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WELCOME

Welcome to our cybersecurity style guide! We are Bishop Fox, a leading offensive security company operating globally. We compiled this guide to keep ourselves technically accurate and up to date in our reports, publications, and social media interactions. Now we want to share our current standards with you.

This guide is designed for professionals in security and related technical fields. It provides advice on which terms to use in technical writing, how they should look in the middle of a sentence, and how to pronounce them out loud. The terms are listed alphabetically and stem from a variety of contexts, so although much of the usage advice is serious-minded, you will find other entries from the far-flung corners of internet culture to be more playful.

Each term in the guide earned its place by being unintuitive in some way:
- It may look like a non-technical word (execute, pickling, shell),
- It may be uniquely written (BeEF, LaTeX, RESTful),
- It may not follow a clear pattern (web page vs. website),
- It may have a very specific technical distinction (invalidated vs. unvalidated),
- Or its meaning may change depending on the context (crypto, PoC, red teaming).

Language is always evolving, and language changes are especially visible in an innovative field like information security. This guide aspires to record those changes in vocabulary and encourage professionals to use language intentionally as the digital lexicon continues to grow.

This is a work in progress. We intend to further revise this list in the future and share subsequent versions with the public. Please contact style@bishopfox.com with ideas about new entries or improvements to existing entries.

NOTE
This guide is a place to start when researching technical terms; it is not a comprehensive dictionary. While some terms are briefly defined, we have not attempted to define every included term but have endeavored to provide enough context for you to also continue researching the term elsewhere. We provide usage notes about capitalization, font, and pronunciation where needed. The external resources listed in Appendix B can help you locate more detailed technical definitions.
HOW WE CHOOSE OUR TERMS

Three guiding principles help us decide which terms to use and how to write them:

1. **We need to be accurate.**
   
   Our readers need to understand our technical content so that they can recognize the severity of security issues and implement our recommendations. We live and breathe information security, so we can deviate from non-industry authorities (such as the AP Stylebook) if their advice is outdated or too broad for our audience. Our terms should reflect the way that real attackers perceive and exploit systems.

2. **We want to be consistent.**
   
   Many hands touch every document: We want each resource we provide to customers or release publicly to have the same voice and tone, even if a team of seven collaborated on it. And we engage with the same customers through multiple assessments, so it’s important to use consistent terminology to support logical narratives that both technical and non-technical readers can follow.

3. **We’d like our work to look good at the same time.**
   
   Beautiful documents are inviting and easier to read, and polished language usage is a part of what makes documents attractive. Just as we use structural clarity and white space (for example) to give our dense technical information some room to breathe, using intentional language is another aspect of inviting readers into our documents. We amplify the quality of our technical work through our deliberate language choices.

These principles are listed in order of priority. For example, replacing a regular hyphen with a nonbreaking hyphen may help to condense a long URL down from four lines to two, but the replacement would make the URL nonfunctional. As such, we do not make that type of aesthetic change. Additionally, when writing about a customer’s internal tooling and names, we always ensure that we use their capitalization where possible. We will also defer to customers’ terminology choices that have not yet been standardized across the industry. While we always want to use terms consistently, it is more important to use accurate terminology for a customer’s needs when the two goals clash.
ADVICE ON TECHNICAL FORMATTING

We use two fonts in our technical writing: a sans serif font that we call normal font, and a monospace (fixed-width) font that we call tech font. In our reports, we use Open Sans as normal font and Source Code Pro as our tech font.

The tech font makes technical terms stand out to the reader when they appear in and out of quoted code. In general, it is used for terms and programs as they appear behind the scenes (e.g., in code or a command line) and within the infrastructure of a system. Terms that use normal font are often only seen on user-friendly, front-end interfaces and in marketing materials. Here are examples of each font in use:

<table>
<thead>
<tr>
<th>Normal Font</th>
<th>Tech Font</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titles of documents and file types</td>
<td>Full names of files and file extensions</td>
</tr>
<tr>
<td>Error messages and security questions</td>
<td>File paths</td>
</tr>
<tr>
<td>“Please enter a valid user ID.”</td>
<td>server/web/directory/</td>
</tr>
<tr>
<td>Names of organizations, companies, teams, and vulnerabilities</td>
<td>Email addresses, usernames, and passwords</td>
</tr>
<tr>
<td>DEF CON, .NET, Tor, EternalBlue</td>
<td><a href="mailto:contact@bishopfox.com">contact@bishopfox.com</a>, @bishopfox, SYSTEM, admin:admin, password1</td>
</tr>
<tr>
<td>Names of products and their versions</td>
<td>Domain names and hostnames</td>
</tr>
<tr>
<td>Ethernet, Steam, Ubuntu 17.04</td>
<td>bishopfox.com, DC01, EXAMPLENET</td>
</tr>
<tr>
<td>URIs, URNs, and URLs as clickable links</td>
<td>References to URIs, URNs, and URLs</td>
</tr>
<tr>
<td><a href="https://www.bishopfox.com/resources/">https://www.bishopfox.com/resources/</a></td>
<td>data:, <a href="http://www.bishopfox.com/%5Bvariable">www.bishopfox.com/[variable</a>]</td>
</tr>
<tr>
<td>Types of fields, headers, parameters, etc.</td>
<td>Names of fields, headers, parameters, etc.</td>
</tr>
<tr>
<td>data element, content-type header, the Forgot Password field</td>
<td>C: drive, X-Forwarded-For header, Secure flag, url parameter</td>
</tr>
<tr>
<td>Descriptions of groups or roles</td>
<td>Names of groups or roles</td>
</tr>
<tr>
<td>administrator, “role allowing read/write access”</td>
<td>Domain Admins, EnterpriseAdmins</td>
</tr>
<tr>
<td>Types of requests</td>
<td>Characters or elements from code</td>
</tr>
<tr>
<td>GET request, pull request, PUT request</td>
<td>“Disallow wildcards [ * ]”, “the getID() function”</td>
</tr>
<tr>
<td>Line numbers and ports by themselves</td>
<td>IP addresses (with or without ports)</td>
</tr>
<tr>
<td>“On line 42 of the code...”, port 80, port 443</td>
<td>192.168.1.1, 192.168.1.1:80</td>
</tr>
<tr>
<td>Reference numbers, standards, and vuln IDs</td>
<td>Code excerpts</td>
</tr>
<tr>
<td>CVE-2014-6271, MS15-034, RFC 1149, 802.11r</td>
<td>&lt;b&gt;Hello World!&lt;/b&gt;</td>
</tr>
<tr>
<td>3. Go to 1</td>
<td></td>
</tr>
</tbody>
</table>

Terms that use the tech font appear in that style everywhere in documents outside of headings (including bullet points and figure captions).
**Bold Text**
When writing about clickable elements, we follow the Microsoft Writing Style Guide (see Appendix B). We bold button names that the reader is meant to click. When writing about a feature with the same name as a button, capitalize it if applicable, but don't bold it.

- Click Track Changes to show all your future changes in Word.
- The Track Changes feature allows users to keep track of all their edits in a document.
- After selecting the OK button, the user was redirected to the Home tab.

Within the word list in this style guide, **bolding** indicates terms that have their own entries.

**Technical Names**
In this guide, we highlight software and tool names with unintuitive capitalization, spelling, or formatting. However, as new tools are always being created, here is some general guidance around how to style this kind of technical name.

**ABOUT TECH FONT**
Software names should usually be written in normal font, but the following exceptions require tech font for clarity:

- Operating system commands and other command-line tools that are styled in tech font in their official documentation
  - Ex: chattr, sudo
- Lowercase names that look like regular words
  - Ex: ping

**ABOUT CAPITALIZATION**
Maintain the software's original capitalization to avoid any confusion.

- Avoid starting sentences with an all-lowercase name. If a sentence must start with a lowercase name, do not capitalize it.
- If a term can be used as both a name and a command, spelling and styling may vary, so check how it is used in the specific instance.
  - Ex: Bash vs. bash, SCP vs. scp
WHAT TO EXPECT IN THE GUIDE

This style guide was compiled primarily to assist security professionals who write formal documentation. Therefore, we mark terms that you might hear at a hacker conference (but should not use in formal writing) as informal, and we mark cliché business terms that may alienate the security audience as corporate jargon.

Each term in the guide appears in its designated font (per the formatting guidance above) and is capitalized as it would appear in the middle of a sentence. For example:

**denial of service** *(n.)*, **denial-of-service** *(adj.)* *(DoS)*

DoS is pronounced as “doss” or the whole phrase. Spell out on first use.

Ex: A denial of service is caused by denial-of-service attacks.

Related: DDoS

Many entry headings include parts of speech, since that can affect how terms are written: *(adj.)* for adjective, *(adv.)* for adverb, *(n.)* for noun, and *(v.)* for verb. Proper nouns and phrases do not include a part of speech. We also include plural or conjugated forms of some terms where the capitalization or spelling of those forms may not be straightforward.

Many security terms have disputed pronunciations because they were typed first and spoken aloud later. Pronunciation is provided for select terms in the guide. We acknowledge all variations when possible. Be aware that some acronyms look similar but are pronounced differently:

- CIO is pronounced as letters, but CISO is pronounced as “see-so.”
- UI is pronounced as letters, but GUI is pronounced like “gooey.”
- PoC is pronounced as letters, but T-POC is pronounced as “T-pock.”

When we offer examples of a term, provide variants of a term, or provide alternative terms to use in place of it, we use blue font to call attention to the term or example.

By combining the use of two fonts, button bolding, and the word list below, we strive to be accurate, consistent, and understandable to the security industry at large. It’s been helping us internally and we hope it will help you, too.
LIST OF TERMS

Symbols and Numbers

!  
The exclamation point, exclam, or bang.  
Related: characters

@  
The at sign.  
Related: characters, email, handle, username

#  
The pound sign, hash, or hashtag. Only called hashtag when tagging something.  
This character and [ # ] are sometimes used interchangeably and are pronounced as “sharp” in programming language names.  
Related: C♯, characters, hashtag, numbers, tweet

*  
The asterisk.  
Related: characters, metacharacter, wildcard

/  
The forward slash. Avoid using the forward slash in formal writing to compare two things outside of set phrases like and/or, client/server, and TCP/IP.  
Related: http://, mm/dd/yyyy, s/o, SSL/TLS

\  
The backslash.  
Related: carriage return character, linefeed character, newline character

'  
The tic. Not an apostrophe.

0-day (n. or adj.)  
A “zero-day” or “oh-day” finding is one that has not been previously reported. In formal writing, it’s better to use zero-day finding, previously undisclosed vulnerability, or publicly undisclosed vulnerability.

1080i, 1080p  
HD video modes that describe the frame resolution and scan type (interlaced or progressive scan, respectively). Pronounced “ten-eighty-eye” and “ten-eighty-pea.” Do not spell out.  
Related: flatscreen, HDTV, media, numbers

1Password  
Password management software.

2600  
Related: HOPE, war-dialing
2FA or TFA (n.)
Two-factor authentication. Spell out on first use.
Related: hard token, MFA, OTP, security key, soft token, U2F

3DES
Triple DES. A symmetric key block cipher.
DES is pronounced as letters or “dezz.”
Related: Sweet32

3D printing (n.)
Related: CAD, CAM, Maker Faire

3G, 4G (adj. or n.)
Third- and fourth-generation communications technology. Cell phone network options. Do not spell out.
Related: CDE, CDMA, GSM, LTE, rogue cell tower, SIM card, smartphone, UMTS

3Scale
An API management platform.

4chan
A website for trolls and memes that birthed Anonymous and Rickrolling.
Related: dox, message board, NSFW, QAnon, troll

7-Zip
An open source file archiver.

8.3 filename (n.)
A shortened filename. Also called a short-name.

8-bit (adj.)
Related: media, video games

A

a vs. an

a11y (n.)
Short for accessibility. Often used in relation to technology. The 11 represents the 11 letters removed from the middle of the word. Pronounced like “ally” or “accessibility.”
Related: i18n, k8s, L10n

abort (v.)
Avoid using this term unless it’s in quoted code. Try force quit, interrupt, or reboot instead.

A/B testing (n. or v.)
An experiment that involves showing different versions to different users.
Related: baseline, beta, SEO, UX

abuse (n.)
Avoid using this term. Try misuse or malicious use instead.

abuse (v.)
Avoid using this term. Try alter, automate, compromise, deface, exhaust, exploit, force, impersonate, intentionally misuse, leverage, manipulate, reuse indefinitely, take advantage of, or a context-specific verb.
Related: trick
-accessible (adj.)
Always hyphenate.

access point (AP) (n.)
Pronounced as letters. Spell out on first use.

ACE (n.)
Arbitrary code execution or access control entry. Spell out on first use.
Related: shellcode

ACID (n.)
Atomicity, consistency, isolation, durability. Related: atomic, database

ACL, ACLs (n.)
Access control list. Spell out on first use. Related: Amazon Web Services, authorization, deny any any

Active Directory (AD) (n.)
Spell out on first use. Related: GPO, IPT, Kerberos, LDAP, registry hive, SAM, SMB, SPN, subdirectory, Windows

adb or adb
Android Debug Bridge. adb is both a command-line tool and a specific command. When writing about the command, use the tech font.

ad blocking (n.), ad-blocking (adj.)

add on (v.), add-on (n.)

address bar (n.)
ad hoc (adj.)
Describes immature security infrastructure. In networks (especially wireless ones), ad hoc means decentralized.

admin or admin (n.)
Short for administrator. Write in the normal font if referring to admin privileges. If referring to the admin role or username, use the tech font. Related: DBA, root, su, sudo, super admin, sysadmin user

adversary (n.)
Do not use this term in formal writing; use attacker or malicious user instead. In cryptography, it has a mathematical meaning, as in global passive adversary (GPA).

AES
Advanced Encryption Standard. Do not spell out; briefly define on first use.

Agile (n.)
A software development approach involving continuous iterative changes, cross-functional teams, and a short feedback cycle. Related: CI/CD pipeline, epic, scrum, SDLC, sprint, workflow, work stream

agnostic (adj.)
Describes an entity that does not have a preference for any particular product, as in platform agnostic. Corporate jargon; use sparingly.
AI (n.)
Artificial intelligence. In technical fields, this term primarily describes machine learning strategies. It has taken on a broader meaning in popular culture. AI can also refer to Amnesty International. Spell out on first use when writing for a general audience.

algorithm (n.)
Related: AI, Balloon, Blowfish, machine learning, MD5, preimage, RankBrain, RSA, SEO, SHA-1, Untwister

Alibaba
An online retailer based in China.

allowlist, allowlisting (n. or v.)
Bishop Fox's preferred alternative term to whitelisting. Rephrase to avoid using this term as a verb in formal writing.
Related: denylist, safelist, whitelist

alphanumeric (adj.)
Describes strings that contain letters and numbers, but not special characters, punctuation, or spaces.
Related: characters, passwords, plaintext

a.m.
Put a space after the number, as in “4 a.m. GMT.” Include the time zone if referring to a testing window or specific event. Avoid using military (24-hour) time unless relevant to the context.
Related: dates

AMA
Ask me anything. A crowdsourced style of Q&A popularized by Reddit. Can also refer to the American Medical Association, so spell out in non-Q&A contexts.

Amazon Mechanical Turk (MTurk)
An online crowdsourced marketplace where users complete Human Intelligence Tasks (HITs) for money.
Related: gig economy
Amazon Web Services (AWS)
Spell out on first use. After that, abbreviate as either AWS or Amazon. When discussing individual services within AWS, refer to Amazon's documentation.
Ex: AWS IAM, Amazon RDS
Related: ACL, CloudFront, CloudTrail, EBS, EC2, EKS, OCI, Okta, RDS, S3, Vagrant, VPC

analog hole or analog loophole (n.)
Related: DMCA

and/or
Use sparingly in formal writing.

Android
Google's mobile operating system.
Related: iPhone, iOS, Kotlin, mobile device

android (n.)
Related: science fiction

angle bracket (n.)
The [ < ] and [ > ] characters.
Related: characters

AngularJS
A JavaScript framework.

Animoji
Animated emoji created by Apple in 2017.
Related: Memoji

anonymization (n.)

Anonymous
An international group of 4chan hacktivists with a Guy Fawkes mask symbol.

anonymous (adj.)
Unauthenticated.
Ex: anonymous access
Related: FTP

Ansible
A stateful configuration management suite for Linux systems.

ansible (n.)
A fictional instantaneous hyperspace communication device named by Ursula K. Le Guin.
Related: hyperspace, science fiction

anti-malware (adj.)

antivirus (AV) (adj. or n.)
Related: EICAR test file

AOL
An internet service provider. Originally stood for America Online.
Related: IM, ISP

AP, APs (n.)
Short for access point or Associated Press. Both are pronounced as letters. Spell out on first use to clarify your intended meaning.

Apache HTTP Server
Related: Groovy, Hadoop, LAMP, Subversion, SVN, WAMP

Aperture Science
A fictional research company from the Portal series of video games.
Related: GlaDOS, science fiction
API, APIs (n.)
Application programming interface. How software interacts with other software. Do not spell out.
Related: GraphQL, jQuery, JSON, REST, SOAP

APK, .apk file
Android package.

app vs. application
Smart devices like phones and tablets have apps; computers have applications. App can also be a shortened form of application. To the security industry, they are all exploitable.
Related: applet, cell phone, freemium, mobile device, program, smartphone, software, web app

App Defense Alliance (ADA)
Spell out on first use.
Related: Android, Cloud Application Security Assessment, Google, Mobile Application Security Assessment

Apple
Related: Animoji, Apple TV, FaceTime, FairPlay, iOS, iPad, iPhone, HLS, Lightning, MacBook, Mac OS X, macOS, PowerBook, Siri, WWDC

applet (n.)
Related: app vs. application, reportlet

application security (n.)
An alternate term for information security.
Related: APT

APT (n.)
Application penetration testing, advanced persistent threat, or advanced packaging tool. Spell out on first use in public-facing documents.
Related: application security, criticality, EPT, IPT, penetration testing

AR (n. or adj.)
Augmented reality.
Related: Internet of Things, smartglasses, VR, Vuforia

arbitrary (adj.)
Ex: arbitrary code execution

Archer
An animated spy TV show that inspired the name of the Bishop Fox Danger Drone. Also the name of an RSA security product.

Arduino (n.)
Pronounced “ar-dweeno.”
Related: hardware hacking, Maker Faire, robotics

ARM
A type of RISC architecture for microprocessors, primarily used in smartphones and tablets. Define briefly on first use.
Related: Meltdown, Spectre, x86
ARPANET
Advanced Research Projects Agency Network; the original internet. Do not spell out.
Related: Usenet

artificial ignorance (n.)
A process of removing normal activity from noisy data sets. Also used to describe flaws in artificial intelligence programs. Define on first use.
Related: blue team, EDR, IDS

artificial intelligence (AI) (n.)
In technical fields, this term primarily describes machine learning strategies. It has taken on a broader meaning in popular culture.
Related: algorithm, chatbot, Deep Blue, GLaDOS, gray goo, HAL 9000, human-in-the-loop, machine learning, Master Control Program, replicant, robotics, science fiction, the singularity, The Three Laws of Robotics, Turing test, uncanny valley, Watson, WOPR

ASCII
Related: emoticon, Unicode Consortium

ASIC
Application-specific integrated circuit.
Less commonly, a programming language related to BASIC. Do not spell out.

ASLR
Address space layout randomization. Spell out on first use.
Related: brute-force, buffer overflow, OS, use after free

ASN.1
Abstract Syntax Notation One.
Related: BER, X.509

ASP, ASPs (n.)
Short for application service provider or Active Server Pages, a precursor to ASP.NET.
Related: ISP, SaaS, TSP

ASP.NET
Related: MVC

AS-REP
Authentication Server Response. Spell out on first use.

AS-REP roasting (n.)
Related: Kerberoasting

asset (n.)
Assets are systems, software, applications, libraries, personnel, equipment, or anything else an organization values and wants to protect.
Related: attack surface, domain, enterprise security, environment, high-value

ASV, ASVs (n.)
Approved scanning vendor. Spell out on first use.
Related: PCI
ASVS
Application Security Verification Standard. Spell out on first use. Related: OWASP

ATM, ATMs
Short for automated teller machine or “at the moment.” “ATM machine” is redundant. Related: message board, PIN, SSN

atomic (adj.), atomicity (n.)
A database transaction property. Transactions can be atomic or non-atomic. Related: ACID

at-rest (adj.), at rest
Ex: It uses at-rest encryption. Encrypt data at rest.

attack chain (n.)
A sequence of attacker actions. Related: cyber kill chain, elevation of privileges, exploit chain

attacker-controlled (adj.)
Related: -owned

attack surface (n.)
Related: asset, domain, subdomain, red team

attributes (n.)
If it’s a type of attribute, use the normal font. If it’s a specific attribute, use the tech font, as in “a user name attribute.”

audio conferencing (n. or adj.)
Related: videoconferencing

audiovisual (AV) (adj. or n.)
Avoid using as a noun in formal writing. Related: media

audit trail (n.)
Related: finance

AUP, AUPs (n.)
Acceptable use policy. Spell out on first use.

auth (n.)
Short for authentication or authorization. Sometimes written as AuthN and AuthZ, respectively, to clarify which word is abbreviated. Spell out on first use to avoid confusion.

authentication (n.)
Related: 2FA, IAM, MFA, TOFU

authorization (n.)
Related: ACL, principle of least privilege, trust boundary

autofill (n. or v.)
The automatic operation of required processes.
auto-renew (v.)

AV (adj. or n.)
Antivirus or audiovisual. Pronounced as letters or the whole word.
Related: FFmpeg, media

availability (n.)
The responsiveness of a system. Denial-of-service attacks affect a system's availability.
Related: CIA, confidentiality, integrity

avatar (n.)
Related: handle, IM, message board, username, web forum

AWK
A programming language used primarily for text processing.
Related: flat file, grep

AWS
Amazon Web Services.
Related: ACL, cloud computing, CloudFront, CloudTrail, Dufflebag, EBS, EC2, EKS, EMR, GCP, Okta, RDS, S3, VPC

Azure
A cloud computing service operated by Microsoft.
Related: Amazon Web Services, cloud computing, GCP, Microsoft, OCI

B

B2B (adj. or n.)
Business-to-business.
Related: E2E, P2P

backdoor (n. or v.)
When discussing a physical door, use a space, as in back door.
Related: front door, trapdoor

back end (n.), back-end (adj.)
Related: front end, full-stack development

backported (adj.), backporting (n. or v.)
Adding features from a new software version into an older version of the same software.

backslash or \nRelated: /

backtrace (n. or v.)
Related: traceback

back up (v.), backup (n. or adj.)

backward compatibility (n.), backward-compatible (adj.)
Related: brownfield, grandfather clause, legacy, LTS

badput (n.)
The rate at which data is corrupted in transit.
Related: goodput, throughput
Balloon
A password-hashing algorithm.
Related: PBKDF

bandwidth (n.)
The speed or capacity of a data network measured in volume over units of time, as in 50Mbps.
Related: MBps vs. Mbps

bank drop (n.)
A bank account created using stolen information.
Related: black market, fullz

barcode (n.)

bar mitzvah attack (n.)
An SSL vulnerability and attack. So named because its security implications were realized 13 years after it first appeared in the codebase.
Related: birthday attack

Base64-encoded (adj.), Base64 encoding (n.)
Related: hex

-based (adj.)
Always hyphenate.
Ex: host-based, logic-based, role-based

baseline (n.)
Related: A/B testing, best practice

Bash
A Unix command-line interpreter and command language. The default login shell for Linux and macOS.
Related: script

BASIC
Beginner's All-purpose Symbolic Instruction Code. A programming language. Do not spell out.
Related: ASIC

bastion host (n.)
A host often used as a gateway to pivot into other hosts. It should be specially hardened.

BBS
Bulletin board system.
Related: Usenet

BCC, BCC'd, BCCing (v.)
Blind carbon copy. Do not spell out.
Related: CC, email

BCP, BCPs (n.)
Business continuity plan. Spell out on first use.

crypt
A password-hashing function.
Pronounced like “B-crypt.”
Related: PBKDF

BEAST
An SSL/TLS attack.

BEC (n.)
Business email compromise. Spell out on first use.
Related: phishing

BeEF, BeEF hooking (n.)
Browser Exploitation Framework.
BER, BERs (n.)
Bit error rate. It can also stand for Basic Encoding Rules, so spell out on first use.
Related: ASN.1

best practice (n.)
Practice that aligns with compliance guidelines or industry standards.
Sometimes “best” practices are actually baseline requirements. In those cases, refer to them as standard practices, industry standards, basic requirements, or foundational controls. Corporate jargon; use sparingly.
Related: CIS 20, compliance framework, harden

beta (n. or adj.)
Related: A/B testing, golden master, version numbers

BF
An informal name for Bishop Fox. Use very sparingly and only where space is limited.

BGP
Border Gateway Protocol. Spell out on first use.

BIA (n.)
Business impact analysis. Spell out on first use.

Big Brother
The symbol of totalitarian surveillance from the novel Nineteen Eighty-Four. Big Brother is watching you.
Related: surveillance software

big data (n.)
Related: EMR

big-endian (adj.)
Related: binary

BIG-IP
A load balancer. Pronounced like “big-I-P.”

billion laughs attack (n.)
Related: DoS

binary (n. or adj.)
The base-2 number system used by computers. 0 or 1. Also describes data stored in this way, as in binary executable files.
Related: big-endian, bit, hex, little-endian

BIND
A DNS server.

birds of a feather (n.)
An informal discussion group.
Related: scrum, stand-up

birth date (n.)
Related: DOB, numbers, PII

birthday attack (n.)
A brute-force cryptographic attack that exploits mathematical probability theory to achieve a hash collision. (The birthday paradox states that in a room of 23 people, the likelihood of two people having the same birthday is 50%, even though it seems less likely than that.)
Related: bar mitzvah attack, brute-force, Sweet32
Bishop Fox
Offensive security company founded in 2006.
Related: Cosmos, cyber.dic, Danger Drone, -Diggity, Dufflebag, Eyeballer, foxes, GitGot, Lucius Fox, Martin Bishop, Rickmote Controller, RMIScout, SmashBot, Tastic RFID Thief

bit (n.), -bit (adj.)
A binary digit. When abbreviated, use lowercase b for bits and uppercase B for bytes.
Ex: a key length of at least 2048 bits,
a 2048-bit RSA key
Related: byte, GBps vs. Gbps, units of measurement

Bitbucket
An Atlassian product for Git and Mercurial.

bitcoin or Bitcoin (n.)
A digital cryptocurrency created by an unknown party known as Satoshi Nakamoto.
Related: coin vs. token, cold wallet, crypto mining, finance, hot wallet, light wallet, off-chain, salami slicing

bit-flipped (adj.), bit flipping (n.)
Changing a bit from 1 to 0 or 0 to 1. This may describe a logical operation, an error, or an attack.

BitLocker
Microsoft Windows disk encryption software.

bitmap (n.)
**black market** (adj. or n.)
Our preferred term in formal writing to describe unindexed, illegal online activity hubs. Tor and I2P are colloquially known as “dark web” browsers.
Related: bank drop, cash-out guide, dark net, fullz, I2P, marketplace, Silk Road, Tor

**Black Mirror**
A British anthology TV series. Each episode focuses on an aspect of the societal consequences of advanced technology.
Related: science fiction

**bleeding-edge** (adj.), **bleeding edge** (n.)
Related: cutting edge, moonshot, next generation

**BLESS**
An SSH certificate authority.

**blind** (adj.)
During a blind attack, the attacker is unable to view the outcome of an action.
Related: SQLi

**bloatware** (n.)
Related: functionality

**BLOB** or **blob** (n.)
Binary large object.

**Blob Storage**
An Azure service.

**blockchain** (n. or v.)
A ledger of transactions. Beware of products that claim to solve all problems through the use of blockchains.
Related: CBC, cryptocurrency, DAO, finance

**blocklist, blocklisting** (n. or v.)
An alternative term for blacklist. Use this term to match client preference in client-facing documents.
Related: allowlist, blacklist, denylist, greylisting, safelist, whitelist

**blog, blogroll** (n.)
Related: microblogging, post, RSS feed, vlog, wiki

**BloodHound**
A tool used to map access relationships in Microsoft environments.
Related: Active Directory, sniff

**Blowfish**
An encryption algorithm.

**BlueKeep**
A Microsoft vulnerability (CVE-2019-0708) that was disclosed in May of 2019.
Related: RCE, RDP

**blue screen** (n. or v.), **blue-screened** (v. or adj.)
To fatally fail. To abruptly, definitively, and catastrophically stop working (like a program or system). Informal.

**Blue Screen of Death (BSOD)** (n.)
A Windows error screen. Informal.
Related: kernel panic
**blue team, blue teaming (n. or v.)**
Blue teams run scenarios to defend a target or environment from potential attackers. They reduce the attack surface, employ hardening strategies, and use honeypots. 
Related: honeypot, purple team, red team, tabletop exercise, threat hunting, tower defense

**Bluetooth**
A unifying wireless system named after Harald Bluetooth, a Norwegian king.

**Bluetooth LE (BLE)**
Bluetooth Low Energy. Spell out on first use.

**Blu-ray**
Related: media, titles of published works

**BMC, BMCs (n.)**
Baseboard management controller. Spell out on first use.

**BMO**
A sentient video game console-shaped cartoon robot from Adventure Time. Pronounced like “B-moh.”

**BMP, .bmp file**
The bitmap image format. Related: file extensions

**body cam or body camera (n.)**
Related: GoPro, media

**BOF (n.)**
Short for buffer overflow. Spell out on first use. Related: heap-based buffer overflow

**Bomgar**
An IT support portal.

**Boolean operator (n.)**
Used in expressions in code to evaluate a condition, or in search terms to filter results. Write in tech font. Ex: AND, OR, NOT
Related: fuzzy logic, programming logic, regex, truthiness

**boot (v. or n.)**
The verb form is often used with “up.”

**boot chain (n.)**
Related: start up

**bootloader (n.)**

**boot sequence (n.)**

**boot time (n.)**

**the Borg**
A fictional cyborg alien group in Star Trek. Related: Red Shirt, science fiction, warp drive

**Boston Dynamics**
A robotics company. Related: The Three Laws of Robotics

**bot (n.)**
An automated program like a chatbot or Twitterbot.

**botnet (n.)**
A network of bots sometimes used in ransomware attacks. Related: denial of service, Internet of Things, Mirai, ransomware, sinkhole
**Brainfuck**
An esoteric programming language.
Related: **JSFuck, Malbolge**

**branch** (v. or n.)
Related: **fork, GitHub, repository, Subversion**

**BREACH** (n.)
A variant of the CRIME exploit.

**Breach** (v. or n.)
To describe the specific impact of a breach, you can say that information was exposed, disclosed, obtained, or stolen.
Related: **leak, Rockyou**

**breadcrumb, breadcrumb trail** (n.)
Related: **browser, hotline, links**

**breakpoint** (n.)
A intentional stopping point in code to allow debugging.

**brick, bricked** (n., v., or adj.)
An old, heavy cell phone or a dead device.
A bricked device is irrecoverably broken.
Informal.
Related: **corrupted, jailbreak, mobile device, smartphone**

**brick-and-mortar** (adj.)
Describes IRL places of business.
Related: **meatspace, POP, SKU**

**broadcast** (n. or v.)
Related: **livestream, media**

**brownfield** (adj.)
Describes software developed for legacy applications or environments.
Related: **backward compatibility, grandfather clause, greenfield, legacy, LTS, outdated**

**browsable** (adj.)
Related: **crawl, firewall, index, SEO**

**browser** or **web browser** (n.)
Related: **breadcrumb, Chrome, headless browser, homepage, internet, links, Mozilla Firefox, Tor**

**brute-force, brute-forcing** (n. or v.)
A trial-and-error attack conducted against a security mechanism such as a password or encryption key.
Related: **ASLR, birthday attack, credential stuffing, dictionary attack, embarrassingly parallel, fullz, passwords, password spraying, rate-limit, war-dialing, word list**

**BSD**
Berkeley Software Distribution.
A Unix-derived operating system.

**BSides**
A global series of security events.
http://www.securitybsides.com/
Related: **Hacker Summer Camp**

**bucket** (n.)
When discussing a type of bucket, use the normal font. When discussing a specific bucket's name, use the tech font, as in “the oz-provision bucket.”
buffer overflow (BOF) (n.)  
Related: ASLR, stack canary

buffer over-read (n.)

bug bounty (n.)  
Related: Bugcrowd, HackerOne, penetration testing

Bugcrowd  
A crowdsourced bug bounty security company.

built-in (adj.)

bullet time (n.)  
Related: media, The Matrix, science fiction

Burp Suite, Burp Collaborator  
A web application proxy. Do not shorten to Burp in formal writing.

bus, buses (n.)  
A connection between computer components.  
Ex: address bus, serial bus  
Related: CAN, DDR, embedded device, USB

business impact analysis (BIA) (n.)  
Spell out on first use.

BuzzFeed  
Related: social media

BYOD  
Bring your own device. Describes policies that allow employees to use their own computers and phones for work. BYOD is pronounced as letters or the whole phrase.  
Related: MAM, MDM, onboarding, user-supplied, VDI

bypass (v. or n.)

byproduct (n.)

byte (n.)  
A byte is eight bits. Kilobyte (KB), megabyte (MB), gigabyte (GB), terabyte (TB), petabyte (PB), exabyte (EB). Always write out bytes and bits, as in 10 bytes. Use the abbreviation for larger units. No space between number and unit, as in 64TB. Within abbreviations, use uppercase B for bytes (KB), lowercase b for bits (Gb).  
Related: bit, KiB, MiB, units of measurement

bytecode (n.)

C  
A programming language. Pronounced as the letter.

C #  
A programming language. Pronounced as “C-sharp.”  
Related: #, hashtag
C++
A programming language. Pronounced as “C-plus-plus.”

C-3PO
A fictional protocol droid in Star Wars. Pronounced as letters and numbers.
Related: science fiction

CA, CAs (n.)
Certificate or certification authority. Spell out on first use.
Related: digital certificate, leaf certificate, Let’s Encrypt, signature, SSL/TLS, X.509

CA/Browser Forum
An association of CAs that provides industry guidelines on certificates.

Cache (n. or v.)
Attacks on caches include cache busting and cache poisoning.
Related: cookie poisoning

CactusCon
An annual security conference in Arizona.
http://www.cactuscon.com/

CAD (n.)
Computer-aided design.
Pronounced as “cad.”
Related: 3D printing, CAM

calc.exe
The Windows calculator program. Pen testers often use this in sample exploits to demonstrate code execution without harmful consequences.
Related: EICAR test file

Callback (adj. or n.)
Ex: callback parameter
Related: parameters, traceback

Callback hell (n.)
A programming mistake that results in an infinite callback loop.

CAM (n.)
Computer-aided manufacturing. Spell out on first use. Pronounced as “cam.”
Related: 3D printing, CAD, LMS

Cambridge Analytica
Related: data, Facebook, privacy protection

CAN (n.)
Controller area network. Usually referred to as a CAN bus.
Related: bus, embedded device, hardware hacking, MCU

canary account (n.)
Related: honey, honeypot

Canonicalization (n.), canonicalize (v.)
Related: data

CAPTCHA, CAPTCHAs (n.)
The Completely Automated Public Turing test to tell Computers and Humans Apart.
A challenge-response test. Do not spell out.
Related: challenge-response mechanism, computer vision, CRAM, reCAPTCHA

Cardholder (n.)
Related: CHD, finance, PCI
carriage return character or \r (n.)
An invisible character that shifts the text position to the beginning of the line. This term is a skeuomorph that refers to the way a typewriter “returns” a carriage to its original position.
Related: characters, newline character

case-by-case (adj.)

case-sensitive (adj.), case sensitivity (n.)
Related: fields, keyboard keys, lowercase, uppercase

cash-out guide (n.)
Related: black market

catch (v.)
Related: throw, except

The Cathedral and the Bazaar (CatB)
A book by Eric S. Raymond about models of free software design.
Related: open source, OSS

CBA (n.)
Cost-benefit analysis. Spell out on first use.
Related: finance

CBC (n.)
Cipher block chaining. Do not spell out; briefly define on first use.
Related: blockchain

CC, CC’d, CCing (v.)
Carbon copy. Do not spell out.
Related: BCC, email

CCC or C3
Chaos Communication Congress.
An annual security conference in Germany.

CCDC

CCPA
California Consumer Privacy Act.
Related: COPPA, GDPR

CCTV (n.)
Closed circuit television. Pronounced as letters. Do not spell out.
Related: media, surveillance software

CD, CD-R, CD-ROM, CD-RW (n.)
Compact disc. CD may also stand for continuous delivery or continuous deployment, as in CI/CD. Spell out on first use when using in this sense.
Related: media

CDC
The Centers for Disease Control and Prevention.
Related: healthcare

cDc
Cult of the Dead Cow. A late 1990s hacking group that coined the term “hactivism.”

CDE (n.)
Collaborative development environment, cardholder data environment, or Chrome Dev Editor. Spell out on first use.
Related: IDE
CDMA (n.)
Code division multiple access. A channel access method used in radio communications, particularly in mobile phone standards. Spell out or briefly define on first use.
Related: 3G, cell phone, GSM, LTE, UMTS

CDN, CDNs (n.)
Content delivery network. Spell out on first use.

CDP (n.)
Clean desk policy. Spell out on first use.

CEH
Certified Ethical Hacker. Pronounced as letters or the whole phrase.
Related: certification

Certification (n.)
Spell out certification names on first use unless used as a suffix for a person's name.
Examples of abbreviations for certifications include CCNA, GPEN, OSCE, PCI ASV, Sec+.
Related: CEH, CISSP, OSCP, SANS

CFAA
The Computer Fraud and Abuse Act.
Related: EFF, WarGames

CFO, CFOs (n.)
Chief financial officer.
Related: CIO, CISO, CRO, CSO, C-suite, CTO, finance

CFP, CFPs (n.)
Call for papers or call for proposals. Chiefly used for conference submissions.
Related: RFP

CG (adj.)
Related: motion capture

CentOS
A Linux distribution. Pronounced as “sent-O-S” or “sent-oss.”

CERT
Computer Emergency Readiness Team or Cyber Emergency Response Team. Do not use as a generic term.
Ex: US-CERT, CERT/CC
Related: CSIRT

CFP certification (n.)
A certification or cert (n.)
Cert is informal.
Related: CA, Man-in-the-Middle, PKI, X.509

Challenge-response mechanism (n.)
A robot-filtering test like CAPTCHA.
Related: CAPTCHA, CRAM, reCAPTCHA, The Three Laws of Robotics, Turing test

Changelog (n.)
characters (n.)
When calling out specific characters (keystrokes) that affect the meaning of a code sequence, write them in the tech font with a space on either side, surrounded by square brackets in the normal font. If the character’s name is also its symbol, write it in the tech font. If the font difference is not visible, use quotation marks. Sometimes abbreviated informally to char and pronounced as “char.”
Ex: a single quote [‘], the @ symbol, 30,000 “A” characters
Related: !, @, #, *, alphanumeric, angle bracket, carriage return character, lowercase, newline character, metacharacter, rich text, spacebar, uppercase, wildcard

charset (n.)
Character set. Pronounced “char-set.”

chatbot (n.)
Related: artificial intelligence, IM

ChatOps (n.)
The practice of coordinating security teams through realtime chat applications.
Related: DM, IM, IRC, Signal, WeChat, WhatsApp

chatroom (n.)

Chatroulette
Related: videoconferencing

chattr
Short for change attribute. Pronounced as “chatter.”
Related: chmod, chroot

CHD (n.)
Cardholder data. Spell out on first use.
Related: cardholder, finance, PCI compliance

checkbox (n.)

checkmark (n.)
On many social media sites, a checkmark (often blue) next to a username indicates that the account’s owner has been verified, distinguishing it from fan or parody accounts.
Related: Twitter

checksum, checksums (n.)
Related: hash function

child abuse material (n.)
This is a more accurate term for child pornography. If you discover child abuse material in the context of your work, report it to a manager immediately. If you find it online outside of work, contact the National Center for Missing and Exploited Children (NCMEC).
Related: COPPA

chipset, chipsets (n.)
Related: hardware hacking

chmod
Short for change mode. Pronounced as “change mod,” “C-H-mod,” or “chuh-mod.”
Related: chattr, chroot

Chrome
A Google web browser.
Related: Electron, IE
Chromecast (n.)
Related: Rickmote Controller

chroot
Short for change root. A Unix operation that simulates a directory on a filesystem as if it were the root of the filesystem. Pronounced as “C-H-root” or “chuh-root.”
Related: chattr, chmod

chroot directory (n.) or ChrootDirectory
An SSH directory.

chroot jail (n.)
A directory used to isolate a process from the rest of the system.

CI (n.)
Continuous integration. Spell out on first use.
Related: CI/CD pipeline

CIA (n.)
Confidentiality, integrity, and availability, the triad of information security concerns. Also stands for Central Intelligence Agency. Spell out on first use to clarify your intended meaning.
Related: FBI, FOIA, IC, TLA, vulnerability

CI/CD pipeline (n.)
Continuous integration and continuous delivery/deployment. Spell out on first use, but choose either delivery or deployment based on client preference.
Related: Agile

CIDR (n.)
Classless inter-domain routing. Pronounced as “cider” or “cedar.” Spell out or briefly define on first use in public-facing documents.
Related: IP addresses, netblock, subnet

CIO, CIOs (n.)
Chief information officer.
Related: CFO, CISO, CRO, CSO, C-suite, CTO

cipher (n.)
A cryptographic primitive. Write the names of ciphers in the normal font, as in Blowfish. Don't write this as “cypher.” Cypher is a character from The Matrix and a query language.
Related: RSA, SHA-1

cipher suite (n.)
ciphertext (n.)
circuit, circuitry (n.)
Related: hardware hacking, solder

CIS 20
The Center for Internet Security has a list of 20 guidelines for securing an organization. https://www.cisecurity.org/controls/
Related: best practice, CIS CSC
CISA
Cybersecurity and Infrastructure Security Agency.

Cisco
Related: deny any any, EIGRP, Viptela

CIS CSC
CIS Critical Security Controls.
Related: CIS 20

CISO, CISOs (n.)
Chief information security officer.
Pronounced as “see-so.”
Related: CFO, CIO, CRO, CSO, C-suite, CTO

CISSP
Related: certification

class (n.)
When discussing a specific class by name, use the tech font, as in “the T-time class.”
Related: implicit, superclass

cleartext vs. plaintext
In common usage, these terms are used interchangeably. In our reports, cleartext means unencrypted content. Plaintext is a more technical term that describes the input to a cryptographic system (which itself may already be encrypted or hashed).
Related: CPA, plaintext, rich text

clear web or Clear Web (n.)
This is used in contrast to the “dark web” or “dark net” parts of the internet. It generally refers to publicly accessible sites that have been indexed by search engines. Informal.

CLI (n.)
Command-line interface or command language interpreter. Spell out on first use.
Related: ProcDump

clickbait, clickbaiting (n.)
Related: social media

clickjacking (n.)
In formal writing, we often refer to this attack as user interface (UI) redress. It’s also called cross-frame scripting.
Related: frameable

click through (v.), clickthrough (adj. or n.)

client-side (adj.)
Related: SaaS

clip art (n.)
Related: media

Clippy
The discontinued anthropomorphic paper clip assistant in Microsoft Office.

closed caption (n.), closed-caption (adj.)

clicky (n.)

the cloud (n.)
Remote servers used to store information.
Informal.
Related: Dufflebag, -hosted, magic IP address, remote access

Cloud Application Security Assessment (CASA)
A security assessment framework for cloud-based third-party API integrations. Spell out on first use.
Related: App Defense Alliance
cloud computing (n.)
Related: Amazon Web Services, Azure, cluster, GCP, IaaS, VPC

Cloudflare

CloudFox
A Bishop Fox open source tool for testing cloud infrastructure.

CloudFront
An AWS content delivery network.

CloudTrail
An AWS logging and monitoring service.

cluster (n.)
A group of servers working together.
Ex: “Provision a cluster on each account.”
Related: cloud computing, Hadoop, Kubernetes

CMDB, CMDBs (n.)
Content management database. Spell out on first use.

cmdlet (n.)
A type of script in the Windows PowerShell command-line environment. Pronounced as “command-let.”

CMS, CMSes (n.)
Content management system. Spell out on first use.
Related: Joomla!, Sitecore, WYSIWYG

co-creator (n.)
Related: C-suite

code (n. or v.)
Do not pluralize when referring to programming languages.
Related: concatenate, program, programming language, programming logic, snippet

codebase (n.)
Related: user base

code block (n.)
Related: excerpt

codec (n.)
Short for code/decode. A device or program that can compress and decompress data. Pronounced as “co-deck.” Do not spell out.
Related: H.264, hex

Codecademy
Related: programming language

code name (n.)
Related: username

code path (n.)

code shrinking (n.)

coin vs. token
Unit of worth in virtual currencies. These terms are sometimes used interchangeably and sometimes used very differently. Define briefly on first use to clarify your intended meaning.
Related: bitcoin, cryptocurrency, finance, off-chain
cold-call (v.), cold call (n.)
A social engineering strategy.
Related: pretexting

cold storage (n.)
A virtual wallet for offline bitcoin storage.

cold wallet (n.)
A synonym for cold storage.
Related: bitcoin, cryptocurrency, hot wallet, light wallet, offline

command and control (C2) (adj.)

command line (n.), command-line (adj.)
Related: cURL, PowerShell, Terminal

commercial off-the-shelf (COTS) (adj.)

commodity hardware (n.)
Over-the-counter hacking tools that anyone could obtain and use.
Related: trivial

compensating control (n.)
Related: PCI compliance

compile (v.)
Related: decompile, parse

compliance framework (n.)
Related: best practice, PCI DSS

computational linguistics (n.)
Related: AI, NLP

computer vision (n.)
Related: CAPTCHA, Eyeballer, OCR

concatenate or concat (v.)
To join two or more items into one item by stringing them together. Concat is informal.
Ex: "a" + "b" = "ab"
Related: code

confidentiality (n.)
Indicates data is protected from unauthorized access.
Related: availability, CIA, integrity

config (n. or v.)
Short for configuration or configure.
Informal.

configuration drift (n.)

connect-back shell (n.)

constant (n.)
A pre-defined, immutable variable that is referenced in later code.

containerization (n.)
Related: Docker, Kubernetes, microservice

content injection (n.)

content spoofing (n.)

content type, (n.), content-type (adj.)
Ex: Content-Type header, content-type validation

controlled (adj.)
Always hyphenate.
Ex: attacker-controlled, user-controlled
**cookie** (n.)
A piece of data that a website stores in a browser, often to track website activity.
Related: **flag**, **header**, **Secure**

**cookie poisoning, cookie security** (n.)
Related: **cache**, **injection**, **insecure cookie transmission**

**COPPA**
Children's Online Privacy Protection Act.
Related: **child abuse material**, **CCPA**, **FERPA**, **FTC**, **GDPR**

**copycat** (adj. or v.)
Related: **spoof**

**copypasta** (n.)
Text that has been copied and pasted into a new location. On forums, it leads to inside jokes. In documents, it can refer to redundancy or typos caused by errant copy/paste actions. Informal.
Related: **web forum**

**corporate espionage** (n.)
Related: **threat**

**corrupted** (adj.)
Related: **brick**

**CORS** (n.)
Cross-origin resource sharing. Spell out on first use.
Related: **preflight**

**Cortana**
Microsoft AI.
Related: **Alexa**, **Google Assistant**, **Siri**

**Cosmos**
A Bishop Fox attack surface management and continuous penetration testing solution.
https://bishopfox.com/platform

**cost-benefit analysis (CBA)** (n.)
Related: **finance**

**countermeasure** (n.)

**coworking space** (n.)
Related: **unicorn**

**CPA** (n.)
Chosen-plaintext attack. Also stands for Certified Public Accountant. Spell out on first use.
Related: **cleartext vs. plaintext**, **cryptography**

**CPU, CPUs** (n.)
Central processing unit. Do not spell out.
Related: **microprocessor**, **system on chip**

**crack** (v.)
To decipher or decode, as in a password or combination lock. In old-school discussions, hacking vs. cracking was an important distinction between the exploratory intent of hackers accessing systems without authorization vs. the often criminal intent of crackers accessing and damaging those same systems.
Related: **black hat**, **hack**, **hashcat**, **passwords**
**CRAM** (n.)
Challenge-response authentication mechanism. Spell out on first use.
Related: CAPTCHA, reCAPTCHA

crawl (v.)
Ex: crawl a website
Related: browsable, search engine, spider, website

Creative Commons (CC)
Write Creative Commons licenses in normal font.
Ex: CC BY-SA 2.0 Generic
Related: DRM, open access

credential or cred (n.)
The information necessary to pass a security check (e.g., a username and password set, a key pair, or an RFID badge). Cred is informal and can also refer to currency in sci-fi or dystopian settings.
Related: LastPass, Okta, OpManager Decrypter, passwords, phishing

credential harvesting (n.), credential-harvesting (adj.)
credential reuse (n.)
credential stuffing (n.), credential-stuffing (adj.)
Related: brute-force

CRIME
Compression Ratio Info-leak Made Easy. A security exploit. Do not spell out.
critical (adj.)
Describes a non-negotiable business function or a vulnerability with catastrophic consequences that is easily exploitable.
Related: criticality, high-impact, mission-critical

criticality (n.)
A measure of the degree to which an organization depends on the information or information system for the success of a mission or of a business function.
Related: APT, critical, mission-critical

CRM (n.)
Customer relations management.

CRO, CROs (n.)
Chief revenue officer.
Related: CFO, CIO, CISO, CSO, C-suite, CTO

cron
A software utility.
Related: daemon
cron job (n.)
cross-platform (adj.)
Related: Electron
cross-reference (v. or n.), cross-referencing (v. or n.)
cross-site scripting (XSS) (n.)
There are three kinds of XSS: reflected, stored, and DOM-based. Pronounced as letters or the whole phrase.
Related: vulnerability
Crowbar
A password-cracking tool.

crowdfund (v.)
Related: finance, Indiegogo, Kickstarter, Patreon

crowdsourcing (n.)
Related: gig economy

CRUD (n.)
Create, read, update, destroy. Sometimes the R is retrieve and the D is delete.
Related: FUD

cryptanalysis (n.), cryptanalytic (adj.)
crypto (n. or adj.)
Historically, this was short for cryptography. Now, it can also mean cryptocurrency. In medicine, Crypto is short for Cryptosporidium, a waterborne parasite. Spell out on first use to clarify your intended meaning.
cryptocurrency (n.)
Virtual currency.
Related: bitcoin, blockchain, coin vs. token, cold wallet, Ethereum, finance, hot wallet, ICO, light wallet, off-chain, salami slicing

cryptographically (adv.)
cryptography (n.)
Related: CPA, encryption, hash function, KDF, keychain, key pair, keyspace, MAC, nonce, PBKDF, seed

crypto mining (n.)
Related: bitcoin

CryptoParty
A global series of events that educate communities about security and technology. https://www.cryptoparty.in/
Ex: @CryptoHarlem on Twitter
Related: keysigning party

CS (n.)
Computer science or container security. Spell out on first use.

CSIRT (n.)
Computer security incident response team. Spell out on first use.
Related: CERT, IR plan

CSO, CSOs (n.)
Chief Security Officer.
Related: CFO, CIO, CISO, CRO, C-suite, CTO

CSP
Content Security Policy. Spell out on first use.
Related: HTTP

CSPRNG, CSPRNGs (n.)
Cryptographically secure pseudo-random number generator. A secure way of generating random numbers. Pronounced as letters, “crypto R-N-G,” or “C-spring.” Spell out or briefly define on first use.
Related: PRNG, RNG
CSRF (n.)
Cross-site request forgery. A common web vulnerability. Pronounced as letters or “C-surf.” Spell out on first use.
Related: SSRF

CSS
Cascading Style Sheets. Do not spell out.
Related: full-stack development, HTML

C-suite (adj. or n.)
An informal term for high-level executives like CEOs and CIOs. Also called “C-level” executives.
Related: CFO, CIO, CISO, co-creator, CRO, CSO, CTO

CSV, .csv file
Comma-separated value(s) file.
Related: file extensions, flat file

CSWSH (n.)
Cross-site WebSocket hijacking.
Pronounced as letters, the whole phrase, “WebSocket hijacking,” or “C-swish.” Spell out on first use.

CTR (n.)
Short for clickthrough rate or Counter Mode. Spell out on first use.

the Cupertino effect (n.)
An error in early Apple dictionaries corrected “cooperation” to “Cupertino” because their limited word list only included “co-operation” as correct.
Related: the Scunthorpe problem, spellcheck

cURL, curl
Client URL. A data transfer tool. Use the tech font when writing about the specific command. Pronounced “curl.”
Related: command line, Wget

cursor (n.)
Related: GUI, hover, mouseover

cutting edge (n.), cutting-edge (adj.)
Related: bleeding edge, moonshot, next generation

CVE
Common Vulnerabilities and Exposures. A system that catalogs publicly known vulnerabilities and exposures. Do not spell out. Write CVE ID numbers in the normal font.
Ex: CVE-2014-6271
Related: CVSS, CWE, Microsoft Security Bulletin number, MITRE ATT&CK, NIST, NVD, publicly known, zero-day

CVSS
Related: CVE, DREAD, high-severity, PASTA
CW, CWs (n.)
Content warning. Do not abbreviate in formal writing.
Related: NSFW, TW

CWE
Common Weakness Enumeration. Do not spell out. Write weaknesses in the normal font.
Ex: CWE-565
Related: CVE, Microsoft Security Bulletin number, MITRE ATT&CK

cyber-
(adj.)
Industry professionals don't use this prefix, but it's helpful when informing the public, as in the title of this document. For many users, "cyber" on its own invokes cybersex, not hacking. Use sparingly.
Related: cybersecurity, hack

cyber.dic
A dictionary file based on this style guide's word list that augments your word processor's spell checker. Available at https://github.com/bishopfox/cyberdic.

cyber kill chain (n.)
A framework that describes the phases of digital attacks from information gathering to full system control. Originates from the military concept kill chain, which it is sometimes abbreviated to. Avoid using this trademarked term to mean a generic attack chain.
Related: attack chain, kill chain

cyberpunk (n. or adj.)
A subgenre of science fiction.
Related: artificial intelligence, Ghost in the Shell, ICE, Neuromancer, science fiction

cybersecurity (n.)
Defense contractors and government officials use this term or “infosec.” Industry professionals do not prefer this term, but it is used for clarity with the public, as in the title of this document. We prefer the term information security.
Related: cyber-, infosec

cyborg (n.)
A hybrid organic being. Coined in 1960 as a contraction of cybernetic and organism.
Related: The Three Laws of Robotics

cycript
A reverse engineering tool for iOS devices.

Cydia
An app found on jailbroken iOS devices.

Cylon (n.)
A fictional cyborg in Battlestar Galactica.
Related: science fiction

cypherpunk (n.)
An activist who promotes cryptography and privacy.
daemon (n.)
  Pronounced as “demon” or “day-mun.” A background system process on a computer. Daemon processes often include the letter D at the end, as in sshd.
Related: cron, email, fork, server, Unix

daisy chain (n.), daisy-chain (v.)
  An electrical engineering wiring scheme.
Informal.
Related: kluge

Danger Drone
  A Bishop Fox creation. A Raspberry Pi on a drone that can access tall buildings inconspicuously as a flying hacker laptop.
Related: Internet of Things

DAO, DAOS (n.)
  Short for decentralized autonomous organization or data access object.
Spell out on first use.
Related: blockchain, Java EE

dark net or Dark Net (n.)
  A nebulous term (along with “dark web” and “deep web”) written and used inconsistently to refer to unindexed online black markets.
In formal writing, it’s better to call it the black market or specify the site or service.
Related: I2P, Tor

Data
  A security industry publication.

DARPA
  Defense Advanced Research Projects Agency.
Related: DoD

data (n.)
  Always write data in the singular, as in “the data was recovered.”
Related: Cambridge Analytica, canonicalization, numbers

data: //
  Use the tech font for data URIs.

database (n.)
  Related: ACID, full-stack development

data center (n.)
  Related: mainframe, north-south, power cycle, server room

data file (n.)

data handling (adj. or n.)

data lake (n.)
  Related: blob, repository

data-only (adj.)

data set (n.)

data type (n.)
dates (n.)
  Write out dates (e.g., October 15, 2020) where possible to avoid day/month confusion with global audiences.
Related: a.m., mm/dd/yyyy, numbers, p.m., time-boxed, time zone, weeklong, years
datetime (n.)
Related: sync

Day of Shecurity
A one-day, women-centered security conference.
https://www.dayofshecurity.com/
Related: The Diana Initiative, Girls Who Code, WISP

day-to-day (adj.)
Ex: day-to-day activities

DB, DBs (n.)
Database. Spell out on first use unless it’s part of a name, as in MongoDB or IMDb.

DBA (n.)
Related: admin

dba
Short for “doing business as.”

DDE
Dynamic Data Exchange. Spell out on first use.

DDoS (n.)
Distributed denial of service. Pronounced “D-doss” or as letters. Spell out on first use.
Related: denial of service

DDR (n.)
Short for double data rate or the arcade game Dance Dance Revolution. Spell out on first use to clarify your intended meaning.
Related: bus

dead code (n.)
OK to use in formal writing.

dead drop (n.)
Related: USB

deauthenticate (v.)
Avoid using this term. If possible, try a more specific description like revoke a token or end a session.

Debian
A Linux distribution. Pronounced “debb-ee-an.”
Related: Kali Linux, Ubuntu

debuggable (adj.)
Related: troubleshoot

decap (v.), decapped (adj.)
Short for decapsulate. To remove the outer coating from a chip.

declare (v.)
To tell a program that a function exists before the function has been defined.

decommed (adj. or v.)
Short for decommissioned. Informal.

decompile (v.), decompilation (n.)
Related: compile

Deep Blue
Famous IBM chess-playing AI. The name was inspired by Deep Thought: the fictional supercomputer in The Hitchhiker’s Guide to the Galaxy.

deep dive (n.), deep-dive (v.)
**deepfake, deepfakes** (n. or adj.)
AI-fabricated video, originally used in pornography.
Related: motion capture, photoshop, Pornhub

**deep learning** (n.)
Related: machine learning

**de-escalate** (v.)
Related: DEFCON system, elevation of privileges, mitigate, remediation

**deface** (v.)

**default** (adj.)
Related: preset, secure by default

**DEF CON**
An annual security conference in Las Vegas.
https://www.defcon.org/
Related: Hacker Summer Camp, SomaFM

**DEFCON system**
Defense readiness condition. A U.S. military alert scale that is set at DEFCON 5 during peacetime and elevates to DEFCON 4 and above during threatening situations.
Related: de-escalate

**defense in depth** (n.),
**defense-in-depth** (adj.)
Ex: If you are interested in defense in depth, employ a defense-in-depth strategy.

**DELETE request** (n.)
Related: HTTP method, request

**denial of service** (n.),
**denial-of-service** (adj.) (DoS)
Spell out on first use. DoS is pronounced as “doss” or the whole phrase.
Ex: A denial of service is caused by denial-of-service attacks.
Related: botnet, DDoS, LOIC, sinkhole, trim range

**deny any any**
A network access rule.
Related: ACL, Cisco

**denylist, denylisting** (n.)
Bishop Fox’s preferred alternative term to blacklist. Rephrase to avoid using this term as a verb in formal writing.
Related: allowlist, blacklist

**dependency hell** (n.)
Frustration from software malfunctions caused by errors in third-party software.
Informal.
Related: Semantic Versioning, third party, vendor

**deprecate** (v.), **deprecated** (adj.)
Describes hardware or software that is considered retired but left in for backward compatibility; included but outdated and unsupported.

**DES**
Data Encryption Standard. A symmetric-key encryption cipher. DES is pronounced as letters or “dezz.” Do not spell out; briefly define on first use.
Related: 3DES
**deserializer** (v.), **deserialization** (n.)

The process of reconstructing a serialized object. Do not use this interchangeably with “unserialize.” There is an unserializer() function in PHP.

Related: **Jackson serialization**, **serialize**, **unserialize**

**desolder** (v.), **desoldering** (v., n., or adj.)

Pronounced “dee-sah-dur.”

Related: **hardware hacking**, **solder**

**deus ex machina** (n.)

Latin for “god from the machine.” A plot device in which an unresolvable problem is conveniently fixed by an unlikely solution.

Related: **Ex Machina**, **science fiction**

**dev** (n. or adj.)

Short for developer or a system in development, as opposed to a production (prod) system. Also called test. Informal.

**DevOps**

Development operations. Corporate jargon.

Related: **toolchain**

**DevSecOps** (n.)

Short for development, security, operations. Corporate jargon.

**DFIR**

Digital Forensics and Incident Response.

Spell out on first use.

Related: **IR**

**DH** or **DHE**

Diffie-Hellman key exchange.

**DHS**

Department of Homeland Security.

Related: **FBI**, **IC**, **TLA**

**DHTML** (n.)

Dynamic HTML. Do not spell out.

**dialog box** (n.)

**dial up** (v.), **dial-up** (n. or adj.)

**The Diana Initiative**

An annual, women-centered security conference held at the same time as DEF CON in Las Vegas.

Related: **Day of Shecurity**, **Hacker Summer Camp**, **WISP**

**DICOM**

Digital Imaging and Communications in Medicine. The standard for managing medical imaging information.

**dictionary attack** (n.)

A brute-force attack in which words from a list such as a dictionary or prior security breach are used to guess a password or decrypt a cipher.

Related: **brute-force**, **password mullet**, **passwords**, **password spraying**, **Rockyou**, **word list**

**diff** (n. or v.)

A tool that finds the differences between two files, or the output of such a tool. Can also refer to the Linux tool diff.
Diffie-Hellman (DH) key exchange (n.)
A method for securely exchanging secret information.
Related: Logjam attack, PKI

-Diggity
A common suffix for Bishop Fox tools created by Fran Brown.
Ex: GoogleDiggity, SearchDiggity, ZipDiggity

digital certificate (n.)
Related: CA

dingbat (n.)
Related: typography

DirBuster
A pen testing tool.
Related: OWASP

directives (n.)
If it’s a type of directive, use the normal font. If it’s a named directive, use the tech font, as in “SetCookies directive” or “unsafe-inline.”
Related: ServerSignature

directory (n.)
Also called a folder. If it’s a type of directory, use the normal font. If it’s a named directory, use the tech font, as in “the Moss directory.”
Related: Active Directory, mapping, orphan, site map

directory traversal (n.)
Also called path traversal.

Dirty COW
Dirty copy-on-write; the CVE-2016-5195 vulnerability.

disclosed (adj.), disclosure (n.)
Related: NDA

Discord
A messaging platform that originally focused on video gaming.
Related: fandom, Patreon, Slack, Twitch, VoIP, web forum

disrupt (v.), disruptive (adj.)
Corporate jargon; use sparingly.
Related: subvert

distro (n.)
Short for distribution, as in a version of Linux. Informal.

DKIM
DomainKeys Identified Mail. This standard allows messages that originate from a protected domain to be cryptographically signed. Pronounced “D-kim.” Spell out on first use.
Related: DMARC, email, signature

DLL, .dll file
Dynamic-link library. Do not spell out.
Related: file extensions

DLP (n.)
Data loss prevention.

DM, DMs (n. or v.)
Short for direct message or dungeon master in Dungeons and Dragons. Both are informal.
Related: ChatOps, IM, RPG, Twitter
DMA (n.)
Direct memory access. An exploitable hardware feature.

DMARC
Domain-based Message Authentication, Reporting and Conformance. This protocol allows an organization to instruct other mail servers on what to do when fraudulent mail from the protected domain is received.
Pronounced “D-mark.”
Related: DKIM, email

DMCA
Related: analog hole, DRM

DMZ, DMZs (n.)
Demilitarized zone. Also known as a perimeter network. It refers to a less secured portion of a network between external firewalls and the WAN connection.
Related: sandbox, segmentation

DN, DNSs (n.)
Short for Distinguished Name in the LDAP API. Spell out on first use.

DNS, DNS name (n.)
Domain Name System. Types of records stored in the DNS database include IP addresses, name servers, SMTP mail exchangers, and Start of Authority (SOA). Do not spell out.
Related: hostname, IANA, nameserver, sinkhole

DNS rebinding attack (n.)

DOB, DOBs (n.)
Date of birth.
Related: PII

doc (n.)
Short for document. Do not use in formal writing.

Docker
A platform that makes and manages containers.
Related: containerization, Kubernetes

DOCTYPE
Document type declaration.
Related: DTD

DoD
Department of Defense.
Related: DARPA, IC

DOE
Department of Education.
Related: FERPA

dogfooding (n. or v.)
The practice of a company deliberately using the product they make. Corporate jargon; do not use in formal writing.

DOJ
Department of Justice.

DOM

domain, domain name (n.)
Write domain names in tech font.
Ex: bishopfox.com domain
Related: DNS, FQDN, TLD
domain-joined (adj.)
domain squatting (n.)
    Related: typosquatting

DOM-based (adj.)
dongle (n.)
    An object that interfaces with a port and protrudes from it.
    Ex: Bluetooth adapter, USB drive
    Related: HDMI

the Doomsday Clock (n.)
    Related: post-apocalyptic

DOS
    Disk Operating System. This is unlikely to come up in our formal writing, but readers may confuse denial of service (DoS) with this.

DoS (n. or adj.)
    Denial of service; a common vulnerability.
    Spell out on first use. DoS is pronounced as “doss” or the whole phrase.
    Related: billion laughs attack, DDoS, downtime, LOIC, ReDoS, uptime

dot-com bubble (n.)
    Corporate jargon; use sparingly.
    Related: Web 2.0

dotfile (n.)
    A type of configuration file.

double-check (v. or n.)
double-click (v. or n.)
    Related: right-click

downgrade attack (n.)
    A cryptographic attack that takes advantage of backward compatibility.
    Ex: POODLE attack

download (v. or n.)
    Related: media, upload

downtime (n.)
    Related: DoS, uptime

downvote (v. or n.)
    Related: social media, upvote

dox, doxed (v.), doxing (v. or n.)
    Revealing PII to maliciously target an individual online and IRL.
    Related: 4chan, mailbomb, troll

DPAPI
    The data protection API used in some Microsoft products. Pronounced as letters.
    Spell out in public-facing writing.

dpi
    Dots per inch, as in 300 dpi.
    Related: units of measurement

DRAC
    Dell Remote Access Control. Spell out on first use.
    Related: iDRAC

drag-and-drop (adj.), drag and drop (v.)
DREAD (n.)
Damage, reproducibility, exploitability, affected users, and discoverability: five categories of security threats. A risk assessment model.
Related: CVSS, high-severity, PASTA, threat

drive (n.)
A data storage device. If it's a type of drive, use the normal font. If discussing a drive by name, use the tech font, as in “the C: drive.”

drive-by (adj.)
Describes a method of attack that does not require direct user interaction. A drive-by download delivers malicious software without the user noticing their device is compromised.

-driven (adj.)
Always hyphenate, as in “server-driven.”

DRM (n.)
Digital rights management. Spell out on first use.
Related: Creative Commons, DMCA, FairPlay, HLS

Dropbox
A file-hosting service.
Related: file share

drop down (v.), drop-down (n. or adj.)

DROWN
Decrypting RSA with Obsolete and Weakened eNcryption attack. A TLS bug. Do not spell out.
Related: FREAK

Drupal
An open source content management system.
Related: Joomla!, WordPress

DTD, DTDs (n.)
Document type definition. Spell out on first use.
Related: DOCTYPE, HTML, XML

DuckDuckGo
A search engine that doesn't record search history.
Related: look up, StartPage

Dufflebag
A Bishop Fox tool that searches for exposed Amazon EBS instances.
Related: the cloud

dump (v. or n.)
Informal. For the verb, try download, exfiltrate, extract, gather, remove, retrieve, take, or view instead. For the noun, use extraction.
Related: ProcDump, pwdump

dump file (n.)
A file from a memory dump, core dump, stack dump, hex dump, heap dump, etc.
Informal.
**Duo**
An authentication provider.
Related: MFA, SSO

**DVD, DVR (n.)**
Related: media

**Dvorak**
An alternate keyboard setup that is efficient but uncommon. Pronounced “duh-vor-ack,” differently than the last name of classical composer Antonin Dvořák.
Related: keyboard keys, QWERTY

**E**

**E2E or e2e (adj.)**
End-to-end. Informal. Spell out in formal writing.
Ex: e2e encryption
Related: B2B, P2P

**E3**
The Electronic Entertainment Expo. An annual video game industry convention.
Related: video games

**EAP**
Extensible Authentication Protocol.
Related: SSL, TLS

**eavesdrop (v.)**
Related: MitM, wiretap

**eBay**

**ebook or e-book (n.)**
Related: e-commerce, email, ePHI, esports

**EBS**
Amazon Elastic Block Store. Do not use for AWS Elastic Beanstalk. Spell out on first use.

**EC2**
Amazon Elastic Compute Cloud. Do not spell out.

**echo request (n.)**
Related: ping

**e-commerce (n.)**
Related: ebook, email, ePHI, esports

**ECU, ECUs (n.)**
Engine control unit or electronic control unit. Spell out on first use.
Related: UDS

**edge case (n.)**

**EDR (n.)**
Endpoint detection and response. Spell out on first use.

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EFF
Electronic Frontier Foundation. A nonprofit digital rights advocacy group that has created tools such as Privacy Badger and HTTPS Everywhere. eff.org
Related: CFAA, the Fifth Amendment, Free Software Foundation, net neutrality, spyware

e.g.
Means “for example” in Latin. Always followed by a comma. i.e. means “that is to say.” Choose wisely.
Related: i.e., punctuation

egress filtering, egress testing (n.)

EICAR test file (n.)
An antivirus test file that is intended to be flagged as a virus (though it’s not actually malicious). Pronounced “eye-car.” Do not spell out.
Related: calc.exe

EIGRP

EKS
Amazon Elastic Kubernetes Service.
Related: GKE, Kubernetes

Elasticfox
A tool used to assess Amazon EC2 security.

Elasticsearch
An open source search engine.

Elastic Stack
Related: Elasticsearch

electric, electrical (adj.)

Electron
A platform for building desktop applications.
Related: Chrome, cross-platform, Node.js

electronic (adj.), electronics (n.)

elements (n.)
If it’s a type of element, use the normal font. If it’s a named element, use the tech font, as in “a customErrors element.”
Related: fields, flag, values

elevation of privileges (n.)
A common strategy for attackers: start as a low-privilege user and find flaws in permissions to gain admin credentials.
Also called escalation of privileges.
Related: attack chain, de-escalate, privesc

elevator pitch (n.)
A concise explanation of a project.
Corporate jargon; use sparingly.

ELF, ELFs (n.)
Executable and Linkable Format. A file format.

e-mail (n. or v.)
Related: @, BCC, CC, daemon, DKIM, DMARC, ebook, e-commerce, encryption, esports, follow up, Gmail, hMailServer, inbox, internet, listserv, junk mail, mailbomb, outbox, phishing, ProtonMail, SMTP, spam, spoof
**email addresses** (n.)
Use the tech font, as in contact@bishopfox.com.

**email spoofing** (n.)

**embarrassingly parallel** (adj.)
A term in parallel computing. Also called pleasingly parallel.
Related: brute-force

**embodied device** (n.)
Related: CAN, bus, hardware hacking, MCU, IIoT, Internet of Things, opcode, SBM, UDS

**EMF, EMFs** (n.)
Electromagnetic field.
Related: EMR

**emoji, emojis** (n.)
Can be pluralized as emojis or emoji. Emoji means “picture letter” in Japanese.
Ex: 🦊😊🔥🔥🔥
Related: Animoji, IM, Memoji, social media, text message, tikzpeople, Unicode Consortium

**emoticon, emoticons** (n.)
Typography-based pictographs that pre-date emoji.
Ex: :-) XD :/
Related: ASCII, shrugie

**EMP, EMPs** (n.)
Electromagnetic pulse.

**EMR** (n.)
Electromagnetic radiation or Amazon Elastic MapReduce.
Related: big data, EMF

**emulator** (n.)
Related: video games, VM, WINE

**-enabled** (adj.)
Always hyphenate.
Ex: Wi-Fi-enabled
Related: Internet of Things

**-encoded** (adj.)
Always hyphenate.
Ex: URL-encoded

**-encrypted** (adj.)
Always hyphenate.
Ex: SSL-encrypted

**encrypter** or **encryptor** (n.)

**encryption** (n.)
Related: at-rest, cryptography, DES, email, FDE, the Fifth Amendment, Let’s Encrypt, military-grade encryption, PGP, PKI, rainbow table, TKIP, TrueCrypt, whole disk encryption

**end-of-life (EOL)** (adj.)
Product lines reach end-of-life when they are no longer supported.

**endpoint** (n.)
Use tech font when writing about the names of API endpoints, e.g., “the data endpoint.”
Related: EDR, file paths, node
end-to-end (adj.)
   Ex: end-to-end secure boot chains
   Related: E2E

end user (n.), end-user (adj.)

Engadget
   An online technology publication.

enterprise security (ES) (n.)
   Related: asset, IR plan, risk, security control

detail encoding (n.)

enumerate (v.), enumeration (n.)
   Related: tilde enumeration

environment (n.)
   The scope of an engagement when it includes more than a single application, website, or network.
   Related: asset

EOL (n.)
   End-of-life. Product lines reach end-of-life when they are no longer supported. Can also stand for end of line. Spell out on first use.

ePHI (n.)
   Electronic protected health information.
   Pronounced as letters. Spell out on first use.
   Related: ebook, e-commerce, esports, healthcare, HIPAA, PHI

esports (n.)
   Competitive online gaming. When referring to an organization or team, use their preferred spelling as in “NRG eSports” or “International e-Sports Federation.” Pronounced like “E-sports.”
   Related: ebook, e-commerce, email, ePHI, video games

-estimulated (adj.)
   Always hyphenate.
   Ex: well-estimulated

ESXi
   A VMware hypervisor. Pronounced as letters.
EternalBlue
The MS17-010 vulnerability.
Related: Microsoft Security Bulletin number, NSA

Ethereum
A blockchain platform.

Ethernet (n. or adj.)
This is capitalized because it's a trademark.
Related: HDMI, MoCA, STP, USB, VGA

EULA (n.)
End-user license agreement. Pronounced “you-la.” Spell out on first use.

Everyone
A fictional Anonymous-style hacker collective from the TV show Elementary.

evil twin attack (ETA) (n.)
Spell out on first use.

exabyte (EB) (n.)
Do not include a space between the number and unit, as in “50EB.” Do not pluralize EB.
Related: byte, units of measurement

Excel cells
Use the normal font for the names of columns and rows, as in A2 and B15.
Related: function keys, Microsoft, XLSX

Excel formulas
Use the tech font for the content of Excel cells, as in =HYPERLINK and =1+1.
Related: flowchart, Microsoft, XLSX

except (v.), exception (n.)
Related: catch

excerpt (n.)
A section of quoted code.
Related: code block

Exchange
Microsoft Exchange Server. Spell out on first use.
Related: hMailServer

executable (n. or adj.)
Ex: a malware-infected executable
Related: malicious code, malware, stageless

execute (v.)
To enact or run a command or application.

exercise (v.)
To interact with, as in “exercise an API.” In cybersecurity, to use as intended.

exfiltrate, exfiltrated, exfiltrating (v.)
Sometimes informally shortened to “exfil.”
Related: infiltrate

Ex Machina
A 2014 movie about an AI named Ava who undergoes a Turing test. Also a 2004 comic book series about a superhero who can communicate with and control machines.
Related: deus ex machina, science fiction
exploit (v. or n.)
Related: payload, trigger

exploit chain (n.)
Related: attack chain

exposed (adj.)
Describes applications or functions that are available to the public internet (not only to a private or internal network) and are therefore vulnerable to attack.
Related: public-facing

Eyeballer
A Bishop Fox tool used to “see” which web pages in a domain may be interesting to attackers.
Related: artificial intelligence, computer vision, fuzzy logic, heat map

eye-tracking (adj.)

EyeWitness
A tool used during security assessments.

FaceTime
An Apple videoconferencing product.

-facing (adj.)
Always hyphenate.
Ex: client-facing, internet-facing

failover (n.), fail over (v.)
Related: CYA

FairPlay
Apple DRM technology.

false flag (n.)
A piece of evidence (e.g., an old digital certificate) planted by hackers to deliberately mislead investigators about their identity.
Related: forensics, Yemen Cyber Army

false positive (n. or adj.)
Related: vulnerability scan

fan(//)drom (n.)
Related: Discord, OTP, PAX, Reddit, science fiction, social media, user base, video games, YouTube

FAQ (n.)
Frequently asked questions. Pronounced as letters or “fack.” Write “an FAQ” in formal writing.
Related: a vs. an
fast-travel (v.), fast travel (n.)
To teleport from one area of a video game to another.
Related: video games

fat-finger (v.), fat-fingered (adj.)
To make a typo on a mobile device by pressing a nearby button. Informal.
Related: keys mash, typosquatting

FFmpeg
Related: AV, H.264, mpv, open source

fields (n.)
If writing about a type of field, use the normal font. If it's a named field, use the tech font, as in “the address field.”
Related: case-sensitive, elements, parameters, permissions, request, user-supplied, values

the Fifth Amendment
Among other things, it protects U.S. individuals from self-incrimination.
Related: EFF, encryption, FOIA, Security Without Borders, TSA

file extensions (n.)
Use all caps if writing only the letters. Use lowercase in the tech font if writing the dot form. The dot is spoken aloud, as in “dot-E-X-E,” so when writing the dot form, use “a” instead of “an” before it.
Ex: an XML file, a .exe file
Related: BMP, CSV, DLL, ePub, filenames, file type, Flash, GIF, JAR, JPEG, JSP, LNK, media, MP3, MSI, PDB, PDF, RAR, readme, report names, RTF, SAM, SWF, tar, XLSX, XML, YML, ZIP file

filenames (n.)
Use the tech font when citing full filenames with their extensions.
Ex: the PoC .xml file
Related: file extensions, Flash, report names, titles of published works

FBI
The Federal Bureau of Investigation.
Related: CIA, DHS, FOIA, IC, Interpol, TLA

FCC
The Federal Communications Commission.
Related: net neutrality, TSP

FDA
The Food and Drug Administration.

FDE (n.)
Full disk encryption. Also called whole disk encryption. Spell out on first use.

FERPA
Related: COPPA, DOE, PII

FFIEC
Related: finance
file paths (n.)
    Use the tech font to show file paths, as in C:\Users\Fox\Downloads\fox.gif.
    Related: endpoint, report names, URL

file share (n.)
    Related: Dropbox, FTP, Pastebin

file size (n.)
    Related: units of measurement

file store (n.)

filesystem (n.)
    Related: NFS

file type (n.)
    Related: file extensions

filter (v. or n.)

FIN7
    An international criminal hacker organization targeting payment card data.

finance (n.), financial (adj.)
    Related: audit trail, bitcoin, blockchain, cardholder, CBA, CFO, CHD, coin vs. token, cost-benefit analysis, crowdfunding, cryptocurrency, FFIEC, ForgePoint Capital, Fortune 500, gig economy, GLBA compliance, ICO, IPO, Nasdaq, PCI compliance, stockholder, SWIFT, unicorn, VC

FinFisher, FinSpy
    Related: spyware

Finger
    A network protocol.
    Related: Gopher

fingerprint, fingerprinted (v.)
    Related: footprinting

fingerprint (n.)
    A unique public key identifier. Use the tech font, as in "the SubjectPublicKeyInfo fingerprint."

fintech (n.)
    Short for financial technology. Corporate jargon; use sparingly.

FIPS
    Federal Information Processing Standards.
    Related: NIST, YubiKey

Fire TV
    An Amazon media player.

firewall (n.)
    Related: browsable, Layer 3 firewall rules, pfSense, WAF, outgoing

FireWire
    Related: USB

Fitbit
    Related: Internet of Things

FIT rate (n.)
    Failures in time rate. One FIT is equivalent to one failure per billion hours, as in “1,000 FITs.” Briefly define on first use.

Fiverr
    Related: gig economy

fixed-width (adj.)
fizz buzz or FizzBuzz
A mathematical pattern game sometimes used as a test in coding interviews.
Related: Hunt the Wumpus

flag (n.)
A Boolean variable that signals a function or process to another program. Flags are often considered set or true if present. Use the tech font, as in “the HttpOnly flag.”
Related: cookie, elements, header, insecure cookie transmission, Secure

flame war (n.)
Related: message board, troll, web forum

Flash, Flash Player
An Adobe media player.
Related: file extensions, filenames, media, QuickTime

flash memory (n.)
Related: jump drive, MCU, system on chip, thumb drive, USB drive

flat file (n.)
Related: AWK, CSV, plaintext

flatscreen (adj. or n.)
Related: 1080i, HDTV

flowchart (n.)
Related: Excel formulas, red team

flow log, flow logging (n.)

Flying Spaghetti Monster (FSM)
The supreme deity in the facetious religion of Pastafarianism, which was founded in 2005.

FOIA
The Freedom of Information Act.
Related: CIA, FBI, the Fifth Amendment, IC, privacy protection

follow up (v.), follow-up (n. or adj.)
Related: email

foobar (n.)
Foobar, foo, and bar are commonly used as placeholder variables in computer science courses.
Related: Game of Life, Hello World, Hunt the Wumpus

footprinting (n.)
Related: fingerprint

force-browse (v.)

forceful browsing (n.)

forensics, forensic watermark (n.)
Related: false flag

forge, forging (v. or n.)

ForgePoint Capital
Related: finance

fork (v. or n.)
Related: branch, daemon, GitHub, repository

for loop
Related: programming logic

formula, formulas (n.)
Related: Excel formulas
**Fortran**
A programming language.
Related: LISP

**Fortune 500, Fortune 100**
Related: finance

**four-way handshake** (n.)
A network authentication protocol.
Related: WPA

**foxes** (n.)
Bishop Fox employees.
Related: Lucius Fox

**FPS** (n.)
First-person shooter. A type of video game.
Pluralize as FPS games.

**fps**
Frames per second. Put a space between the number and the unit, as in “60 fps.”
Related: units of measurement

**FQDN, FQDNs** (n.)
Fully qualified domain name. Spell out on first use.

**frameable** (adj.)
Related: clickjacking

**frame busting** (n.)

**frame rate** (n.)

**framework** (n.)
Write frameworks in the normal font, as in AngularJS, React, and MVC-based framework.

**FREAK**
Factoring RSA Export Keys. A cryptographic attack. Do not spell out.
Related: DROWN, SSL/TLS

**free-form** (adj.)

**freemium** (adj.)
Describes an app or service that is initially free to use but costs money to unlock crucial features.
Related: app vs. application

**Free Software Foundation (FSF)**
A nonprofit organization.
Related: EFF, net neutrality, open source

**Frida**
A pen testing tool.

**front door** (n. or adj.)
Related: backdoor

**front end** (n.), **front-end** (adj.)
Related: back end, full-stack development, UI

**fsociety**
A fictional Anonymous-type organization from the USA TV show Mr. Robot.

**FTC**
The Federal Trade Commission.
Related: COPPA

**FTL** (adj.)
“Faster than light” warp drives in the TV show Battlestar Galactica and other sci-fi.
Related: hyperdrive, lightspeed, warp drive
FTP
File Transfer Protocol. Do not spell out.
Related: anonymous, file share, FTPS, SFTP

FTPS
FTP Secure. An extension to the FTP standard.
Related: FTP, SFTP, SSL/TLS

FUD (n.)
Fear, uncertainty, and doubt. Pronounced “fudd.”
Related: CRUD

full-stack development (n.)
Related: back end, CSS, database, front end, HTML, JavaScript, Terminal

fullz (n.)
A package of PII that can be bought on the black market. It usually includes SSN, DOB, and full name.
Related: bank drop, black market, brute-force, word list

functionality (n.)
Corporate jargon. Better to describe specific functions or features.

function keys (n.)
Use the normal font, as in F1 and F8.
Related: Excel cells, keyboard keys

functions (n.)
Capitalize the name of a function as in “the Forgot Password function.”

future-proof (v. or adj.)

fuzz (n. or v.), fuzzer (n.), fuzzing (n. or v.)
A fuzzer generates or mutates input for consumption by the target program with the intention of finding bugs.

fuzz testing harness (n.)
A framework that handles the crashes that result from a fuzzer.

fuzzy logic (n.)
Logic that is equipped to handle multiple truth values, as opposed to Boolean logic.
Related: Boolean operator, Eyeballer

FXL
Feature eXtraction Language. Spell out on first use.
Related: Facebook, spam

G

Game Boy, GameCube
Nintendo video game consoles.
Related: video games, Wii

game jam (n.)
A video game hackathon.
Related: SuperHappyDevHouse

Game of Life
A programmable simulation created by mathematician John Conway that featured patterns like pulsars and gliders. Often used to explain algorithms to programming beginners.
Related: foobar, Hello World, Hunt the Wumpus
Gamergate
Related: troll, video games

gapped (adj.)
Always hyphenate.
Ex: air-gapped

gateway (n.)
Related: portal, remote access

GaymerX
LGBTQIA-focused gaming conventions and nonprofit.
Related: Queercon, video games

GB (n.)
Gigabyte. A gigabyte may be 1,000 or 1,024 megabytes. No space between the number and unit, as in 75GB. Do not pluralize GB.
Related: byte

GBps vs. Gbps
Capitalization matters. GBps is gigabytes per second. Gbps is gigabits per second.
Related: bit, units of measurement

GC (n.)
Garbage collection. A type of automatic memory management. Spell out on first use.

GCP
Google Cloud Platform.
Related: Amazon Web Services, Azure, cloud computing, GKE, OCI

GDPR
General Data Protection Regulation. Do not spell out.
Related: CCPA, COPPA

gem (n.)
A Ruby library. RubyGems are always written in lowercase tech font as in ruby_parser. More guidance at https://guides.rubygems.org/.

geocache, geocaching (n. or v.)
Related: GPS, what3words, ZIP code

gEOFencing (n. or v.)
Related: GPS

geolocation (n.)
Related: ZIP code

getID3()
A PHP media file parser. ID3 tags refer to media metadata.

GET request (n.), GETBULK request (n.)
Related: request, session fixation

Ghidra
An open source reverse engineering tool from the NSA released in 2019. Pronounced “ghee-drah.”

Ghost in the Shell
A cyberpunk manga.
Related: science fiction

GHz
Gigahertz. Put a space between the number and the unit, as in “2.4 GHz.”
Related: units of measurement

The Gibson
A fictional mainframe in the 1995 movie Hackers that is “unhackable”... until they hack it.
Related: Hackers, mainframe
GIF, .gif file, GIFs (n.)
Graphics Interchange Format. Pronounced “giff” or “jiff.”¯
Related: file extensions

gig economy (n.)
Related: Amazon Mechanical Turk, crowdsource, finance, Fiverr, Lyft, rideshare, Uber

GIGO
Garbage in, garbage out. Pronounced as “ghee-go” or the whole phrase.

Girls Who Code
A nonprofit organization that runs clubs and programs to train girls to code.
https://girlswhocode.com/
Related: Day of Shecurity, WISP

GitGot
A Bishop Fox tool that helps filter GitHub results.
Related: human-in-the-loop

GitHub
A service that hosts code repositories.
Related: branch, fork, readme, Semantic Versioning, Subversion

GitLab
A tool for managing Git repositories.

Git, .git repository
A Linux version control system.
Related: TFS

GKE
Google Kubernetes Engine. Spell out on first use.
Related: EKS, GCP, k8s

GLaDOS
A fictional AI who appears in the Portal series of video games.
Related: Aperture Science, video games

Glassdoor
Related: LinkedIn

GLBA compliance
The Gramm-Leach-Bliley Act of 1999 is a standard of security for financial institutions. Do not spell out.
Related: finance, PCI compliance

glob, globbing (n. or v.)
Filename or file path identification through pattern matching using wildcards.
Ex: *.txt

Gmail
Related: email, Google

GNU
Short for “GNU’s Not Unix!” An operating system. GNU is a recursive acronym.
Pronounced “guh-noo.”

Go
A programming language. Also called Golang for searchability reasons.
Related: programming language
Godwin’s Law
This law of the internet states that all arguments eventually devolve into someone comparing someone to Hitler.
Related: message board, milkshake duck, Rule 34, troll, web forum

GoLag
This term is used when researching the programming language Go, which is a difficult keyword to search on its own.
Related: hex, programming language

golden master (n.)
Related: beta, version numbers

gold image (n.)
Also known as base image or configuration baseline.

goodput (n.)
The rate at which useful data is communicated by a network to a given destination.
Related: badput, throughput

Google
Related: Android, Chrome, Gmail

google (v.)
If you want to be generic, you can also use search online or query a search engine.
Informal.
Related: look up

Google Assistant
Google Home AI.
Related: Alexa, Cortana, Siri

Google dorking (n. or v.)
Using advanced search queries (dorks) to gather information. Describe briefly in formal writing.

Google Drive

Google Duplex

Google Search
The query engine that searches for things on the internet.

Gopher
An early application layer protocol that has mostly been replaced by HTTP.
Related: Finger, HTTP, TCP/IP

GoPro
Related: body cam, media

GPG
GNU Privacy Guard. Also written as GnuPG.
Spell out on first use.
Related: PGP

GPO, GPOs (n.)
Group Policy Object. Spell out on first use.
Related: Active Directory

GPS, GPSes (n.)
Global positioning system. Spell out on first use.
Related: geocache, geofencing, what3words, ZIP code

GPU, GPUs (n.)
Graphics processing unit.
graceful (adj.)
Related: try-catch block

Grace Hopper Celebration (GHC)
A woman-focused tech conference named after a programming pioneer.

Gradle
An open source build tool.

grandfather clause (n.)
Related: backward compatibility, brownfield, legacy, LTS, outdated

GraphQL
An open source query language.
Pronounced as “graff-Q-L.”
Related: API, programming language, query

greylisting (n.)
Even though American English uses gray-box and gray hat, greylisting is written with an “-ey” regardless of location.
Related: allowlist, blacklist, denylist, whitelist

grok (v.)
To fully understand, to get. Informal.

Groovy
An Apache programming language.
Related: Apache HTTP Server

groupthink (n.)

gRPC
Google's remote procedure call system. Do not spell out.
Related: RPC

grayscale (adj. or n.)
Related: media, pixel
GSM
Global System for Mobile Communications.
Do not spell out.
Related: 3G, CDMA, cell phone, LTE, UMTS

Guccifer, Guccifer 2.0
Hackers who claimed to be behind the 2016
DNC hacks. Pronounced as “goo-chee-fer”
or “goo-see-fer.”

GUI, GUIs (n.)
Graphical user interface. Pronounced as
“gooey” or as letters.
Related: cursor, hamburger button, HCI,
hompage, mouseover, scroll bar,
toolbar, tooltip, UI

GUID, GUIDs (n.)
Globally unique identifier. Pronounced
“goo-widd.” Spell out on first use.
Related: ID, UUID

GWT
Google Web Toolkit. Spell out on first use.
Pronounced as “gwit.”

H

H-1B visa (n.)
A U.S. work visa for specialty occupations.
Related: TSA

H.264 (n.), H.264-encoded (adj.)
A video compression standard.
Related: codec, FFmpeg, media, MPEG

hack (n. or v.)
Do not use in formal writing. Try exploit,
access, steal, or a more context-specific verb. In old-school discussions, hacking vs.
cracking was an important distinction
between the exploratory intent of hackers
accessing systems without authorization vs.
the often criminal intent of crackers
accessing and damaging those same
systems.
Related: crack, cyber-, phreak

hackathon (n.)

hacker (n.)
Do not use in formal writing. Use attacker,
external threat, malicious user, consultant,
security researcher, data scientist, or their
job title, depending on the context.
Related: Hackers, Halt and Catch Fire,
Martin Bishop, Mr. Robot, phreak, Silicon
Valley, war-dialing, WarGames

Hacker Dojo
A Bay Area tech community center founded
in 2009.
Related: SuperHappyDevHouse

HackerOne
A vulnerability coordination and bug bounty
platform.

Hackers
A 1995 movie about hacking the planet.
Related: the Gibson
Hacker Summer Camp
An unofficial title for the grouping of security conferences in Las Vegas every year in late summer.
Related: Black Hat, BSides, DEF CON, The Diana Initiative, Queercon, Summercon

Hack the Box
A site for practicing pen testing.
Related: VulnHub

hacktivist (n.)
Related: threat

Hadoop
An Apache framework for storing and processing big data.
Related: Apache HTTP Server, cluster

HAL 9000
A fictional AI from 2001: A Space Odyssey.

Halt and Catch Fire
AMC TV show about hacking, set in the 1980s.
Related: hacker

hamburger button (n.)
An icon with three horizontal lines that shows hidden menu options when selected. If the three lines are reduced to dots, it can be called a kebab menu instead.
Related: GUI, scroll bar, toolbar

ham radio (n.)
Related: CTIA, multimeter

handheld (adj.)
Related: Internet of Things, mobile device

handle (n.)
Related: @, avatar, IRC, message board, username, web forum

hang (v.)
When a server or computer hangs, it is nonresponsive. If the requesting computer gives up waiting for a response, it times out.
Related: lockout policy, ProcDump, time out

haptics (n.), haptic feedback (n.)
Related: HID, touchscreen

hardcode (v.), hard-coded (adj.)

hard copy (n.), hard-copy (adj.)

hard drive (n.)
If it's a type of drive, use the normal font, as in “SATA drive.” If discussing a drive by name, use the tech font, as in “the C: drive.”

harden (v.), hardening (n. or v.)
To configure applications, systems, or services in a more secure manner, often using common guidelines.
Related: best practice, host-hardening

-hardening (n. or adj.)
Always hyphenate.
Ex: host-hardening, system-hardening
hard token (n.)
A physical device used in multi-factor authentication, such as a YubiKey fob. Also called a hardware token.
Related: 2FA, MFA, soft token

hardware hacking (n.)
Related: Arduino, CAN, chipset, circuit, CTIA, desolder, embedded device, hotwire, IC, motherboard, motion-activated, multimeter, opcode, solder, tamper-evident control, tip tinner

hashcat
A tool used for password recovery.
Related: crack, MD5, oclHashcat, Rockyou

hash collision attack (n.)

hashed (adj.)
Related: passwords, rainbow table, salt

hash function (n.)
Related: checksum, cryptography, MD5

hashtag or # (n.)
Call the [ # ] character a hashtag when indicating a category. Otherwise it’s a pound sign. To avoid confusion with cryptographic hashes, avoid calling this character a hash.
Ex: #poundsign #octothorpe
Related: C #, retweet, Twitter

HAZOP (n.)
A hazard and operability study.
Related: QA, risk, threat

HCI (n.)
Human-computer interaction. Spell out on first use.
Related: GUI, UI

HDMI
High-Definition Multimedia Interface. Do not spell out.
Related: dongle, Ethernet, Lightning, USB, VGA

HDTV, HDTVs (n.)
High-definition television. Do not spell out.
Related: 1080i, flatscreen, media, on-demand, ratios

headcount (n.)

headdesk or /headdesk or *headdesk*
An act of frustration and defeat. Informal.
Related: facepalm, keystash, message board, shruggie, web forum

header (n.)
Introductory content or navigational aids at the beginning of a block of data. Headers are also electrical connectors that join hardware components such as chips and circuit boards. For HTTP headers, if it’s a type of header, use the normal font. If it’s a named header, use the tech font, as in “an Origin header.”
Related: cookie, flag, Referer

headless browser (n.)
Related: browser
HEAD request (n.)
Related: request

healthcare (n.)
Related: CDC, ePHI, HIPAA, PHI, PHR, telemedicine, viral

heap-based buffer overflow (n.)
Related: BOF

Heartbleed
An OpenSSL bug.

heat map (n.)
Related: Eyeballer, risk

Hello World
Traditionally, this is the first program written when learning a programming language.
Related: foobar, Game of Life, Hunt the Wumpus

hex (n.), hex-encoded (adj.)
Short for hexadecimal, the base-16 number system.
Related: Base64-encoded, binary, codec, Golang

HID, HIDs (n.)
Human interface device. The USB Rubber Ducky is a keyboard HID. Spell out on first use.
Related: haptics

HIDS, HIDSes (n.)
Host-based intrusion detection system.
Spell out or define on first use. Avoid using the acronym in the plural if possible.
Related: IDS, NIDS

high-impact (adj.)
Related: critical

high-performance (adj.)

high-privilege (adj.)
Describes an account or user with elevated permissions. To avoid ambiguity, use the name of the role or permission instead of this term on first mention.
Related: low-privilege

high-res (adj.)
Short for high-resolution, as in images or video. Pronounced “high-rezz.” Informal.
Related: low-res, media

high-severity, highest-severity (adj.)
Related: CVSS, DREAD, PASTA, risk

high-speed (adj.)

high-value (adj.)
Related: asset

hijack, hijacking (n. or v.)
An umbrella term for attacks that take over controls or assume the role of a user and compromise the system. Avoid the verb when possible in formal writing. Try take over or take advantage of instead.
Related: juice jacking, page-hijacking

HIPAA
The Health Insurance Portability and Accountability Act. Pronounced as “hippa.”
Spell out on first use.
Related: ePHI, healthcare, PHI, PHR
HITL (adj. or n.)
Human-in-the-loop. Describes simulations that involve human interaction to modify the automated steps of a process. Spell out on first use.
Related: artificial intelligence, GitGot, machine learning

HLS
Related: Apple, DRM

HMAC (n.)
Hash-based message authentication code. Pronounced as “H-mack.” Do not spell out; briefly define on first use.
Related: MAC, SHA-1, TOTP, XOR

hMailServer
An open source email server for Windows.
Related: email, Exchange

homepage (n.)
Related: browser, GUI, pages, web browser, web page, website

HomePod
Apple smart speaker.
Related: Internet of Things

homescreen (n.)
Related: cell phone, OS, smartphone

honey (n.)
Often used as a prefix when describing decoys or bait used as part of security monitoring.
Ex: honey account, honeypot, honeytoken
Related: canary account, IDS

honeybot (n.)
A Twitterbot troll.

honeypot (n.)
Related: blue team, canary account

honeytoken (n.)

hook (v.), hooked (adj.), hooking (n.)
Related: BeEF

HOPE
Hackers On Planet Earth. A conference that is typically held every two years in New York City.
Related: 2600, Summercon

Hopper
A reverse engineering tool.

-hosted (adj.)
Always hyphenate.
Ex: self-hosted
Related: the cloud, server

host-hardening (adj.)
Related: harden

hostname (n.)
Related: DNS, web page, website

hosts (n.)
Use the tech font, as in 10.0.7.180.
Related: localhost, URI

hotfix, hotfixes (n.)
Related: patch, remediation

hotlink (n. or v.)
A direct link to a resource hosted on a site.
Related: breadcrumb, links, URL
HOTP, HOTPs (n.)
HMAC-based one-time password.
Pronounced as letters. Spell out on first use.
Related: OTP, TOTP

hotspot (n.)
Related: Wi-Fi

hot-swap (v.), hot-swapping (n.)
To change out parts of a machine without interrupting the system.
Related: USB

hot wallet (n.)
Online bitcoin storage.
Related: bitcoin, cold wallet, cryptocurrency, light wallet

hotwire (v.)
Related: hardware hacking

hover (v.)
Related: cursor, mouseover, right-click

hoverboard (n.)
Related: science fiction

how-to (n. or adj.), how to (adv.)
Ex: We published a how-to. This is how to do it.

Hping
A security tool. Pronounced as “H-ping.”

HPP (n.)
HTTP parameter pollution. Spell out on first use.

HRNG (n.)
Hardware random number generator.
Sometimes spelled as HWRNG on Linux systems. Spell out on first use.

HSM, HSMs (n.)
Hardware security module. Spell out on first use.

HSTS

h/t or H/T
Hat tip. A way of thanking someone online for being or providing a source. Informal.
Related: S/O, web forum

HTML, HTML5
Hypertext Markup Language. Do not spell out.
Related: CSS, DTD, full-stack development, iframe

HTTP, HTTP/2
Hypertext transfer protocol. Pronounced as letters. Do not spell out.
Related: CSP, Gopher

http://, https://
No need to include these in URIs unless the presence or lack of secure HTTP is relevant to the narrative.
Related: internet, IP, www
HTTP method or HTTP verb
The first word in an HTTP request. Write in the normal font.
Ex: GET, POST, PUT
Related: DELETE request, fetch, HTTP status, request, verb tunneling

HttpOnly
A flag for protecting HTTP cookies from cross-site scripting attacks.
Related: cookie, Secure

HTTPoxy
A group of vulnerabilities in CGI environments that involve the HTTP Proxy header. It was disclosed in 2016.

HTTP response splitting (n.)
A web application vulnerability.
Related: carriage return character, XSS

HTTP status (n.)
Information provided in the first line in an HTTP response. Capitalize HTTP statuses in the normal font as if they were titles. Use quotation marks if they might be confused with nearby text.
Ex: 200 OK, 404 Page Not Found, HTTP 413 Request Entity Too Large, 500 Internal Server Error
Related: error messages, HTTP method, request, response, titles of published works

HTTP.sys
A kernel-mode driver.

human-in-the-loop (HITL) (adj. or n.)
Simulations that involve human interaction to modify the automated steps of a process. Spell out on first use.
Related: artificial intelligence, GitGot, machine learning

Hunt the Wumpus
A 1970s computer game that is now used to teach basic programming skills.
Related: fizz buzz, foobar, Game of Life, Hello World

hyperdrive (n.)
A fictional fast travel system in Star Wars that allows ships to travel into hyperspace at lightspeed.
Related: FTL, science fiction, warp drive

hyperspace (n.)
Related: ansible, lightspeed, science fiction

hypertext (n.)
The “HT” in HTML and HTTP.
Related: links

hyperthreading (HT) (n.)
An Intel technology that allows simultaneous processing of multiple tasks on a single CPU core. Also known as simultaneous multithreading. Always spell out.
Related: Intel, x86

hypervisor (n.)
Also known as a virtual machine monitor (VMM).
Related: ESXi, VDI
i18n
Internationalization. 18 represents the 18 letters removed from the middle of the word “internationalization.”
Related: a11y, k8s, L10n

I2P
Invisible Internet Project. An anonymous communication network. Do not spell out.
Related: dark net, Silk Road, Tor, VPN

IaaS
Infrastructure as a service. Spoken as the whole phrase. Spell out on first use.
Related: cloud computing, FaaS, KMaas, NaaS, PaaS, SaaS

IAM (n.)
Identity and access management. Spell out on first use. Capitalize the phrase when discussing AWS and GCP features that provide this service.
Related: authentication, ID, MFA, Okta, PAM, SSO

IANA
Internet Assigned Numbers Authority.
Related: DNS, IP addresses, protocol

IANAL or IANL
“I am not a lawyer” or “I am no lawyer.” Informal.
Related: CYA, message board, Reddit, web forum

IC, ICs (n.)
Short for integrated circuit or intelligence community. Sometimes refers to a specific group of 16 U.S. agencies. Spell out on first use to clarify your intended meaning.
Related: CIA, DHS, DoD, FBI, FOIA, hardware hacking, microprocessor, NSA, TLA

ICE
Intrusion Countermeasures Electronics or Immigration and Customs Enforcement. Spell out on first use to clarify your intended meaning.
Related: cyberpunk, Neuromancer, TLA, TSA

ICMP
Internet Control Message Protocol. Spell out on first use.
Related: IP addresses

ICO
Initial coin offering. Spell out on first use.
Related: cryptocurrency, finance

ID, IDs (n.)
Identification.
Related: GUID, IAM, IdP, login, Okta, RFID card, UUID, whoami

IDE, IDEs (n.)
Integrated development environment. Also stands for Integrated Drive Electronics, an obsolete device connector type. Spell out on first use.
Ex: Eclipse, NetBeans, Visual Studio
Related: CDE, source code
idempotence (n.), idempotent (adj.)
An idempotent operation produces a result that is not affected by repetition.
Ex: HTTP GET request

IDOR, IDORs (n.)
Insecure direct object reference.
Pronounced as “eye-door,” letters, or the whole phrase. Spell out on first use.
Related: OWASP, vulnerability

IdP, IdPs (n.)
Identity provider. Spell out on first use.
Related: ID, OpenID, SAML, SSO

iDRAC
Integrated Dell Remote Access Control.
Related: DRAC

IDS, IDSes (n.)
Intrusion detection system. Spell out on first use. Avoid using the acronym in the plural if possible.
Related: HIDS, honey, NIDS

IE
Internet Explorer. Spell out on first use.
Related: Chrome, Microsoft, Mozilla Firefox

i.e.
Means “that is to say” in Latin. Always followed by a comma. e.g. means “for example.” Choose wisely.
Related: e.g., punctuation

IETF
Internet Engineering Task Force. An open internet standards organization.
Related: RFC, W3C

iframe or iframe tag (n.)
Inline frame. IFrame and iFrame also appear in texts, but we prefer lowercase.
Related: HTML

IFTTT
Short for If This Then That. A service where users can create conditional statement chains called recipes. Pronounced as “ift.”
Related: programming logic

IIoT (n.)
Industrial Internet of Things. Pronounced as “industrial IoT” or the whole phrase. Spell out on first use.
Related: embedded device, Internet of Things, peripheral

IIRC
“If I recall correctly.” Informal.
Related: message board, web forum

IIS, IIS 10.0, IIS Express
Microsoft Internet Information Services.
Related: server

IKE, IKEv1, IKEv2
Internet Key Exchange. Do not spell out unless defining the term.
Related: IPsec, VPN

iLO
HPE Integrated Lights Out. A remote server management processor. Pronounced as letters or “eye-low.”

ILSpy
An open source .NET assembly browser and decompiler.
**IM, IMs** (n. or v.)
Instant message. Pronounced as letters or the whole phrase. Spell out in formal writing. 
Related: AOL, avatar, chatbot, ChatOps, DM, emoji, IRC, Signal, username, WhatsApp

**Imgur**
An image-hosting website with a giraffe mascot. Pronounced as “imager.”

**implementable** (adj.)

**implicit** (adj.)
Describes code that depends on methods built into the language.
Related: class, OOP

**improper** (adj.)
Commonly describes vulnerabilities that involve a misconfiguration.
Ex: improper input validation, improper MIME type, improperly scoped cookies

**in-band** (adj.)
Ex: in-band reflection of file contents
Related: out-of-band

**inbound** (adj.)
Related: outbound

**inbox** (n.)
Related: email, outbox

**incident response (IR)** (n.)
Use lowercase when writing about the concept. Capitalize it if referring to the name of a specific document or team.
Related: IOA, IOC, IR plan, SIR plan

**index, indexes** (n.)
Related: browsable

**Indiegogo**
Related: crowdfund, Kickstarter, Patreon, signal-boost

**infiltrate** (v.)
Related: exfiltrate, physical pen testing

**influencer** (n.)
A social media celebrity. PR jargon; use sparingly.
Related: Instagram, Snapchat, Twitter, TikTok, vlog, YouTube

**infodump** (n. or v.)
The process of debriefing or transferring knowledge. Informal; do not use in formal writing.

**information security** (n.)
This industry is also called infosec, cybersecurity, and internet security.

**information superhighway** (n.)
Outdated. Don't use this to describe the internet.

**infosec** (n. or adj.)
Intelligence communities use this term to describe the information security industry. Informal.
Related: cybersecurity, PERSEC

**in-game** (adj.)
in-house (adj.)
Related: insourcing

init script (n.)
Boot script for Unix.

injection (n.)
A technique for inserting malicious content, typically with a goal of executing it. Compare to poisoning, which typically describes the insertion of content that is later retrieved by other systems or users. Related: content injection, cookie poisoning, cross-site scripting, SQLi

inline (adj.)
Describes code that is included in the location where it will run, as opposed to code that exists in another location where it can be called. For example, when a snippet of JavaScript is included in an HTML file instead of a separate JavaScript file. The CSP rule is called unsafe-inline.

in-scope (adj.), in scope (adv.)
Ex: The team accessed an in-scope server. The service was included in scope for testing. Related: out-of-scope

insecure vs. not secure or unsecured (adj.)
These are sometimes used interchangeably but may mean very different things. Define briefly to clarify your intended meaning. Do not use “unsecure” as an adjective. Related: vulnerable

insecure cookie transmission (n.)
Related: cookie poisoning, flag, Secure

insourcing (n.)
The opposite of outsourcing. Related: in-house

Instagram
Related: influencer, social media

instance count (n.)
The number of unique locations in a codebase, system, or network that require modification to remediate a finding.

institutional knowledge (n.)
Use this term or in-house knowledge instead of “tribal knowledge.”

integrity (n.)
Data integrity is preserved when the data has not been tampered with — not altered, added to, or subtracted from. Related: availability, CIA, confidentiality

Intel
Related: hyperthreading, microprocessor

interface (n. or v.)
As in “exposed administrative interface.” Related: API, CGI, CLI, GUI, HID, IPMI, MIDI, SCSI, UI

internet (n.)
Related: browser, email, HTTP, intranet, social media, the web, www

Internet Archive
Related: net neutrality
Internet Explorer (IE)
A web browser.

Internet of Things (IoT) (n. or adj.)
Consumer-grade embedded devices.
Related: AR, botnet, Danger Drone, embedded device, -enabled, Fitbit, handheld, HomePod, IIoT, Mirai, motion-activated, peripheral, SBM, smartglasses, smart lock, smartphone, smart safe, smartwatch, teledildonics, UPnP, Wi-Fi

Interpol
The international police organization.
Related: FBI, TLA

inter-process communication (IPC) (n.)
Related: operating system, RPC

intranet (n.)
Related: internet, IPT

introspection (n.)
A feature that allows a system to monitor or query itself. Avoid using the verb to describe use of this technology.
Ex: type introspection, virtual machine introspection
Related: GraphQL

invalidated (adj. or v.) vs. unvalidated (adj.)
Invalidated data has been checked and deemed invalid. Unvalidated data has not been checked at all.
Related: sanitized, TOFU

IOA or IoA, IOAs, IoAs (n.)
Indicator of attack. Spell out on first use.
Related: defense in depth, incident response, IOC

IOC or IoC, IOCs, IoCs (n.)
Indicator of compromise. Spell out on first use to avoid confusion with the International Olympic Committee.
Related: incident response, IOA

IOS
Internetwork Operating System. Cisco networking software.

iOS
Apple mobile platform. Because of the lowercase “i,” avoid beginning sentences with this term if possible. Do not confuse with Cisco’s IOS.
Related: Android, iPad, mobile device, tvOS

IoT (n. or adj.)
Internet of Things. Pronounced as letters or the whole phrase.
Related: AR, botnet, Danger Drone, embedded device, -enabled, Fitbit, handheld, HomePod, IIoT, Mirai, motion-activated, smartglasses, smart lock, smartphone, smart safe, smartwatch, teledildonics, Wi-Fi

IP (n.)
Short for Internet Protocol or intellectual property, depending on context. For clarity, spell out “intellectual property” on first use in technical writing.
Related: DNS, http://, IP addresses, TLD
iPad, iPod
Related: Apple, iOS, media, smartphone

IP addresses (n.)
Use the tech font, as in 10.40.131.22.
Related: CIDR, IANA, ICMP, IP, localhost, MAC address, magic IP address, netblock, numbers, port numbers, public address space, URL

IPC (n.)
Inter-process communication. Spell out on first use.

iPhone
Apple smartphone.
Ex: iPhone 14 Pro, iPhone SE
Related: Android, Lightning

IPMI
Related: interface, NetBIOS, BMC, DRAC, iLO

IPO, IPOs (n.)
Initial public offering.
Related: finance, unicorn

IPP
Internet Printing Protocol.

IPS, IPSes (n.)
Intrusion prevention system. Spell out on first use.
Related: security control

IPsec
Related: IKE, infosec, OPSEC, PERSEC

IPT (n.)
Internal penetration testing. Spell out on first use.
Related: Active Directory, APT, EPT, intranet, penetration testing, SAM, SNMP

iptables
Related: Linux

Ipv4, Ipv6
The main versions of Internet Protocol used today. Do not spell out.
Ex: 127.0.0.1, ::1

IR (n.)
Incident response. Pronounced as letters or the whole phrase. Spell out on first use.
Related: DFIR, IR plan, SIR plan

IRC
Internet Relay Chat. A messaging system.
Related: ChatOps, chatroom, handle, IM, Slack, UGT

IRL
“In real life.” Informal.
Related: brick-and-mortar, meatspace, message board, web forum

IR plan (n.)
Short for incident response plan. Spell out on first use.
Related: enterprise security, SIR plan
ISAC
Ex: FS-ISAC, EE-ISAC

ISO/IEC 27001
A common information security framework that determines international standards for many types of technology and equipment.
ISO is pronounced as “eye-so.”
Related: compliance framework

ISP, ISPs (n.)
Internet service provider. Spell out on first use in public-facing documents.
Related: ASP, net neutrality, TSP

IT (n.)
Information technology.
Related: MSP, OT, power cycle

The IT Crowd
A British sitcom about a tech support department.

J

jack (n.)
Informal. Use port in formal writing.
Ex: Ethernet jack

Jackson serialization (n.)
Jackson is an API that processes JSON.
Related: serialize, deserialize

jailbreak (v.), jailbroken (adj.)
To modify an Apple mobile device (e.g., an iPhone) past the limits set by the manufacturer to gain privileged access.
Related: brick, cell phone, sandbox escape, root, smartphone

JAR, .jar file
Java Archive file. Pronounced as “jar.”
Related: file extensions

Java
A programming language with features that often refer to coffee-related concepts.
Related: MBean

Java EE
Java Enterprise Edition. Do not abbreviate as JEE.
Related: DAO

JavaScript (JS)
A programming language.
Related: full-stack development, localStorage, minification, truthiness

JBoss
The name of a software company and a Java application server it made.
Related: Red Hat, WildFly

JCE
Java Cryptography Extension.

Jenkins
An open source automation server.

Jira
A workflow and issue tracking product.
Not an acronym. Pronounced as “jeera.”
JIT (adj.)
Just-in-time. Describes the practice of compiling code right at run time.

JMX
Java Management Extensions. Pronounced as letters. Spell out on first use.
Related: RMI

Joomla!
An open source content management system.
Related: CMS, Drupal

JPEG, .jpeg file, JPG, .jpg file
Pronounced as “J-peg.” JPEG and JPG are interchangeable names for this image file type.
Related: file extensions, lossy compression

jQuery
A JavaScript library.
Related: API

JSFuck
An esoteric style of JavaScript.
Related: Brainfuck

JSON
JavaScript Object Notation. Pronounced as “J-sahn” or “Jason.”
Related: API, Jackson serialization, JWT, key-value pair

JSONP
JSON with padding.

JSP, .jsp file
JavaServer Pages.
Related: file extensions

juice jacking (n.)
An attack in which a power cord is used to steal data from a device while it's charging.
Related: hijack, jack

Julia
A programming language.

jump (v.)
To skip code, as in moving to a different line of machine-language instructions. Informal in other contexts.
Related: opcode

Jumpbox (n.)
Informal. Use proxy or attacker’s server in formal writing. Also called a jump host or jump server.
Related: Kali Linux

jump drive (n.)
Informal. Use USB drive, flash drive, or thumb drive instead, depending on the context.
Related: flash memory, USB drive

junk mail (n.)
Related: email, phishing, spam

JVM
Java Virtual Machine. Spell out on first use.
Related: RMI, VM
JWT, JWTs
JSON Web Token. Pronounced as “jot.” Do not spell out.
Related: KID

K

k8s
Short for Kubernetes. The 8 represents the eight letters removed from the middle of the word “Kubernetes.” Use the full term in formal writing and pronounce it “coobernetees.”
Related: a11y, containerization, Docker, GKE, i18n, L10n

Kali Linux
A Linux distribution designed to support pen testing.
Related: Debian, jumpbox, Mr. Robot, Wifite

Kaspersky Lab
An international security firm headquartered in Russia.

KB (n.)
Kilobyte. A kilobyte may be 1,000 or 1,024 bytes. No space between the number and unit, as in 50KB. Do not pluralize KB.
Related: byte, KiB, units of measurement

KDF, KDFs (n.)
Key derivation function. Spell out on first use.
Related: cryptography

keepalive, keepalives (KA) (n.)
A message used to verify a connection between two devices.
Ex: keepalive packets

KeePass
Password management software.

Kerberoasting (n.)
An attack that bypasses Kerberos.
Related: AS-REP roasting

Kerberos
A network authentication protocol.
Related: Active Directory, Kerberoasting, Rubeus, SPN

kernel (n.)
The lowest level of an operating system.
Write the names of kernels in the normal font.

kernel panic (n.)
Related: Blue Screen of Death, Unix

kerning (n.)
The spacing between letters, which can make letter combinations unclear. Attackers use kerning issues to mislead users in phishing campaigns. For example, the letters r and n can look like m in .corn.
Related: typography, typosquatting
**keyboard keys** (n.)
Capitalized the names of keys, as in Enter and Caps Lock. Use plus signs without spaces to show Windows or Linux system combinations, as in Ctrl+Alt+Delete. Mac shortcuts use hyphens, as in Option-N. Use bold formatting for key names in instructions.
Related: case-sensitive, Dvorak, function keys, keysmash, lowercase, punctuation, QWERTY, spacebar, uppercase, USB

Rubber Ducky, wildcard

**keyboard walk** (n.)
A password that users choose based on the location of the keys.
Ex: zxcvbnm across the bottom row of a QWERTY keyboard, or adgjmptw on a U.S. phone keypad
Related: keysmash, keystroke, password mullet, passwords

**Keychain**
A macOS password manager.

**keychain** (n.)
Related: cryptography

**key derivation function (KDF)** (n.)
Spell out on first use.
Related: PBKDF

**keygen, keygens** (n.)
Short for key generator.

**keylogger, keylogging** (n.)
Also known as keystroke logging.
Keylogging records keyboard inputs to steal passwords or monitor employees.

**key pair** (n.)
In asymmetric cryptography, a key pair consists of a public key and a private key.
Related: cryptography, public key

**keysigning party** or **key signing party** (n.)
An event where people share their public keys in person to expand the web of trust.
Related: CryptoParty, PKI

**keysmash** (n.)
Ex: asdphdsgilhsd
Related: facepalm, fat-finger, headdesk, keyboard keys, keyboard walk

**keyspace** (n.)
Related: cryptography

**keystore** (n.)
A cryptographic container. The Java implementation is styled KeyStore.

**keystroke** (n.)
Related: keyboard walk, keylogger

**key-value pair** (n.)
Related: JSON

**Keywhiz**
A secrets management software.

**keyword** (n.)
Related: SEO

**kHz** (n.)
Kilohertz, as in 535 kHz. Do not pluralize kHz.
Related: media, units of measurement
**KiB** (n.)
Kibibyte. A kibibyte is exactly 1,024 bytes. Do not pluralize.
Related: byte, KB, MiB

**Kickstarter**
Related: crowdfunding, Indiegogo, Patreon, signal-boost

**KID** or **kid** (n.)
Short for key identifier. Pronounced as letters or “key I-D.” Spell out on first use in public-facing documents.
Related: JWT

**kill** (v. or n.)
The Linux command to end a process. Avoid using it as a verb in reports unless it’s in quoted code. Try terminate, end, close, force quit, or interrupt instead.

**kill chain (KC)** (n.)
A military concept.
Related: cyber kill chain

**kill switch** (n.)

**kluge** or **kludge** (n.)
Bad code. Pronounced as “kloodj.” Informal.
Related: daisy chain, gray goo

**KMaaS** (n.)
Key management as a service. Spoken out loud as the whole phrase. Spell out on first use.
Related: FaaS, IaaS, NaaS, PaaS, SaaS

**KMS** (n.)
Key management service. Spell out on first use.

**KMSI**
“Keep me signed in.” A Microsoft sign-in feature.
Related: log in

**knowledge base** (n.)
Sometimes abbreviated as KB. Always spell out on first use to avoid confusion with kilobytes.

**Kotlin** (n.)
A programming language.
Related: Android, Java

**KRACK**
Key Reinstallation Attack. A Wi-Fi-based vulnerability.

**Kubernetes** or **k8s**
Pronounced as “coober-nettees.”
Related: cluster, containerization, Docker, EKS, GKE

**L**

**L10n** (n.)
Short for localization. 10 represents the 10 letters removed from the middle of the word. Pronounced as “L-ten-N.”
Related: a11y, i18n, k8s

**LAMP**
Short for Linux, Apache, MySQL, and PHP, which were its original four components. It’s a software bundle. Do not spell out.
Related: Apache HTTP Server, WAMP
LAN, LANs (n.)
Local area network. Pronounced as “lan.”
Do not spell out.
Related: MAN, PAN, split tunneling, SuperHappyDevHouse, VLAN, WAN, WLAN

LanMan hash (n.)
Short for LAN Manager hash. We prefer to write it out or abbreviate to LM hash.

LAN Turtle
A tool used during security assessments to obtain shells.
Related: physical pen testing

LARP, larping (n. or v.)
A live action role-playing game. Pronounced as “larp.”
Related: tower defense

LastPass
Password management software.
Related: credential

LaTeX
A document preparation system.
Pronounced as “lay-teck” or “luh-teck.”
Related: tikzpeople, word processor

Layer 3 firewall rules (n.)

LCD, LCDs (n.)
Liquid crystal display. Pronounced as letters. Do not spell out.

LDAP
Pronounced as “L-dap.” Spell out on first use.
Related: Active Directory

LDAP Admin
A tool used during security assessments.

leaf certificate (n.)
Also known as an end-entity certificate.
Related: CA

leak, leaked, leaking (v. or n.)
Informal. In formal writing, use exposed, disclosed, obtained, or stolen instead.
Related: breach, security breach

LED, LEDs (n.)
Light-emitting diode. Pronounced as letters.
Do not spell out.

Leet or 1337 or Leetspeak or l33tsp34k
A coded form of online writing featuring codified typos and a combination of numbers and punctuation. Leet means elite.
Ex: H4X0R, n00b, pr0n, pwn, teh

legacy (adj.)
Outdated equipment and software that continues to be used by a company or industry for consistency reasons.
Related: backward compatibility, brownfield, grandfather clause, LTS, outdated
**lessons learned** (adj. or n.)
A debriefing, as in “a lessons learned call.”
Do not capitalize or hyphenate. Corporate jargon; use sparingly.
Related: outbrief, stand-up, takeaway

**Let’s Encrypt**
Related: CA, encryption, https://, SSL/TLS, X.509

**-level** (adj.)
Always hyphenate in adjectives.
Ex: high-level risk, lower-level role

**leverage** (v.), **leveraged** (adj.)

**LFI**
Local file inclusion. A web application vulnerability. Spell out on first use.

**LGBTQIA, LGBTQ+** (adj.)
Lesbian, gay, bisexual, transgender, queer, intersex, asexual. For more guidance on inclusive language, please consult https://consciousstyleguide.com/.
Related: GaymerX, Queercon, they

**LibreOffice**
A free, open source software suite forked from OpenOffice.
Related: Office 365, word processor

**lifecycle management** (n.)
Related: patch, SDLC

**life hack** (n.)
Informal.

**lifespan** (n.)

**Lightning**
An Apple connector standard.
Ex: Lightning cable, Lightning port
Related: HDMI, iPhone, USB, VGA

**lightspeed** (n.)
Used to describe rapid space travel in sci-fi stories.
Related: FTL, hyperspace, warp drive

**light wallet** or **lightwallet** (n.)
Cryptocurrency storage that doesn’t download the whole blockchain.
Related: cold wallet, cryptocurrency, hot wallet

**like** (v. or n.)
A show of approval on social media sites such as Facebook and Twitter. Use quotes around the term in formal writing.
Ex: This post has 10 likes.

**Like button** (n.)
A social media feature popularized on Facebook.

**likelihood** (n.)

**limit** (v.)
To control the scope, impact, or types of attacks. Also try filter, narrow, or omit.

**Line** or **LINE**
A popular Japanese chat app.
Related: Signal, WeChat, WhatsApp
linefeed character (n.)
   Related: carriage return character, newline character

line numbers (n.)
   Use the normal font, as in “line 1337 of the code.” Don’t use commas in line numbers.
   Related: snippet

LinkedIn
   Related: Glassdoor

linked list (n.)
   A data structure built on sequences of nodes.
   Related: node

link rot (n.)
   The phenomenon of web pages becoming unavailable over time, which leads to broken links. Somewhat mitigated with web archives such as the Internet Archive.
   Informal.
   Related: bit rot

links (n.)
   If a link is meant to be clicked, write it in normal font, underlined, and in a different color: www.bishopfox.com.
   If a URL is just there for reference (like in a list of targets in scope), write it in tech font: www.bishopfox.com.
   Related: breadcrumb, browser, hotlink, hypertext, URI, URL,URN

lint (v.), linter (n.)
   A tool that analyzes code for errors.
   Originates from the Unix program l int.
   Ex: Use a linter to lint your code.

Linux
   An open source OS created by Linus Torvalds. Pronounced as “linn-ucks” or “line-ucks.” In the free software community, it is specifically called GNU/Linux.
   Related: Ansible, Bash, CentOS, Debian, distro, Git, init script, iptables, kill, LAMP, nobody, Red Hat, RHEL, Ubuntu, Unix, YUM

LISP
   A programming language. Short for LIST Processor. Pronounced as “lisp.” Do not spell out.
   Related: Fortran

listicle (n.)
   An article in the form of a list, as in “Top 10 Worst Hacking Scenes in Movies.”

listserv (n.)
   The company is called LISTSERV. The generic term is listserv or email list.

little-endian (adj.)
   Related: binary

livestream (v. or n.), livestreaming (n.)
   Related: broadcast, media, OTA, real-time, Twitch

live-tweet (v.)
   Related: Twitter

LLMNR
   Link-Local Multicast Name Resolution.
   A modern Windows protocol. Do not spell out.
LM hash (n.)
LAN Manager hash. Spell out on first use.
Related: NTLM hash, SAM

LMS, LMSes (n.)
Learning management system. Spell out on first use.
Related: CAM

LNK, .lnk file
Pronounced as “link.” Sometimes written as LiNK. Be consistent in your usage.
Related: file extensions

load-balance (v.), load balancing (n.)

local file inclusion (LFI) (n.)

localhost
A hostname that always refers to the computer you’re using. The localhost IP address is always 127.0.0.1.
Related: hosts, IP addresses

localStorage
Related: JavaScript

lockout policy (n.)
Related: hang, passwords, time out

lock picking (n.)
The skill of picking locks.
Related: physical pen testing, smart lock

lock screen (n.)
Related: login page

log file (n.)

logged-in (adj.)
Ex: a logged-in user

log in (v.), login (n.)
Related: ID, KMSI, MFA, Okta, sign in

login page (n.)
Related: lock screen, pages

Logjam attack (n.)
Related: Diffie-Hellman (DH) key exchange

log out (v.), logout (n.)
Related: sign out

LOIC
Low Orbit Ion Cannon. An old-school way to crowdsource a DoS attack. Pronounced as “low-ick.”

lookahead parameter (n.)

look up (v.), lookup (n.)
Related: DuckDuckGo, google, rainbow table, search engine

lossless compression (n.)
Related: ZIP file

lossy compression (n.)
Related: JPEG, MP3, MPEG

lowercase (adj. or v.)
Better to write “put in lowercase,” but if needed, “lowercased” is OK.
Related: case-sensitive, characters, keyboard keys, uppercase
low-privilege (adj.)
Describes an account or user with limited permissions. To avoid ambiguity, use the name of the role or permission instead of this term on first mention.
Related: high-privilege, unprivileged

low-res (adj.)
Low-resolution, as in images or video.
Pronounced as “low-rezz.” Informal.
Related: high-res, media

LSASS
Local Security Authority Subsystem Service.
Pronounced as “L-sass.”
Related: Microsoft, Windows

LTE
Long Term Evolution. A high-speed wireless communication standard. Do not spell out.
Related: 3G, CDMA, cell phone, GSM, Netgear, smartphone

LTS
Long-term support. LTS versions of software are intended to last longer than normal. Spell out on first use.
Related: backward compatibility, brownfield, grandfather clause, legacy

Lucius Fox
A character from the Batman canon, played by Morgan Freeman in Christopher Nolan's movie trilogy. Lucius Fox is an inventor and runs WayneCorp. Because of his defensive hacking skills, we use his name in our company name.
Related: Martin Bishop, foxes

Lucky Thirteen (n.)
Related: TLS

Lyft
Related: gig economy, ride-share, Uber

M

M.2 (n.)
A specification for connectors and expansion ports used by many device classes, such as SSDs. Successor to other connector types such as SATA and IDE.

M&A
Mergers and acquisitions. Corporate jargon.
Spell out on first use in public-facing documents.

MAC, MACs (n.)
Message authentication code. Spell out on first use.
Related: cryptography, HMAC

MAC address (n.)
Media access control address. A unique identifier on a network-enabled device, one level below the IP address.

MacBook
Related: Apple

machine learning (ML) (n.)
Related: algorithm, artificial intelligence, deep learning

macOS
Related: Apple
macOS-based (adj.)

Mac OS X, OS X 10.11
The name of versions of macOS released between 2012 and 2015.
Related: Apple

macro (n.)
OK in formal writing if relevant, but use automation for the general technique.

magic IP address (n.)
In AWS, this may refer to the Instance Metadata IP address, 169.254.169.254.
Do not use outside of a cloud context.
Related: the cloud

mailbomb (n. or v.)
Related: dox, email, phishing, spam

Mailchimp
Previously styled as MailChimp.

mainframe (n.)
Related: data center, the Gibson, server room

Maker Faire
A global series of DIY community events that started in the Bay Area.
https://makerfaire.com/
Related: 3D printing, Arduino, circuit, how-to, life hack, hardware hacking, Raspberry Pi, servo, solder

Malbolge
An esoteric programming language.
Related: Brainfuck

malformed (adj.)
A syntactically improper bit of data or code.

malicious actor (n.)
This represents a wide range of potential attackers from individuals to nation-states.
When writing about individual threats, use attacker or malicious user.

malicious code (n.)
Related: executable, malware, payload, spyware, virus

malware (n.)
Malicious software. A catch-all term for anything that could be called malicious including CryptoLockers, spyware, viruses, worms, trojans, and backdoors.
Related: executable, malicious code, Mirai, payload, zip bomb

MAM (n.)
Mobile application management. Can also refer to media asset management. Spell out on first use.
Related: MDM, BYOD

MAN, MANs (n.)
Metropolitan area network. Spell out on first use.
Related: LAN, PAN, VLAN, WAN, WLAN

Man-in-the-Browser (MitB) (adj.)
When written as MitB, precede with “an.”
Spoken out loud as the whole phrase.
**Man-in-the-Middle (MitM) (adj.)**  
When written as MitM, precede with “an.” Spoken out loud as the whole phrase. Spell out on first use. Do not use as a verb. A malicious user in this position can be described as an **unauthorized intermediary** or **unauthorized proxy**.  
Related: a vs. an, certificate, replay attack

**mass assignment (n.)**  
A vulnerability that allows a user to add and modify fields to increase their privileges or gain access to private information. Related: principle of least privilege, RoR

**Master Control Program**  
The fictional AI antagonist that digitally captures Flynn in the 1982 movie Tron. Related: science fiction

**master/slave (n.)**  
We prefer to use primary/repla to discuss inheritance and leader/follower to discuss control relationships. However, in general, refer to the alternate terminology used by the technology you are discussing. Alternatives for “master” include primary, parent, leader, and main. Alternatives for “slave” include replica, follower, child, and worker. If a component name is “master” or “slave,” put the name in the tech font, as in, “The worker node, slave, was improperly configured.” Related: Appendix A

**Mark-of-the-Web (MOTW)**  
Related: Windows

**Markov chain (n.)**  
A predictability model that bases potential outcomes on only the previous event. Related: programming logic

**markup language (n.)**  
Related: HTML, Markdown, XML

**Martin Bishop**  
A fictional character (played by Robert Redford) who leads a security consulting team in the 1992 movie Sneakers. Because of his offensive hacking skills, we use his name in our company name. Related: hacker, Lucius Fox

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**The Matrix**  
A 1999 movie about a hacker named Neo. Related: bullet time, science fiction

**matrix, matrices (n.)**  
Related: programming logic

**MB (n.)**  
Megabyte. A megabyte may be 1,000 or 1,024 kilobytes (KB). No space between the number and unit, as in 75MB. Do not pluralize MB. Related: byte, MiB, units of measurement
**MBean, MBeans** (n.)
Managed bean. A Java object. Pronounced as “M-bean.”

**MBps vs. Mbps**
Capitalization matters. MBps is megabytes per second. Mbps is megabits per second. No space between the number and unit, as in “500Mbps.”
Related: bandwidth, units of measurement

**MCU, MCUs** (n.)
Microcontroller unit. Spell out in public-facing documents to avoid confusion with the Marvel Cinematic Universe. Do not spell out in technical documents.
Related: CAN, embedded device, flash memory, microprocessor, SBM

**MD5**
Message Digest 5. An efficient but highly insecure hashing algorithm that should never be used in situations where security is a concern. Pronounced as letters and numbers. Do not spell out.
Related: hashcat, hash function, SHA-1

**MDM** (n.)
Mobile device management.
Related: BYOD, MAM

**meatspace** (n.)
An informal term for the analog world.
Related: brick-and-mortar, IRL

**mechanism** (n.)
Write the name in the tech font, as in “the protect_from_forgery mechanism.”

**media** (n.), **multimedia** (n.)
Related: 1080i, 8-bit, AV, Blu-ray, body cam, broadcast, bullet time, CCTV, CD, clip art, download, DVD, file extensions, Flash, GoPro, grayscale, H.264, HDTV, high-res, iPad, kHz, livestream, low-res, MIDI, MP3, MPEG, MPV, Netflix, on-air, playlist, PDF, podcasts, QuickTime, real-time, RTMFP, set-top box, teleprompter, titles of published works, upload, USB On-The-Go, USDZ, video games, webcam, YouTube

**Meltdown**
A flaw that affects Intel, AMD, and ARM chipsets. It was publicly disclosed in January 2018.
Related: ARM, Spectre, vulnerability, x86

**memcache** (n.)
A memory cache.

**Memcached**
A memory caching server. Pronounced as “mem-cash-dee” or “mem-cashed.”

**Memoji**
Pronounced as “mee-moh-jee.”
Related: Animoji, emoji

**Mercurial**
A source control tool.
Related: Git

**message board** (n.)
Related: 4chan, ATM, avatar, flame war, Godwin’s Law, handle, headdesk, IANAL, IIRC, IRL, NSFW, tldr, PEBKAC, Reddit, RTFM, TIL, username, web forum
Meta
Related: Facebook

metacharacter (n.)
A character with a special meaning in a programming language or regex. It must be set apart (escaped) by another character to use its literal meaning, as in \* vs. *
Related: *, characters, escape, newline character, punctuation, rich text, URL encoding, wildcard

metadata (n.)
Related: SEO, tag stripping

Metasploit
A pen testing framework.

Meterpreter
A Metasploit payload used to establish a shell and communicate back to the attacker. Pronounced as "meh-ter-preh-ter," similar to "interpreter."

methodology (n.)
Related: playbook

MFA (n.)
Multi-factor authentication. Factors are typically something you have (a badge), something you know (a password), or something you are (biometrics). Spell MFA out on first use.
Related: 2FA, authentication, Duo, hard token, IAM, log in, OTP, soft token, YubiKey

MHz (n.)
Megahertz. Use a space between the number and the unit, as in “100 MHz.” Do not pluralize.
Related: units of measurement

MiB (n.)
Mebibyte. A mebibyte is exactly 1,024 kibibytes. Do not pluralize.
Related: byte, KiB, MB

microblogging (n.)
Related: blog, Twitter

microprocessor (n.)
Related: CPU, IC, Intel, MCU, x86

microsegmentation (n.)
Related: network segmentation, segmentation, VLAN, VM

microservice (n.)
A small process or application that operates independently but is integrated with similar processes to form a larger application or service.
Related: containerization, SOA

Microsoft
Related: BlueKeep, Cortana, Excel cells, Excel formulas, IE, LSASS, MS, MS SQL, ProcDump, SCCM, TFS, tilde enumeration, Windows

Microsoft Security Bulletin number
Write the names of specific vulnerabilities in the normal font.
Ex: MS15-034
Related: CVE, CWE, EternalBlue
MIDI
Musical instrument digital interface. Do not spell out. Pronounced as “mid-ee.”
Related: interface, media, MP3

military-grade encryption (n.)
May refer to AES-256 encryption. Do not use this term; refer to the type of encryption by name instead.

military time (n.)
Avoid using military (24-hour) time unless relevant to the context.
Ex: 0900 PDT
Related: time zone

milkshake duck (n.)
A hypothetical wholesome new public figure who is quickly revealed to be vile.
Related: Godwin’s Law

millennial (n. or adj.)
Corporate jargon. When broadly used, this can include people born between 1980 and 2010. It’s better to describe groups with other demographic markers (such as age ranges).

MIME
Multipurpose internet mail extensions. A MIME type or media type is a file format identifier. Do not spell out. Pronounced as “mime.”
Ex: application/json, text/html

Mimikatz
A post-exploitation tool typically used to extract passwords during internal network assessments.

minification (n.), minify (v.)
The process of reducing character count in source code. Also called minimization.
Related: JavaScript

MINIX
The name is derived from “Mini-Unix.”
Pronounced as “minn-icks.”

Mirai
Related: botnet, Internet of Things, malware

mirror (n. or v.)
A duplicate website.
Related: phishing

mission-critical (adj.)
Related: criticality

mitigate (v.)
To lessen the impact of potential future attacks. Not interchangeable with “reduce.”
Related: de-escalate

mitigation (n.)
The application of compensating controls to decrease the impact of identified vulnerabilities while not fully remediating those vulnerabilities.
Related: remediation
MitM (adj.)
Man-in-the-Middle. When written as MitM, precede with “an.” Spoken out loud as the whole phrase, not the acronym. In cryptography, this can also refer to the Meet-in-the-Middle attack. Spell out on first use.
Related: a vs. an, eavesdrop, wiretap

MITRE ATT&CK
A resource and framework for offensive attacks and techniques.
Related: CVE, CWE, TTP

mixed content (n.)
A mix of HTTP and HTTPS content on the same page that exposes the content to vulnerabilities due to the parts delivered via HTTP.

mm/dd/yyyy
When recommending limitations on allowable characters in date fields, write this format in the tech font.
Related: dates, years

Mobile Application Security Assessment (MASA)
Related: Android, App Defense Alliance, Google

mock up (v.), mock-up (n.)

mod (v. or n.)
Short for modify or modulo. Informal.

model numbers (n.)
Use the normal font for software version numbers, product model numbers, serial numbers, and builds.

monorepo (n.)
A single, large repository that holds code for multiple projects. Informal.

moonshot (n.)
Corporate jargon; use sparingly.
Related: bleeding edge, cutting edge, next generation

Moore’s Law
About every 18 months since 1965, the number of transistors per square inch on integrated circuits has doubled. Observed by Intel co-founder Gordon Moore.
Related: the singularity

MOTD (n.)
Message of the day banner. Pronounced as letters or the whole phrase. Spell out on first use in public-facing documents.

motherboard, motherboard jumper (n.)
Related: hardware hacking
### motion-activated (adj.)
Related: hardware hacking, Internet of Things

### motion capture, mo-cap (n. or adj.)
Related: CG, CGI, deepfake, video games

### mouseover (adj. or n.), mouse over (v.)
Related: cursor, GUI, hover, tooltip

### mousepad (n.)

#### Mozilla Firefox
Related: browser, IE, web browser

### MP3, .mp3 file, MP4, .mp4 file
Audio and video file types. Pronounced as letters and numbers.
Related: file extensions, lossy compression, media, MIDI

### MPEG, MPEG1, .mpeg file, .mpg file
Pronounced as “M-peg.”
Related: H.264, lossy compression, media

### mpv, .mpv file
A video player and file type. Pronounced as letters.
Related: FFmpeg, media

### Mr. Robot
A 2015-2019 TV show about a paranoid hacker that used some Bishop Fox exploits.
Related: fsociety, hacker, Kali Linux, Raspberry Pi, Tastic RFID Thief

### MS
Microsoft. Use sparingly in reports.
Ex: MS SQL, MS Word
Related: Microsoft, Office 365, Windows

### ms (n.)
Millisecond. Put a space between the number and the unit, as in “250 ms.”
Related: units of measurement

### MSA, MSAs (n.)
Master service agreement. Spell out on first use.
Related: NDA, SLA, SOW

### MSDE
Microsoft SQL Server Data Engine. Spell out on first use.

### MSFvenom
A tool used for exploit development to generate shellcode.

### MSI, .msi file
A Windows installer package file format.
Related: file extensions

### MSP, MSPs (n.)
Managed service provider. Pronounced as letters. Spell out on first use.
Related: IT, server

### MS SQL
Microsoft SQL Server.

### multi-factor authentication (MFA) (n.)
The factors can be something you have (a badge), something you know (password), or something you are (biometrics). Spell out on first use.
Related: 2FA, U2F

### multimeter (n.)
Pronounced as “multi-meeter.”
Related: ham radio
multitasking (n. or v.)
Mustache
   An HTML template system.
MVC (n.)
   The Model-View-Controller architectural pattern. Spell out on first use.
   Related: ASP.NET
MySQL
   A type of database. Pronounced as “my-sequel.”
   Related: MariaDB, SQL, WAMP

N
NaaS (n.)
   Network as a service. Spell out on first use.
   Related: FaaaS, IaaS, KMaaS, PaaS, SaaS
NAC (n.)
   Network access control. Pronounced as “nack.” Spell out on first use.
nameserver (n.)
   An internet server that resolves domain name queries.
   Related: DNS
NAND gate (n.)
   Short for negative-AND gate. A logic gate that produces a false output only if all of its inputs are true.
   Related: programming logic, XOR
nanotechnology (n.)
   Related: science fiction

Nasdaq or NASDAQ
   Related: finance

country-state (n. or adj.)

NBNS

NDA, NDAs (n.)
   Non-disclosure agreement. Pronounced as letters. Spell out on first use in public-facing documents.
   Related: disclosed, MSA, SLA, SOW

need-to-know (adj.), need to know (v.)
   Intel is provided on a need-to-know basis.
   The user does not need to know this.
   Related: principle of least privilege

NetBIOS
   Network Basic Input/Output System. Do not spell out.
   Related: NBNS
netblock (n.)
   A range of IP addresses.
   Related: CIDR, IP addresses

Netcat or nc
   A utility that reads from and writes to network connections with TCP or UDP.

Netflix
   Related: media
.NET Framework
A Microsoft software framework. If possible, don't begin sentences with this term.
Pronounced as "dot-net."
Related: PowerShell, URL

Netgear or NETGEAR
Related: LTE, Wi-Fi

net neutrality (n.)
Related: EFF, FCC, Free Software Foundation, Internet Archive, ISP

net risk (n.)
Overall risk.

NetWars
A capture-the-flag competition.
Related: CTF, SANS, Root the Box

network security (n.)
An alternate term for information security.

network segmentation (n.)
Related: air-gapped, microsegmentation, SegWit

Neuromancer
The titular fictional AI in the 1984 cyberpunk novel by William Gibson.
Related: ICE

newline character or \n (n.)
An invisible character that moves the following characters to the next vertical line down.
Related: characters, carriage return character, linefeed character, metacharacter

next generation or next-gen (adj.)
Corporate jargon; use sparingly.
Related: bleeding edge, cutting edge, moonshot

NFS
Related: filesystem

NfSpy
An offensive security tool for spoofing NFS credentials.

Nginx
Web server software. Pronounced as "engine-X."

ngrep, ngrep
Network grep. A network packet analyzer. Use the tech font when writing about the command. Pronounced as “N-grep.”
Related: grep, tgrep

NIDS, NIDSes (n.)
Network-based intrusion detection system.
Pronounced as “network-I-D-S.” Spell out on first use.
Related: HIDS, IDS

Nintendo Switch
This and many other Nintendo product names should be preceded by “Nintendo” on first use.
Ex: Nintendo Labo
Related: video games, Wii
**NIST**
National Institute of Standards and Technology. Pronounced as “nist.” Spell out on first use when writing for a general audience.
Related: CVE, FIPS, NVD

**NIST CSF**
NIST Cybersecurity Framework. Spell out on first use.

**NLA**
Related: RDP

**NLP (n.)**
Natural language processing. Spoken out loud as the whole phrase. Spell out on first use.
Related: computational linguistics

**Nmap, Nmap scan**
Short for Network Mapper. A pen testing tool used to scan ports and map networks. Do not spell out.
Related: vulnerability scanner

**nobody**
A low-privilege, default Linux user.

**NOC, NOCs (n.)**
Network operations center. Pronounced as “nock.” Spell out on first use.

**Node.js**
An open source JavaScript runtime environment.
Related: Electron, npm

**nonce, nonces (n. or adj.)**
Related: cryptography

**non-disclosure agreement (NDA) (n.)**
Related: MSA, SLA, SOW

**nonprofit (n. or adj.)**

**north-south (adj.)**
Network traffic that goes in and out of a data center, rather than east-west traffic within a data center. Briefly define on first use in public-facing documents.
Related: east-west, outgoing

**nosniff**
A option for the X-Content-Type-Options response header that prevents MIME sniffing.

**NotPetya**
A variant of ransomware based on Petya.

**npm**
Node package manager. This is the name of a tool; do not spell out.
Related: Node.js

**NSA**
The U.S. National Security Agency.
Related: EternalBlue, Ghidra, IC, XKeyscore
NSFW
“Not safe for work.” Informal.
Related: 4chan, CW, message board, TW, web forum

nslookup
A tool used in testing to query DNS records.

NTLM, NTLMv2
Short for NT LAN Manager. A suite of Windows security protocols.

NTLM hash
NTLM protocol uses two hashed password values: the LM hash and the NT hash.
Related: SAM

null (n. or v.)
An invalid, default, or special state for a value, often expressed as 0 or as NULL. When used as a verb, it means to erase data and replace it with zeros.
Ex: null byte character, null byte injection, null session, to null a hard drive

numbers
Per AP style, write out numbers below 10, except in set phrases. Write numbers plainly, without superscript. Plural years like “in the 1990s” do not take an apostrophe. Non-year numbers have a comma every 3 digits, as in “525,600 minutes.” Use tech font and do not use commas when describing integers in code.
Related: #, 1080i, birth date, data, dates, IP addresses, mm/dd/yyyy, model numbers, phase, pixel, port numbers, ratios, time zone, units of measurement, version numbers, years

NVD
National Vulnerability Database. Spell out on first use when writing for a general audience. https://nvd.nist.gov/
Related: CVE, NIST

OAuth
An authentication protocol standard.
Pronounced as “O-auth.” Do not spell out.
Related: OpenID

obfuscation (n.), obfuscate (v.)
Related: security through obscurity

Objective-C
A programming language.

OBOE (n.)
Off-by-one error. Spoken out loud as the whole phrase. Always spell out in formal writing.
Related: error messages

OCI
Oracle Cloud Infrastructure. Spell out on first use.
Related: Amazon Web Services, Azure, GCP

oclHashcat
An older version of hashcat.
Related: hashcat, hashed
OCR (n. or adj.)
Optical character recognition. Pronounced as letters or the whole phrase. Spell out on first use.
Related: computer vision, PDF

Oculus Rift
Related: Facebook, VR

OData
Open Data Protocol. A RESTful means of exposing access to a data store. Do not spell out unless defining the term.

OEM, OEMs (n.)
Original equipment manufacturer. Spoken out loud as letters or the whole phrase. Spell out on first use.
Related: piracy

offboarding (n.)
Related: onboarding, outgoing

off-by-one error (OBOE) (n.)
Always spell out in formal writing.
Related: error messages

off-chain (adj.)
Off-the-block cryptocurrency transactions.
Related: bitcoin, cryptocurrency, coin vs. token

Office 365
Related: LibreOffice, MS, word processor

offline (adj.)
Related: cold wallet, online

offscreen (adj.)
Related: onscreen

offsec or OffSec (n.)
Related: OPSEC, red team

off-site (adj.), off site
Avoid using this term to describe websites. To discuss open redirects, focus on origins instead.
Ex: They attended an off-site team building event. The team went off site.
Related: on-site

OGNL

OK
Informal. Do not use in formal reports outside of the 200 OK response, quoted code, and tables.

Okta
A company providing enterprise identity control. Some of our clients use Okta SSO internally.
Related: Amazon Web Services, credential, IAM, ID, login

…omitted for brevity…
This phrase indicates that irrelevant parts of the quoted code have not been included.
Related: [REDACTED], snippet

on-air (adj.)
Related: media, OTA
onboarding (n.)
Related: BYOD, offboarding, staff augmentation

on-demand (adj.), on demand
Ex: on-demand services, services on demand
Related: HDTV

one-liner (n.)
A command-line script on one line.

one-time (adj.)
Related: passwords

The Onion
A satirical news site.

.onion sites
Hidden services On Tor.

online (adj. or n.), on line
Ex: Wikipedia is an online encyclopedia.
A functioning system is on line.
Related: offline

on-prem (adj.)
Short for on-premises. Informal.

on-premises (adj.)
On-site at a physical location. Often used to describe servers not on the cloud.
Related: physical pen testing, server room

onscreen (adj.)
Related: offscreen

on-site (n. or adj.), on site
Ex: It was an on-site engagement. The team went to an on-site. The team was on site.
Related: off-site, Pwn Plug

OOB (adj.)
Out-of-band. Spoken out loud as the whole phrase. Spell out on first use.

OOP (n.)
Object-oriented programming. Pronounced as letters or the whole phrase. Spell out on first use.
Related: implicit, ORM

opcode (n.)
Operation code. A piece of a machine language instruction. Do not spell out as a phrase.
Related: embedded device, hardware hacking, jump

open access (n. or adj.)
Related: Creative Commons, open source

OpenID
An authentication protocol.
Related: IdP, OAuth

open source (adj.)
Software with its source code made available to encourage modifications.
In common usage, this is often used interchangeably with “free software.”
However, some open source software may not be free due to restrictions on modification and distribution.
Related: The Cathedral and the Bazaar, FFmpeg, Free Software Foundation, open access
OpenVPN
Open source VPN software.

operating system (OS) (n.)
Related: inter-process communication

operator (n.)
Another term for a security researcher, more commonly used in the military and NSA, and also used by Bishop Fox's Cosmos service.

OpManager Decrypter
Tools used to decrypt credentials during security assessments.
Related: credential, passwords

OPSEC or OpSec (n.)
Operations security. Pronounced as “opp-seck.” Do not spell out. OPSEC can also refer to Check Point's Open Platform for Security framework. Briefly define if you’re writing about the framework.
Related: offsec, PERSEC

opt in (v.), opt-in (adj.)

opt out (v.), opt-out (adj.)

ORM (n.)
Object-relational mapping. A technique that uses object-oriented programming to interact with a database. Spell out on first use.
Related: OOP

orphan (n.), orphaned (adj.)
Orphan web pages are not linked to by any other pages on the same site.
Related: directory, SEO, site map

OS (n.)
Operating system. Pronounced as letters. To pluralize, spell it out as operating systems instead of “OS’s” or “OSes.”
Related: ASLR, homescreen, Linux, macOS, Windows

OSCP
Offensive Security Certified Professional. Pronounced as letters. Do not spell out when appending as a certification title to a person's name. Other similar certifications include OSCE and OSWE.
Related: certification

OSGi
Open Services Gateway Initiative. A Java framework for developing and deploying modular applications. Do not spell out unless defining the framework.

OSINT (n.)
Open source intelligence. Pronounced as “O-S-int” or “O-sint.” Spell out on first use.
Related: physical pen testing

OSS (n.)
Open source software. Spell out on first use. Do not use as an adjective.
Related: The Cathedral and the Bazaar

OT (n.)
Operational technology. Spell out on first use.
Related: IT

OTA (adj.)
Over-the-air (programming). Spell out on first use.
Related: livestream, on-air, stream
OTG
Short for USB On-The-Go. Informal. Spell out on first use.

OTP, OTPs (n.)
Short for “one-time password” in security or “one true pairing” in online fandom communities. Pronounced as letters or the whole phrase. Spell out on first use.
Related: 2FA, fandom, HOTP, MFA, TOTP

outbound (adj.)
Related: inbound

outbox (n.)
Related: email, inbox

outbrief (n.)
Related: lessons learned, PowerPoint, takeaway

outdated (adj.)
Related: brownfield, grandfather clause, legacy

outgoing (adj.)
Related: firewall, north-south, offboarding, voicemail

out-of-band (OOB) (adj.)
Spell out on first use.
Related: in-band

out-of-date (adj.)
Related: sunset

out-of-scope (adj.), out of scope
Ex: It was an out-of-scope server. The service was out of scope.
Related: in-scope

outsource, outsourcing (n. or v.)

OWA
Outlook Web Access. Spoken out loud as the whole phrase. Spell out on first use.

OWASP, OWASP Top 10
Every few years, the Open Web Application Security Project curates a list of the top 10 threats in information security. Pronounced “O-wasp.” https://www.owasp.org/
Related: ASVS, DirBuster, IDOR, vulnerability

OWASP Zed Attack Proxy
A web vulnerability proxy and scanner.

-owned (adj.)
Always hyphenate.
Ex: attacker-owned, client-owned, government-owned
Related: attacker-controlled

P

P2P (adj.)
Short for “peer-to-peer.” Pronounced as letters or the whole phrase. Spell out in public-facing documents.
Related: B2B, E2E, torrent

Paas (n.)
Platform as a service. Pronounced as the whole phrase or “pass.” Spell out on first use.
Related: FaaS, IaaS, KMaaS, NaaS, SaaS
PABX

page hijacking (n.), page-hijacking (adj.)
Ex: a page-hijacking attack

pages (n.)
If it’s a specifically titled web page, capitalize as in “the Forgot Password page.”
Related: homepage, login page

page view (n.)

pain point (n.)
Corporation jargon; OK if used sparingly.

PAM (n.)
Privileged access management or privileged account management. Spell out on first use.
Related: IAM

PAN, PANs (n.)
Primary account number or personal area network. Spell out on first use to clarify your intended meaning.
Related: LAN, MAN, WAN

PAN truncation (n.)
A credit card number display that only shows the last 4 digits.
Ex: **********1234
Related: PCI compliance, PII

parameterized query (n.)
Also called a prepared statement.

parameters (n.)
If writing about a type of parameter, use the normal font. If it’s a named parameter, use the tech font, as in “siteCode parameter.”
Related: callback, fields, HPP, lookahead parameter

parse (v.), parser (n.)
Related: compile

Pascal
A programming language.

passphrase (n.)
Related: passwords

pass-the-hash attack (n.)

password mulet (n.)
The password creation pattern that starts with a capital letter and ends with a number or special character. Coined by Kyle Rankin.
Ex: Password1!
Related: dictionary attack, keyboard walk

password-protected (adj.)

passwords (n.)
Use the tech font for passwords.
Ex: letmein, 123456
Related: alphanumeric, brute-force, crack, credential, dictionary attack, hashed, keyboard walk, Keychain, LastPass, lockout policy, one-time, OpManager Decrypter, passphrase, PII, pwdump, Rockyou, salt
**password spraying** (n.),
**password-spraying** (adj.)
An attack in which one password is tried against many accounts. Also known as **horizontal password brute-forcing**.
Related: **brute-force, dictionary attack**

**PASTA**
Pronounced as “pasta.” Spell out or briefly define on first use.
Related: **CVSS, DREAD, high-severity, threat**

**Pastebin**
A text storage site.
Related: **file share**

**pastebin** (v. or n.)
This either refers to any text storage site or to the act of publishing something (like credit card numbers) anonymously on the internet, not necessarily on Pastebin. The verb is informal.

**patch** (n. or v.)
An update to existing software that adds or enhances features, fixes bugs, or both.
Related: **hotfix, lifecycle management, roll back, up-to-date, version numbers**

**patch cycle** (n.)
Related: **SDLC**

**PATCH request** (n.)
Related: **request**

**path traversal** (n.)
Also known as **directory traversal**.
PC, PCs (n.)
Personal computer. Can refer to any laptop or specifically a machine that runs Windows. Avoid using in formal writing; instead specify the operating system, as in a Windows machine.

PCB, PCBs (n.)
Printed circuit board. Spell out on first use.

PCI
Short for the Payment Card Industry or Peripheral Component Interconnect. Spell out on first use to clarify your intended meaning.
Related: ASV, cardholder, QSA

PCI compliance (n.)
Related: cardholder, compensating control, finance, GLBA compliance, PAN truncation, PCI DSS

PCI DSS
Payment Card Industry Data Security Standard(s). Spell out on first use.
Related: compliance framework, PAN truncation, PIN

PCle

PCRE
Perl Compatible Regular Expressions. A free library. Spell out on first use.

PDB, .pdb file
Program database file.
Related: file extensions

PDF, .pdf file
Related: file extensions, media, OCR

PDQ Deploy
A patch management tool.

PEBKAC
Related: message board, web forum

peer-to-peer (P2P) (adj.)
Related: B2B, E2E

penetration testing, pen testing (n.)
Security testing in which evaluators mimic real-world attacks to identify ways to circumvent the security features of an application, system, or network. Penetration testers look for chains of vulnerabilities that can be used together to gain more privileged or overall access. Often informally shortened to pen testing or pentesting.
Related: APT, EPT, bug bounty, red team

percussive maintenance (n.)
Fixing things by hitting them. Informal.

peripheral (n.)
An auxiliary device, a piece of equipment, or an accessory.
Related: IIoT, Internet of Things, mobile device
Perl
A programming language.

permissions (n.)
If writing about a type of permission, use the normal font. If naming a specific permission, use the tech font, as in “SET_ALARM permissions.”
Related: fields, read access, read-only, read/write, write access

PERSEC
Personal security. Used in military contexts. Spell out in public-facing documents.
Related: infosec, OPSEC

persistence (n.), persistent (adj.)
Persistent access means an attacker continues to access a system or application over a long period of time.
Related: session fixation, shell, sticky cookie

petabyte (PB) (n.)
1,000 terabytes.
Related: byte, units of measurement

Petya
A ransomware attack that hit in June 2017.
Related: NotPetya

pfSense
An open source firewall.

PGP
Pretty Good Privacy. An encryption program. Do not spell out.
Related: GPG

phase (n.), Phase 1
If writing about phases generically, lowercase. If dividing a project into sections, capitalize individual phases, as in Phase 2.
Related: numbers

PHI (n.)
Protected health information. Pronounced as letters. Spell out on first use.
Related: ePHI, healthcare, HIPAA, PHR, PII

phishing (n.)
Also known as email phishing.
Related: BEC, credential, email, junk mail, mailbomb, mirror, smishing, social engineering, spam, spear-phishing, spoof, typosquatting, URL shortener, vishing

photobomb (n. or v.)

Photoshop
An Adobe graphics editor.

photoshop (v.), photoshopped (adj.)
Related: deepfake

PHP
Short for PHP: Hypertext Preprocessor.
A programming language. Do not spell out.

PHP magic method (n.)
A PHP method that can be used to change the language's behavior.
Ex: __construct, __get, __set

PHR, PHRs (n.)
Personal health record. Spoken out loud as the whole phrase. Spell out on first use.
Related: healthcare, HIPAA, PHI, PII
phreak, phreaker, phreaking (n.)
Informal.
Ex: phone phreak
Related: hack, hacker, social engineering, war-dialing

physical pen testing (n.)
Related: infiltrate, LAN Turtle, lock picking, on-premises, OSINT, Pwn Plug, RFID card, social engineering, tailgating, tamper-evident control, Tastic RFID Thief

pickle
A Python serialization and deserialization module. It is not secure. A Python object hierarchy may be pickled and unpickled. The output of the pickle module may be called a pickle, styled in normal font.

pickled (adj.), pickling (n.)
Describes a Python object hierarchy that has been converted into a byte stream using the pickle function.
Related: unpickling

PIN, PINs (n.)
Personal identification number.
“PIN number” is redundant. Pronounced as “pin.” Do not spell out.
Related: ATM, PCI DSS, PII, SSN

ping (v., n., or adj.)
To initiate contact and wait for a response. Sometimes specifically refers to using the ping utility. Use the tech font when referring to the utility itself.
Related: echo request, time out

piracy (n.)
Also called software piracy.
Related: The Pirate Bay, Silk Road

pirate (n. or v.), pirated (adj.)
Informal.
Related: torrent

The Pirate Bay (TPB)
Related: torrent

pivot point (n.)
A foothold that an attacker can use to gain further access into a system. The point at which an attack switches between horizontal and vertical privilege escalation strategies.
Related: elevation of privileges, privesc

Piwik
An open source analytics program that has been renamed Matomo.
pixel (px) (n.)

When describing the dimensions of an image, list width then height with an “x” between, as in 1000x1000-pixel image. Put a space between the number and unit. No commas.
Related: grayscale, numbers, ratios, units of measurement

PKI (n.)

Public key infrastructure. Spell out on first use.
Related: certificate, Diffie-Hellman, encryption, keysigning party

plaintext (n.)

Can refer to unencrypted text (like cleartext) or the input to a cryptographic system. In our reports, it is not a synonym with cleartext. Define briefly on first use to clarify your intended meaning.
Related: alphanumeric, cleartext vs. plaintext, CPA, flat file

plain text (n.)

Text that is unformatted (i.e., not rich text).
Related: rich text

playbook (n.)

Related: methodology

playlist (n.)

Related: media

PlayStation

Related: PS2, video games

PLD (n.)

Short for payload. Informal. Spell out on first use.

PL/SQL

A programming language used by Oracle.

plugin (n.)

Also called an add-on or extension. Use the normal font, as in “the LastPass Chrome plugin.”

plug in (v.)

p.m.

Put a space after the number, as in 2 p.m. PST. Include the time zone if referring to a testing window or specific event. Avoid using military (24-hour) time unless relevant to the context.
Related: dates

PO, POs (n.)

Purchase order. Corporate jargon. Spell out on first use.

PoC, PoCs (n.)

Could refer to a “proof of concept,” a “point of contact” within the client company, or a person of color. Pronounced as letters, the phrase, or “pock.” Spell out on first use to clarify your meaning.
Related: proof of concept, T-POC

podcasts (n.)

Capitalize podcast names and use the normal font, as in Security Weekly.
Related: media, Patreon, titles of published works

PoE (n.)

Power over Ethernet. Spell out on first use.
POODLE
Related: SSL

POP (n.), POP3
Procedure-oriented programming, point of presence, point of purchase, or Post Office Protocol. Spell out on first use to clarify your intended meaning.
Related: brick-and-mortar

pop up (v.), pop-up (adj. or n.)
Related: alert box

Pornhub
Related: deepfake, RedTube, Rule 34

port (n.)
Use this term in formal writing, but “jack” is fine elsewhere.
Ex: USB port

Portal, Portal 2
Video games in which the main character, Chell, uses a portal-shooting gun to bypass obstacles and enemies.
Related: Aperture Science, GLaDOS

portal (n.)
An entranceway, such as an employee login page.
Related: gateway, remote access, website

port numbers
Write without commas in the normal font (port 3389) unless it appears at the end of an IP address (54.243.128.77:3389).
Related: IP addresses, numbers

port scan (n.)

post (v. or n.)
Related: blog, upload

post-apocalyptic (adj.)
Related: the Doomsday Clock, gray goo, science fiction, Skynet

post-exploitation (adj. or n.)
Any actions an attacker takes in a system after it is compromised. For example, a pen tester may search for data and configurations to determine the ultimate impact of an exploit.

Postgres or PostgreSQL
A type of database.
Related: programming language, SQL

POST request (n.)
Related: request, session fixation

PowerBook
Related: Apple

power cycle (v.)
Turn it off and on again.
Related: data center, IT, restart

PowerPoint
Related: outbrief, slideshow

PowerShell
Related: command line, .NET Framework, Terminal

power user (n.)
A user with advanced knowledge of a particular software.
preflight (n.)
In CORS, the browser sends an OPTIONS request before the actual request to check that the server’s response headers allow the user-agent to send the request. The request is dropped if the server response does not allow the request.

preimage (n.)
An algorithm input.
Ex: cryptographic preimage attacks

prepared statement (n.)
Also called a parameterized query.

preset (v., n., or adj.)
Related: default

pre-signed (adj.)
Describes an AWS S3 URL that contains authorization for accessing the data in the URL itself. To avoid redundancy, do not use to describe other resources that have been signed.
Ex: pre-signed URL
Related: S3, signature

pretexting (n.)
Related: cold-call, social engineering

Pretty Theft
A BeEF phishing module.

primitive (n.)
Cryptographic primitives are basic algorithms used to build cryptographic systems.
Related: cipher

principle of least privilege (n.)
The concept that users should have only the permissions necessary for their role in a system, not more.
Related: authorization, mass assignment, need-to-know, security through obscurity

print out (v.), printout (n.)

prioritize (v.)
This can mean to rank vulnerabilities by severity level in an environment.

privacy protection (n.)
Related: FOIA

privesc or privilege escalation (n.)
A common strategy for attackers: start as a low-privilege user and find flaws in permissions to gain admin credentials.
Related: elevation of privileges, pivot point

-privilege, privileged (adj.)
When describing a user’s level of privilege, we prefer to use a hyphen, as in a high-privilege user rather than “a highly privileged user.”
Ex: a low-privilege user, a privileged user

PRNG, PRNGs (n.)
Pseudo-random number generator.
(Pseudo refers to the fact that computers cannot make true random numbers; it is not a judgment about their RNG security or quality.) Pronounced as letters. Spell out or briefly define on first use.
Related: CSPRNG, RNG, seed
**ProcDump**
An application monitoring tool used during security assessments.
Related: CLI, dump, hang, Microsoft

**Procmon.exe**
A Windows monitoring tool. The application is named Process Monitor but is often shortened to Procmon.

**prod** (n. or adj.)
A system in production, as opposed to a system in development (dev). Informal.

**program** (n. or v.)
Related: app vs. application, code, software

**programming language** (n.)
There are many subcategories, such as compiled vs. interpreted languages, high-level vs. low-level languages, and domain-specific vs. general purpose languages. Scripting languages are programming languages, but markup languages are not. Related: AWK, BASIC, Brainfuck, C #, C++, code, Codacadey, Fortran, Golang, GraphQL, Groovy, JavaScript, Julia, LISP, Malbolge, Objective-C, Pascal, Perl, PHP, PL/SQL, Python, R, Ruby, Rust, Scala, Smalltalk, VB.NET, VBScript

**programming logic**
Write coding syntax and commands in tech font to distinguish them outside of code snippets. Ex: if statement, for loop, exit() function
Related: Boolean operator, code, for loop, IFTTT, Markov chain, matrix, NAND gate, truthiness, XOR

**proof of concept** (n.), **proof-of-concept** (adj.) (PoC)
Ex: The team created a proof of concept. It was a proof-of-concept payload.

**protocol** (n.)
How computers talk to each other. Related: BGP, EIGRP, four-way handshake, FTP, HTTP, IANA, ICMP, IP, IPP, Kerberos, LDAP, LLMNR, NBNS, NTLM, OAuth, OpenID, POP, QUIC, RDP, RFB, RTMFP, SCP, SFTP, SIP, SMTP, SNMP, SOAP, SOCKS, SSH, SSL/TLS, stateful, stateless, STP, TCP/IP, Telnet, TKIP, UDP, UDS, VoIP, WEP

**ProtonMail**
Related: email

**provision** (v.)
Ex: “to provision one cluster on each account”

**proxy, proxying** (v. or n.)
To move data through an intermediary server. Proxy can refer to the intermediary or the act of moving the data.

**PS2, PS3, PS4**
PlayStation consoles. Related: video games

**PSK, PSKs** (n.)
Pre-shared key. Spell out on first use.

**PSR, PSRs** (n.)
PHP Standards Recommendation. A PHP specification. Recommendation items are numbered beginning with PSR-0. Spell out on first use to avoid confusion with the Bishop Fox product security review service line.
public address space (n.)
   Related: IP addresses

public-facing (adj.)
   Related: EPT, exposed, third party

public key, public key encryption (n.)
   A public key is a type of cryptographic key that has a matching private key.
   Related: key pair

publicly known (adj.)
   Related: CVE, zero-day

punctuation
   Related: !, @, #, *, /, \, ', angle bracket, characters, e.g., i.e., keyboard keys, metacharacter, wildcard

purple team (n. or v.)
   A security testing approach that combines aspects of red teaming and blue teaming.
   Related: blue team, red team

purpose-built (adj.)

PUT request (n.)
   Related: request

PuTTY
   A Windows SSH and Telnet client.
   Pronounced like “putty.”

pwdump
   A Windows tool for retrieving LM and NTLM hashes in an Active Directory environment.
   Related: dump, passwords

pwn (v. or n.)
   To defeat, to own. Pwn rhymes with own.
   Informal when used by itself, but often appears within names of security tools.

The Pwnie Awards
   An annual awards ceremony for hackers that takes place during Black Hat. Pwnie is pronounced as “pony.”

Pwn Plug
   A tool used in physical assessments that looks like a power adapter.
   Related: on site, physical pen testing

Python
   A programming language that encourages Monty Python references in tool names.
   Related: script, spam, traceback, unpickling, WSGI

Q

QA (n.)
   Quality Assurance. Do not spell out.
   Everyone needs an editor. :)
   Related: HAZOP, Six Sigma, stress test

QAnon
   Pronounced as “Q-anon.”
   Related: 4chan

QLess
   A queue management platform.

QR code (n.)
   Quick response code. Do not spell out.
QSA, QSAs (n.)
Qualified Security Assessor. Spell out on first use.
Related: PCI

Queercon
An annual security conference that happens within DEF CON in Las Vegas.
Related: GaymerX, Hacker Summer Camp, LGBTQIA

query (v. or n.), query string (n.)
Related: GraphQL, search engine

queue (n.)
A structure where data is retrieved following the first-in first-out principle.
Compare to stack.

QUIC
Quick UDP Internet Connections.
An experimental transport layer network protocol. Pronounced as “quick.” Do not spell out.
Related: TCP/IP

QuickTime
Related: Flash, media

QWERTY (n.)
A common keyboard layout originally designed for typewriters.
Related: Dvorak, keyboard keys

R
A programming language.

R2-D2
A fictional astromech droid in Star Wars.
Related: robotics, science fiction

race condition (n.)
A situation in which the latency in a system allows an attacker to perform actions outside the expected order of operations. These actions race against a system’s internal timing and may give attackers access to sensitive information or the ability to purchase items without spending money.
Related: TOCTOU bug

rainbow table (n.)
Related: encryption, hashed, look up

RAM (n.)
Random access memory. Pronounced as “ram.” Do not spell out.

RankBrain
A Google AI algorithm that helps sort search results.

ransomware (n.)
Malware that threatens to publish or delete data unless a ransom is paid.
Related: botnet, NotPetya, Petya, Ryuk, WannaCry

RAR, .rar file
Related: file extensions
Raspberry Pi
A small single-board computer.
Ex: Raspberry Pi 3 Model B, Raspberry Pi Zero W
Related: Danger Drone, hardware hacking, Maker Faire, Mr. Robot, system on chip

RAT, RATs (n.)
Remote access trojan. Pronounced as “rat.” Spell out on first use.

rate-limit (v.), rate limiting (n.)
Related: brute-force

ratios (n.)
Write with a colon and no space, as in 32:9.
Related: HDTV, numbers, pixel, signal-to-noise ratio, units of measurement, widescreen

RBA (n.)
Risk-based auditing, authentication, or approach. Spell out on first use.

RBAC (n.)
Role-based access control. Spell out on first use.

RC4 NOMORE
Numerous Occurrence MOnitoring & Recovery Exploit. An attack that affects the RC4 cipher. RC4 is pronounced as letters and numbers or as “ark-four.” Do not spell out.

RCE (n.)
Remote code execution. Pronounced as letters or the whole phrase. Spell out on first use.
Related: BlueKeep, remote access, shell

rcp
Remote copy. A command in Unix that allows the transfer of files to and from another system over the network.

RCPT
Short for receipt. A command in SMTP.

RDP
Remote Desktop Protocol. Do not use as a verb. Pronounced as letters or the whole phrase. Spell out on first use in public-facing documents.
Related: BlueKeep, NLA

RDS
Amazon Relational Database Service. Pronounced as letters or the whole phrase. Spell out on first use.

read access (n.)
Related: read-only, permissions, write access

readme or README (n.)
Related: file extensions, GitHub, Write the Docs

read-only (adj.)
Related: read access, read/write, permissions, write access
**read/write** (adj.)
As in read/write privileges.
Related: permissions, read-only, write access

**real-time** (adj.), **in real time**
Ex: It offers real-time monitoring. Events occur in real time.
Related: livestream, media

**reCAPTCHA**
Google's proprietary CAPTCHA system.
Related: CAPTCHA, challenge-response mechanism, CRAM, The Three Laws of Robotics, Turing test

**[REDACTED]**
Indicates a censored section of code, often passwords or PII. Use the tech font if it's part of a code snippet. Redact your images by adding black boxes in image editing software outside of your word processor.
Related: ...omitted for brevity..., snippet

**Reddit, redditor** (n.)
The Reddit mascot is named Snoo.
Related: AMA, fandom, IANAL, social media, message board, subreddit, TIL, upvote, web forum

**Red Hat**
A Linux operating system or the company that made it. The operating system's full name is Red Hat Enterprise Linux.
Related: JBoss

**redirect** (v. or n.)
Related: URL shortener

**Redis**
An open source in-memory key value store.

**RedLock**
A former Cloud DevOps vendor.
Related: PAN

**ReDoS**
Regular expression denial of service.
Related: DoS

**Red Shirt** (n.)
A future casualty; cannon fodder; a minor character who is likely to die. Originally, auxiliary crew members of the Star Trek Enterprise who often died during missions. Informal.
Related: the Borg, science fiction

**RedSnarf**
A tool used during security assessments.

**red team, red teaming** (n.)
A type of offensive engagement. Define briefly on first use to clarify your intended meaning.
Related: attack surface, blue team, flowchart, offsec, penetration testing, purple team, trophy

**RedTube**
Related: Pornhub, Rule 34, teledildonics

**reduce** (v.)
To lower the likelihood of an attack. Not synonymous with “mitigate,” which lessens the severity of an attack.
Referer
The famously misspelled HTTP referrer header.
Related: header

reflect (v.), reflected (adj.)
An attack pattern in which a payload is copied verbatim onto a victim's context.
Related: XSS

regex (n.)
Regular expression. Pronounced as "redge-X" or "regg-X."
Related: Boolean operator, grep, string extraction

registry hive (n.)
A logical group of keys and values in the Windows Registry. Often targeted by attackers to steal hashed credentials.
Ex: System, SAM
Related: Active Directory, SAM, Windows

regression (n.)
When a previously remediated vulnerability becomes exploitable again.

remediation (n.), remediate (v.)
The process of improving a system to a known good state in which elements of a vulnerability or its impact have been eliminated.
Related: de-escalate, hotfix, mitigation, risk, unremediated

remote access (n.)
Related: the cloud, gateway, portal, RCE, shell

remote desktop (n. or adj.)
Do not use as a verb.
Related: RDP

replay attack (n.)
Related: Man-in-the-Middle

replicant (n.)
Fictional android in 1982's Blade Runner.
Related: artificial intelligence, science fiction

repo (n.)
Short for repository. Informal.

reportlet, reportlets (n.)
Related: applet

report names (n.)
If referring to a title or a report in general, capitalize it in the normal font, as in “the Acme Application Assessment 2020 report.” If referring to the specific filename or path, use the tech font.
Related: file extensions, filenames, file paths

repository (n.)
Related: branch, fork, data lake

reproducible (adj.)

request (n.)
Use the normal font for all types of requests.
Ex: GET request, pull request
Related: Ajax request, DELETE request, echo request, fetch, fields, GET request, HEAD request, HTTP method, PATCH request, POST request, PUT request
response (n.)
   Use the normal font for all types of responses.
   Ex: HTTP 200 OK response
   Related: HTTP status

response splitting (n.), response-splitting (adj.)

REST
   Representational State Transfer.
   Web services. Do not spell out.
   Related: API, SOAP

restart (v.)
   Related: power cycle

RESTful (adj.)

retcon (v. or n.)
   To retroactively change the continuity of a story in a “do-over.” Informal.

retest (v. or n.)
   Ex: This finding was not retested.

retweet (v. or n.)
   Related: hashtag, RT, signal-boost, Twitter

reuse (v. or n.)

reverse engineering (n.), reverse-engineer (v.), reverse-engineering (adj.)
   Related: Hopper

reverse proxy (n.)

reverser (n.)
   A reverse engineer. Informal.

rexec
   Short for remote execute. Pronounced as “R-exec.”

RF (n. or adj.)
   Radio frequency. Spell out on first use.

RFB
   The Remote Frame Buffer protocol. Spell out on first use.

RFC, RFCs (n.)
   Request for Comments. A formal document from the IETF made by a committee and then formally reviewed. For example, the RFC 1918 memorandum assigns private IP addresses. Pronounced as letters. Define on first use in public-facing documents.
   Related: IETF

RFID card (n.)
   Radio frequency identification card. Do not spell out.
   Related: ID, physical pen testing, social engineering, Tastic RFID Thief

RFP, RFPs (n.)
   Request for proposal. Spell out on first use in public-facing documents.
   Related: CFP

RHEL
   Red Hat Enterprise Linux. Pronounced as “rell.” Spell out on first use.

rich text (n.)
   Related: characters, cleartext vs. plaintext, metacharacter, RTF
Rickmote Controller
A Rickrolling remote control created by Bishop Fox in 2014.
Related: Chromecast

Rickroll (v.), Rickrolling (n.)
Related: 4chan, URL shortener

ride-share, ride-sharing (v., n., or adj.)
Related: gig economy, Lyft, Uber

right-click (v.)
Related: double-click, hover

ingtone (n.)
Related: cell phone, smartphone

ripgrep, ripgrep
A search tool used during pen testing. Use the tech font when writing the command. related: grep

RISC (n.)
Reduced instruction set computer. This architecture is used in some microprocessors. Do not spell out.

risk (n.)
The perceived threat of a security weakness based on the business impact, likelihood of exploitation, and cost to mitigate or reduce the threat.
Related: enterprise security, HAZOP, heat map, high-severity, net risk, PASTA, RBA, remediation, threat modeling

RMIScout
A Bishop Fox tool for exploiting Java services. Pronounced like “army-scout.”

RNG, RNGs (n.)
Random number generator. Spell out on first use.
Related: CSPRNG, PRNG, speedrun, video games

roadblock (n.)
Related: trivial

roadmap (n.)

ROBOT
Return of Bleichenbacher’s Oracle Threat. A TLS attack. Do not spell out.
Related: SSL/TLS

robotics (n.)
Related: Arduino, artificial intelligence, hardware hacking, R2-D2, The Three Laws of Robotics, Turing test, uncanny valley

Rockyou, Rockyou.txt
A large password-cracking dictionary made from a 2009 data breach of the company RockYou.
Related: breach, dictionary attack, hashcat, security breach

rogue access point (n.)
Related: Stingray, Wi-Fi

rogue cell tower (n.)
Also called a cell-site simulator.
Related: 3G, cell phone, smartphone, Stingray
**roll back** (v.), **rollback** (adj. or n.)
To return to a previous version of software that is known to be problem-free due to an issue in the most recent version.
Related: patch, up-to-date, version numbers

**root** (v.)
To gain root-level access. OK to use in formal writing when discussing Android mobile devices. Informal in other uses.
When discussing iOS, use jailbreak instead.
Related: su

**root or root** (n.)
Use the tech font when referring to a specific root account or user. Use regular font when referring to a more general instance, such as the root of an XML document or a web root.
Related: admin

**rootkit** (n.)
A collection of exploitation tools designed to gain root-level access to a target operating system.

**Root the Box**
A capture-the-flag competition and its supporting software infrastructure.
Related: NetWars, war gaming

**ROP** (n.)
Return-oriented programming. Spell out on first use.

**RoR**
Ruby on Rails. A web application framework. Sometimes just called Rails.
Spoken out loud as the whole phrase. Spell out or briefly define on first use.
Related: mass assignment, Ruby

**RPC, RPCs** (n.)
Remote procedure call. Spell out on first use.
Related: gRPC, inter-process communication, RMI

**RPG, RPGs** (n.)
Role-playing game. Spell out on first use.
Related: DM, LARP, video games

**RSA**
This refers to a tech company, an annual San Francisco security convention, and an encryption algorithm. RSA stands for the last names of the three co-founders.
Pronounced as letters. Do not spell out.
https://www.rsaconference.com/
Related: cipher

**rsh**
Short for remote shell. Allows the execution of non-interactive programs on another system. Pronounced as letters or “R-shell.”

**RSS feed** (n.)
Rich Site Summary. Pronounced as letters.
Do not spell out.
Related: blog

**RT, RTs** (n. and v.), **RT’d**
Retweet on Twitter. Informal.
Related: signal-boost
RTF, .rtf file
Related: file extensions

RTFM
“Read the fucking manual.” Informal.
Related: message board, tl;dr, web forum

RTMFP
Real-Time Media Flow Protocol. Spell out on first use.
Related: media

Rubber Ducky
Related: USB Rubber Ducky

Rubeus
Related: Kerberos

Ruby
A programming language.
Related: gem, RoR

Rule 34
If it exists, there is porn of it. Informal.
Related: Godwin’s Law, Pornhub, RedTube, teledildonics

ruleset, rulesets (n.)

runas
A command to execute a program by “running as” another user.

runtime (n.), run-time (adj.)

Rust
A programming language.

Ryuk
A ransomware attack.

S

S3, S3 bucket (n.)
Simple Storage Service. An Amazon service.
Related: pre-signed

SaaS (n.)
Software as a service. Pronounced as “sass.” Spell out on first use.

safelist, safelisting (n.)
An alternative term to whitelisting. Use this term to match client preference in client-facing documents.
Related: allowlist, denylist, whitelist

salami slicing (n.)
Repeatedly stealing money in very small quantities.
Related: bitcoin, cryptocurrency

Salesforce

salt (v. or n.), salted (adj.)
In encryption, salted code has random values sprinkled in it to make it more difficult to decode. If two users have the same password, salting ensures that their hashes won’t be the same.
Related: hashed
SAM
Security Account Manager. A registry file in Microsoft systems that serves as a password database. Also refers to the Sequence Alignment Map file format. Pronounced as “samm.”
Related: Active Directory, file extensions, IPT, LM hash, NTLM hash, registry hive

cal-same-origin policy (SOP) (n.)
Spell out on first use to distinguish the acronym from standard operating procedures.

SAML
Security Assertion Markup Language.
SAML rhymes with “camel.”
Related: a vs. an, IdP

sandbox (n. or v.)
A testing environment that is isolated from production or a restricted operating system environment for running unverified programs.
Related: DMZ, segmentation

sandbox escape (n.)
Modifying privileges in a system past the manufacturer’s intention in order to gain root access. More generic than “jailbreak.”

sanitized (adj.)
Describes content (usually user input) that has been stripped of unwanted characters to prevent code injection.
Related: invalidated vs. unvalidated

The SANS Institute, SANS
Related: certification

SASL

SBM
Secure Boot Manager. Spell out on first use.
Related: embedded device, Internet of Things, MCU

SCADA
Supervisory control and data acquisition. A control system architecture. Spell out on first use.

Scala
Programming language meant to address criticisms of Java.

scale set, scale sets (n.)
Related: VM

SCCM
System Center Configuration Manager.
Spell out on first use.
Related: Microsoft

Schannel
Short for Secure Channel. A Windows SSP. Pronounced as “S-channel.”
science fiction or sci-fi (n.)
Related: android, ansible, Aperture Science, artificial intelligence, Black Mirror, the Borg, bullet time, C-3PO, cyberpunk, Cylon, deus ex machina, Ex Machina, fandom, FTL, Ghost in the Shell, gray goo, hoverboard, hyperdrive, hyperspace, Lightspeed, Master Control Program, The Matrix, nanotechnology, post-apocalyptic, R2-D2, Red Shirt, replicant, Skynet, spacetime, TARDIS, The Three Laws of Robotics, uncanny valley, warp drive, warp speed

scope (n.)
The agreed-upon list of applications and environments that an assessment team tests during an engagement.

scope creep (n.)
The gradual expansion of the scope of a project over time. Informal.

</scorpion> or Scorpion
A TV show about hacking that ran from 2014 to 2017.

SCP, scp
Secure copy protocol. Use the tech font when writing about the command. Spell out on first use.
Related: SSH

scrape (v.), scraping (n.)
A script can retrieve (scrape) all of the data from a web page in lieu of an API retrieving the specifically desired information.

screencap, screenshot (n.)
Don’t use these terms in formal writing unless the method of capture is relevant to the narrative. We recommend calling them figures or using terms that are related to the content, as in “the login page below.”

screen-capture (v.), screen capture (n.)
screensaver (n.)
screen-sharing (adj. or v.), screen sharing (n.)
screen time (n.)

script, scripting (n.)
Related: Bash, Python

script kiddie (n.)
A hacker who only knows how to run existing scripts, but not how to write their own. Informal.

scroll bar (n.)
Related: GUI, hamburger button

scrum (n. or v.)
An Agile framework. Also the name of meetings within that system.
Related: birds of a feather, sprint, stand-up

scrypt
A hashing (not encryption) algorithm.
Pronounced as “S-crypt.”
Related: PBKDF
**SCSI (n.)**
Small Computer System Interface.
A parallel interface. Pronounced as “skuzzy.”

**the Scunthorpe problem**
Non-obscene words are sometimes blocked because they contain a banned string of letters, such as “sex” in “Sussex.”
Related: the Cupertino effect

**SDK, SDKs (n.)**
Software development kit. Spell out on first use.

**SDLC, SDLCs (n.)**
Software development lifecycle. Sometimes written as SDL. Spell out on first use.
Related: Agile, lifecycle management, patch cycle, SSDLC, version numbers

**SDN (n.)**
Software-defined networking. Spell out on first use.
Related: ZTN

**sealioning (n.)**
A type of trolling that involves persistently asking questions in bad faith. Informal.

**search engine (n.)**
Related: crawl, DuckDuckGo, Elasticsearch, Google, look up, query, SEO, Shodan, Startpage

**second-order (adj.)**
Ex: second-order SQL injection

**Secure**
A flag for protecting HTTP cookies from Man-in-the-Middle attacks.
Related: cookie, flag, HttpOnly, insecure cookie transmission

**Secure Boot**
A security standard for verifying trusted code during launch.
Related: start up

**secure by default (n.), secure-by-default (adj.)**
Ex: The system is secure by default. The system has a secure-by-default configuration.

**security breach (n.)**
To describe the specific impact of a breach, you can say that information was exposed, disclosed, obtained, or stolen.
Related: leak, Rockyou

**security control (n.)**
Code or another tool (as opposed to policy) that enforces repeatable security. There are preventive controls, detective controls, and corrective controls.
Related: enterprise security

**security key (n.)**
A physical hardware device used to perform MFA.
Related: 2FA, U2F, YubiKey

**Security Monkey**
A Netflix tool for AWS configuration monitoring.
security question (n.)
Use the normal font with quotation marks for prompts, as in “What was the name of your favorite unpaid internship?”
Related: error messages

security through obscurity (n.)
The generally maligned practice of making a system extremely complex in the hope that it will prevent anyone from figuring out how to hack it.
Related: obfuscation, principle of least privilege

Security Without Borders
A collective of industry volunteers who help others solve information security issues.
https://securitywithoutborders.org/
Related: the Fifth Amendment

seed (n.)
A string of bits used to generate a pseudo-random number for encryption.
Related: cryptography, PRNG

seed, seeding (v.)
To upload file parts in peer-to-peer file sharing.
Related: torrent

segmentation (n.)
Related: DMZ, microsegmentation, sandbox, VLAN, VM

SegWit
Short for Segregated Witness. A cryptocurrency protocol.
Related: network segmentation

self-driving vehicle (n.)

self-signed (adj.)
Describes a typically insecure cryptographic certificate that has itself as a source of trust.

Semantic Versioning
Also written as SemVer and semver. A versioning system that organizes major, minor, and patch versions.
Ex: 1.0.2, 3.5.16-beta
Related: dependency hell, GitHub

SEO (n.)
Search engine optimization. Spell out on first use.
Related: A/B testing, algorithm, browsable, keyword, metadata, orphan

serialize (v.), serialization (n.)
The process of turning a data structure into a data stream that can be more easily stored or transmitted.
Related: deserialize, Jackson serialization, pickle, unserialize

server (n.)
Write the names and types of servers in the normal font, as in “SMTP server.”
Related: the cloud, daemon, -hosted, IIS, MSP
server room (n.)
Related: data center, mainframe, on-premises

server side (n.), server-side (adj.)
Related: SaaS

ServerSignature, ServerTokens
Apache directives.
Related: directives

service provider (SP) (n.)
Spell out on first use.
Related: ASP, ISP, SSP

servlet, servlets (n.)
A Java program that handles requests for a server.

servo, servos (n.)
Short for servomotor.
Related: hardware hacking

session fixation (n.)
A web application attack in which a victim's session token is set to a known value, allowing it to be hijacked.
Related: GET request, persistence, POST request, SSID

set-top box (STB) (n.)
Also called a cable box.
Related: media

set up (v.), setup (n. or adj.)

SFTP
SSH File Transfer Protocol. Do not spell out unless defining the term.
Related: FTP, FTPS

SHA-1, SHA-256, SHA-512
Secure Hash Algorithm. SHA is a series of cryptographic hash functions. In informal writing, these are often written lowercase and without hyphens, as in “sha256.” Pronounced as “shah.” Do not spell out.
Related: cipher, HMAC, MD5

SharePoint
A Microsoft product.

shell (n.)
Short for command shell. Informally, you can gain, get, pop, spawn, or drop a shell.
Use obtain a shell or gain persistent remote access in formal writing.
Related: LAN Turtle, persistence, RCE, shell script

shellcode (n.)
Do not pluralize.
Related: ACE

shell script (n.)
Ex: reverse shell, root shell, webshell

Shellshock
A GNU Bash vulnerability. Also known as Bashdoor.

shelve (v.)
To discontinue the use of. Corporate jargon; use sparingly.
Related: sunset

Shodan
A search engine for devices connected to the internet.
short-name (n.)
A shortened filename. Also called an 8.3 filename.

shoulder surfing (n.)
Standing behind someone to steal their passwords or other information. Informal. Related: social engineering

Showdown
A program that translates Markdown into HTML.

shruggie (n.)
¯\_(ツ)_/¯ is an elaborate emoticon that expresses indifference or a lack of an answer. Sometimes appears in a simplified form as vOv. Related: emoticon, facepalm, headdesk

-side (adj.)
Always hyphenate in adjectives. Ex: client-side, server-side

SIEM (n.)
Security information and event management. Pronounced as “sim” or “see-em.” Spell out on first use.

Signal
A privacy-focused messaging app. Related: ChatOps, IM, Line, WeChat, WhatsApp

signal-boost (v.)
Related: Indiegogo, Kickstarter, retweet

signal-to-noise ratio (SNR) (n.)

signature (n. or v.)
Avoid using as a verb if possible. Try identify instead. Related: CA, DKIM, pre-signed

signed long (n.)
A long, signed integer type of data.

sign in (v.), sign-in (n.)
Related: log in

sign out (v.), sign-out (n.)
Related: log out

sign up (v.), signup (n.)

Silicon Valley
A generic term for the tech industry based in the greater San Francisco Bay Area. Also the name of an HBO TV show about a startup company called Pied Piper. Related: hacker

Silk Road
A black market website that was operational between 2011 and 2014. Related: I2P, piracy, Tor

silo, siloed (v.)
To isolate or separate. Corporate jargon; use sparingly.

silo, silos (n.)
Isolated departments within an organization. Corporate jargon; use sparingly.

SIM card (n.)
Related: 3G, cell phone
the singularity (n.)
Related: artificial intelligence, gray goo, Moore’s Law

sinkhole, sinkholing (v. or n.)
Traffic redirection.
Related: botnet, denial of service, DNS

SIP
Session Initiation Protocol. Spoken out loud as the whole phrase. Spell out on first use.

Siri
Apple AI.
Related: Alexa, Cortana, Google Assistant

SIR plan (n.)
Security incident response plan. IR plan and CSIRT may be more familiar terms for your audience. Spell out on first use.
Related: incident response, IR plan

Sitecore
Related: CMS

site map (n.), sitemap file
The sitemap file contains the site map.
Related: directory, mapping, orphan, subdirectory, web directory, website

Six Sigma
A set of techniques to improve performance and minimize defects.
Related: QA

skewomorph (n.)
A modern feature that is styled to look like an older, physical version.
Ex: the floppy disk Save button, the shopping cart icon used by online retailers

skill set (n.)
Related: soft skills

SKU, SKUs (n.)
Stock keeping unit. Do not spell out.
Related: brick-and-mortar

Skynet
The fictional AI tech by Cyberdyne Systems that led to the creation of the Terminator.
Related: post-apocalyptic, science fiction

Skype
Related: videoconferencing, webinar

SLA, SLAs (n.)
Service-level agreement. Spell out on first use.
Related: MSA, NDA, SLO, SOW

SLAAC attack (n.)
An IPv6 attack that exploits the Stateless Address Autoconfiguration process.

Slack
A group messaging system.
Related: Discord, IRC

slash or /
Related: characters

slideshow (n.)
Related: PowerPoint, videoconferencing

SLO, SLOs (n.)
Service-level objective. Spell out on first use.
Related: SLA
slug (n.)
A user-friendly URL. Informal.

Smalltalk
A programming language.

smartglasses (n.)
Related: AR, Internet of Things

smart lock (n.)
A generic term for an IoT lock.
Related: Internet of Things, lock picking

smartphone (n.)
An internet-enabled cell phone.
Related: 3G, app vs. application, brick, cell phone, homescreen, Internet of Things, iPad, jailbreak, LTE, ringtone, rogue cell tower

smart safe (n.)
Related: Internet of Things

smartwatch (n.)
Related: Internet of Things

SmashBot
An unbeatable Nintendo Super Smash Bros. AI created by Dan Petro.
Related: video games

SMB, SMB 3.0
Server Message Block. Pronounced as letters. Spell out on first use.
Related: Active Directory

SME, SMEs (n.)
Subject matter expert. Pronounced as “smee,” letters, or the whole phrase. Spell out on first use.

S/MIME
A public encryption key standard for MIME data.

smishing (n.)
Short for SMS phishing. A type of social engineering attack that uses text messages to target individuals. Briefly define on first use.
Related: phishing, social engineering, vishing

SMS (n.)
Short message service.
Related: text message

SMTP
Simple Mail Transfer Protocol.
Related: email

Snapchat
Related: influencer, social media

sniff (v.)
To monitor and capture data packets that pass through a network.
Related: Bloodhound, nosniff

snippet (n.)
An amount of quoted code. In formal writing, we use a code excerpt instead.
Related: code, line numbers, ...omitted for brevity..., [REDACTED], URL

SNMP
Simple network management protocol.
Related: IPT

SNMPwalk
A network monitoring tool.
Snyk
An open source security tools company.
Pronounced as “sneak” or “snick.”

S/O or s/o (v. or n.)
Shout out. A way to publicly thank someone online. Informal.
Related: h/t, web forum

SOA
Start of Authority or service-oriented architecture. Spell out on first use to clarify your intended meaning.
Related: microservice

SOAP
Simple object access protocol. Spell out on first use.
Related: API, REST, WSDL

SOC (n.)
Security operations center. Pronounced as “sock.” Spell out on first use.

SoC (n.)
System on chip. Spell out on first use.

social engineering (n.)
Related: cold-call, phishing, phreak, physical pen testing, pretexting, RFID card, shoulder surfing, smishing, spear-phishing, spoof, tailgating, trick, vishing

social media (n.)
Related: BuzzFeed, clickbait, downvote, emoji, Facebook, fandom, influencer, Instagram, internet, like, Reddit, Snapchat, TikTok, Twitter, Tumblr, upvote, Web 2.0, web forum, Weibo

The Social Network
A 2010 biopic about the founding of Facebook.

Social Security number (SSN) (n.)
Do not write “SSN number.”

sockets (n.)
For types of socket, use the normal font.
For a specific socket, put the socket type in the tech font, as in jmxrxi socket.

SOCKS
Socket Secure protocol. Do not spell out.

Sofacy
A hacking group also known as APT28 or Fancy Bear.

soft skills (n.)
In contrast to hard programming skills, these are communication skills like listening, presenting, and interpersonal networking.
Related: skill set

soft token (n.)
Short for software token. Used to generate a push notification or OTP on an authentication app as part of a multi-factor authentication process.
Related: 2FA, hard token, MFA

software (n.)
Related: app vs. application, program, -ware
solder, soldering (v. or n.)
Pronounced as “sah-dur.”
Related: circuit, desolder, hardware
hacking, tip tinner

solid state (adj.)
SSD is short for solid state drive.

SomaFM
DEF CON radio.

SOP, SOPs (n.)
Same-origin policy or standard operating procedure. Pronounced as letters. Spell out on first use.

source code (n.)
Do not abbreviate to “source” in formal writing.
Related: IDE

SOW, SOWs (n.)
Statement of Work. Pronounced as letters.
Spell out on first use.
Related: MSA, NDA, SLA

spacebar (n.)
Related: characters, keyboard keys

spacetime (n.)
Related: science fiction, TARDIS

SpaceX
Related: Tesla

spam (v. or n.)
Related: email, FXL, junk mail, mailbomb, phishing, Python

spawn (v.)
Avoid using in formal writing, unless it is the technical term specific to the technology that is being discussed. Try start or create instead.

spear-phishing (n. or v.)
Tailored phishing attacks that are aimed at a specific target.
Related: social engineering

-specific (adj.)
Always hyphenate.
Ex: client-specific, task-specific

Spectre
A flaw that affects Intel, AMD, and ARM chipsets. It was publicly disclosed in January 2018. The James Bond supervillain organization is SPECTRE.
Related: ARM, Meltdown, vulnerability, x86

speedrun, speedrunning (n.)
Related: RNG, TASBot, video games, YouTube

SpEL
Spring Expression Language.

SpellCheck
A spelling bee competition for hackers that took place at HOPE 13, DEF CON 26, and DEF CON 27. It used this style guide as the word list.

spellcheck (v.), spell check (n.)
Related: the Cupertino effect
SPF
Sender Policy Framework. Spell out on first use to avoid confusion with the sunscreen rating system.

spider (v.)
To crawl websites to index pages. Define on first use.
Related: crawl, website

spin up (v.)
Avoid using in formal writing. Try launch, instantiate, power on, or create instead.

splash page (n.)
Related: website

split tunneling (n.)
Related: LAN, VPN

Splunk
A SIEM tool.

SPN, SPNs (n.)
Service principal name. Pronounced as letters or the whole phrase. Spell out on first use.
Related: Active Directory, Kerberos, UPN

spoof, spoofing (v. or n.)
To create a fraudulent, attacker-controlled replica of legitimate data (e.g., a website).
Related: copycat, email, phishing, social engineering

springboard (n.)
Corporate jargon; use sparingly.

Spring Framework
A Java application framework.

sprint (n.)
Related: Agile, scrum

spyware (n.)
Related: EFF, FinFisher, malicious code, malware

SQL
A programming language. Precede with “a” in phrases like “a SQL query.” Pronounced as “sequel” or as letters.
Related: a vs. an, MariaDB, MS SQL, MySQL, PL/SQL, Postgres, T-SQL

SQLi

sqlmap
A tool that finds and exploits SQL injections.

Square Cash
A mobile payment service.
Related: PayPal, Venmo

Squarespace
Related: website, WordPress

Squid
A web proxy.

SSD, SSDs (n.)
Solid state drive. A drive with no moving parts. Spell out on first use.

SSDLC, SSDLCs (n.)
Secure software development lifecycle. Spell out on first use.
Related: SDLC
SSH
Secure Shell protocol. It always uses TCP port 22. Do not spell out unless defining the term.
Related: SCP, Telnet

SSHD, SSHDs (n.)
Solid state hybrid drive. Spell out on first use.

SSI
Server Side Includes. A programming language. Spell out on first use.

SSID, SSIDs (n.)
Related: session fixation, Wi-Fi

SSL, SSL 2, SSL 3
The Secure Sockets Layer protocol, which is outdated and vulnerable to the POODLE attack. Do not spell out unless defining the term.
Related: EAP

SSL Labs
An SSL research effort from Qualys.

SSL/TLS
Related: CA, FREAK, FTPS, Let’s Encrypt, ROBOT

SSN, SSNs (n.)
Social Security number. Don’t capitalize “number.” Spell out on first use.
Related: ATM, PII, PIN

SSO (n.)
Single sign-on. Spell out on first use.
Related: Duo, IAM, IdP, Okta

SSP, SSPs (n.)
Security support provider. Spell out on first use.

SSRF
Server-side request forgery. Spell out on first use.
Related: CSRF

SSTI
Server-side template injection. Spell out on first use.

stack canary (n.)
Related: buffer overflow

stack trace (n.)
Related: error messages

Stadia
A Google cloud-based gaming platform.
Related: video games

staff augmentation (n.)
Related: onboarding, third-party

stageless (adj.)
Does not need to be staged.
Ex: a stageless Meterpreter payload
Related: executable
stakeholder (n.)
An informal daily work meeting.
Related: birds of a feather, lessons learned, scrum

stand-up (n.)
A privacy-focused search engine.
Related: DuckDuckGo

Startpage
A surveillance tool that appears as a Wi-Fi network but actually takes information from the devices that connect to it.
Related: rogue access point, rogue cell tower, surveillance software

start up (v.), startup (adj. or n.)
Ex: Start up the laptop. A startup company.
Related: boot chain, Secure Boot, unicorn

stateful (adj.)
Describes a protocol in which recipients of a request can track the session from previous requests.
Ex: FTP

stateless (adj.)
Describes a protocol where the session state is tracked in each request without referring to previous communications.
Ex: HTTP

status, statuses (n.)
Related: HTTP status

STEAM (n.)
Science, technology, engineering, arts, and math.
Related: STEM

Steam
A video game distribution platform.

steganography (n.)
A strategy of hiding information to avoid its capture rather than openly disguising it through cryptography.

STEM (n.)
Science, technology, engineering, and math.
Related: STEAM

sticky cookie (n.)
Related: persistence

Stingray
A surveillance tool that appears as a Wi-Fi network but actually takes information from the devices that connect to it.
Related: rogue access point, rogue cell tower, surveillance software

STIX
Structured Threat Information Expression.
A language used for threat analysis.

stockholder (n.)
Related: finance

STP
Spanning Tree Protocol.
Related: Ethernet

stream, streaming (n. or v.)
Related: HLS, livestream, OTA, Twitch, Vimeo, YouTube

The Streisand Effect
The effect states that requesting the internet to not do something will cause the internet to deliberately do that thing more.
Related: troll
stress test (n.), stress-test (v.)
Related: QA

string extraction (n.)
Related: regex

string literal (n.)
A string of characters written directly into the code.

Stuxnet
A worm that sabotaged Iranian uranium enrichment in 2010.

su
Short for superuser. Use the tech font, as in su command.
Related: admin, root, sudo, Terminal

subdirectory (n.)
Related: Active Directory, site map

subdomain (n.)
Ex: know.bishopfox.com is a subdomain of bishopfox.com.

subkey (n.)

subnet (n.)
A group of IP addresses.
Ex: 1.0.0.0/24
Related: CIDR

subreddit (n.)
Ex: r/hacking
Related: Reddit, web forum

Subresource Integrity (SRI)
A browser security feature.

subsystem (n.)

subtweet (n. or v.)
Informal.
Related: Twitter

Subversion (SVN)
A version control system.
Related: Apache HTTP Server, branch, GitHub

subversion (n.)
Noun form of “subvert.” Avoid using this to mean a “sub” version. Use minor version, patch, or just version instead.
Related: Semantic Versioning

subvert (v.)
Related: disrupt

sudo or sudo
Superuser do. Write in the normal font if referring to sudo privileges. If referring to the command sudo, use the tech font.
Related: admin, su, Terminal

sudoer (n.)
Someone who has sudo privileges.
Informal. In formal writing, try “user with sudo privileges” if it’s not part of a set expression.

sudoers
The sudo configuration file.

Summercon
An annual security conference in New York.
Related: Hacker Summer Camp, HOPE
**sunset** (v.)
Corporate jargon for planned phasing out.
OK to use sparingly in the infinitive. Also try
no longer support or decommission.
Related: **out-of-date, shelve**

**super admin** or **superadmin** (n.)
Related: **admin**

**superclass** (n.)
If writing about a type of superclass, use the
normal font. If it’s the name of a superclass,
use the tech font, as in `Throwable`.
Related: **class**

**SuperHappyDevHouse (SHDH)**
A type of hackathon party that started in
the Bay Area and now has global offshoots.
Related: **game jam, Hacker Dojo, LAN**

**superuser** (n.)
Related: **sudo**

**surveillance software** (n.)
Related: **Big Brother, CCTV, Stingray, wiretap**

**SVN**
Apache Subversion. Spell out on first use.
Related: **Apache HTTP Server**

**Swagger**
Open source software framework and tools
to build, design, and document APIs.

**Sweet32** (n.)
A cryptographic birthday attack.
Related: **3DES, birthday attack**

**SWF, .swf file**
Pronounced as “swiff.”
Related: **file extensions**

**SWIFT**
Society for Worldwide Interbank Financial
Telecommunication. Do not spell out.
Ex: **SWIFT network**
Related: **finance**

**Symfony**
A PHP framework.

**symlink** (n.)
Symbolic link. Do not use the shortened
form in formal writing.

**sync** (n. or v.), **syncing** (v. or adj.)
Related: **datetime**

**syntax highlighting** (n.)
Displaying text within code in different
colors based on keywords or categories. We
do not use syntax highlighting in client-facing reports.

**sysadmin user** (n.)
Related: **admin**

**syslog server** (n.)

**system** (n.)
If writing about a specific system, use the
tech font, as in “the dev_test system.”
Otherwise, use the normal font.

**systematically** (adv.)

**systemic** (adj.), **systemically** (adv.)
Related: **-wide**
system on chip (SoC) (n.)
Spell out on first use.
Related: CPU, flash memory, Raspberry Pi

tabletop exercise (n.)
A discussion-based exercise in which a team and a facilitator run through a hypothetical scenario to test an organization's incident response. Sometimes informally abbreviated to TTX or TTE.
Related: blue team, incident response, threat modeling

tag stripping (n.)
Related: metadata

tailgating (n. or v.)
Entering a secure area by tagging along with someone who has proper credentials.
Related: physical pen testing, social engineering

tail of the file (n.)
The last 10 lines of a file. It can be requested through the Unix command tail.

tailor (v.)
Also hone or refine, when referring to attacks or payloads.

taint (n.)
In Kubernetes and Terraform, a taint is a resource that is corrupt and needs some form of remediation. Explain on first use and use with caution.

take away (v.), takeaway (n.)
Related: lessons learned, outbrief

take over (v.), takeover (n.)
Ex: An attacker could take over the system.
The attack resulted in complete system takeover.

tamper-evident control (n.)
Related: hardware hacking, physical pen testing

tar, .tar file
An archive utility or its filename extension.
Related: file extensions

tarball (n.)
A .tar file. Informal; do not use in formal writing.

TARDIS
Time And Relative Dimension In Space. The fictional police box-shaped spacecraft and time machine used in Doctor Who. It's bigger on the inside.
Related: science fiction, spacetime

tarpitting (n.)
The deliberate slowdown of a network to contain or deter an attack.

TASBot
Pronounced as “tass-bot.”
Related: speedrun, video games
Tastic RFID Thief
A Bishop Fox tool that can copy RFID credentials up to three feet away.
Related: Mr. Robot, physical pen testing, RFID card

TB (n.)
Terabyte. No space between the number and unit, as in “50TB.” Do not pluralize TB.
Related: byte, units of measurement

TCP/IP
Related: Gopher, QUIC, UDP, Telnet

tech-savvy (adj.)

Tectia SSH

TED Talks or TEDx
Short for technology, entertainment, and design. Global knowledge conferences. Pronounced as “ted” and “ted-X.” Do not spell out.

TEE (n.)
Trusted Execution Environment.
A secure area on a processor that is used to execute sensitive code.

teledildonics (n.)
Internet-enabled sex toys.
Related: Internet of Things, Rule 34

telemedicine (n.)
Related: healthcare

telephony pen testing (n.)
Related: VoIP

teleprompter (n.)
Related: media

Telnet
A remote login protocol.
Related: SSH, TCP/IP

Terminal
Related: command line, full-stack development, macOS, PowerShell, su, sudo

terminate (v.)
To end or close, as in a program.

Tesla
A manufacturing company named after the scientist Nikola Tesla.
Related: SpaceX

text box (n.)
Related: UI

text message (n.)
Related: emoji, SMS

TFS
Team Foundation Server. Spell out on first use.
Related: Git, Microsoft

tgrep
Pronounced as “T-grep.”
Related: grep, ngrep
they
Use singular they. As with all language, be mindful of possible clarity issues.

thick client (n.)
A computer that provides rich functionality independent of the server. Also used to describe applications that run on a user's machine and do not rely heavily on server communications. Also called a fat client; don't use “fat client” in formal writing.

thin client (n.)
The opposite of a thick client. A computer that primarily depends on a server for computing within a larger infrastructure. Can refer to a web application.

third party (n.), third-party (adj.)
An external party (like a vendor) that exists outside of the company-user relationship. Related: dependency hell, public-facing, staff augmentation

THOTCON
An annual security conference in Chicago.

threat (n.)
Security threat categories include competitor, hacktivist, insider, dealer, nation-state, and third-party integrator. Related: corporate espionage, DREAD, HAZOP, PASTA

threat hunting (n.)
Defensive security. Related: blue team

threat modeling (n.)
A process of identifying threats and relevant mitigations. This can vary from an informal phase of any assessment to a formal service that analyzes a given system. Related: mitigation, threat

The Three Laws of Robotics
Written by Isaac Asimov. “1: A robot may not injure a human being or, through inaction, allow a human being to come to harm. 2: A robot must obey orders given to it by human beings except where such orders would conflict with the First Law. 3: A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.” Related: artificial intelligence, Boston Dynamics, CAPTCHA, challenge-response mechanism, cyborg, reCAPTCHA, science fiction, Turing test

throughput (n.)
The total amount of data transmitted over a link per unit of time. Related: badput, goodput

throw, threw (v.), thrown (adj.)
When the code throws an error, it announces that something is wrong that the code cannot fix. Thrown errors can be “caught” by other portions of code. Related: catch

Throwable
A Java class encompassing all errors and exceptions.
**thumb drive** (n.)
A small form-factor USB drive.
Related: *flash memory*

**Thunderbolt**

**TikTok**
Also known in China as Douyin (抖音).
Related: *influencer, social media*

**tikzpeople** (n.)
LaTeX emoji.

**TIL**
“Today I learned.” Pronounced as “till,” “teel,” the whole phrase, or as letters.
Informal.
Related: *Reddit, message board, web forum*

**tilde** (n.)
Tilde is the [~] character used in coding and in the Spanish letter ñ.

**tilde enumeration** (n.)
Related: *Microsoft*

**time-boxed** (adj.)
Describes engagements that are limited by scoped hours.
Related: *dates, weeklong*

**timeframe** (n.)

**time-lapse** (adj.)

**timeline** (n.)

**time out** (v.), **timeout** (n.)
Related: *hang, lockout policy, ping*

**timestamp** (n.)

**time zone** (n.)
Include the time zone if referring to a testing window or specific event. Avoid using military (24-hour) time unless relevant to the context.
Ex: *EST, PDT, GMT*
Related: *a.m., dates, military time, numbers, p.m.*

**tip tinner** (n.)
A solder cleaner.
Related: *hardware hacking*

**titles of published works**
Titles of books, movies, podcasts, TV shows, and video games do not often appear in our formal writing. When they do, we write them in title case, as in Snow Crash. If the title does not stand out on its own, add quotation marks, as in the dystopian novel “We” or the video game “E.T.”
Related: *filenames, HTTP status, media, podcasts*

**TKIP**
Temporal Key Integrity Protocol.
An encryption protocol. Do not spell out.

**TLA, TLAs** (n.)
Three-letter agency. Refers to government agencies like the CIA, FBI, and NSA.
Informal.
Related: *DHS, IC, ICE, Interpol, TSA, watch list*
TLD, TLDs (n.)
Top-level domain. Pronounced as letters. Spell out on first use.
Related: IP, website

tl;dr or TL;DR
“Too long; didn’t read.” Pronounced as letters. Informal.
Related: message board, RTFM, web forum

TLS
Transport Layer Security. The replacement for Secure Sockets Layer (SSL). Do not spell out unless defining the term.
Related: EAP, Lucky Thirteen

TOCTOU bug (n.)
Time of check to time of use.
A software issue that occurs between checking a condition and using the results of the check. Pronounced as “tock-too.”
Related: race condition

TOFU (n.)
Related: authentication, invalidated vs. unvalidated

token (n.)
When discussing a type of token, use the normal style, as in “OAuth bearer token.” If it’s a specific token, use the tech font for its name, as in “oauth_token.”

tokenization (n.)
toolbar (n.)
Related: GUI, hamburger button

toolchain (n.)
Related: DevOps

tooltip (n.)
A set of software tools.

Tor
A privacy-focused web browser. Originally short for The Onion Router. Do not write as TOR. Do not spell out.
Related: black market, browser, dark net, I2P, .onion sites, Silk Road
torrent, torrenting (n.)
Related: BitTorrent, P2P, pirate, The Pirate Bay, seed

Torx
A hexalobular screwdriver head shape.

TOTP, TOTPs (n.)
Time-based One-time Password.
An algorithm. Pronounced as letters. Spell out on first use.
Related: HMAC, HOTP, OTP
touchpad (n.)
touchscreen (n. or adj.)
Related: haptics, mobile device

tower defense (n.)
A genre of games in which the player builds defenses to survive wave after wave of enemy attackers.
Related: blue team, LARP, video games

T-POC (n.)
Technical point of contact. Pronounced as “tee-pock” or the whole phrase. Spell out on first use.
Related: PoC

traceback (adj. or n.)
Related: backtrace, callback, Python

Transmetropolitan
A comic book series that follows the journalist Spider Jerusalem through a dystopian future city.

trapdoor (n.)
An undocumented way to access an application.
Related: backdoor

tribal knowledge (n.)
Do not use this term. Use institutional knowledge or in-house knowledge instead.

trick (v.)
OK in social engineering engagements. Also consider coerce, force, manipulate, or prompt.
Related: abuse

trigger (v.)
Related: exploit, payload, TW

trim range, trim value (n.)
Related: denial of service

Tripwire
A defensive security monitoring tool made by a company of the same name.

trivial (adj.)
If describing an easy-to-bypass security measure, choose a more descriptive word like insignificant, unsophisticated, or easily overcome. OK in the phrase “Although non-trivial to implement...”
Related: commodity hardware, roadblock

trojan (n.)
Malware that masquerades as something legitimate.

trojanize (v.)

troll (n. or v.), trolling (n.)
Hateful or intentionally ignorant behavior that intends to cause strong reactions and waste time. Don't feed the trolls.
Related: 4chan, dox, flame war, Gamergate, Godwin's Law, sealioning, The Streisand Effect

trophy (n.)
A prized target within an environment. OK in formal writing if trophies have been established with the client.
Related: red team

troubleshoot (v.)
Related: debuggable

TrueCrypt
Related: encryption
**TruffleHog**
An open source search tool.

**trust boundary** (n.)
Related: **authorization, unvalidated** vs. **invalidated**

**truthiness** (n.), **truthy** (adj.)
A property of data types whereby non-Boolean values can be evaluated as Booleans in some programming languages. For example, any non-empty string is considered True in Python.
Related: **Boolean operator, JavaScript, programming logic**

**try-catch block** (n.)
An exception-handling strategy.
Related: **graceful**

**TSA**
Transportation Security Administration.
Related: **the Fifth Amendment, H-1B visa, ICE, TLA**

**TSP, TSPs** (n.)
Telecommunications service provider or Telecommunications Service Priority, an FCC emergency program. Spell out on first use to clarify your intended meaning.
Related: **ASP, ISP**

**T-SQL**
A SQL language extension. Pronounced as “tee-sequel.”

**TTD** (n.)
Time to detection. Pronounced as letters. Spell out on first use.

**TTP, TTPs** (n.)
Tactics, techniques, and procedures. Used during threat modeling exercises. Spell out on first use.
Related: **MITRE ATT&CK**

**Tumblr**
Related: **social media**

**TunnelBear VPN**

**Turing test**
A series of questions used to determine whether a subject is capable of human-like thinking.
Related: **artificial intelligence, challenge-response mechanism, reCAPTCHA, robotics, The Three Laws of Robotics**

**Turla**
A hacking group also known as Snake or Uroburos.

**tvOS**
Related: **iOS**

**TW, TWs** (n.)
Trigger warning. Spell out on first use.
Related: **CW, NSFW**

**tweet** (v. or n.)
Related: **#, Twitter**

**Twitch, twitch.tv**
A livestreaming video platform.
Related: **Discord, livestream, video games, Vimeo, YouTube**
Twitter
A microblogging website. Our account is @bishopfox.
Related: bot, checkmark, DM, hashtag, influencer, live-tweet, microblogging, retweet, social media, subtweet, tweet

two-factor authentication (2FA or TFA) (n.)
Related: MFA, YubiKey

typography (n.)
Related: dingbat, emoticon, kerning, typosquatting

typosquatting (n.)
Also called URL hijacking.
Related: domain squatting, fat-finger, kerning, phishing, typography, URL

UDP
User Datagram Protocol. A faster alternative to TCP that can tolerate some loss of data.
Related: QUIC, TCP/IP

UDS
Unified Diagnostic Services. A communication protocol.
Related: ECU, embedded device

UGT
Universal Greeting Time. On IRC, it’s always morning when you log on and always night when you log off. Informal.

UI, UIs (n.)
User interface. Pronounced as letters. Spell out on first use when writing for a non-technical audience.
Related: front end, GUI, HCI, text box

UMTS (n.)
Universal Mobile Telecommunications System. Do not spell out.
Related: 3G, CDMA, cell phone, GSM

uncanny valley (n.)
The disturbing nightmare gap between semi-realistic artificial faces and actual living humans. Informal.
Related: artificial intelligence, CGI, robotics, science fiction, video games

uncredentialed (adj.)
Describes a person who lacks proper credentials. When discussing authentication, we prefer to use unauthenticated.
Unicode Consortium
A nonprofit that decides the internet standards for emoji and Unicode.
Related: ASCII, emoji

unicorn (n.)
Corporate jargon for a successful startup.
Informal.
Related: BYOD, coworking space, crowdfund, finance, ICO, IPO, startup, VC

Unicron
A fictional, planet-eating robot from the Transformers universe. Voiced by Orson Welles in the 1986 movie.

units of measurement
Pay attention to unit capitalization (GB, Gb, GiB). Keep units singular, as in 500TB. Don't put a space between the number and the unit for things like MB and GHz. Do use a space for some units like dpi, fps, and ms. Use the International System of Units (SI) for further guidance.
Related: bit, byte, dpi, exabyte, file size, GBps vs. Gbps, GHz, KB, kHz, MB, MBps vs. Mbps, MHz, ms, numbers, petabyte, pixel, ratios, TB

Unix or UNIX
An operating system. Not an acronym. Pronounced as “you-nicks.”
Related: daemon, init script, kernel panic, Linux, MINIX

unpickling (n.), unpickle (v.)
In Python, this is the process of taking something out of serialization.

unprivileged (adj.)
Describes an authenticated user with no permissions. Avoid using this term to describe an unauthenticated user; consider instead if anonymous, guest, or unregistered is more accurate. To avoid ambiguity, specify the name of the role or any permissions involved on first mention.
Related: low-privilege

Unreal Engine
Related: video games

unremediated (adj.)
We prefer to write that “the issue was not remediated” to avoid implying that a problem was solved and then unsolved.
Related: remediation

unsanitized (adj.)
Means that security checks have not been performed. Typically pertains to user-supplied data. “Sanitized” data should be safe for an application to ingest, whereas unsanitized data may not be.

unserialize (v.), unserialized (adj.)
We prefer to use deserialize. For the PHP function, use tech font, as in unserialize().
Related: deserialize, serialize

Untwister
A tool that predicts random numbers from insecure algorithms.
unvalidated vs. invalidated
Invalidated data has been checked and deemed invalid. Unvalidated data has not been checked at all.
Related: trust boundary

UPC, UPCs (n.)

upload (v. or n.)
Related: download, media, post, user-supplied

UPN, UPNs (n.)
User principal name. Used in Active Directory. Spell out on first use.
Related: SPN

UPnP
Universal Plug and Play. A set of networking protocols for device-to-device communication. Spell out on first use.
Related: Internet of Things

upercase (adj. or v.)
Better to write “put in uppercase” but if needed, “uppercased” is OK.
Related: case-sensitive, characters, keyboard keys, lowercase

UPS, UPSes (n.)
Uninterruptible power supply. Spell out on first use to avoid confusion with the shipping company United Parcel Service.

uptime (n.)
Related: downtime, DoS

up-to-date (adj.), up to date
Ex: The system is powered by up-to-date software. The systems are up to date.
Related: patch, roll back

upvote (v. or n.)
Term used to approve posts on Reddit. Analogous to a Facebook “like.”
Related: downvote, social media

URI, URIs (n.)
Uniform/Universal Resource Identifier. Both URLs and URNs are subsets of URIs. Use the tech font when writing them out. URI is pronounced as letters.
Related: data://, hosts, links

URL, URLs (n.)
Uniform/Universal Resource Locator. Use the tech font for URLs (including IPv6). Avoid starting sentences with URLs. Format variable segments in bold color, as in https://bishopfox.com/[variable]. If the URLs are meant to be clickable links, underline in the normal font and color in blue. URL is pronounced as letters or, more rarely, as “earl.” Do not spell out.
Related: file paths, hotlink, IP addresses, links, .NET Framework, snippet, typosquatting

URL encoding (n.), URL-encoded (adj.)
A specific kind of encoding used by browsers for characters outside the ASCII set and certain other characters (e.g., spaces and ampersands).
Related: metacharacter

UrlScan
A Microsoft application.
URL shortener, URL-shortening (n.)
Tool used to abbreviate lengthy URLs. Shortened URLs can hide the true identity of a site.
Related: phishing, redirect, Rickroll

URN, URNs (n.)
Uniform/Universal Resource Name.
Pronounced as letters.
Related: links, URI

USB, USBs (n.), USB 3.0, USB-C
Universal Serial Bus. Pronounced as letters. Do not spell out.
Related: bus, dead drop, dongle, Ethernet, FireWire, HDMI, hot-swap, Lightning, port, U2F, VGA

USB drive (n.)
A storage device that connects via USB.
A thumb drive is a small form-factor USB drive. A flash drive is any drive with flash memory (solid state/NAND or USB).

USB On-The-Go (OTG)
A specification that allows a USB device to act as a host when connecting another USB device. Spell out OTG on first use.
Related: media

USB Rubber Ducky
A keyboard HID that automates keystrokes.
Rubber Ducky is OK on second use.
Related: keyboard keys

USDZ, .usdz file
Universal Scene Description Optimized.
A file format for AR.
Related: media

use after free (n.), use-after-free (adj.)
A vulnerability relating to how memory is used by a program.
Related: ASLR

Usenet
A bulletin board system that preceded the modern internet and still exists.
Related: ARPANET, BBS

user base (n.)
Related: codebase, fandom

username (n.)
A user’s login ID. Do not use this term to refer to a user’s IRL name, such as “John Smith.” Write usernames in the tech font, as in admin or Zero Cool.
Related: @, avatar, code name, handle, IM, message board, PII, web forum

user-supplied (adj.)
Related: BYOD, fields, upload

UTF-8
A Unicode character encoding. Pronounced as letters. (Don’t pronounce the dash.)

UUID, UUIDs (n.)
Universally unique identifier. Pronounced as letters.
Related: GUID, ID
UX (n.)
User experience. Pronounced as letters or the whole phrase. Spell out on first use in public-facing documents.
Related: A/B testing

V

Vagrant
Software for building virtual development environments.
Related: Amazon Web Services, VM

values
If writing about a type of value, use the normal font. If it’s a specific value, use the tech font, as in “licenseID value.”
Related: elements, fields

Vault
Software for secrets management created by HashiCorp.

VB.NET
Short for Visual Basic .NET. A programming language.
Related: .NET Framework

VBScript
A Microsoft scripting language based on Visual Basic.

VC (n.)
Venture capital. Pronounced as letters or the phrase. Spell out on first use.
Related: finance, unicorn

VDI (n.)
Virtual desktop infrastructure. Spell out on first use.
Related: BYOD, hypervisor

candidate (n.)
A third-party business that provides a service or product to a client.
Related: dependency hell

Venmo
A mobile payment service.
Related: PayPal, Square Cash

VeraCrypt
Disk encryption software.

verbose (adj.)
Verbose logs, banners, and error messages reveal more information about underlying structures to users than is necessary.

verb tunneling (n.)
Related: HTTP method

version numbers
Use the normal font for software version numbers, product model numbers, serial numbers, and builds. Avoid using “v” to stand for version in formal writing.
Ex: jQuery 3.5.0, SSL 2, Nmap 7.80
Related: beta, golden master, numbers, patch, roll back, SDLC
VGA
Video Graphics Array. A graphics standard and video output connector. Do not spell out. Related: Ethernet, HDMI, Lightning, USB

via, vias (n.)
A physical component of a chip.

victim (n.)
Avoid using this term. Try user, patient, customer, consumer, or target.

videoconferencing (n. or adj.)
Related: audio conferencing, Chatroulette, Skype, slideshow, webinar, Zoom

video games (n.)
OK to just call them games. Capitalize video game titles in the normal font, as in Myst and Grim Fandango. Related: 8-bit, BMO, Discord, E3, esports, emulator, fandom, fast-travel, FPS, Game Boy, game jam, Gamergate, GaymerX, Glados, in-game, media, motion capture, Nintendo Switch, PAX, PlayStation, Portal, PS2, RNG, RPG, SmashBot, speedrun, Stadia, Steam, TASBot, titles of published works, tower defense, Twitch, uncanny valley, Unreal Engine, virtual reality, Wii, Xbox

Vim
A text editor.

Vimeo
A video-sharing company. Related: stream, Twitch, YouTube

Viptela
A Cisco SD-WAN service. Related: WAN

viral (adj.)
Rapidly popular, especially online. Or related to viruses. Related: healthcare

virtual host, vhost (n.)

virtual reality (VR) (n.)
Related: video games

virus (n.)
Related: malicious code, malware

vishing (n.)
Short for voice phishing. A type of social engineering attack that uses telephony to impersonate legitimate callers. Spell out on first use. Related: phishing, smishing, social engineering, VoIP

VLAN, VLANs (n.)
Virtual local area network. Pronounced as “V-lan.” Related: LAN, MAN, microsegmentation, segmentation, WAN, WLAN

VLCM (n.)
Vulnerability Lifecycle Management. Spell out on first use.
**vlog** (n. or v.)
Related: blog, influencer, YouTube

**VM, VMs** (n.)
Virtual machine. Spell out on first use in public-facing documents.
Related: emulator, JVM, microsegmentation, scale set, segmentation, Vagrant

**VMware**

**VNC**
Virtual Network Computing. Spell out on first use.

**voicemail** (n.)
Related: cell phone, mobile device, outgoing

**VoIP**
Voice over Internet Protocol. Pronounced as “voyp.” Spell out on first use.
Related: Discord, telephony pen testing, vishing

**VPC** (n.)
Virtual private cloud. Spell out on first use.
Related: Amazon Web Services, cloud computing

**VPN, VPNs** (n.)
Virtual private network. Spell out on first use.
Related: I2P, IKE, OpenVPN, split tunneling, TunnelBear VPN

**VR** (n.)
Virtual reality.
Related: AR, Oculus Rift, video games

**VSA, VSAs** (n.)
Vendor security assessment. Spell out on first use.

**Vuforia**
An AR platform.

**vulnerability or vuln** (n.)
Any condition, configuration, or state that increases an asset’s logical, informational, or physical exposure to loss of availability, integrity, or confidentiality. Vuln is informal.
Related: BlueKeep, CIA, cross-site scripting, CSRF, CVE, CVSS, Dirty COW, DoS, EternalBlue, HTTPoxy, HTTP response splitting, IDOR, KRACK, LFI, Meltdown, mixed content, NVD, OWASP, Shellshock, Spectre, SQLi, use after free, zero-day

**vulnerability scan** (n.)
An assessment of a target using automated tools to detect security weaknesses.
Related: false positive

**vulnerability scanner** (n.)
An automated application or system designed to assess computers, computer systems, networks, or applications for weaknesses.
Related: Nmap

**vulnerable** (adj.)
Related: insecure vs. not secure

**VulnHub**
A site where pen testers can practice.
Related: Hack the Box
W

W3C
Related: IETF

WAF, WAFs (n.)
Web application firewall. Can also refer to the WPF Application Framework. Both are pronounced as “waff” or the whole phrase. Spell out on first use to clarify your intended meaning.

WAMP
Short for Windows, Apache, MySQL, and PHP (its original four components). A software bundle. Do not spell out.
Related: Apache HTTP Server, LAMP

WampServer

WAN, WANs (n.)
Wide area network. Pronounced as “wann.”
Related: LAN, MAN, PAN, VLAN

WannaCry
A ransomware attack that hit in May 2017.

war-dialing, war-driving (n.)
“War-” terms like these and warshipping were inspired by the movie WarGames.
Related: 2600, brute-force, hacker, phreak

-ware (n.)
Always close -ware compounds. Do not pluralize with “-s.”
Ex: adware, bloatware, freeware, malware, middleware, stalkerware, vaporware, VMware, WarioWare, wetware

WarGames
A 1983 movie about a NORAD AI that wants to play a game of thermonuclear war.
Related: CFAA, hacker, WOPR

war gaming (n.)
Also known as threat modeling or tabletop gaming. For example, capture the flag (CTF) at a security conference.
Related: Root the Box

warp drive (n.)
Related: the Borg, FTL, hyperdrive, lightspeed, science fiction

warp speed (n.)
Related: science fiction

Wasm
WebAssembly. Pronounced as “waz-im.” Spell out on first use.

Watch list (n.)
Related: TLA

Watson
An IBM productized question-answering AI, famous for winning Jeopardy!

The web (n.)
Do not capitalize.
Related: HTTP, internet, www
Web 2.0
Outdated corporate jargon; use sparingly.
Related: dot-com bubble

web app or web application (n.)
Related: app vs. application

WebAssembly

web-based (adj.)

web browser or browser (n.)
Related: Chrome, homepage, Mozilla Firefox, Tor

webcam (n.)
Related: media

webcomic (n.)

WebDAV
Web Distributed Authoring and Versioning.

web directory (n.)
Related: site map

web forum (n.)
Often simplified to just forum.
Related: avatar, copypasta, Discord, flame war, Godwin’s Law, handle, headdesk, h/t, IANAL, IIRC, IRL, message board, NSFW, PEBKAC, Reddit, RTFM, S/O, social media, subreddit, TIL, tl;dr, username

webhook, webhooks (n.)
A user-defined HTTP callback.

web page (n.)
Related: homepage, hostname

web proxy (n.)

web root (n.)

web server (n.)

web shell or webshell (n.)

website (n.)
Often abbreviated to just site.
Related: crawl, homepage, hostname, portal, site map, spider, splash page, Squarespace, TLD, WordPress

WebSocket, WebSocket Protocol

WebSphere
An IBM product.

webtree or web tree (n.)
Use directory structure instead.

WebView
An Android system component.

web view (n.)
A section of a window rendered using HTML.

WeChat
A popular Chinese chat app also known as Weixin (微信).
Related: ChatOps, Line, Signal, Weibo, WhatsApp

weeklong (adj.)
Related: dates, time-boxed
Weibo
A Chinese microblogging site.
Related: WeChat

well-formed (adj.)
Describes data that is valid for a given piece of computer logic.

WEP
Wired Equivalent Privacy. A wireless network encryption protocol. Do not spell out.
Related: Wi-Fi, Wifite

Wget
A GNU tool. Pronounced as “W-get.”
Related: cURL

what3words
Write these unique 3-meter-by-3-meter coordinates in normal font with dots between them. For example, an area in Shenzhen, China happens to have the name owns.that.shell.
Related: geocache, GPS, ZIP code

WhatsApp
A messaging app.
Related: ChatOps, IM, Line, Meta, Signal, WeChat

white-box testing (n.)
Related: black box, gray-box testing

WhiteHat
A company that makes a vulnerability scanner and supporting services.

white hat (adj. or n.)
A non-malicious hacker. When used as an adjective, consider using ethical instead.
Related: black hat, gray hat

whitelist (v.), white list (n.), whitelisting (n. or v.)
Consider using the alternate terms allowlist and safelist.
Related: allowlist, denylist, safelist, Appendix A

whitepaper (n.)
A formal technical report.

white space (n.)

whoami
A command to identify the user.
Related: ID

WHOIS, whois
A query protocol. Use the whois command to search the WHOIS database.

whole disk encryption (n.)

-wide (adj.)
Always hyphenate.
Ex: company-wide, system-wide
Related: systemic

widescreen (n. or adj.)
Related: ratios

widgets (n.)
If it's the name of a specific widget, write it in the tech font, as in Video widget.
**WIDS, WIDSes** (n.)
Wireless intrusion detection system.
Pronounced as letters, “wireless IDS,” or the whole phrase. Spell out on first use.

**Wi-Fi**
According to the Wi-Fi Alliance, Wi-Fi does not stand for wireless fidelity. Do not write as WiFi or wifi. Pronounced as “why-fie.” Use the tech font for Wi-Fi network names.
Related: Aircrack-ng, hotspot, Internet of Things, MoCA, Netgear, rogue access point, SSID, WEP, wireless signal bleed, WLAN, WPA

**WiFi Pineapple**
A Wi-Fi hacking/auditing tool.

**Wifite, Wifite 2**
A wireless network auditing tool.
Related: Kali Linux, WEP, WPA

**Wii, Wii U**
Pronounced as “wee.”
Related: Game Boy, Nintendo Switch, video games

**wiki** (n.)
A collaborative, editable style of blog.
Originates from the Hawaiian word “wikiwiki,” meaning fast. Pronounced as “wicky.”
Related: blog

**WikiLeaks**
A user-curated online encyclopedia.
Sometimes the findings we disclose are so new that the best resources on the topic are Wikipedia articles.
Related: Appendix B

**Wikipedia**
A user-curated online encyclopedia.

**wildcard** (n.)
Characters that can stand in for either a single character or a string of characters.
Ex: [ * ], [ ? ]
Related: *, characters, glob, keyboard keys, metacharacter, punctuation

**WildFly**
A Java application server.
Related: JBoss

**Windows, Windows 10, Windows Vista**
Microsoft operating system.
Related: Active Directory, LSASS, Mark-of-the-Web, MS, OS, registry hive

**Windows Registry**

**Wine**
“Wine Is Not an Emulator.” Software that emulates Windows for macOS or Linux systems. Wine is a recursive acronym.

**WinSCP**

**wireless signal bleed** (n.)
Related: Wi-Fi

**Wireshark**
A tool for capturing and analyzing network traffic.
**wiretap** (n. or v.)
Related: **eavesdrop, MitM, surveillance software**

**WISP**
Women in Security and Privacy.
Related: **Day of Security, The Diana Initiative, Girls Who Code**

**WLAN, WLANs** (n.)
Wireless LAN. Pronounced as “double you lan” or the whole phrase.
Related: **LAN, MAN, VLAN, Wi-Fi**

**woot or w00t**
A joyous internet exclamation.
Related: **Leet, pwn**

**WOPR**
The fictional NORAD AI featured in the 1983 movie WarGames. Pronounced like “whopper.”

**word list** (n.)
Related: **brute-force, dictionary attack, fullz**

**WordPress**
Related: **Drupal, Squarespace, website**

**word processor** (n.)
Related: **LaTeX, LibreOffice, Office 365**

**workflow** (n.)
Related: **Agile**

**work stream** (n.)
Related: **Agile**

**world-readable** (adj.)
Describes files or directories that any user could read.

**world-writable** (adj.)
Describes files or directories that any user could write to.

**worm** (n.)
A standalone malware that replicates itself in order to spread to other systems without user interaction.
Related: **Mirai, Stuxnet**

**wormable** (adj.)
Capable of being turned into a network worm. Used to describe a vulnerability.

**WPA, WPA2**
Wi-Fi Protected Access. Wireless network security protocols. Do not spell out.
Related: **four-way handshake, Wifite**

**WPAD**
Web proxy auto-discovery protocol. Pronounced as “double you pad” or the whole phrase.

**write access** (n.)
Related: **permissions, read access, read-only, read/write**

**Write the Docs**
A community and conference series that work to encourage and improve documentation, particularly for software.
Related: **readme**
WSDL, .wsdl file
Web Services Description Language. Pronounced as “wazz-dull.”
Related: SOAP, XML

WSGI
Web Server Gateway Interface. Pronounced as “wiz-gee,” “whiskey,” or letters.
Related: CGI, Python

WWDC
Worldwide Developers Conference. An annual Apple conference in the Bay Area.

www
Related: http://, internet, W3C, the web

WYSIWYG
Short for “what you see is what you get.” A view in a user interface that displays rich formatting instead of plain code.
Pronounced as “wizzy-wig.” Informal.
Related: CMS

X

X.509
Certificate standard used in internet protocols like SSL/TLS.
Related: ASN.1, CA, Let’s Encrypt

x86
An instruction set architecture for microprocessors, primarily in intensive computing devices and laptops.
Pronounced as numbers and letters.
Related: ARM, hyperthreading, Meltdown, microprocessor, Spectre

Xbox
Related: video games

XHR
Short for XMLHttpRequest. An API. Spell out on first use.

XKeyscore
A system designed by the NSA to analyze internet data. Edward Snowden publicly disclosed this project.

XLSX, .xlsx file
An XML-based spreadsheet file.
Pronounced as letters.
Related: Excel cells, Excel formulas, file extensions

XML, .xml file
Short for extensible markup language. Use “an” before “XML file.” Pronounced as letters.
Related: a vs. an, DTD, file extensions, WSDL

XOR (adj.)
Short for exclusive or. Commonly used in phrases such as XOR operation, XOR encryption, or XOR cipher. Pronounced as “X-or.”
Related: HMAC, NAND gate, programming logic
**XPP3**
An XML parser.

**XSS**
Short for cross-site scripting. Types of XSS include **reflected**, **stored**, and **DOM-based**. Write as “an XSS.” Pronounced as letters or the whole phrase. Spell out on first use.

**XXE**
XML external entity. Write as “an XXE.” XXE is pronounced as letters or the whole phrase. Spell out on first use. Do not pluralize the acronym.

**Y**

**YA...**
Short for “Yet Another” in many acronyms.
Ex: **YACC**: Yet Another Compiler Compiler

**YAML**
Short for “YAML Ain’t Markup Language.”
A human-readable serialization language.
YAML is a recursive acronym.
Related: **YML**

**YAWAST**
A Python-based tool used during security assessments.

**years**
Use the normal font. Don’t use apostrophes for plural years, as in “from the 1980s.” Use apostrophes when the year is possessive, as in “1999’s song of the summer.” Use a comma between day and year, as in “July 4, 2000.”
Related: **dates**, **mm/dd/yyyy**, **numbers**

**Yemen Cyber Army**
A hacking group that may be Iranian.
Related: **false flag**

**YML, .yml file**
Related: **file extensions**, **YAML**

**YouTube, YouTube Premium, YouTuber**
YouTube is a video-hosting site.

**YubiKey**
Pronounced as “you-bee-key.”
Related: **2FA**, **FIPS**, **hard token**, **MFA**, **security key**, **U2F**

**YUM**
Yellowdog Updater Modified. A Linux software update mechanism.
Z

zero-day (n. or adj.)
A vulnerability that has been publicly known for zero days, as in “zero-day attacks.” In formal settings, use publicly undisclosed vulnerability or previously undisclosed vulnerability.
Related: 0-day, CVE

zero growth model (n.)

zero-trust architecture, zero-trust network (n.)
Related: ZTN

zip bomb (n.)
Related: malware

ZIP code (n.)
Related: geocache, geolocation, GPS, what3words

ZIP file, .zip file, ZIP archive
Related: file extensions, lossless compression

Zoom
Related: videoconferencing

Zoombombing (n.)
An unwanted intrusion into a videoconference.

ZTN, ZTNs (n.)
Zero-trust network. Spell out on first use.
Related: SDN
GENERAL USAGE GUIDANCE

How to Handle Acronyms

On the first reference, spell out the full term followed by the acronym or abbreviated version in parentheses. The spelled-out term that precedes the acronym should not be capitalized unless it is a proper noun.

Ex: cross-site scripting (XSS), Transport Layer Security (TLS)

If the term does not appear in this guide, follow the style used by a trusted source (see Appendix B).

Many entries in this guide advise whether to spell out an acronym or abbreviated term on first reference. These recommendations assume that the terms will be used in content for information security professionals. When this guide does not offer a recommendation or when terms are used in a different context, consider the following factors on whether to spell out:

• Readers may be more familiar with the acronym than the spelled-out form. Do not spell out in these cases except when you are actively defining the term.
  
  Ex: ASCII, HTML, USB

• Decide whether spelling out the term helps to clarify the topic for the intended audience. If it does not, consider providing a brief explanation instead. For example, spelling out intrusion detection system (IDS) gives the reader an idea of what an IDS is. A term such as MITRE ATT&CK is better served by a brief definition.

• Context matters. For example, IP is short for either Internet Protocol or intellectual property. In a document that discusses both IP addresses and intellectual property, you will need to use your judgment.
How to Write Terms That Don’t Follow Our Style

If a client writes terms differently from our style, make a choice depending on the situation:

1. If it’s in a quoted code excerpt (including typos), leave it as is.
2. If directly referring to a product name or heading in the client’s environment, spell and capitalize it their way, as in E-mail Address. Sometimes we also put the term inside quotation marks to separate the client’s specific use from the generic term.
3. If we are referring to the generic term, we spell it our preferred way, as in email address. If examples in your code snippets or figures use the client’s spelling, check if the spelling difference might confuse the reader or might change the meaning. If you foresee a problem, talk to your editor.

If you prefer using more progressive or less common terms, mention the older variant on your first use so that your reader can find previous documentation on that topic. Ex: Implement it through a primary/replica model (previously known as “master/slave”).
APPENDIX A: HOW TO CODIFY YOUR OWN TERMS

Security vocabulary is rapidly changing and expanding, so it’s likely that you’ll need to tame new tech terms on your own, in between versions of this style guide. To codify a term for your own use, determine the following:

- How is the term capitalized by its creators and its users?
  - Ex: BeEF, iPhone, JavaScript, Metasploit, PuTTY, QWERTY
- If it’s an acronym, how is it pronounced by its creators and its users?
  - Ex: SQL, ngrep, Hping, NAND
- If it’s an acronym, should its components be written out on first use or never?
  - Ex: 3G, APT, IP, RSA
- Can it be confused with another term? If so, how can it be consistently distinguished?
  - Ex: crypto, fingerprints, MFA, shell
- If it’s a compound, is it written differently if it’s a verb or a noun?
  - Ex: reverse-engineer (v.) vs. reverse engineering (n.)
  - Do spacing and hyphens change the meaning, or is it a personal preference?
    If it’s a personal preference, determine a company-wide preference.
- Which type of font should be used?
  - Ex: admin (a username) vs. admin (a concept/role)
  - fixed-width (monospace) or variable-width font

Capitalization, spacing, and punctuation all matter—often for different reasons when writing code and writing reports. Be sure to consider all three visual components when determining how to incorporate new terms in your documents and presentations.

In the likely event that you find a term that is written or pronounced inconsistently, contact the creators and follow their preference. If that’s not possible, check their most recent documentation. Ultimately, make a choice, write it down, and use it consistently, but be willing to revise your answer in the future. (And if you think it might help other security writers, tell us about it at style@bishopfox.com, and we’ll add it to the next version of the style guide.)
APPENDIX B: EXTERNAL RESOURCES

These resources can level up your security knowledge and technical writing skills. The resources are divided into six categories: foundational references, technical definitions, internet-savvy style guides, writing advice, introductory hacking resources, and additional resources.

Foundational References
https://www.apstylebook.com/


Technical Definitions and Explanations
https://techterms.com/

https://wiki.owasp.org/index.php/Glossary


https://www.pcmag.com/encyclopedia/index/a


Internet-savvy Style Guides

https://support.apple.com/guide/applestyleguide/welcome/1.0/web


Writing Advice


https://youtu.be/Yl-4BWKpC28


**Introductory Hacking Resources**


**Additional Resources**

https://speakerdeck.com/jennybc/how-to-name-files

https://cve.mitre.org/cve/


Our Influences

Aside from the foundational references that we actively use on a day-to-day basis, we want to highlight several reference works and documents that helped to shape this guide’s existence. While these resources may no longer be the most current, they have provided us with valuable insight into cybersecurity history and the origins of style guidance in our fast-moving technological world.


EPILOGUE

Muphry’s Law
Murphy’s Law says that anything that can go wrong will go wrong. Muphry’s Law is an intentional misspelling of Murphy’s Law that applies this buttered-side-down pessimism to writing and editing. Part of the law states that “any book devoted to editing or style will be internally inconsistent.” If you find errors in this guide, or if you have ideas to improve the next version, please email style@bishopfox.com.

Version 1   February 15, 2018   1,775 entries
Version 1.1  June 27, 2018    1,989 entries
Version 2   March 9, 2023     2,383 entries
Bishop Fox

Bishop Fox is the leading authority in offensive security, providing solutions ranging from continuous penetration testing, red teaming, and attack surface management to product, cloud, and application security assessments. We've worked with more than 25% of the Fortune 100, half of the Fortune 10, eight of the top 10 global technology companies, and all of the top global media companies to improve their security. Our Cosmos platform was named Best Emerging Technology in the 2021 SC Media Awards and our offerings are consistently ranked as "world class" in customer experience surveys. We've been actively contributing to and supporting the security community for almost two decades and have published more than 16 open source tools and 50 security advisories in the last five years. Learn more at bishopfox.com or follow us on Twitter.