and collaboration, but also as a means of facilitating and enhancing classroom education.

log in, log on:

The process of entering your username and password to gain access to a particular computer; e.g., a mainframe, a network or secure server, or another system capable of resource sharing.

M

MaaS:

Metal-as-a-Service; The dynamic provisioning and deployment of whole physical servers, as opposed to the provisioning of virtual machines.

MAC:

Media Access Control; The hardware address of a device connected to a shared network.

Macintosh:

A personal computer introduced in the mid-1980s as an alternative to the IBM PC. Macintoshes popularized the graphical user interface and the 3 1/2 inch diskette drive.

mail server:

A networked computer dedicated to supporting electronic mail. You use a client program like Microsoft Outlook for retrieving new mail from the server and for composing and sending messages.

mailing list:

A collection of e-mail addresses identified by a single name; mailing lists provide a simple way of corresponding with a group of people with a common interest or bond. There are two main types of lists: 1) one you create within an e-mail program like Outlook that contains addresses for two or more individuals you frequently send the same message; and 2) a Listserve type that requires participants to



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be subscribed (e.g., a group of collaborators, a class of students, or often just individuals interested in discussing a particular topic).

main memory:

The amount of memory physically installed in your computer. Also referred to as "RAM".

mainframe:

A very large computer capable of supporting hundreds of users running a variety of different programs simultaneously. Often the distinction between small mainframes and minicomputers is vague and may depend on how the machine is marketed.

male connector:

A cable connector that has pins and plugs into a port or interface to connect one device to another.

malware:

Software programs designed to damage or do other unwanted actions on a computer; common examples of malware include viruses, worms, trojan horses, and spyware.

Managed Workstations:

A Managed Workstation reduces downtime, improves maintenance, increases productivity and data security through an effective blend of Help Desk and on-site support and centralized deployment of software patches and virus protection updates. Dataprise can deliver expert support at the workstation level for all of your users, at any location. Using our DesktopStreaming™ live online support technology, our highly qualified certified technical staff, working remotely, are able to see exactly what is happening on a user's computer screen — allowing us to quickly isolate issues and begin remediation. To learn more please [click here](#).

MAPI:

Messaging Application Programming Interface; a system built into Microsoft Windows that enables different e-mail programs to interface to distribute e-mail. When both programs are MAPI-enabled, they can share messages.

MDM:

Mobile Device Management; Any routine or tool intended to distribute applications, data, and configuration settings to mobile communications devices. The intent of MDM is to optimize the functionality and security of a mobile communications network. MDM must be part of a coherent BYOD strategy.

megabyte (Meg or MB):

1,024 x 1,024 (2 to the 20th power) bytes; it's usually sufficient to think of a megabytes as one million bytes.



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MHz or mHz:

Megahertz; a measurement of a microprocessor's speed; one MHz represents one million cycles per second. The speed determines how many instructions per second a microprocessor can execute. The higher the megahertz, the faster the computer.

menu:

In a graphical user interface, a bar containing a set of titles that appears at the top of a window. Once you display the contents of a menu by clicking on its title, you can select any active command (e.g., one that appears in bold type and not in a lighter, gray type).

Microsoft Exchange:

Microsoft Exchange Server is the server side of a client-server, collaborative application product developed by Microsoft. It is part of the Microsoft Servers line of server products and is used by enterprises using Microsoft infrastructure products. Exchange's major features consist of electronic mail, calendaring, contacts and tasks; support for mobile and web-based access to information; and support for data storage. Dataprise has a 100% hosted Exchange solution that includes clustered and redundant Microsoft Exchange servers that provide more than enough horsepower to support all of your organization's messaging needs. And we handle the entire set-up and configuration for you. To learn more please click [here](#).

Microsoft Windows:

A group of operating systems for PC or compatible computers; Windows provides a graphical user interface so you can point and click to indicate what you want to do.

MIME:

Multipurpose Internet Mail Extensions; a protocol that enables you to include various types of files (text, audio, video, images, etc.) as an attachment to an e-mail message.

modem:

A device that enables a computer to send and receive information over a normal telephone line. Modems can either be external (a separate device) or internal (a board located inside the computer's case) and are available with a variety of features such as error correction and data compression.

moderator:

A person who reviews and has the authority to block messages posted to a supervised or "moderated" network newsgroup or online community.

monitor:

The part of a computer that contains the screen where messages to and from the central processing unit (CPU) are displayed. Monitors come in a variety of sizes and resolutions. The higher the number of pixels a screen is capable of displaying, the better the resolution. Sometimes may be referred to as a CRT.



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mouse:

A handheld device used with a graphical user interface system. Common mouse actions include: 1) clicking the mouse button to select an object or to place the cursor at a certain point within a document; 2) double-clicking the mouse button to start a program or open a folder; and 3) dragging (holding down) the mouse button and moving the mouse to highlight a menu command or a selected bit of text.

MPEG:

Motion Picture Experts Group; a high quality video format commonly used for files found on the Internet. Usually a special helper application is required to view MPEG files.

MRB:

Managed Remote Back Up; a service that provides users with a system for the backup, storage, and recovery of data using cloud computing. To learn more about MRB click [here](#)

MSP:

Managed Service Provider; A business model for providing information-technology services. To learn more please click [here](#).

multimedia:

The delivery of information, usually to a personal computer, in a combination of different formats including text, graphics, animation, audio, and video.

multitasking:

The ability of a CPU to perform more than one operation at the same time; Windows and Macintosh computers are multitasking in that each program that is running uses the CPU only for as long as needed and then control switches to the next task.

N

NaaS:

Network as a Service; a category of cloud services that provides users with the capability of where the capability provided to the cloud service user is to use network/transport connectivity services and/or inter-cloud network connectivity services.

nameserver:

A computer that runs a program for converting Internet domain names into the corresponding IP addresses and vice versa.



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NAT:

Network Address Translation; a standard that enables a LAN to use a set of IP addresses for internal traffic and a single IP address for communications with the Internet.

network:

A group of interconnected computers capable of exchanging information. A network can be as few as several personal computers on a LAN or as large as the Internet, a worldwide network of computers.

network adapter:

A device that connects your computer to a network; also called an adapter card or network interface card.

network hub:

A common connection point for devices on a network.

NNTP:

Network News Transport Protocol; the protocol used for posting, distributing, and retrieving network news messages.

network monitoring:

Dataprise Cloud-based Network Monitoring service, can configure and remotely monitor all of your important network systems (e-mail, servers, routers, available disk space, backup applications, critical virus detection, and more). If our system detects a problem, it alerts the Dataprise Technical Support Center, so we can take corrective action. Depending on prearranged instructions from your own network engineers, we'll correct the problem immediately, wait until the next business day or simply notify you of the issue. To learn more please [click here](#).

network security:

Network security consists of the provisions and policies adopted by a network administrator to prevent and monitor unauthorized access, misuse, modification, or denial of the computer network and network-accessible resources. Network Security is the authorization of access to data in a network, which is controlled by a network administrator. Dataprise uses state-of-the-art network security techniques while providing authorized personnel access to important files and applications. Every organization's needs are different and hackers are always adapting their techniques, so we are extremely serious about staying up to date with the latest network security tools, threats and industry developments.

O



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OCR:

Optical character recognition; the act of using a visual scanning device to read text from hard copy and translate it into a format a computer can access (e.g., an ASCII file). OCR systems include an optical scanner for reading text and sophisticated software for analyzing images.

on-Cloud:

Dataprise realizes that businesses are moving more and more of their critical infrastructure to Cloud-based providers. 'On-Cloud' is currently our own term coined for providing management and support for your Cloud-based systems and processes.

on-site:

At-place-of-work-or-business support, typically provided by a technically qualified individual.

online:

A term that has commonly come to mean "connected to the Internet". It also is used to refer to materials stored on a computer (e.g., an online newsletter) or to a device like a printer that is ready to accept commands from a computer.

OpenType

OpenType is a format for scalable computer fonts. It was built on its predecessor TrueType, retaining TrueType's basic structure and adding many intricate data structures for prescribing typographic behavior. OpenType is a registered trademark of Microsoft Corporation.

P

PaaS:

Platform as a Service, in the PaaS model, cloud providers deliver a computing platform that typically including an operating system, programming language execution environment, database, and web server.

packet:

A unit of transmission in data communications. The TCP/IP protocol breaks large data files into smaller chunks for sending over a network so that less data will have to be re-transmitted if errors occur.

palette:

The range of colors a computer or an application is able to display. Most newer computers can display as many as 16 million colors, but a given program may use only 256 of them. Also refers to a display box containing a set of related tools within a desktop publishing or graphics design program.



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page:

Refers to an HTML document on the World Wide Web or to a particular web site; usually pages contain links to related documents (or pages).

parallel port:

An interface on a computer that supports transmission of multiple bits at the same time; almost exclusively used for connecting a printer. On IBM or compatible computers, the parallel port uses a 25-pin connector. Macintoshes have an SCSI port that is parallel, but more flexible in the type of devices it can support.

password:

A secret combination of characters used to access a secured resource such as a computer, a program, a directory, or a file; often used in conjunction with a username.

PC:

Usually refers to an IBM PC or compatible, or when used generically, to a "personal computer". In a different context, PC also is an abbreviation for "politically correct."

PDA:

Personal Digital Assistant; a small hand-held computer that in the most basic form, allows you to store names and addresses, prepare to-do lists, schedule appointments, keep track of projects, track expenditures, take notes, and do calculations. Depending on the model, you also may be able to send or receive e-mail; do word processing; play MP3 music files; get news, entertainment and stock quotes from the Internet; play video games; and have an integrated digital camera or GPS receiver.

PDF:

Portable Document Format; a type of formatting that enables files to be viewed on a variety computers regardless of the program originally used to create them. PDF files retain the "look and feel" of the original document with special formatting, graphics, and color intact. You use a special program or print driver (Adobe Distiller or PDF Writer) to convert a file into PDF format.

peer-to-peer:

A type of connection between two computers; both perform computations, store data, and make requests from each other (unlike a client-server connection where one computer makes a request and the other computer responds with information).

Perl:

Practical Extraction and Report Language; a programming language that is commonly used for writing CGI scripts used by most servers to process data received from a client browser.



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personality:

A method of setting up a computer or a program for multiple users. Example: In Windows, each user is given a separate "personality" and set of relevant files.

PGP:

Pretty good privacy; a technique for encrypting e-mail messages. PGP uses a public key to give to anyone who sends you messages and a private key you keep to decrypt messages you receive.

Ph:

A type of directory service often referred to as a "phone book". When accessing this type of directory service, follow the directions from the particular site for looking up information.

phishing:

A con that scammers use to electronically collect personal information from unsuspecting users. Phishers send e-mails that appear to come from legitimate websites such as eBay, PayPal, or other banking institutions asking you to click on a link included in the email and then update or validate your information by entering your username and password and often even more information, such as your full name, address, phone number, social security number, and credit card number.

PING:

Packet Internet Groper; a utility used to determine whether a particular computer is currently connected to the Internet. It works by sending a packet to the specified IP address and waiting for a reply.

pixel:

Stands for one picture element (one dot on a computer monitor); commonly used as a unit of measurement.

plug-in:

A program used for viewing multimedia files that your web browser cannot handle internally; files using a plug-in do not need to be moved to your computer before being shown or played. Contrast to a helper application which requires the file to first be moved to your computer. Examples of plug-ins: Adobe Flash Player (for video and animation) and Quicktime (for streamed files over the Internet).

plug and play:

A set of specifications that allows a computer to automatically detect and configure a device and install the appropriate device drivers.

POP:

Post Office Protocol; a method of handling incoming electronic mail. Example: E-mail programs may use



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this protocol for storing your incoming messages on a special cluster of servers called pop.service.ohio-state.edu and delivering them when requested.

pop-up blocker:

Any application that disables the pop-up, pop-over, or pop-under ad windows that appear when you use a web browser.

post:

The act of sending a message to a particular network newsgroup.

PostScript:

A page description language primarily used for printing documents on laser printers; it is the standard for desktop publishing because it takes advantage of high resolution output devices. Example: A graphic design saved in PostScript format looks much better when printed on a 600 dpi printer than on a 300 dpi printer.

PostScript fonts:

Called outline or scalable fonts; with a single typeface definition, a PostScript printer can produce many other fonts. Contrast to non-PostScript printers that represent fonts with bitmaps and require a complete set for each font size.

PPP:

Point-to-Point Protocol; a type of connection over telephone lines that gives you the functionality of a direct ethernet connection.

program:

A set of instructions that tells a computer how to perform a specific task.

private cloud

Private cloud (also called internal cloud or corporate cloud) is a term for a proprietary computing architecture that provides hosted services to a limited number of users behind a secure and robust infrastructure. A Dataprise private cloud solution is designed to offer the same features and benefits of shared cloud systems, but removes a number of objections to the cloud computing model including control over enterprise and customer data, worries about security, and issues connected to regulatory compliance. Dataprise Private clouds" are designed to facilitate organizations that needs or wants more control over their data than they can get by using a third-party shared cloud service.

protocol:

A set of rules that regulate how computers exchange information. Example: error checking for file transfers or POP for handling electronic mail.



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proxy:

Refers to a special kind of server that functions as an intermediate link between a client application (like a web browser) and a real server. The proxy server intercepts requests for information from the real server and whenever possible, fills the request. When it is unable to do so, the request is forwarded to the real server.

public domain software:

Any non-copyrighted program; this software is free and can be used without restriction. Often confused with "freeware" (free software that is copyrighted by the author).

pull:

Frequently used to describe data sent over the Internet; the act of requesting data from another computer. Example: using your web browser to access a specific page. Contrast to "push" technology when data is sent to you without a specific request being made.

push:

Frequently used to describe data sent over the Internet; the act of sending data to a client computer without the client requesting it. Example: a subscriptions service that delivers customized news to your desktop. Contrast to browsing the World Wide Web which is based on "pull" technology; you must request a web page before it is sent to your computer.

Q

QoS:

Quality of service; is the ability to provide different priority to different applications, users, or data flows, or to guarantee a certain level of performance to a data flow. For example, a required bit rate, delay, jitter, packet dropping probability and/or bit error rate may be guaranteed. Quality of service guarantees are important if the network capacity is insufficient, especially for real-time streaming multimedia applications such as voice over IP, online games and IP-TV, since these often require fixed bit rate and are delay sensitive, and in networks where the capacity is a limited resource, for example in cellular data communication.

QuickTime:

A video format developed by Apple Computer commonly used for files found on the Internet; an alternative to MPEG. A special viewer program available for both IBM PC and compatibles and Macintosh computers is required for playback.

R



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RAM:

Random Access Memory; the amount of memory available for use by programs on a computer. Also referred to as "main memory". Example: A computer with 8 MB RAM has approximately 8 million bytes of memory available. Contrast to ROM (read-only memory) that is used to store programs that start your computer and do diagnostics.

record:

A set of fields that contain related information; in database type systems, groups of similar records are stored in files. Example: a personnel file that contains employment information.

registry:

A database used by Windows for storing configuration information. Most 32-bit Windows applications write data to the registry. Although you can edit the registry, this is not recommended unless absolutely necessary because errors could disable your computer.

remote backup:

A remote, online, or managed backup service is a service that provides users with a system for the backup and storage of computer files. Dataprise remote backup solution incorporates automatic data compression and secure data encryption. This means that your critical system data backs up safely and efficiently. For additional peace of mind, our backup service features proprietary dual tapeless backup protection, including fast incremental backup to a secure on-site hard drive and a second backup to our carrier-grade data center. Our remote backup service is completely automated and immensely secure. You'll never have to think about the safety of your data again. To learn more please click here.

remote desktop:

A Windows feature that allows you to have access to a Windows session from another computer in a different location (XP and later).

remote login:

An interactive connection from your desktop computer over a network or telephone lines to a computer in another location (remote site).

remote monitoring:

See: "network monitoring" or click here.

remote support:

See: "help desk" or click here.

RGB:

Red, green, and blue; the primary colors that are mixed to display the color of pixels on a computer monitor. Every color of emitted light can be created by combining these three colors in varying levels.



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RJ-45 connector:

An eight-wire connector used for connecting a computer to a local-area network. May also be referred to as an Ethernet connector.

ROM:

Read Only Memory; a special type of memory used to store programs that start a computer and do diagnostics. Data stored in ROM can only be read and cannot be removed even when your computer is turned off. Most personal computers have only a few thousand bytes of ROM. Contrast to RAM (random access or main memory) which is the amount of memory available for use by programs on your computer.

router:

A device used for connecting two Local Area Networks (LANs); routers can filter packets and forward them according to a specified set of criteria.

RTF:

Rich Text Format; a type of document formatting that enables special characteristics like fonts and margins to be included within an ASCII file. May be used when a document must be shared among users with different kinds of computers (e.g., IBM PC or compatibles and Macintoshes).

S

SaaS:

Software as a Service; a software delivery model in which software and associated data are centrally hosted on the cloud. SaaS is typically accessed by users using a thin client via a web browser.

safe mode:

A way of starting your Windows computer that can help you diagnose problems; access is provided only to basic files and drivers.

SAN:

A storage area network (SAN) is a dedicated storage network that provides access to consolidated, block level storage. SANs primarily are used to make storage devices (such as disk arrays, tape libraries, and optical jukeboxes) accessible to servers so that the devices appear as locally attached to the operating system. A SAN typically has its own network of storage devices that are generally not accessible through the regular network by regular devices.

SATA:

Serial Advanced Technology Attachment or Serial ATA. An interface used to connect ATA hard drives to a



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computer's motherboard that provides a better, more efficient interface; Serial ATA is likely to replace the previous standard, Parallel ATA (PATA), which has become dated.

satellite transmission:

A method of data transmission; the sender beams data up to an orbiting satellite and the satellite beams the data back down to the receiver.

screen reader:

A software program that translates text on a Web page into audio output; typically used by individuals with vision impairment.

scroll bar:

In a graphical user interface system, the narrow rectangular bar at the far right of windows or dialog boxes. Clicking on the up or down arrow enables you to move up and down through a document; a movable square indicates your location in the document. Certain applications also feature a scroll bar along the bottom of a window that can be used to move from side-to-side.

search engine:

A tool that searches documents by keyword and returns a list of possible matches; most often used in reference to programs such as Google that are used by your web browser to search the Internet for a particular topic.

secure server:

A special type of file server that requires authentication (e.g., entry a valid username and password) before access is granted.

security token:

A small device used to provide an additional level of authorization to access a particular network service; the token itself may be embedded in some type of object like a key fob or on a smart card. Also referred to as an authentication token.

Section 508:

A 1998 amendment to the Workforce Rehabilitation Act of 1973; it states after June 25, 2001, all electronic and information technology developed, purchased, or used by the federal government must be accessible to those with disabilities. Refer to the Section 508 website for more information.

self-extracting file:

A type of compressed file that you can execute (e.g., double-click on the filename) to begin the decompression process; no other decompression utility is required. Example: on IBM PC or compatibles, certain files with an ".exe" extension and on Macintoshes, all files with a ".sea" extension.



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serial port:

An interface on a computer that supports transmission of a single bit at a time; can be used for connecting almost any type of external device including a mouse, a modem, or a printer.

server:

A computer that is responsible for responding to requests made by a client program (e.g., a web browser or an e-mail program) or computer. Also referred to as a "file server".

shareware:

Copyrighted software available for downloading on a free, limited trial basis; if you decide to use the software, you're expected to register and pay a small fee. By doing this, you become eligible for assistance and updates from the author. Contrast to public domain software which is not copyrighted or to freeware which is copyrighted but requires no usage fee.

signature:

A file containing a bit of personal information that you can set to be automatically appended to your outgoing e-mail messages; many network newsreaders also have this capability. Large signatures over five lines generally are frowned upon.

SIMM:

Single In-line Memory Module; a small circuit board that can hold a group of memory chips; used to increase your computer's RAM in increments of 1,2, 4, or 16 MB.

SMTP:

Simple Mail Transfer Protocol; a method of handling outgoing electronic mail.

software:

Any program that performs a specific function. Examples: word processing, spreadsheet calculations, or electronic mail.

SonicWall:

A SonicWall solution helps businesses create and maintain a strong security foundation with interconnected solutions that span the enterprise. From endpoints and users to networks, data and identity, SonicWall solutions mitigate risk and reduce complexity so companies can drive business forward.

spam:

Email spam, also known as junk email or unsolicited bulk email (UBE), is a subset of spam that involves nearly identical messages sent to numerous recipients by email. Definitions of spam usually include the aspects that email is unsolicited and sent in bulk. Spammers collect email addresses from chatrooms, websites, customer lists, newsgroups, and viruses which harvest users' address books, and are sold to other spammers. They also use a practice known as "email appending" or "epending" in which they use



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known information about their target (such as a postal address) to search for the target's email address. Also see "Anti-Spam".

SSID:

Service Set Identifier; a name that identifies a wireless network.

streaming (streaming media):

A technique for transferring data over the Internet so that a client browser or plug-in can start displaying it before the entire file has been received; used in conjunction with sound and pictures. Example: The Flash Player plug-in from Adobe Systems gives your computer the capability for streaming audio; RealPlayer is used for viewing sound and video.

spyware:

Any software that covertly gathers user information, usually for advertising purposes, through the user's Internet connection.

subdirectory:

An area on a hard disk that contains a related set of files; on IBM PC or compatibles, a level below another directory. On Macintoshes, subdirectories are referred to as folders.

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SVGA:

Super VGA (Video Graphics Array); a set of graphics standards for a computer monitor that offers greater resolution than VGA. There are several different levels including 800 x 600 pixels, 1024 by 768 pixels, 1280 by 1024 pixels; and 1600 by 1200 pixels. Although each supports a palette of 16 million colors, the number of simultaneous colors is dependent on the amount of video memory installed in the computer.

T

T-1 carrier:

A dedicated phone connection supporting data rates of 1.544Mbits per second; T-1 lines are a popular leased line option for businesses connecting to the Internet and for Internet Service Providers connecting to the Internet backbone. Sometimes referred to as a DS1 line.



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T-3 carrier:

A dedicated phone connection supporting data rates of about 43 Mbps; T-3 lines are used mainly by Internet Service Providers connecting to the Internet backbone and for the backbone itself. Sometimes referred to as a DS3 line.

10Base-T:

An adaptation of the Ethernet standard for Local Area Networks that refers to running Ethernet over twisted pair wires. Students planning on using ResNet from a residence hall must be certain to use an Ethernet adapter that is 10Base-T compatible and not BNC (used with 10Base-2 Ethernet systems).

table:

With reference to web design, a method for formatting information on a page. Use of tables and the cells within also provide a way to create columns of text. Use of tables vs frames is recommended for helping to make your web site ADA-compliant.

TCP/IP:

Transmission Control Protocol/Internet Protocol; an agreed upon set of rules that tells computers how to exchange information over the Internet. Other Internet protocols like FTP, Gopher, and HTTP sit on top of TCP/IP.

Telephony:

Telephony encompasses the general use of equipment to provide voice communication over distances, specifically by connecting telephones to each other. Dataprise's expert team of telecommunication consultants can design and implement a system that is feature rich, simple to use and integrates seamlessly with your existing business applications. To learn more please click here.

telnet:

A generic term that refers to the process of opening a remote interactive login session regardless of the type of computer you're connecting to.

terminal emulation:

The act of using your desktop computer to communicate with another computer like a UNIX or IBM mainframe exactly as if you were sitting in front of a terminal directly connected to the system. Also refers to the software used for terminal emulation. Examples: the Telnet program for VT100 emulation and QWS3270 (Windows) and TN3270 (Macintosh) for IBM3270 fullscreen emulation.

TIFF:

Tag Image File Format; a popular file format for storing bit-mapped graphic images on desktop computers. The graphic can be any resolution and can be black and white, gray-scale, or color. Files of this type usually have the suffix ".tif" as part of their name.



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token:

A group of bits transferred between computers on a token-ring network. Whichever computer has the token can send data to the other systems on the network which ensures only one computer can send data at a time. A token may also refer to a network security card, also known as a hard token.

tool bar:

On a graphical user interface system, a bar near the top of an application window that provides easy access to frequently used options.

Trojan horse:

A harmless-looking program designed to trick you into thinking it is something you want, but which performs harmful acts when it runs.

TrueType:

A technology for outline fonts that is built into all Windows and Macintosh operating systems. Outline fonts are scalable enabling a display device to generate a character at any size based on a geometrical description.

tweet:

An update of 140 characters or less published by a Twitter user meant to answer the question, "What are you doing?" which provides other users with information about you.

Twitter:

A service that allows users to stay connected with each other by posting updates, or "tweets," using a computer or cell phone or by viewing updates posted by other users.

twisted pair cable:

A type of cable that is typically found in telephone jacks; two wires are independently insulated and are twisted around each other. The cable is thinner and more flexible than the coaxial cable used in conjunction with 10Base-2 or 10Base-5 standards. Most Ohio State UNITS telephone jacks have three pairs of wires; one is used for the telephone and the other two can be used for 10Base-T Ethernet connections.

two-factor authentication:

An extra level of security achieved using a security token device; users have a personal identification number (PIN) that identifies them as the owner of a particular token. The token displays a number which is entered following the PIN number to uniquely identify the owner to a particular network service. The identification number for each user is changed frequently, usually every few minutes.

U



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UNIX:

A popular multitasking computer system often used as a server for electronic mail or for a web site. UNIX also is the leading operating system for workstations, although increasingly there is competition from Windows NT which offers many of the same features while running on an PC or compatible computer.

upload:

The process of transferring one or more files from your local computer to a remote computer. The opposite action is download.

USB:

Universal Serial Bus; a connector on the back of almost any new computer that allows you to quickly and easily attach external devices such as mice, joysticks or flight yokes, printers, scanners, modems, speakers, digital cameras or webcams, or external storage devices. Current operating systems for Windows and Macintosh computers support USB, so it's simple to install the device drivers. When a new device is connected, the operating system automatically activates it and begins communicating. USB devices can be connected or disconnected at any time.

username:

A name used in conjunction with a password to gain access to a computer system or a network service.

URL:

Uniform Resource Locator; a means of identifying resources on the Internet. A full URL consists of three parts: the protocol (e.g., FTP, gopher, http, nntp, telnet); the server name and address; and the item's path. The protocol describes the type of item and is always followed by a colon (:). The server name and address identifies the computer where the information is stored and is preceded by two slashes (/). The path shows where an item is stored on the server and what the file is called; each segment of the location is preceded by a single slash (/). Examples: The URL for the Dataprise home page is <http://www.dataprise.com>.

USB port:

An interface used for connecting a Universal Serial Bus (USB) device to computer; these ports support plug and play.

utility:

Commonly refers to a program used for managing system resources such as disk drives, printers, and other devices; utilities sometimes are installed as memory-resident programs. Example: the suite of programs called Norton Utilities for disk copying, backups, etc.

uuencode:

A method of converting files into an ASCII format that can be transmitted over the Internet; it is a



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universal protocol for transferring files between different platforms like UNIX, Windows, and Macintosh and is especially popular for sending e-mail attachments.

V

VDI:

Virtual Desktop Infrastructure or "VDI," is a desktop-centric service that hosts users' desktop environments on remote servers and/or blade PCs, which are accessed over a network using a remote display protocol.

virtual classroom:

An online environment where students can have access to learning tools any time. Interaction between the instructor and the class participants can be via e-mail, chat, discussion group, etc.

virtualization:

Virtualization is the creation of a virtual (rather than actual) version of something, such as a hardware platform, operating system, a storage device or network resources. In hardware virtualization, the term host machine refers to the actual machine on which the virtualization takes place; the term guest machine, however, refers to the virtual machine. Likewise, the adjectives host and guest are used to help distinguish the software that runs on the actual machine from the software that runs on the virtual machine. The software or firmware that creates a virtual machine on the host hardware is called a hypervisor or Virtual Machine Monitor.

virtual classroom:

An online environment where students can have access to learning tools any time. Interaction between the instructor and the class participants can be via e-mail, chat, discussion group, etc.

virtual hosting:

Virtual hosting is a method for hosting multiple domain names on a computer using a single IP address. This allows one machine to share its resources, such as memory and processor cycles, to use its resources more efficiently. Dataprise Virtual Hosting provides a high-performance hosting platform for your organization's online presence. Maintained by our specialist support staff and 24x7 active monitoring systems, we work hard to meet all of your hosted Web server needs. To learn more click [here](#).

virtual memory:

A technique that enables a certain portion of hard disk space to be used as auxiliary memory so that your computer can access larger amounts of data than its main memory can hold at one time.



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virtual reality:

An artificial environment created with computer hardware and software to simulate the look and feel of a real environment. A user wears earphones, a special pair of gloves, and goggles that create a 3D display. Examples: manipulating imaginary 3D objects by "grabbing" them, taking a tour of a "virtual" building, or playing an interactive game.

virus:

A program intended to alter data on a computer in an invisible fashion, usually for mischievous or destructive purposes. Viruses are often transferred across the Internet as well as by infected diskettes and can affect almost every type of computer. Special antivirus programs are used to detect and eliminate them.

VoIP:

Voice over Internet Protocol; a means of using the Internet as the transmission medium for phone calls. An advantage is you do not incur any additional surcharges beyond the cost of your Internet access.

VPN:

Virtual Private Networking; a means of securely accessing resources on a network by connecting to a remote access server through the Internet or other network.

VT100:

A type of terminal emulation required when you open an interactive network connection (telnet) to a UNIX system from your desktop computer.

W

WAIS:

Wide Area Information Server; a program for finding documents on the Internet. Usually found on gopher servers to enable searching text-based documents for a particular keyword.

WAN:

Wide Area Network; a group of networked computers covering a large geographical area (e.g., the Internet).

WAP:

Wireless Application Protocol; a set of communication protocols for enabling wireless access to the Internet.



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WEP:

Wired Equivalent Privacy; a security protocol for wireless local area networks defined in the 802.11b standard. WEP provides the same level of security as that of a wired LAN.

wi-fi:

Wireless Fidelity; A generic term from the Wi-Fi Alliance that refers to of any type of 802.11 network (e.g., 802.11b, 802.11a, dual-band, etc.). Products approved as "Wi-Fi Certified" (a registered trademark) are certified as interoperable with each other for wireless communications.

wild card:

A special character provided by an operating system or a particular program that is used to identify a group of files or directories with a similar characteristic. Useful if you want to perform the same operation simultaneously on more than one file. Example: the asterisk (*) that can be used in DOS to specify a groups of files such as *.txt.

window:

On a graphical user interface system, a rectangular area on a display screen. Windows are particularly useful on multitasking systems which allow you to perform a number of different tasks simultaneously. Each task has its own window which you can click on to make it the current process. Contrast to a "dialog box" which is used to respond to prompts for input from an application.

Windows:

A casual way of referring to the Microsoft Windows operating systems.

wireless (networking)

The ability to access the Internet without a physical network connection. Devices such as cell phones and PDAs that allow you to send and receive e-mail use a wireless Internet connection based on a protocol called WAP (Wireless Application Protocol). At this point, web sites that contain wireless Internet content are limited, but will multiply as the use of devices relying on WAP increases.

wizard:

A special utility within some applications that is designed to help you perform a particular task. Example: the wizard in Microsoft Word that can guide you through creating a new document.

WLAN:

Wireless Local Area Network; the computers and devices that make up a wireless network.

workstation:

A graphical user interface (GUI) computer with computing power somewhere between a personal computer and a minicomputer (although sometimes the distinction is rather fuzzy). Workstations are



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useful for development and for applications that require a moderate amount of computing power and relatively high quality graphics capabilities.

World Wide Web:

A hypertext-based system of servers on the Internet. Hypertext is data that contains one or more links to other data; a link can point to many different types of resources including text, graphics, sound, animated files, a network newsgroup, a telnet session, an FTP session, or another web server. You use a special program called a "browser" (e.g., Firefox or Internet Explorer) for viewing World Wide Web pages. Also referred to as "WWW" or "the web".

worm:

A program that makes copies of itself and can spread outside your operating system worms can damage computer data and security in much the same way as viruses.

WPA:

Wi-Fi Protected Access; a standard designed to improve on the security features of WEP.

WWW:

An abbreviation for World Wide Web.

WYSIWYG:

What You See Is What You Get; a kind of word processor that does formatting so that printed output looks identical to what appears on your screen.

X

X2:

A technology that enables data transmission speeds up to 56 Kbps using regular telephone service that is connected to switching stations by high-speed digital lines. This technology affects only transmissions coming into your computer, not to data you send out. In addition, your ISP must have a modem at the other end that supports X2.

XHTML:

Extensible Hypertext Markup Language. A spinoff of the hypertext markup language (HTML) used for creating Web pages. It is based on the HTML 4.0 syntax, but has been modified to follow the guidelines of XML and is sometimes referred to as HTML 5.0.

XML:

Extensible Markup Language; A markup language for coding web documents that allows designers to create their own customized tags for structuring a page.



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Z

zero-day:

zero-day (or zero-hour or day zero) attack, threat or virus is a computer threat that tries to exploit computer application vulnerabilities that are unknown to others or the software developer, also called zero-day vulnerabilities. Zero-day exploits (actual software that uses a security hole to carry out an attack) are used or shared by attackers before the developer of the target software knows about the vulnerability.

zip:

A common file compression format for PC or compatibles; the utility WinZip or Winrar is used for compressing and decompressing files. Zipped files usually end with a ".zip" file extension. A special kind of zipped file is self-extracting and ends with a ".exe" extension. Macintosh OSX also supports the .zip format and has tools that can compress and decompress zip files.

Zip drive:

A high capacity floppy disk drive from Iomega Corporation; the disks it uses are a little bit larger than a conventional diskette and are capable of holding 100 MB or 250 MB of data.

zoom:

The act of enlarging a portion of an onscreen image for fine detail work; most graphics programs have this capability.