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# System and Network Security Acronyms and Abbreviations

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# COMPUTER SECURITY

Computer Security Division Information Technology Laboratory National Institute of Standards and Technology Gaithersburg, MD 20899-8930

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#### **Note to Reviewers**

Reviewers are encouraged to submit additional acronyms and abbreviations related to system and network security, particularly for emerging technologies, for consideration as additions to this report. All suggestions and corrections should be sent to <u>securityacronyms@nist.gov</u>.

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#### 1. Introduction

This report contains a list of selected acronyms and abbreviations for system and network security terms with their generally accepted or preferred definitions. It is intended as a resource for federal agencies and other users of system and network security publications.

The capitalization, spelling, and definitions of acronyms and abbreviations frequently vary among publications. It is easy to understand why this happens. While some acronyms and abbreviations (e.g., WWW) have one universally recognized and understood definition within the domain of system and network security, others (e.g., IA, MAC) have multiple valid definitions depending upon the context in which they are used. Some acronyms bear little resemblance to their definitions, such as Modes of Operation Validation System for the Triple DES Algorithm (TMOVS). Others use unexpected capitalization or spelling (e.g., Electronic Business using eXtensible Markup Language [ebXML] and Organisation for Economic Co-operation and Development [OECD]). As a result, acronyms, abbreviations, and their definitions may be inaccurately or inconsistently defined by authors, perpetuating errors and confusing or misleading readers.

This report is meant to help reduce these errors and confusion by providing the generally accepted or preferred definitions of a list of frequently used acronyms and abbreviations. The list does not include *all* system and network security terms, nor is it a compendium of every acronym and abbreviation found in system and network security documents published by NIST. Readers should refer to each document's list of acronyms and abbreviations (typically found in an appendix) for definitions applicable to that particular document.

The following conventions have been used in the preparation of the list of acronyms and abbreviations in this report.

- Abbreviations and acronyms generally appear in all capital letters, although there are occasional exceptions—for example, meter (m) and decibels referenced to one milliwatt (dBm).
- Technical terms are not capitalized unless they are proper nouns. Names of people, places, and groups, and the titles of protocols, standards, and algorithms are considered proper nouns. For example, certification and accreditation (C&A) is not capitalized, but Advanced Encryption Standard (AES) is capitalized.
- Collective nouns are not capitalized (e.g., wide area network [WAN]).
- When two or more definitions of the same acronym or abbreviation are given, the acronym or abbreviation is italicized and repeated for each definition. Definitions are listed alphabetically.

# 2. Acronym and Abbreviation List

This section consists of a list of selected system and network security acronyms and abbreviations, along with their generally accepted definitions. When there are multiple definitions for a single term, the acronym or abbreviation is italicized and each definition is listed separately.

#### Numeric

1xRTT	one times radio transmission technology
3DES	Triple Data Encryption Standard
3G	3rd Generation
3GPP	3rd Generation Partnership Project
3GPP2	3rd Generation Partnership Project 2

Α

Α	address resource record type
AA	ABAC attribute authority
AAA	authentication, authorization, and accounting
AAAK	authentication, authorization, and accounting key
AAD	additional authenticated data
AAR	after action report
AAS	adaptive antenna system
ABAC	attribute-based access control
ACE	access control entry
ACL	access control list
ACM	Association for Computing Machinery
ACO	authenticated cipher offset
AD	Active Directory
AD	authenticated data
ADS	alternate data stream
AES	Advanced Encryption Standard
AES-CBC	Advanced Encryption Standard-Cipher Block Chaining
AES-CTR	Advanced Encryption Standard-Counter Mode
AFH	adaptive frequency hopping
A-GPS	assisted global positioning system
AH	Authentication Header
AIDC	automatic identification and data capture
AIM	Association for Automatic Identification and Mobility
AIT	automatic identification technology
AJAX	Asynchronous JavaScript and XML
AK	authorization key
AKID	authorization key identifier
AKM	authentication and key management
ALG	application layer gateway
ANSI	American National Standards Institute
AP	access point
API	application programming interface

APWG	Anti-Phishing Working Group
ARIN	American Registry for Internet Numbers
ARP	Address Resolution Protocol
ARPA	Advanced Research Projects Agency
AS	authentication server
AS	authentication service
AS	autonomous system
ASC	Anti-Spyware Coalition
ASC X9	Accredited Standards Committee X9
ASCII	American Standard Code for Information Interchange
ASLR	address space layout randomization
ASN	autonomous system number
ASN.1	Abstract Syntax Notation 1
ASP	active server pages
ATA	Advanced Technology Attachment
ATIM	Announcement Traffic Indication Message
ATM	asynchronous transfer mode
ATM	automated teller machine
AV	antivirus
AVIEN	Anti-Virus Information Exchange Network
AVP	attribute-value pair

#### В

B2B	business-to-business
BCP	best current practice
BCP	business continuity plan
BGP	Border Gateway Protocol
BGP-4	Border Gateway Protocol 4
BIA	Bump-in-the-API
BIA	business impact analysis
BioAPI	Biometric Application Programming Interface
BIOS	basic input/output system
BITS	Bump-in-the-Stack
BPML	Business Process Modeling Language
BPSS	Business Process Specification Schema
BRP	business recovery (resumption) plan
BS	base station
BSC	base station controller
BSI	British Standards Institution
BSIA	British Security Industry Association
BSP	best security practice
BSS	basic service set
BSSID	basic service set identifier
BTNS	better-than-nothing-security
BTS	base transceiver station
BU	binding update
BUA	binding update acknowledgement

C	
C&A	certification and accreditation
CA	certificate authority
CA	certification agent
CA	certification authority
CAC	common access card
CAIDA	Cooperative Association for Internet Data Analysis
САРТСНА	Completely Automated Public Turing Test to Tell Computers and Humans Apart
CARO	Computer Antivirus Research Organization
CAVP	Cryptographic Algorithm Validation Program
CBC	Cipher Block Chaining
CBC-MAC	Cipher Block Chaining Message Authentication Code
CBEFF	Common Biometric Exchange File Format
CC	Common Criteria
ССЕтм	Common Configuration Enumeration
CCEVS	Common Criteria Evaluation and Validation Scheme
CCIPS	Computer Crime and Intellectual Property Section
ССК	complementary code keying
CCM	Counter Mode with CBC-MAC
CCMP	Counter Mode with CBC-MAC Protocol
CCRA	Common Criteria Recognition Arrangement
CCSS	Common Configuration Scoring System
ccTLD	country code top-level domain
CD CD	checking disabled
CD CDES	compact disc
CDFS	compact disc file system
CDMA CD-R	code division multiple access
CD-ROM	compact disc-recordable
CD-RW	compact disc-read only memory compact disc-rewritable
CEO	chief executive officer
CERIAS	Center for Education and Research in Information Assurance and Security
CERT	computer emergency response team
CERT®/CC	CERT® Coordination Center
CF	CompactFlash®
CFAA	Computer Fraud and Abuse Act
CFB	Cipher Feedback
CFI	computer and financial investigations
CFR	Code of Federal Regulations
CFTT	computer forensics tool testing
CGA	cryptographically generated addresses
CGI	Common Gateway Interface
CHAP	Challenge-Handshake Authentication Protocol
CHUID	cardholder unique identifier
CIDR	Classless Inter-Domain Routing
CIFS	Common Internet File System
CIO	chief information officer
CIP	critical infrastructure protection
CIPC	Critical Infrastructure Protection Committee

С

CIPSEA	Confidential Information Protection and Statistical Efficiency Act
CIRC	computer incident response capability
CIRC	computer incident response center
CIRDB	CERIAS Incident Response Database
CIRT	computer incident response team
CIS	Center for Internet Security
CISO	chief information security officer
CLF	common log format
CLI	command line interface
CLR	common language runtime
cm	centimeter
CMA	Certificate Management Authority
CMAC	Cipher-based Method Authentication Code
CME	Common Malware Enumeration
CMOS	complementary metal oxide semiconductor
CMS	Centers for Medicare and Medicaid Services
CMS	Cryptographic Message Syntax
CMSS	Common Misuse Scoring System
CMVP	Cryptographic Module Validation Program
CN	common name
CN	correspondent node
CNSS	Committee on National Security Systems
CNSSI	Committee on National Security Systems Instruction
СоА	care-of address
codec	coder/decoder
COI	conflict of interest
СОМ	Component Object Model
COOP	continuity of operations
COPPA	Children's Online Privacy Protection Act
CORBA®	Common Object Request Broker Architecture
COTS	commercial off-the-shelf
СР	certificate policy
СР	contingency plan
СРЕтм	Common Platform Enumeration
CPI	compression parameter index
CPNI	Centre for the Protection of National Infrastructure
CPS	certification practice statement
CPU	central processing unit
CRAM	challenge-response authentication mechanism
CRC	cyclic redundancy check
CRL	certificate revocation list
CS	client/server
CSIA	Cyber Security Industries Alliance
CSIRC	computer security incident response capability
CSIRT	computer security incident response team
CSO	chief security officer
CSO	computer security object
CSP	Credentials Service Provider
CSR	certificate signing request
CSRC	Computer Security Resource Center
CSRDA	Cyber Security Research and Development Act of 2002
	· · ·

CSS	cascading style sheet
CSV	comma-separated values
СТО	chief technology officer
CTR	counter mode encryption
CVE	Common Vulnerabilities and Exposures
CVSS	Common Vulnerability Scoring System
CWE	Common Weakness Enumeration

D

-	
DA	destination address
DAA	designated accrediting authority
DAA	designated approving authority
DAC	discretionary access control
DAD	duplicate address detection
DAML	DARPA Agent Markup Language
D-AMPS	Digital Advanced Mobile Phone Service
DAO	Data Access Object
DARPA	Defense Advanced Research Projects Agency
dBm	decibels referenced to one milliwatt
DBMS	database management system
DC	domain controller
DCE	Distributed Computing Environment
DCOM	Distributed Component Object Model
DCS	distributed control system
DDMS	Department of Defense Metadata Specification
DDoS	distributed denial of service
DEA	Data Encryption Algorithm
DEP	Data Execution Prevention
DES	Data Encryption Standard
DFS	Distributed File System
DFS	dynamic frequency selection
DH	Diffie-Hellman
DHAAD	Dynamic Home Agent Address Discovery
DHCP	Dynamic Host Configuration Protocol
DHCPv6	Dynamic Host Configuration Protocol for Internet Protocol v6
DHS	U.S. Department of Homeland Security
DIMS	Digital Identity Management Service
DISA	U.S. Defense Information Systems Agency
DLL	dynamic link library
DMA	direct memory access
DMZ	demilitarized zone
DN	distinguished name
<u>DN</u>	domain name
DNP	Distributed Network Protocol
DNS	domain name system
DNSBL	Domain Name System Blacklist
DNSSEC	Domain Name System Security Extensions
DOC	U.S. Department of Commerce
DoD	U.S. Department of Defense

DOE	U.S. Department of Energy
DOI	domain of interpretation
DOJ	U.S. Department of Justice
DOM	Document Object Model
DoS	denial of service
DPA	differential power analysis
DRA	data recovery agent
DRM	digital rights management
DRP	disaster recovery plan
DS	Delegation Signer
DS	distribution system
DS Field	differentiated services field
DSA	Digital Signature Algorithm
DSL	digital subscriber line
DSML	Directory Services Markup Language
DSN	delivery status notification
DSOD	dynamic separation of duty
DSS	Digital Signature Standard
DSTM	Dual Stack Transition Mechanism
DTC	Distributed Transaction Coordinator
DTD	Document Type Definition
DTR	derived test requirement
DUID	DHCP unique identifier
DVD	digital video disc
DVD-R	digital video disc - recordable
DVD-ROM	digital video disc - read only memory
DVD-RW	digital video disc - rewritable

#### Ε

EAL	evaluation assurance level
EAP	Extensible Authentication Protocol
EAP-FAST	Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling
EAPOL	Extensible Authentication Protocol Over LAN
EAPOL-KCK	Extensible Authentication Protocol Over LAN Key Confirmation Key
EAPOL-KEK	Extensible Authentication Protocol Over LAN Key Encryption Key
EAP-TLS	Extensible Authentication Protocol-Transport Layer Security
EAP-TTLS	Extensible Authentication Protocol-Tunneled Transport Layer Security
EBGP	Exterior Border Gateway Protocol
ebXML	Electronic Business using eXtensible Markup Language
EC2N	Elliptic Curve over G[2N]
ECB	Electronic Codebook (mode)
ECC	Elliptic Curve Cryptography
ECDH	Elliptic Curve Diffie-Hellman
ECDSA	Elliptic Curve Digital Signature Algorithm
ECM	Enterprise Configuration Manager
ECP	Encryption Control Protocol
ECPA	Electronic Communications Privacy Act
EDGE	Enhanced Data rates for GSM Evolution
EDI	electronic data interchange

EDR	enhanced data rate	
EEPROM	electronically erasable programmable read-only memory	
EFI	Extensible Firmware Interface	
EFS	Encrypting File System	
EGP	Exterior Gateway Protocol	
EH	extension header	
EICAR	European Institute for Computer Antivirus Research	
EIGRP	Enhanced Interior Gateway Routing Protocol	
EIK	EAP Integrity Key	
email	electronic mail	
EMS	energy management system	
EMS	Enhanced Messaging Service	
EMSK	Extended Master Session Key	
EPAL	Enterprise Privacy Authorization Language	
EPC	electronic product code	
EPCIS	Electronic Product Code Information Services	
EPHI	electronic protected health information	
EPS	events per second	
ERP	enterprise resource planning	
ESMS	enterprise security management system	
ESMTP	Extended Simple Mail Transfer Protocol	
ESN	electronic serial number	
ESP	Encapsulating Security Payload	
ESS	Extended Service Set	
ETSI	European Telecommunications Standards Institute	
EU	European Union	
EUI-64	Extended Unique Identifier 64 bit	
EV-DO	Evolution-Data Optimized	
ext2fs	Second Extended Filesystem	
ext3fs	Third Extended Filesystem	

# F

FAQ	frequently asked questions
FAR	Federal Acquisition Regulation
FASC-N	Federal Agency Smart Credential Number
FASP	Federal Agency Security Practices
FAT	file allocation table
FBCA	Federal Bridge Certification Authority
FBI	Federal Bureau of Investigation
FBI CJIS	Federal Bureau of Investigation Criminal Justice Information Services Division
FCC	Federal Communications Commission
FCC ID	Federal Communications Commission Identification number
FCL	final checklist list
FCPF	Federal PKI Common Policy Framework
FCRA	Fair Credit Reporting Act
FCS	frame check sequence
FDA	Food and Drug Administration
FDCC	Federal Desktop Core Configuration
FDCE	Federated Development and Certification Environment

FDE	full disk encryption	
FDIC	Federal Deposit Insurance Corporation	
FEA	Federal Enterprise Architecture	
FEK	file encryption key	
FFMIA	Federal Financial Management Improvement Act	
FHSS	frequency hopping spread spectrum	
FIB	forwarding information base	
FICC	Federal Identity Credentialing Committee	
FIPS	Federal Information Processing Standards	
<b>FIRST</b> <sup>TM</sup>	Forum of Incident Response and Security Teams	
FISCAM	Federal Information System Controls Audit Manual	
FISMA	Federal Information Security Management Act of 2002	
FISSEA	Federal Information Systems Security Educators' Association	
FLETC	Federal Law Enforcement Training Center	
FMR	false match rate	
FMS	Fluhrer-Mantin-Shamir	
FNMR	false non match rate	
FOIA	Freedom of Information Act	
FPC	Federal Preparedness Circular	
FPKI	Federal Public Key Infrastructure	
FPKIA	Federal Public Key Infrastructure Architecture	
FPKIPA	Federal Public Key Infrastructure Policy Authority	
FQDN	fully qualified domain name	
FRR	false rejection rate	
FSO	field security office	
FTC	Federal Trade Commission	
FTCA	Federal Trade Commission Act	
FTP	File Transfer Protocol	
FUS	Fast User Switching	
FY	fiscal year	

# G

GAO GB	U.S. Government Accountability Office gigabyte	
GFAC	generalized framework for access control	
GFIRST	Government Forum of Incident Response and Security Teams	
GHz	gigahertz	
GIG	Global Information Grid	
GINA	graphical identification and authentication	
GKEK	Group Key Encryption Key	
GLB or GLBA	Gramm-Leach-Bliley Act	
GMK	Group Master Key	
GnuPG	GNU Privacy Guard	
GOTS	government off-the-shelf	
GPL	general public license	
GPMC	Group Policy Management Console	
GPO	Group Policy Object	
GPRS	general packet radio service	
GPS	global positioning system	

GR	graceful restart	
GRE	Generic Routing Encapsulation	
GRS	General Records Schedule	
GS1	Global Standards One	
GSA	U.S. General Services Administration	
GSM	Global System for Mobile Communications	
GTC	Generic Token Card	
GTEK	group traffic encryption key	
GTK	group temporal key	
gTLD	generic top-level domain	
GTSM	Generalized TTL Security Mechanism	
GUI	graphical user interface	
н		
НА	high availability	
HA	home agent	
HAG	high assurance guard	
HCI	host controller interface	
HERF	hazards of electromagnetic radiation to fuel	
HERO	hazards of electromagnetic radiation to rule hazards of electromagnetic radiation to ordnance	
HERP	hazards of electromagnetic radiation to personnel	
HF	high frequency	
HFS	Hierarchical File System	
HHS	U.S. Department of Health and Human Services	
HINFO	host information	
HIP	Host Identity Protocol	
HIPAA	Health Insurance Portability and Accountability Act	
HIPERLAN	high-performance radio local area network	
HKLM	HKEY_Local_Machine	
HL7	Health Level Seven	
HMAC	keyed-hash message authentication code	
HMI	human-machine interface	
HPA	host protected area	
HPFS	High-Performance File System	
HR	human resources	
HSARPA	Homeland Security Advanced Research Projects Agency	
HSPD	Homeland Security Presidential Directive	
HTCIA	High Technology Crime Investigation Association	
НТСР	Hyper Text Caching Protocol	
HTML	Hypertext Markup Language	
НТТР	Hypertext Transfer Protocol	
HTTPS	Secure Hypertext Transfer Protocol	
Hz	hertz	

I

I&A	identification and authentication	
I/O	input/output	
I3P	Institute for Information Infrastructure Protection	
IA	information assurance	
IAB	Internet Architecture Board	
IACIS®	International Association of Computer Investigative Specialists	
IAIP	Information Analysis and Infrastructure Protection	
IANA	Internet Assigned Numbers Authority	
IAO	information assurance officer	
IATF	Information Assurance Technical Framework	
IBC	iterated block cipher	
IBE	identity-based encryption	
iBGP	Internal Border Gateway Protocol	
IBMJSSE	IBM Java Secure Socket Extension	
IBSS	independent basic service set	
IC3	Internet Crime Complaint Center	
ICAMP	Incident Cost Analysis and Modeling Project	
ICANN	Internet Corporation for Assigned Names and Numbers	
ICCID	Integrated Circuit Card Identification	
ICCP	Inter-control Center Communications Protocol	
ICF	Internet Connection Firewall	
ICMP	Internet Control Message Protocol	
ICP	Internet Cache Protocol	
ICS	industrial control system	
ICS	Internet Connection Sharing	
ICSA	International Computer Security Association	
ICV	integrity check value	
ID	identification	
<b>IDART<sup>TM</sup></b>	Information Design Assurance Red Team	
IDE	integrated development environment	
IDE	Integrated Drive Electronics	
IDEA	International Data Encryption Algorithm	
iDEN	Integrated Digital Enhanced Network	
ID-FF	Identity Federation Framework	
IDMEF	Intrusion Detection Message Exchange Format	
IDMS	identity management system	
IDPS	intrusion detection and prevention system	
IDS	intrusion detection system	
ID-SIS	Identity Service Interface Specifications	
ID-WSF	Identity Web Services Framework	
ID-WSF DST	Identity Web Services Framework Data Services Template	
IE	Internet Explorer	
IEC	International Electrotechnical Commission	
IED	intelligent electronic device	
IEEE-SA	IEEE Standards Association	
IESG	Internet Security Steering Group	
IETF	Internet Engineering Task Force	
IETF BCP	Internet Engineering Task Force Best Current Practice	
IETF RFC	Internet Engineering Task Force Request for Comments	

ICMD	Internet Crown Management Duate cal	
IGMP	Internet Group Management Protocol	
IGP	interior gateway protocol	
IID	interface identifier	
IIF	information in identifiable form	
IIHI	individually identifiable health information	
IIS	Internet Information Services	
IKE	Internet Key Exchange	
IM	instant messaging	
IMAP	Internet Message Access Protocol	
IMEI	International Mobile Equipment Identity	
IMSI	International Mobile Subscriber Identity	
INCITS	InterNational Committee for Information Technology Standards	
IP	Internet Protocol	
IPA IDG	initial privacy assessment	
IPComp	Internet Protocol Payload Compression Protocol	
IPng	Internet Protocol Next Generation	
IPS	intrusion prevention system	
IPsec	Internet Protocol Security	
IPv4	Internet Protocol version 4	
IPv6	Internet Protocol version 6	
IPX	Internet Packet Exchange	
IR	infrared	
IR	interagency report	
IRC	Internet Relay Chat	
IrDA®	Infrared Data Association®	
IRQ	interrupt request line	
IRS	Internal Revenue Service	
IRTF	Internet Research Task Force	
IS	information system	
ISA	interconnection security agreement	
ISA	International Society of Automation	
ISAC	information sharing and analysis center	
ISAKMP	Internet Security Association and Key Management Protocol	
ISAP	Information Security Automation Program	
ISAPI	Internet Server Application Programming Interface	
ISATAP	Intra-Site Automatic Tunnel Addressing Protocol	
ISF	Information Security Forum	
ISID	Industrial Security Incident Database	
IS-IS	Intermediate System-to-Intermediate System	
ISM	industrial, scientific, and medical	
ISM	information security marking	
ISMS	information security management system	
ISO	International Organization for Standardization	
ISP	Internet service provider	
ISSEA	International Systems Security Engineering Association	
ISSO	information systems security officer	
ISSPM	information systems security program manager	
IT	information technology	
ITAA	Information Technology Association of America	
ITF	Interrogator Talks First	
ITL	Information Technology Laboratory	

ITU	International Telecommunications Union
ITU-T	International Telecommunications Union-Telecommunication Standardization
	Sector
IUT	implementation under test
IV	initialization vector

# J

Java EE	Java Platform, Enterprise Edition	
JAXR	Java API for XML Registries	
JFFS2	Journaling Flash File System, version 2	
JIT	just-in-time	
JPEG	Joint Photographic Experts Group	
JRE	Java Runtime Environment	
JSM	Java Security Manager	
JSP	Java Server Pages	
JSSE	Java Secure Socket Extension	
JTAG	Joint Test Action Group	
JTC1	Joint Technical Committee 1 (International Organization for Standardization [ISO]/International Electrotechnical Commission [IEC])	
JVM	Java Virtual Machine	

# Κ

KB	kilobyte	
Kbps	kilobit per second	
KDC	key distribution center	
KEK	key encryption key	
KG	key generator	
KGD	key generation and distribution	
kHz	kilohertz	
KINK	Kerberized Internet Negotiation of Keys	
KSG	key stream generator	
KSK	key signing key	

# L

L2CAP	Logical Link Control and Adaptation Protocol	
L2F	Layer 2 Forwarding	
L2TP	Layer 2 Tunneling Protocol	
L2VPN	Layer 2 Virtual Private Network	
L3VPN	Layer 3 Virtual Private Network	
LACNIC	Latin American and Caribbean IP Addresses Registry	
LAN	local area network	
LCD	liquid crystal display	
LDA	local delivery agent	
LDAP	Lightweight Directory Access Protocol	
LED	light emitting diode	
	5 5	

LF	low frequency
LFSR	linear feedback shift register
LIR	local Internet registry
LM	LAN Manager
LMP	Link Manager Protocol
LOC	location (DNS record)
LOS	line-of-sight
LRA	Local Registration Authority
LUA	limited user account

Μ

m	meter
MAC	mandatory access control
MAC	media access control (layer)
MAC	Medium Access Control
MAC	message authentication code
MAF	multi-mode authentication framework
MAN	metropolitan area network
MAPS	Mail Abuse Prevention System
MB	megabyte
Mbps	megabits per second
MBR	master boot record
MBSA	Microsoft Baseline Security Analyzer
MD	message digest
ME	mobile equipment
MED	multi-exit discriminator
MEP	message exchange pattern
MES	manufacturing execution system
MHz	megahertz
MIB	management information base
MIC	mandatory integrity control
MIC	message integrity check
MIC	message integrity code
MIKEY	Multimedia Internet KEYing
MIME	Multipurpose Internet Mail Extensions
MIMO	multiple-input, multiple-output
MIN	mobile identification number
Mini SD	mini secure digital
MIP	Mobile Internet Protocol
MitM	man-in-the-middle (attack)
MLD	Multicast Listener Discovery
MMC	Microsoft Management Console
MMC	MultiMediaCard
MMCmobile	MultiMediaCard Mobile
MMS	Multimedia Messaging Service
MN	mobile node
MO	magneto-optical
MOA	memorandum of agreement
MOBIKE	IKEv2 Mobility and Multihoming Protocol

MODP	modular exponential
MOSS	MIME Object Security Services
MOU	memorandum of understanding
MOVS	Modes of Operation Validation System
MPA	Mobile Prefix Advertisement
MPLS	multiprotocol label switching
MPS	Mobile Prefix Solicitation
MQV	Menezes-Qu-Vanstone
MRI	magnetic resonance imaging
MS	Microsoft
MS	mobile subscriber
MSC	mobile switching center
MS-CHAP	Microsoft Challenge Handshake Authentication Protocol
MS-DOS	Microsoft Disk Operating System
MSDP	Multicast Source Discovery Protocol
MSEC	multicast security
MSEL	Master Scenario Events List
MSIL	Microsoft Intermediate Language
MSISDN	Mobile Subscriber Integrated Services Digital Network
MSK	master session key
MSKB	Microsoft Knowledge Base
MSSP	managed security services provider
MSWG	Metadata Standards Working Group
MTA	mail transfer agent
MTM	Mobile Trusted Module
MTU	master telemetry unit
MTU	master terminal unit
MTU	maximum transmission unit
MUA	mail user agent
mW	milliwatt
MX	mail exchanger

#### Ν

NA	Neighbor Advertisement
NAC	network access control
NACI	National Agency Check and Inquiries
NAP	Network Access Protection
NARA	National Archives and Records Administration
NAS	network access server
NAT	network address translation
NAT-PT	network address translation—protocol translation
NAT-T	network address translation traversal
NBA	network behavior analysis
NBAD	network behavior anomaly detection
NCES	NetCentric Enterprise Services
NCP	National Checklist Program
NCSD	National Cyber Security Division
NCSI	NIST National Center for Standards and Certification Information
ND	Neighbor Discovery

NDAC	nondiscretionary access control
NetBEUI	NetBIOS Extended User Interface
NetBIOS	Network Basic Input/Output System
NetBT	NetBIOS over TCP/IP
NFAT	network forensic analysis tool
NFC	near field communication
NFS	network file system
NFS	Network File Sharing
NH	next header
NIAC	National Infrastructure Advisory Council
NIAP	National Information Assurance Partnership
NIC	network interface card
NICC	National Infrastructure Coordinating Center
NIJ	National Institute of Justice
NIPC	National Infrastructure Protection Center
NIS	Network Information System
NISAC	National Infrastructure Simulation and Analysis Center
NISCC	National Infrastructure Security Co-ordination Centre
NIST	National Institute of Standards and Technology
NISTIR	National Institute of Standards and Technology Interagency Report
NLOS	non-line-of-sight
NPIVP	NIST Personal Identity Verification Program
NPPI	nonpublic personal information
NS	name server
NS	Neighbor Solicitation
NSA	National Security Agency
NSAPI	Netscape Server Application Programming Interface
NSEC	Next Secure
NSI	national security information
NSRL	National Software Reference Library
NSS	Network Security Services
NSTB	National SCADA Test Bed
NSTISSC	National Security Telecommunications and Information Systems Security Committee
NSTISSI	National Security Telecommunications and Information Systems Security Instruction
NTFS	New Technology File System
NTLM	NT LAN Manager
NTP	Network Time Protocol
NTTAA	National Technology Transfer and Advancement Act of 1995
NUD	Neighbor Unreachability Detection
NVD	National Vulnerability Database
NVLAP	National Voluntary Laboratory Accreditation Program
NW3C	National White Collar Crime Center
NX	no execute

0

OASISTM	Organization for the Advancement of Structured Information Standards
OCC	Office of the Comptroller of the Currency
OCIO	Office of the Chief Information Officer
OCSP	Online Certificate Status Protocol
ODBC	Open Database Connectivity
OECD	Organisation for Economic Co-operation and Development
OECD	original equipment manufacturer
OFB	output feedback (mode)
OFDM	orthogonal frequency-division multiplexing
OFDM OGSA <sup>TM</sup>	Open Grid Services Architecture
OGSA	Open Handset Alliance
OIG	•
OLE	Office of Inspector General object linking and embedding
OMB	5 6 6
	Office of Management and Budget
ONS	Object Naming Service
OOB	out-of-band
OPC	OLE for Process Control
<b>OpenPGP</b>	An Open Specification for Pretty Good Privacy
OPM OPP	U.S. Office of Personnel Management
ORB	open relay blacklist
OS	operating system
OSHA	Occupational Safety and Health Administration
OSI	Open Systems Interconnection
OSPF	Open Shortest Path First
OSS	open source software
OSSTMM	Open Source Security Testing Methodology Manual
OSVDB	Open Source Vulnerability Database
OTP	one-time password
OU	organizational unit
OVAL	Open Vulnerability and Assessment Language
OWASP	Open Web Application Security Project
OWL-S	Web Ontology Language for Services

#### Ρ

DAD	
P2P	peer-to-peer
PAC	Privilege Attribute Certificate
PAC	Protected Access Credential
PAD	peer authorization database
PAM	pluggable authentication module
PAN	personal area network
PAOS	Reverse HTTP Binding for SOAP
PAP	Password Authentication Protocol
PAP	policy access point
PAS	publicly available specification
PBA	pre-boot authentication
PBAC	policy-based access control
PBCC	Packet Binary Convolutional Code

DDE	ne haat anvironment
PBE	pre-boot environment
PBX PC	private branch exchange
PCI	personal computer
PCI	Payment Card Industry
PCI DSS	personal identity verification card issuer Payment Card Industry Data Security Standard
PCMCIA	Personal Computer Memory Card International Association
PCN	process control network
PCP	IP Payload Compression Protocol
PCS	process control system
PCSF	Process Control System Forum
PCSRF	Process Control System Porum Process Control Security Requirements Forum
PDA	personal digital assistant
PDD	Presidential Decision Directive
PDF	Portable Document Format
PDP	policy decision point
PDS	protective distribution systems
PEAP	Protected Extensible Authentication Protocol
PED	portable electronic devices
PEM	Privacy Enhanced Mail
PEP	policy enforcement point
PFS	perfect forward secrecy
PGP	Pretty Good Privacy
PHI	protected health information
PHP	PHP: Hypertext Preprocessor
PHY	Physical (layer)
PIA	privacy impact assessment
РІСS <sup>тм</sup>	Platform for Internet Content Selection
PII	personally identifiable information
PIM	personal information management
PIM-SM	Protocol Independent Multicast—Sparse Mode
PIN	personal identification number
PIP	policy information point
PIR	Public Interest Registry
PIV	personal identity verification
PKCS	Public Key Cryptography Standard
PKI	public key infrastructure
PKM	privacy key management
PKMv1	Privacy Key Management Protocol version 1
PKMv2	Privacy Key Management Protocol version 2
PL	public law
PLC	programmable logic controller
PMA	Policy Management Authority
PMK	pairwise master key
PMKSA	Pairwise Master Key Security Association
PMP	point-to-multipoint
PMTU	path maximum transmission unit
PN	packet number
PNG	Portable Network Graphics
POA&M	plan of action and milestones
POC	point of contact

POC	proof of concept
PoE	Power over Ethernet
POP	Post Office Protocol
POP3	Post Office Protocol version 3
PP	protection profile
PPP	Point-to-Point Protocol
PPTP	Point-to-Point Tunneling Protocol
PPVPN	provisioner-provided virtual private network
PRA	Paperwork Reduction Act
Pre-PAK	pre-primary authorization key
PRF	pseudorandom function
PRNG	pseudorandom number generator
PSK	pre-shared key
PSTN	public switched telephone network
РТА	privacy threshold assessment (or analysis)
РТК	pairwise transient key
PTV	perceived target value
PUB	publication
PUK	PIN unblocking key
PVG	patch and vulnerability group
Q	
QoP	quality of protection
QoS	quality of service
R	
R&D	research and development

R&D	research and development
R/W	read/write
RA	receiver address
RA	Registration Authority
RA	remote assistance
RA	Router Advertisement
RAdAC	risk adaptive access control
RADIUS	Remote Authentication Dial In User Service
RAID	redundant array of independent disks
RAM	random access memory
RAT	remote administration tool
RBAC	role-based access control
RC2	Rivest Cipher 2
RC4	Rivest Cipher 4
RCE	route cache entry
RCFL	Regional Computer Forensics Laboratory
RCP	Remote Copy Protocol
RDBMS	relational database management system
RDP	Remote Desktop Protocol
REL	rights expression language
REP	Robots Exclusion Protocol

REST	Representational State Transfer
RF	radio frequency
RFC	request for comments
RFD	route flap damping
RFID	radio frequency identification
RFP	request for proposal
RIB	routing information base
RIP	Routing Information Protocol
RIPE NCC	Réseaux IP Européens Network Coordination Centre
RIPng	Routing Information Protocol next generation
RIR	regional internet registries
RIS	Remote Installation Services
RMA	reliability, maintainability, and availability
RMON	Remote Monitoring
RNG	random number generator
ROE	rules of engagement
ROM	read-only memory
RP	responsible person (record)
RPC	remote procedure call
RPF	Reverse Path Forwarding
RPO	recovery point objective
RR	resource record
RRSIG	resource record signature
RS	relay station
RS	Router Solicitation
RSA	Rivest-Shamir-Adelman
RSBAC	rule set-based access control
RSN	Robust Security Network
RSNA	Robust Security Network Association
RSNIE	Robust Security Network Information Element
RSO	reduced sign-on
RSS	Really Simple Syndication
RSSI	received signal strength indication
RSVP	Resource ReSerVation Protocol
RTF	Rich Text Format
RTLS	real-time location system
RTO	recovery time objective
RTP	Real-Time Transport Protocol
RTU BBAC	remote terminal unit or remote telemetry unit
RuBAC D LUM	rule-based access control
R-UIM	Removable User Identity Module

#### S

S/MIME	Secure/Multipurpose Internet Mail Extensions
SA	security association
SA	source address
SACL	system access control list
SAD	security association database
SAFER	Secure And Fast Encryption Routine

C A ID	· · · · · · · · · · · · · · · · · · ·
SAID	security association identifier
SAISO	senior agency information security officer
SAM	Security Account Manager
SAM	software asset management
SAMATE	Software Assurance Metrics and Tool Evaluation
SAML <sup>TM</sup>	Security Assertion Markup Language <sup>™</sup>
SAN	storage area network
S-BGP	Secure Border Gateway Protocol
SC	subcommittee
SCADA	supervisory control and data acquisition
SCAP	Security Content Automation Protocol
SCP	Secure Copy Protocol
SCSI	Small Computer System Interface
SCTP	Stream Control Transmission Protocol
SD	Secure Digital
SDIO	Secure Digital Input Output
SDK	software development kit
SDLC	System Development Life Cycle
SDO	standards development organization
SDP	Session Description Protocol
SDP	Service Discovery Protocol
SEI	Software Engineering Institute
SEM	security event management
SEND	Secure Neighbor Discovery
SEP	secure entry point
SFTP	Secure File Transfer Protocol
SHA	Secure Hash Algorithm
SHA-1	Secure Hash Algorithm 1
shim6	Site Multihoming by IPv6 Intermediation
SHS	Secure Hash Standard
SIA	Security Industry Association
SID	security identifier
SIEM	security information and event management
SIG	special interest group
SIIT	Stateless IP/ICMP Translation Algorithm
SIM	security information management
SIM	subscriber identity module
SIP	Session Initiation Protocol
SIS	safety instrumented system
SKEME	Secure Key Exchange Mechanism
SLA	service level agreement
SMB	Server Message Block
SME	subject matter expert
S/MIME	Secure/Multipurpose Internet Mail Extensions
SMS	Short Message Service
SMS	Systems Management Server
SMS	scar, mark and tattoo
SMTP	Simple Mail Transfer Protocol
SNL	Sandia National Laboratories
SNE	Simple Network Management Protocol
SNTP	Simple Network Time Protocol
	Simple Retwork Time Protocol

SOA	service-oriented architecture
SOA	start of authority (resource record)
soBGP	Secure Origin Border Gateway Protocol
SoD	separation of duties
SOHO	small office/home office
SOP	standard operating procedure
SOR	system of records
SORN	system of records notice
SOX	Sarbanes-Oxley Act of 2002
SP	service pack
SP	special publication
SPD	security policy database
SPI	security parameters index
SPL	Structured Product Labeling
SPML <sup>TM</sup>	Service Provisioning Markup Language <sup>™</sup>
SPP-ICS	System Protection Profile for Industrial Control Systems
SQL	Structured Query Language
SR	service release
SRES	signed response
SRTP	Secure Real-Time Transport Protocol
SS	subscriber station
SSDP	Simple Service Discovery Protocol
SSE-CMM	Systems Security Engineering-Capability Maturity Model
SSH	Secure Shell
SSI	Server Side Includes
SSID	service set identifier
SSL	Secure Sockets Layer
SSLF	Specialized Security-Limited Functionality
SSN	social security number
SSO	single sign-on
SSoD	static separation of duty
SSP	secure simple pairing
SSPI	Security Support Provider Interface
ST	security target
STA	station
STIG	security technical implementation guide
STS	security token service
SUID	Set-User-ID
SWSA	Semantic Web Services Initiative Architecture
SZ	security zone

# т

TA	test assertion
TA	transmitter address
TACACS	Terminal Access Controller Access Control System
TAG	technical advisory group
ТВ	terabyte
TC	technical committee

TC68	ISO/IEC Technical Committee 68
ТСР	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TDEA	Triple Data Encryption Algorithm
TDM	time division multiplexing
TDMA	time division multiple access
TEK	traffic encryption key
TERENA	Trans-European Research and Education Networking Association
TFT	thin film transistor
TFTP	Trivial File Transfer Protocol
TGS	ticket-granting service
TIA®	Telecommunications Industry Association
TID	tag identifier
TK	temporal key
TKIP	Temporal Key Integrity Protocol
TLD	top-level domain
TLS	Transport Layer Security
TMOVS	Modes of Operation Validation System for the Triple DES Algorithm
TOE	target of evaluation
TOS	trusted operating system
ToS	Type of Service
TPC	transmission power control
TPM	trusted platform module
TR	technical report
TRT	transport relay translator
TS	technical specification
TSA	time stamping authority
TSC	TKIP sequence counter
TSIG	Secret Key Transaction Authentication for DNS
TSIG	Transaction Signature
TSN	transitional security network
TSP	Time-Stamp Protocol
TT&E	test, training, and exercise
TTF	tag talks first
TTL	time to live
TTLS	Tunneled Transport Layer Security
ТТР	trusted third party
ТХТ	text (record)
U	
UC	

U.S.	United States
U.S.C.	United States Code
UAC	User Account Control
UART	universal asynchronous receiver/transmitter
UBR	Universal Description, Discovery and Integration (UDDI) Business Registry
UCC	Uniform Code Council, Inc.
UCE	unsolicited commercial email
<b>UDDI</b> <sup>TM</sup>	Uniform Description, Discovery, and Integration <sup>™</sup>
UDF	Universal Disk Format

UDP	User Datagram Protocol
UFS	UNIX File System
UHF	ultra high frequency
UI	user interface
UK	United Kingdom
UL	Underwriters' Laboratories®
ULA	unique local address
ULP	upper layer protocol
UML®	Unified Modeling Language <sup>™</sup>
UMPC	ultra-mobile personal computer
UMTS	Universal Mobile Telecommunications System
UNII	Unlicensed National Information Infrastructure
UPC	Universal Product Code
UPnP	Universal Plug and Play
UPS	uninterruptible power supply
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
USB	Universal Serial Bus
US-CERT	United States Computer Emergency Readiness Team
USIM	UMTS Subscriber Identity Module or Universal Subscriber Identity Module
UTM	unified threat management
UUID	Universally Unique Identifier
UWB	ultrawideband

V

VB	Visual Basic
VB.NET	Visual Basic .NET
VBA	Visual Basic for Applications
VBScript	Visual Basic Script
VFD	variable frequency drive
VHD	virtual hard drive
VHF	very high frequency
VLAN	virtual local area network
VM	virtual machine
VMS	vulnerability management system
VoIP	Voice over Internet Protocol
VOIPSA	Voice over IP Security Alliance
VPN	virtual private network
VPNC	Virtual Private Network Consortium
VRRP	Virtual Router Redundancy Protocol

#### w

W3C®	World Wide Web Consortium
WAN	wide area network
WAP	wireless access point
WAP	Wireless Application Protocol
WaSP	Web Standards Project

WAVE WAYF WCCP W-CDMA WDS WebDAV WEP WfMC WfMS WG WIDPS WiMAX WLAN WMAN WMAN WMAN WMAN WMM® WORM WPA WPA2® WPAN WS WSDL WSH WSH WS-I WS-I WSS4J	Wireless Access for Vehicular Environment Where Are You From Web Cache Coordination Protocol Wideband Code Division Multiple Access wireless distribution system Web Distributed Authoring and Versioning Wired Equivalent Privacy Workflow Management Coalition workflow management system Workflow management system Worldwide Interoperability for Microwave Access wireless intrusion detection and prevention system Worldwide Interoperability for Microwave Access wireless local area network Wi-Fi Multimedia <sup>TM</sup> write once, read many Wi-Fi Protected Access Wi-Fi Protected Access Wi-Fi Protected Access Wi-Fi Protected Access Wi-Fi Protected Access Web services Web Services Description Language Windows Script Host Web services Interoperability Web Services Interoperability Organization Web Services Security for Java
	Web Services Eneroperating Organization Web Services Security for Java
WS-Security WSUS WVE WWAN WWW	Web Services Security Windows Server Update Services Wireless Vulnerabilities and Exploits wireless wide area network World Wide Web

# XYZ

XACL XACML <sup>™</sup> XCBC XCCDF XHTML XKMS XML XOR XrML XSD XSL XSL XSL T	XML Access Control Language eXtensible Access Control Markup Language <sup>™</sup> XOR Cipher Block Chaining eXtensible Configuration Checklist Description Format Extensible Hypertext Markup Language XML Key Management Specification Extensible Markup Language exclusive OR eXtensible Rights Markup Language XML Schema Definition Extensible Stylesheet Language
XSLT XSS	Extensible Stylesheet Language Transformation
ZSK	cross-site scripting zone signing key

#### Appendix A—References

Sources used in the development of the list of system and network security acronyms and abbreviations in this document include the following:

National Institute of Standards and Technology Publications, NIST Computer Security Division Resource Center Web site, <u>http://csrc.nist.gov/</u>

Internet Engineering Task Force (IETF), http://www.ietf.org/

Microsoft Hardware Developer Central, Glossary of Acronyms for PC and Server Technologies, http://www.microsoft.com/whdc/resources/support/glossary.mspx

Organization for the Advancement of Structured Information Standards (OASIS), <u>http://www.oasis-open.org/home/index.php</u>

# Appendix B—Former Acronyms

Over time, as organizations, technologies, or other entities change, some acronyms associated with them may lose their definitions and thus no longer be considered acronyms. This appendix presents selected former acronyms related to system and network security. As additional acronyms in this publication lose their definitions, readers are encouraged to send notification of these, along with references to authoritative sources of information, to <u>securityacronyms@nist.gov</u> for possible inclusion in future releases of this report.

IEEE	Originally defined as "Institute of Electrical and Electronics Engineers, Inc." Definition dropped by the organization ( <u>http://www.ieee.org/web/aboutus/home/index.html</u> ).
SOAP	Originally defined as "Simple Object Access Protocol." Definition dropped as of April 2007 ( <u>http://www.w3.org/TR/soap12-part1/#intro</u> ).