



# System and Network Security Acronyms and Abbreviations

Karen Scarfone Victoria Thompson NIST Interagency Report 7581 September 2009

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# COMPUTER SECURITY

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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 security acronyms@nist.gov.

# Table of Contents

| Acronym and Abbreviation List |    |
|-------------------------------|----|
| Numeric                       |    |
| Α                             |    |
| B                             |    |
| C                             |    |
| D                             |    |
| E                             |    |
| F                             |    |
| G                             |    |
| H                             | 11 |
|                               | 1  |
| J                             |    |
| Κ                             |    |
|                               |    |
| M                             |    |
| N                             |    |
| O                             |    |
|                               |    |
| Q                             |    |
| R                             |    |
| S                             |    |
| Γ                             |    |
| U                             |    |
| V                             |    |
| W                             |    |
| XYZ                           |    |
|                               |    |
| ndix A— References            | 2  |

#### 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 Project3GPP2 3rd Generation Partnership Project 2

#### Α

A 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

B2Bbusiness-to-businessBCPbest current practiceBCPbusiness continuity planBGPBorder Gateway ProtocolBGP-4Border Gateway Protocol 4

BIA Bump-in-the-API 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 controllerBSI 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

**CAPTCHA** 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

CCE<sup>TM</sup> Common Configuration Enumeration

CCEVS Common Criteria Evaluation and Validation Scheme CCIPS Computer Crime and Intellectual Property Section

CCK 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 checking disabled CD compact disc

CDFS compact disc file system
CDMA code division multiple access
CD-R compact disc-recordable

**CD-ROM** compact disc-read only memory

CD-RW compact disc-rewritable CEO chief executive officer

**CERIAS** Center for Education and Research in Information Assurance and Security

CERT®/CC 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

**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

CoAcare-of addresscodeccoder/decoderCOIconflict of interest

**COM** 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

CP certificate policyCP contingency plan

**CPE**<sup>TM</sup> 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
CTO 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

DAAdesignated accrediting authorityDAAdesignated approving authorityDACdiscretionary access controlDADduplicate address detectionDAMLDARPA 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 EnvironmentDCOM 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
 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
DN 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 U.S. Department of Defense

DOE U.S. Department of Energy 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

EC2NElliptic Curve over G[2N]ECBElectronic Codebook (mode)ECCElliptic Curve CryptographyECDHElliptic 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

EMSenergy management systemEMSEnhanced Messaging ServiceEMSKExtended 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

FIRST<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 U.S. Government Accountability Office

**GB** gigabyte

**GFAC** generalized framework for access control

**GFIRST** Government Forum of Incident Response and Security Teams

**GHz** gigahertz

Global Information Grid

**GINA** graphical identification and authentication

GKEK Group Key Encryption Key
GLB or GLBA Gramm-Leach-Bliley Act
GMK Group Master Key

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

HA high availabilityHA home agent

HAG high assurance guard HCI host controller interface

HERF hazards of electromagnetic radiation to fuel
HERO 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

HTCP Hyper Text Caching Protocol
HTML Hypertext Markup Language
HTTP Hypertext Transfer Protocol

**HTTPS** Secure Hypertext Transfer Protocol

**Hz** hertz

I

**I&A** identification and authentication

**I/O** input/output

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 cipherIBE 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

IDART<sup>TM</sup> 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

IEDintelligent electronic deviceIEEE-SAIEEE Standards AssociationIESGInternet Security Steering GroupIETFInternet Engineering Task Force

IETF BCPInternet Engineering Task Force Best Current PracticeIETF RFCInternet Engineering Task Force Request for Comments

**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

IMAPInternet Message Access ProtocolIMEIInternational Mobile Equipment IdentityIMSIInternational Mobile Subscriber Identity

INCITS InterNational Committee for Information Technology Standards

IP Internet Protocol

**IPA** initial privacy assessment

IPComp Internet Protocol Payload Compression Protocol

Internet Packet Exchange

IPng Internet Protocol Next Generation
IPS intrusion prevention system
IPsec Internet Protocol Security
IPv4 Internet Protocol version 4
IPv6 Internet Protocol version 6

IR infrared

**IPX** 

IR interagency report
IRC Internet Relay Chat

IrDA®Infrared Data Association®IRQinterrupt request lineIRSInternal Revenue ServiceIRTFInternet 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 medicalISM 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

K

**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

**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

#### M

**m** meter

MACmandatory access controlMACmedia access control (layer)MACMedium Access ControlMACmessage authentication code

MAF multi-mode authentication framework

MAN metropolitan area network
MAPS Mail Abuse Prevention System

MB megabyte

Mbpsmegabits per secondMBRmaster 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

MIBmanagement information baseMICmandatory integrity controlMICmessage integrity checkMICmessage integrity codeMIKEYMultimedia Internet KEYing

MIME Multipurpose Internet Mail Extensions

MIMO multiple-input, multiple-output
MIN mobile identification number

Mini SDmini secure digitalMIPMobile Internet ProtocolMitMman-in-the-middle (attack)MLDMulticast Listener DiscoveryMMCMicrosoft 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

MTAmail transfer agentMTMMobile Trusted ModuleMTUmaster telemetry unitMTUmaster 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 DetectionNVD National Vulnerability Database

**NVLAP** National Voluntary Laboratory Accreditation Program

NW3C National White Collar Crime Center

**NX** no execute

#### 0

OASIS<sup>TM</sup> 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

**OEM** original equipment manufacturer

**OFB** output feedback (mode)

**OFDM** orthogonal frequency-division multiplexing

**OGSA**<sup>TM</sup> Open Grid Services Architecture

OHA Open Handset Alliance
OIG Office of Inspector General
OLE object linking and embedding
OMB Office of Management and Budget

**ONS** Object Naming Service

OOB out-of-band

**OPC** OLE for Process Control

OpenPGP An Open Specification for Pretty Good Privacy

**OPM** 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

#### P

**P2P** peer-to-peer

PACPrivilege Attribute CertificatePACProtected Access CredentialPADpeer authorization databasePAMpluggable 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

PBE pre-boot environment
PBX private branch exchange
PC personal computer
PCI Payment Card Industry

PCI personal identity verification card issuerPCI DSS 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 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
PMI protected health information

PHI protected health information
PHP PHP: Hypertext Preprocessor

**PHY** Physical (layer)

**PIA** privacy impact assessment

PICS<sup>TM</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

POCproof of conceptPoEPower over EthernetPOPPost 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
PTA privacy threshold assessment (or analysis)

PTK 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/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 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** remote terminal unit or remote telemetry unit

**RuBAC** 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

**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>TM</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

SDPService Discovery ProtocolSEISoftware Engineering InstituteSEMsecurity event managementSENDSecure 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

SIMsubscriber identity moduleSIPSession Initiation ProtocolSISsafety 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

**SMT** scar, mark and tattoo

**SMTP** Simple Mail Transfer Protocol **SNL** Sandia National Laboratories

**SNMP** Simple Network Management Protocol

**SNTP** Simple Network Time Protocol

SOAservice-oriented architectureSOAstart of authority (resource record)soBGPSecure Origin Border Gateway Protocol

SoDseparation of dutiesSOHOsmall office/home officeSOPstandard operating procedure

SORsystem of recordsSORNsystem of records noticeSOXSarbanes-Oxley Act of 2002

SPservice packSPspecial publicationSPDsecurity policy databaseSPIsecurity parameters indexSPLStructured Product Labeling

**SPML**<sup>TM</sup> Service Provisioning Markup Language<sup>TM</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

**TB** terabyte

TC technical committee

TC68 ISO/IEC Technical Committee 68
TCP 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 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 time to live

TTLS Tunneled Transport Layer Security

TTP trusted third party
TXT text (record)

#### U

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

**UDDI**<sup>TM</sup> Uniform Description, Discovery, and Integration TM

**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™
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 uninterruptable 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

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 ProtocolWaSP Web Standards Project

WAVE Wireless Access for Vehicular Environment

**WAYF** Where Are You From

WCCP Web Cache Coordination Protocol

W-CDMA Wideband Code Division Multiple Access

**WDS** wireless distribution system

**WebDAV** Web Distributed Authoring and Versioning

**WEP** Wired Equivalent Privacy

WfMC Workflow Management Coalition WfMS workflow management system

WG working group

WIDPS wireless intrusion detection and prevention system WiMAX Worldwide Interoperability for Microwave Access

**WLAN** wireless local area network

**WMAN** wireless metropolitan area network

WMM® Wi-Fi Multimedia<sup>TM</sup>
WORM write once, read many
WPA Wi-Fi Protected Access
WPA2® Wi-Fi Protected Access® 2
WPAN wireless personal area network

WS Web services

WSDL Web Services Description Language

WSH Windows Script Host

**WS-I** Web services interoperability

WS-I Web Services Interoperability Organization

WSS4J Web Services Security for Java

WS-Security Web Services Security

WSUS Windows Server Update Services
WVE Wireless Vulnerabilities and Exploits

**WWAN** wireless wide area network

WWW World Wide Web

#### XYZ

XACL XML Access Control Language

**XACML**<sup>TM</sup> eXtensible Access Control Markup Language<sup>TM</sup>

**XCBC** XOR Cipher Block Chaining

**XCCDF** eXtensible Configuration Checklist Description Format

XHTML Extensible Hypertext Markup Language
XKMS XML Key Management Specification

**XML** Extensible Markup Language

**XOR** exclusive OR

**XrML** eXtensible Rights Markup Language

XSD XML Schema Definition
XSL Extensible Stylesheet Language

**XSLT** Extensible Stylesheet Language Transformation

**XSS** cross-site scripting

**ZSK** 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, <a href="http://csrc.nist.gov/">http://csrc.nist.gov/</a>

Internet Engineering Task Force (IETF), <a href="http://www.ietf.org/">http://www.ietf.org/</a>

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

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

## **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 <a href="mailto:securityacronyms@nist.gov">securityacronyms@nist.gov</a> 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

(http://www.ieee.org/web/aboutus/home/index.html).

**SOAP** Originally defined as "Simple Object Access Protocol." Definition dropped as of

April 2007 (http://www.w3.org/TR/soap12-part1/#intro).