Carnegie Mellon University
Software Engineering Institute

Building Cybersecurity Awareness

AWARENESS OF INTERNET SECURITY ISSUES IS A BENEFIT TO ALL, from the seasoned systems administrator, to the home user paying a bill online or streaming a movie, to users just now learning about computers and the Internet. Managing the security of our personal information, and maintaining ownership of the goods and services we've purchased, are universal challenges. The Internet community knows few geographical bounds, and foundational cybersecurity awareness is critical to the safety of the general public.

This document is intended to help organizations entrusted with the well-being of their constituencies as they use the Internet. Here are some resources you can use to build your own library or give you ideas for what to build for your own constituency. Key to effective user awareness is understanding the demographics of your constituency. Your job begins with characterizing the demographic and tailoring the most useful of these resources to your audience. Keep your message simple, direct, engaging… and fun!

United States Government (USG)

Department of Homeland Security (DHS)— Stop. Think. Connect.
Stop. Think. Connect. was developed by the Anti-Phishing Working Group (APWG) and the National Cyber Security Alliance (NCSA). DHS provides oversight of the Stop. Think. Connect. campaign. The Toolkit includes best practices, tip sheets, posters, and other materials for download and use. Some materials have also been translated into various languages.

stopthinkconnect.org/

dhs.gov/stopthinkconnect-toolkit

Cybersecurity and Infrastructure Security Agency (CISA)
The Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA) publishes current activity, alerts, tips, security bulletins, analysis reports, and vulnerability summaries as part of its National Cyber Awareness System (NCAS). These materials can be accessed for free, and you can subscribe to the various mailing lists and feeds for automatic alerts and emails.

us-cert.cisa.gov/ncas

National Cybersecurity Awareness Month Publications
cisa.gov/publication/national-cybersecurity-awareness-month-publications

Department of Health and Human Services (HHS)
The Department of Health and Human Services (HHS) publishes online Security Awareness Training and role-based training for executives, managers, and IT administrators.

hhs.gov/about/agencies/asa/ocio/cybersecurity/security-awareness-training/index.html

Federal Trade Commission (FTC) OnGuardOnline
The FTC's OnGuardOnline offers free online security tips and resources, primarily focused towards the general public, home users, educators, and parents.

consumer.ftc.gov/features/feature-0038-onguardonline

National Counterintelligence and Security Center (NCSC) of the Office of the Director of National Intelligence
NCSC provides awareness raising materials primarily targeted towards government employees and industry professionals pertaining to foreign intelligence threats.

dni.gov/index.php/ncsc-how-we-work/ncsc-know-the-risk-raise-your-shield

Industry and Non-Profit

Multi-State Information Sharing & Analysis Center (MS-ISAC)
The Multi-State Information Sharing & Analysis Center (MS-ISAC) is an information sharing hub and cybersecurity center for state, local, tribal and territorial (SLTT) governments in the U.S. Each year, the MS-ISAC co-sponsors the National Cybersecurity Awareness Month along with DHS, the National Cybersecurity Alliance, and the National Association of State Chief Information Officers. The MS-ISAC publishes awareness materials, including calendars, posters, and local government proclamation templates. More information can be found in the MS-ISAC Toolkit.

cisecurity.org/ms-isac/ms-isac-toolkit/

Anti-Phishing Working Group (APWG)
While the APWG (and its European Chapter, APWG.EU) is a non-profit international organization with associated membership fees, it provides some publicly-available, free materials, including phishing activity trends reports and ecrime research papers.

apwg.org/

National Cyber Security Alliance (NCSA)
The National Cyber Security Alliance (NCSA) is a public–private partnership focused on privacy and security issues. NCSA posts online safety basics and best practices for securing accounts and devices, managing privacy, and prevention tips for identity theft, fraud and cybercrime.

staysafeonline.org/

staysafeonline.org/stay-safe-online/

The Cybersecurity Awareness Toolkit for Small and Medium-sized Businesses (SMB)

staysafeonline.org/wp-content/uploads/2018/09/SMB-Toolkit-FINAL.pdf

Online Trust Alliance (OTA) of the Internet Society
The Online Trust Alliance, an Internet Society initiative, publishes research on security and privacy best practices to encourage safe business practices and transactions. These best practices are primarily tailored to businesses of all sizes to ensure compliance and protection of privacy.

internetsociety.org/ota/resources-ota-best-practices/

The Center for Infrastructure Assurance and Security
The Center for Infrastructure Assurance and Security (CIAS) was established at the University of Texas at San Antonio (UTSA) and provides a listing of various security awareness documentation and materials.

cias.utsa.edu/assets/free-awareness-resources.pdf

Proofpoint
Proofpoint offers a suite of cybersecurity products and solutions. Proofpoint's resource library includes free versions of resources and cybersecurity awareness materials for download.

proofpoint.com/us/resources/awareness-material

InfoSec Institute
InfoSec Institute provides information security and cybersecurity bootcamps and training. InfoSec also offers free materials for Cybersecurity Awareness Month.

resources.infosecinstitute.com/celebrate-cyber-security-awareness-month-with-free-training-resources/#gref

Inspired eLearning
Inspired eLearning is an eLearning solution for security awareness, privacy, and compliance training. Some free awareness materials include posters, reports, and infographics, among others.

inspiredelearning.com/free-resources/

International Community

European Union Agency for Cybersecurity (ENISA)
The European Union Agency for Cybersecurity (ENISA) promotes information, network security, and community and capacity building across the European Union and member states. ENISA publishes best practices and reports, along with numerous multimedia awareness materials. ENISA and the European Commission host the annual European Cyber Security Month (ECSM).

enisa.europa.eu/media/multimedia/material

cybersecuritymonth.eu/

The Organization of American States (OAS)
The OAS is a regional organization that brings together independent states of the Americas and implements its initiatives across the pillars of democracy, human rights, security, and development. OAS has developed various awareness materials and continues to partner with global organizations in the field of cybersecurity awareness.

Cybersecurity Awareness Campaign Toolkit

https://www.sites.oas.org/cyber/Documents/2015%20OAS%20-%20Cyber%20Security%20Awareness%20Campaign%20Toolkit%20(English).pdf

Media Literacy and Digital Security

oas.org/OASTwitterGuideENG

Global Cyber Alliance (GCA)
The Global Cyber Alliance was formed as an international alliance of law enforcement organizations combatting cyber risk. The GCA has published free tools, such as the Cybersecurity Toolkit for Small to Medium Sized Businesses (SMB) and a Toolkit for Elections.

globalcyberalliance.org/gca-cybersecurity-toolkit/

gcatoolkit.org/elections/

National CSIRT Community

CSIRTs with national responsibility around the globe are producing awareness materials for their constituents. Many of the resources are in native languages, but the community of national CSIRTs is a resource for state-of-the-art materials and awareness building services. Teams such as the Brazilian National Computer Emergency Response Team (CERT.br) and The National Cyber Security Centre of the United Kingdom (NCSC UK) produce awareness materials for end users, parents, and children. The Australia Cyber Security Centre (ACSC) developed its own *Stay Smart Online* program, providing alert services and online safety information. Many other teams provide guidance for organizations on how to protect themselves from common cyber threats; for a full listing of registered National CSIRTs, see:

sei.cmu.edu/go/natcsirt-list

Resources for Implementing a Security Awareness Program

NIST Special Publication 800-50

Building an Information Technology Security Awareness and Training Program

csrc.nist.gov/publications/detail/sp/800-50/final

SANS Institute

SANS Security Awareness Planning Toolkit and resources

sans.org/security-awareness-training/resources/security-awareness-planning-toolkit

sans.org/security-awareness-training/resources

Center for Internet Security (CIS)

Implement a Security Awareness and Training Program

cisecurity.org/controls/implement-a-security-awareness-and-training-program/

PCI Security Standards Council

Best Practices for Implementing a Security Awareness Program

pcisecuritystandards.org/documents/PCI_DSS_V1.0_Best_Practices_for_Implementing_Security_Awareness_Program.pdf

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About the CERT Division

The CERT® Division of Carnegie Mellon University's Software Engineering Institute studies and solves problems with widespread cybersecurity implications, researches security vulnerabilities in software products, contributes to long-term changes in networked systems, and develops cutting-edge information and training to help improve cybersecurity.

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