CYBER SECURITY TIPS

Employees:

- Use a complex alphanumeric password with a combination of numbers, symbols, and letters (uppercase and lowercase)
- Change your passwords regularly
- Do NOT open emails or attachments from unfamiliar sources, even if it looks official
- Do NOT install or connect any personal software or hardware to your organization's network or hardware without permission from your IT department
- Report all suspicious or unusual problems with your computer to your IT department

Management & IT Department:

- Implement Defense-in-Depth: a layered defense strategy that includes technical, organizational, and operational controls
- Implement Technical Defenses: firewalls, intrusion detection systems, and Internet content filtering
- Update your anti-virus software daily
- Regularly download vendor security "patches" for all of your software
- Change the manufacturer's default passwords on all of your software
- Monitor, log, and analyze successful and attempted intrusions to your systems and networks

For questions regarding this publication, please contact the DSS CI Directorate. Your DSS point of contact is:

REPORTING

Report all suspicious cyber incidents to your facility security officer:

System Failure or Disruption

Has your system or website's availability been disrupted? Has service been denied to your system's users?

Suspicious Questioning

Are you aware of anyone attempting to gain information in person, by phone, mail, email, etc., regarding the configuration and/or cyber security posture of your website, network, software, or hardware?

Unauthorized Access

Are you aware of anyone attempting (either failed or successful) to gain unauthorized access to your system or its data?

Unauthorized Changes

Has anyone made unauthorized changes or additions to your system's hardware, firmware, or software characteristics without your IT department's knowledge, instruction, or consent?

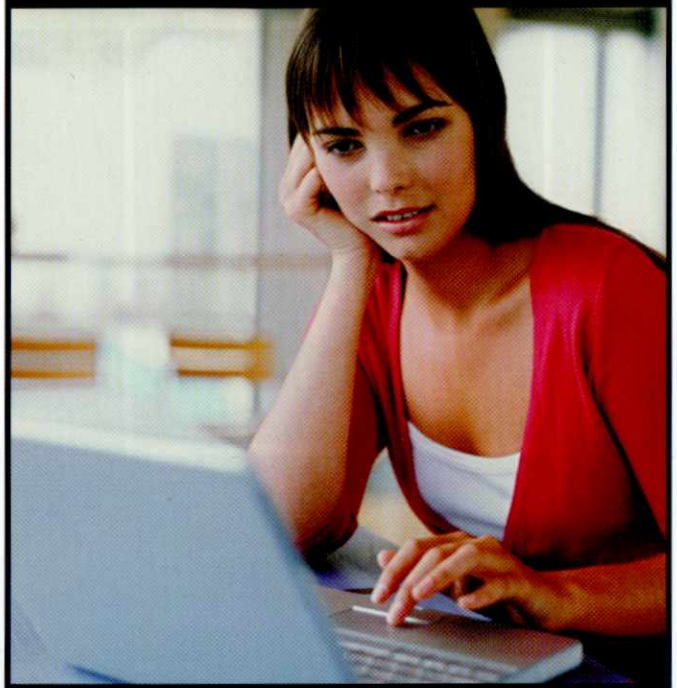
Suspicious Emails

Are you aware of anyone in your organization receiving suspicious emails that include unsolicited attachments and/or requests for sensitive information?

Unauthorized Use

Are unauthorized parties using your system for the processing or storage of data? Are former employees, customers, suppliers, or partners still using your system?

Industrial Security Letter 2010-02 reminds cleared contractors that all of the above incidents must be reported to the Federal Bureau of Investigation and DSS, as specified in NISPOM paragraph 1-301.



CYBER SECURITY

This product created by the Defense Security Service (DSS) Counterintelligence Directorate.
http://www.dss.mil

THE WHAT

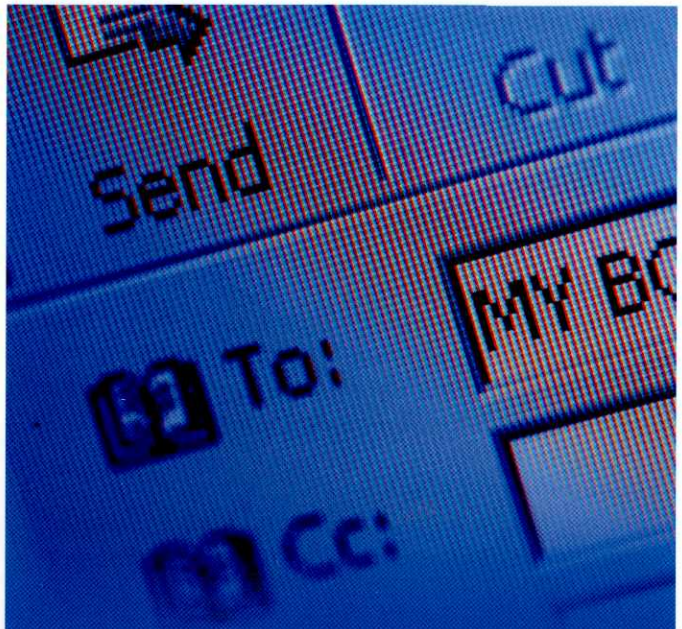
The Threats

- Insiders
- Hackers
- Cyber Criminals
- Terrorists
- Organized Crime
- Foreign Intelligence Entities

What are the actors targeting?

- Sensitive company documents
- Export controlled technology
- Information on DoD-funded contracts
- Sensitive technological specification documents
- Users' login IDs and passwords
- Personal Identifying Information (SSN, date of birth, address)
- Contact rosters and phone directories

THE WAYS



How are the actors compromising systems?

- Emails with malicious links or attachments
- Un-patched or outdated software vulnerabilities
- Removable media (USB drives)
- Use of weak or default passwords
- Web site vulnerabilities
- Increased attacks against PKI credentials (i.e., stolen logon credentials)
- Spoofing emails that imitate valid domains (i.e., .mil or .gov addresses)

THE PROCESS

Anatomy of a computer intrusion:

1 Reconnaissance: Attackers research and identify individuals whom they will target through open source means.

2 Intrusion into the network: The actors send spear-phishing emails to targeted users within the company with spoofed emails that include malicious links or attached malicious documents.

3 Obtain user credentials: Attackers get most of their access using valid user credentials. The most common type: domain-administrator credentials.

4 Establish a backdoor: With domain administrative credentials, the actors will move "laterally" within the victim's network, installing backdoors for future and continued exploitation.

5 Install multiple utilities: Utility programs are installed on the victim's network to conduct system administration, steal passwords, get email, and list running processes.

6 Data exfiltration: The actors obtain emails, attachments, and files from the victim's servers and then encrypt and exfiltrate the data via the actor's Command & Control infrastructure.

7 Maintaining persistence: If the actors suspect they are being detected or remediated, they will use other methods to ensure they don't lose their presence in the victim's network, including updating their malware.