



**National Insider Threat Special Interest Group (NITSIG)**



**Combating The Insider Threat To Information Systems**  
**A Proactive And Defensive Security Posture**

**March 3, 2018**

## Information / Information Systems / Network Threats

### Vulnerability

Lack of Data Management Plan / Security Classification Marking And Guidance

### Threat

Data Is Not Marked Accordingly, Or The Correct Security Classifications Are Not Applied To Hardware And Documents.

### Mitigation

Define How Data Is Handled / Cataloged From The Point Of Ingestion. Apply Security Classification Markings. Define Retention Requirements.

### Vulnerability

Lack Of Password Management For Critical Network Servers, Network Devices, Routers, Firewalls, Etc.

### Threat

Rogue Network Administrator Takes Network Hostage. Ensure More Than One Network Administrator Holds The Keys To The Castle.

### Mitigation

Ensure Passwords Stored In Safe

### Vulnerability

Individuals Using Network Resources Are In Violation Of Network/Computer Systems Rules Of Behavior. Possible Leak Of Sensitive or Classified Information, Virus Infections, Etc.

### Threat

Improper Usage Of Network Resources (Computer Systems, Software Applications, Networks, Bandwidth, And Supporting Network Devices, Etc.)By Individuals.

### Mitigation

Monitoring Of Floppy, USB/DVD-CD/PDA Access/Connections, Instant Messaging, Social Networking, Print Jobs, Web Surfing Habits, E-Mail Content Filtering, E-Mail Attachments, Use Of Encryption, Zip Files, Stenography Applications. Review Of Software And Database Application Logs, Operating Systems Event Logs, Network Router Logs.

### Vulnerability

Network Jacks That Are "Hot" Or "Live"

### Threat

Individuals Can Use Live Network Jacks To Possibly Access Network, Capture Data, Sniff Traffic.

### Mitigation

Disable Network Jacks Not In Use.

### Vulnerability

Use Of Group Accounts For Network Login.

### Threat

Unable To Associate Actions With Individuals.

### Mitigation

No Shared Group Accounts. All Network Accounts Must Be Associated With Individuals.

### Vulnerability

Large Print Jobs That May Be Out Of Scope Of Individuals Duties

### Threat

Without Auditing , Unable To Detect Large Print Jobs That May Be Outside Scope Of Duties.

### Mitigation

Audit Print Jobs. User Of Banner Pages On Print Jobs.

### **Vulnerability**

Document Scanner Hooked Up To Un-Classified Network In Classified Areas, With No Restrictions On Access To Scanner. (Includes: Portable Pen Scanners)

### **Threat**

Possible Leak Of Sensitive or Classified Information To The Internet.

### **Mitigation**

Limited Access To Document Scanner. (Example: Network Administrators Only)

### **Vulnerability**

No Mapping Of Network Infrastructure (Computer, Servers, Routers, Firewalls, Other Network Devices.

### **Threat**

Unable To Quickly Determine Threats To Network Infrastructure.

### **Mitigation**

Map Network Infrastructure With Software Tool.

### **Vulnerability**

No Mapping Of Network Traffic Traversing Network Infrastructure.

### **Threat**

Unable To Determine Un-Authorized Or Suspicious Activity On Network.

### **Mitigation**

Network Sniffer Trace, Intrusion Detection System.

### **Vulnerability**

Lack Of Control For Software Applications, Workstations, Servers, Laptops And Networking Infrastructure Assets.

### **Threat**

Loss Of Hardware And Software.

### **Mitigation**

Proper Asset Management Procedures

### **Vulnerability**

Non-Secure Configurations Of Software Applications. Database, Workstations, Servers, Laptops, Network Routers.

### **Threat**

Possible Breach Of Computers And Networks. Un-Authorized Access To Data.

### **Mitigation**

Use Secure Configurations From NIST, DISA, Commercial Vendors, Operating System And Software Application Patch Management, Consensus Audit Guidelines. Use Of Encryption On Desktops, Laptops. Implement Strict Password Policies.

### **Vulnerability**

Lack Of Configuration Management Of Computer System And Networks

### **Threat**

Un-Authorized Installation Of Hardware And Software

### **Mitigation**

Configuration Control Board, Configuration Change Requests/CCR's

### **Vulnerability**

Failure To “Clean” Documents Before Releasing To Lower Level Classified Systems Or The Internet

### **Threat**

Release Of Classified Or Sensitive Data

### **Mitigation**

MetaData Cleaning/Document Flattening Software To Remove Hidden MetaData From Adobe PDF, MS-Word, Excel, PowerPoint Files.

### **Vulnerability**

Key Catcher

### **Threat**

### **Plug & Play Hardware Keylogger Installs In Seconds**

- Record on one PC & retrieve data on another.
- No software to install.
- Works with all PC operating systems.

### **Mitigation**

Check Switch Boxes And USB/PS/2 Ports For Key Catcher Devices

### **Vulnerability**

Recording of Classified or Sensitive Conversations To Wav File.

Change Extension To .Doc File. Send From Work To Other Source On Internet.

### **Threat**

Release Of Classified Or Sensitive Information

### **Mitigation**

Removal Of Windows Sounder Recorder Application, Disable Microphone Port.

### **Vulnerability**

Authorization Creep. Accumulation Of Privileges.

### **Threat**

Un-Authorized Access To Data. Need To Know Principle.

### **Mitigation**

Review Of Access Rights For; Physical Security, Computer/Network Access, Software Applications, Database Access. Separation Of Duties, Least Privilege.

### **Vulnerability**

Un-Authorized Access To Facility, Computer/Network Access, Software Applications, Database Access.

### **Threat**

Un-Authorized Access To Facility. Un-Authorized Access To Data.

### **Mitigation**

Proper Termination Procedures. Removal Of Facility Access, Computer And Network Access. Disable Network Account After 60/90 days of inactivity.

### **Vulnerability**

Lack Of Backup And Recovery Procedures. Lack Of Structured Incident Response Team.

### **Threat**

Inability To Quickly Recover From Incidents.

### **Mitigation**

Proper Incident Response And Handling Procedures/CSIRT, Including Computer Forensics Investigations. Backup And Recovery Procedures.

**Contact Information**

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