Security Content Automation Protocol (SCAP) Stakeholders:

OFFICE OF MANAGEMENT AND BUDGET

The Security Content Automation Protocol and the Federal Desktop Core Configuration

presented by:

Stephen Quinn: NIST SCAP Team

National Institute of Standards and Technology

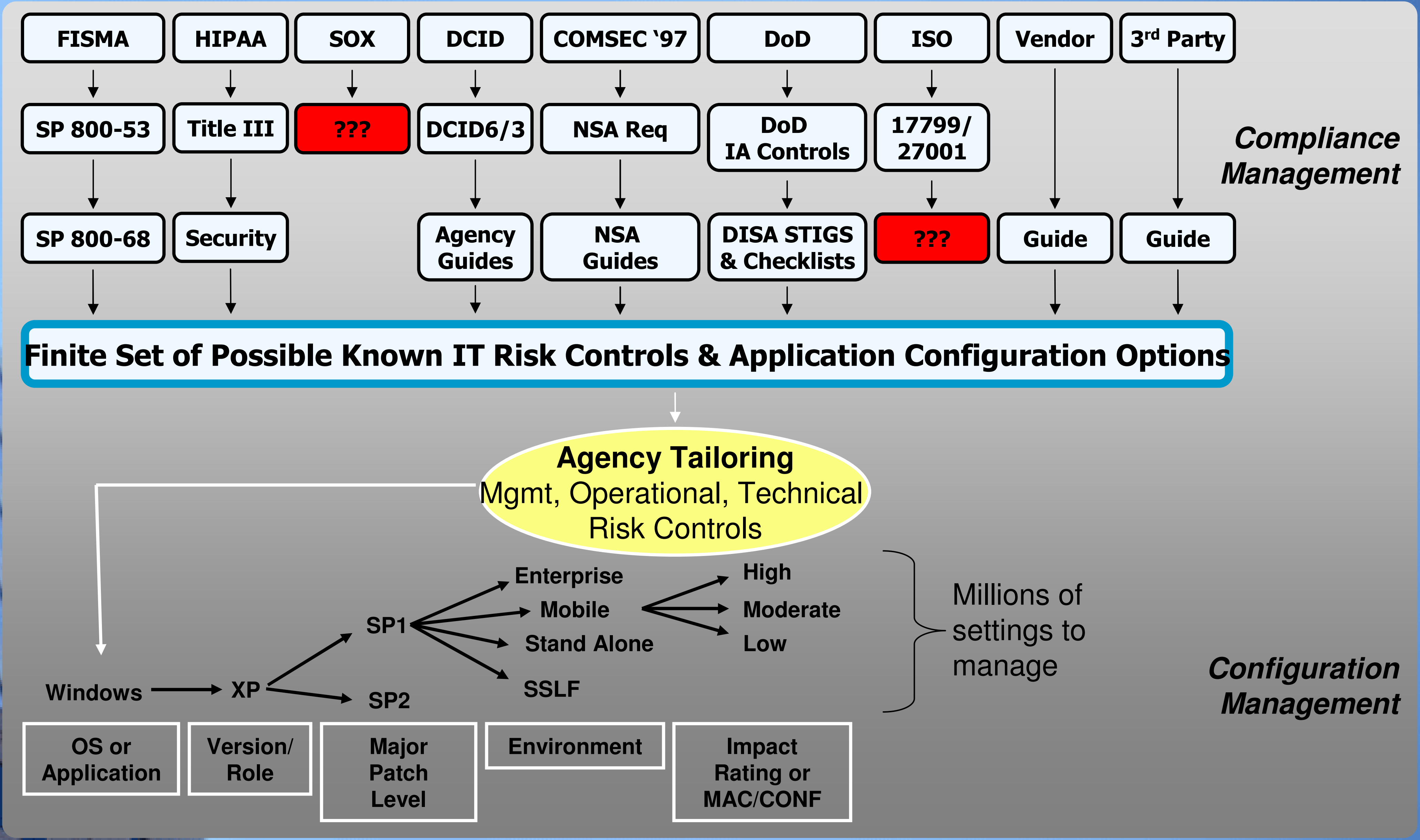
Agenda

- Challenges with Current Security Approaches
- Introduction to Security Content Automation Protocol
- How Does SCAP Work
- Linking Configuration to Compliance with SCAP
- SCAP Stakeholders, Contributors, and Early Adopters
- SCAP Validation Program

Vision and Impact

- SCAP
  - Enhance the capabilities of IT security products (base of reference material, interoperability)
  - Empowering end user organization (visibility, customization, not locked into a single tool)
  - Standardizing and automating vulnerability management, measurement, and policy compliance checking
  - Integrating and standardizing security operations, compliance, and outside audits

Current State: Compliance and Configuration Management



FISMA → SP 800-53 → SP 800-68

HIPAA → Title III → Security

SOX → ???

DCID → DCID6/3 → Agency Guides

COMSEC '97 → NSA Req → NSA Guides

DoD → DoD IA Controls → DISA STIGS & Checklists

ISO → 17799/ 27001 → ???

Vendor → Guide

3rd Party → Guide

Compliance Management

Finite Set of Possible Known IT Risk Controls & Application Configuration Options

Agency Tailoring
Mgmt, Operational, Technical Risk Controls

Windows → XP → SP1, SP2

SP1 → Enterprise, Mobile, Stand Alone, SSLF

Mobile → High, Moderate, Low

Millions of settings to manage

OS or Application

Version/ Role

Major Patch Level

Environment

Impact Rating or MAC/CONF

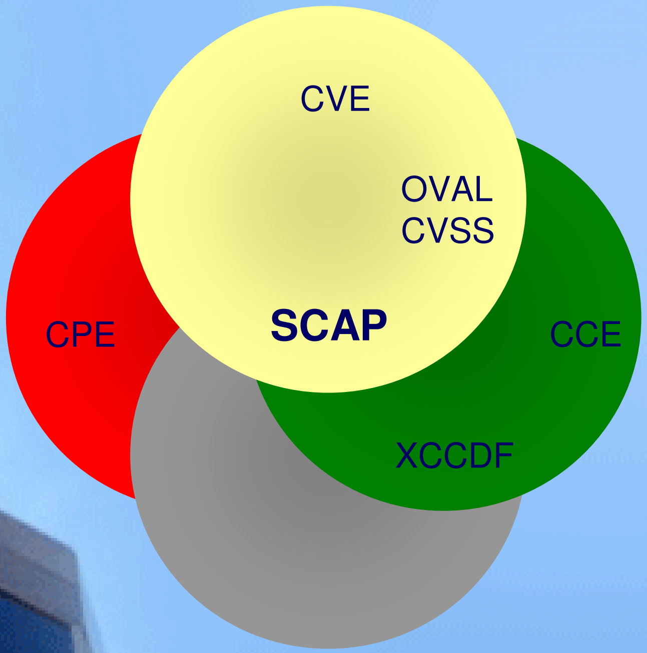
Configuration Management

What is SCAP?

How

Standardizing the format by which we communicate

Protocol



What

Standardizing the information we communicate

Content

Sponsored by
DHS National Cyber Security Division/US-CERT
National Vulnerability Database
a comprehensive cyber vulnerability resource
NIST
National Institute of Standards and Technology

http://nvd.nist.gov

- 70 million hits per year
- 20 new vulnerabilities per day
- Mis-configuration cross references
- Reconciles software flaws from US CERT and MITRE repositories
- Produces XML feed for NVD content

Security Content Automation Protocol (SCAP)

Standardizing How We Communicate

MITRE	cve.mitre.org	CVE	Common Vulnerability Enumeration	Standard nomenclature and dictionary of security related software flaws
MITRE	CCE	CCE	Common Configuration Enumeration	Standard nomenclature and dictionary of software misconfigurations
MITRE	CPE common platform enumeration	CPE	Common Platform Enumeration	Standard nomenclature and dictionary for product naming
NATIONAL SECURITY AGENCY UNITED STATES OF AMERICA	XCCDF security benchmark automation	XCCDF	eXtensible Checklist Configuration Description Format	Standard XML for specifying checklists and for reporting results of checklist evaluation
MITRE	OPEN VULNERABILITY AND ASSESSMENT LANGUAGE OVAL	OVAL	Open Vulnerability and Assessment Language	Standard XML for test procedures
FIRST Improving Security Together Cisco, Qualys, Symantec, Carnegie Mellon University	cvss	CVSS	Common Vulnerability Scoring System	Standard for measuring the impact of vulnerabilities

NIST · NATIONAL SECURITY AGENCY UNITED STATES OF AMERICA · DEPARTMENT OF DEFENSE UNITED STATES OF AMERICA · U.S. DEPARTMENT OF HOMELAND SECURITY · DEFENSE INFORMATION SYSTEMS AGENCY

Existing Federal Content

Standardizing What We Communicate

NIST Security Configuration CHECKLISTS http://checklists.nist.gov CSD

- In response to NIST being named in the Cyber Security R&D Act of 2002
- Encourages vendor development and maintenance of security guidance
- Currently hosts 114 separate guidance documents for over 141 IT products
- Translating this backlog of checklists into the Security Content Automating Protocol (SCAP)
- Participating organizations: DISA, NSA, NIST, Hewlett-Packard, CIS, ITAA, Oracle, Sun, Apple, Microsoft, Citadel, LJK, Secure Elements, ThreatGuard, MITRE Corporation, G2, Verisign, Verizon Federal, Kyocera, Hewlett-Packard, ConfigureSoft, McAfee, etc.

Sponsored by DHS National Cyber Security Division/US-CERT

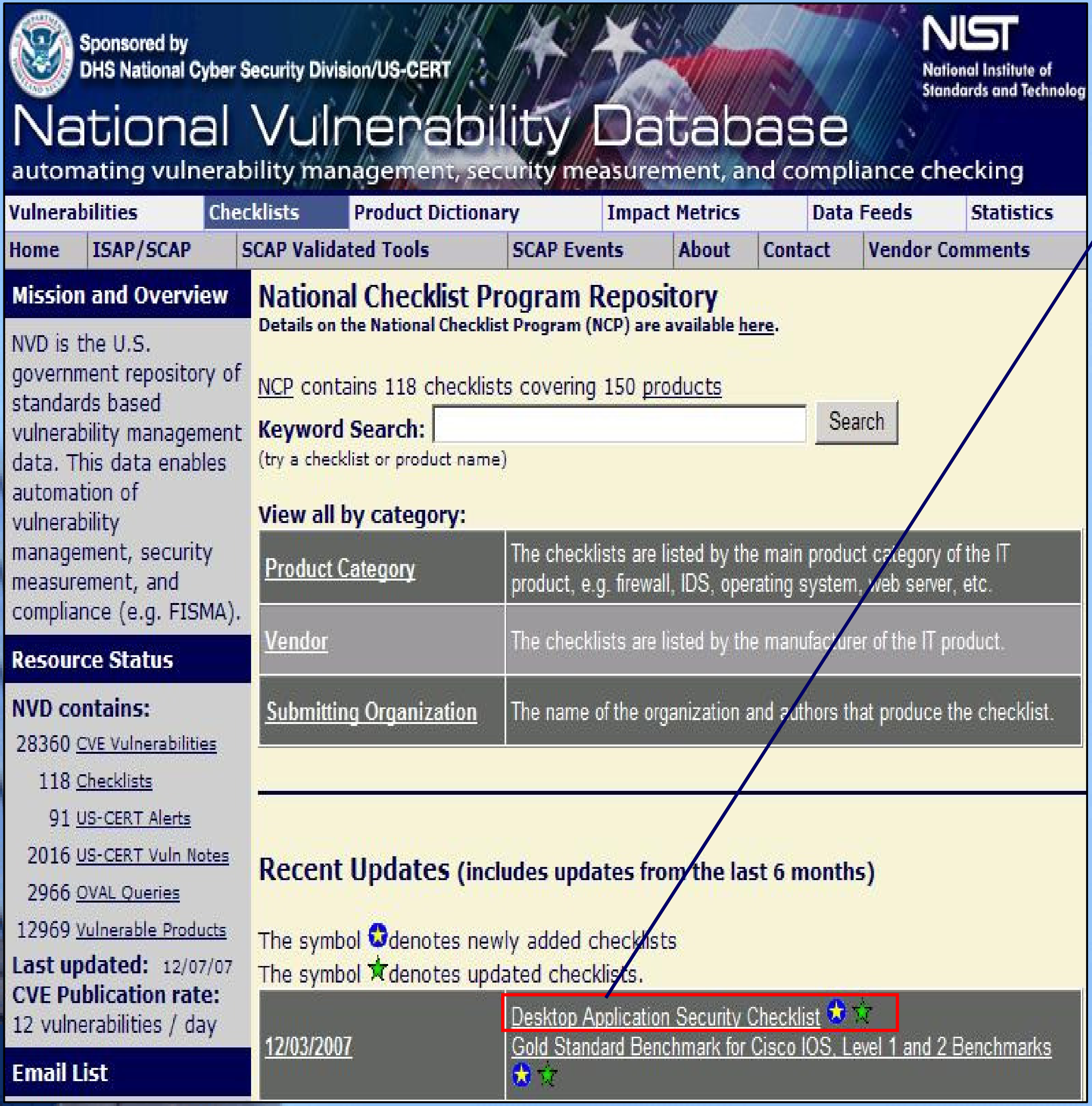
National Vulnerability Database

a comprehensive cyber vulnerability resource

NIST National Institute of Standards and Technology

- Over 70 million hits per year
- 29,000 vulnerabilities
- About 20 new vulnerabilities per day
- Mis-configuration cross references to:
  - NIST SP 800-53 Security Controls (All 17 Families and 163 controls)
  - DoD IA Controls
  - DISA VMS Vulnerability IDs
  - Gold Disk VIDs
  - DISA VMS PDI IDs
  - NSA References
  - DCID
  - ISO 17799
- Reconciles software flaws from:
  - US CERT Technical Alerts
  - US CERT Vulnerability Alerts (CERTCC)
  - MITRE OVAL Software Flaw Checks
  - MITRE CVE Dictionary
- Produces XML feed for NVD content

National Checklist Program Hosted at National Vulnerability Database Website



Sponsored by
DHS National Cyber Security Division/US-CERT

NIST
National Institute of Standards and Technolog

National Vulnerability Database

automating vulnerability management, security measurement, and compliance checking

Vulnerabilities | Checklists | Product Dictionary | Impact Metrics | Data Feeds | Statistics
Home | ISAP/SCAP | SCAP Validated Tools | SCAP Events | About | Contact | Vendor Comments

Mission and Overview

NVD is the U.S. government repository of standards based vulnerability management data. This data enables automation of vulnerability management, security measurement, and compliance (e.g. FISMA).

Resource Status

NVD contains:

28360	CVE Vulnerabilities
118	Checklists
91	US-CERT Alerts
2016	US-CERT Vuln Notes
2966	OVAL Queries
12969	Vulnerable Products

Last updated: 12/07/07

CVE Publication rate: 12 vulnerabilities / day

Email List

National Checklist Program Repository

Details on the National Checklist Program (NCP) are available here.

NCP contains 118 checklists covering 150 products

Keyword Search: Search

(try a checklist or product name)

View all by category:

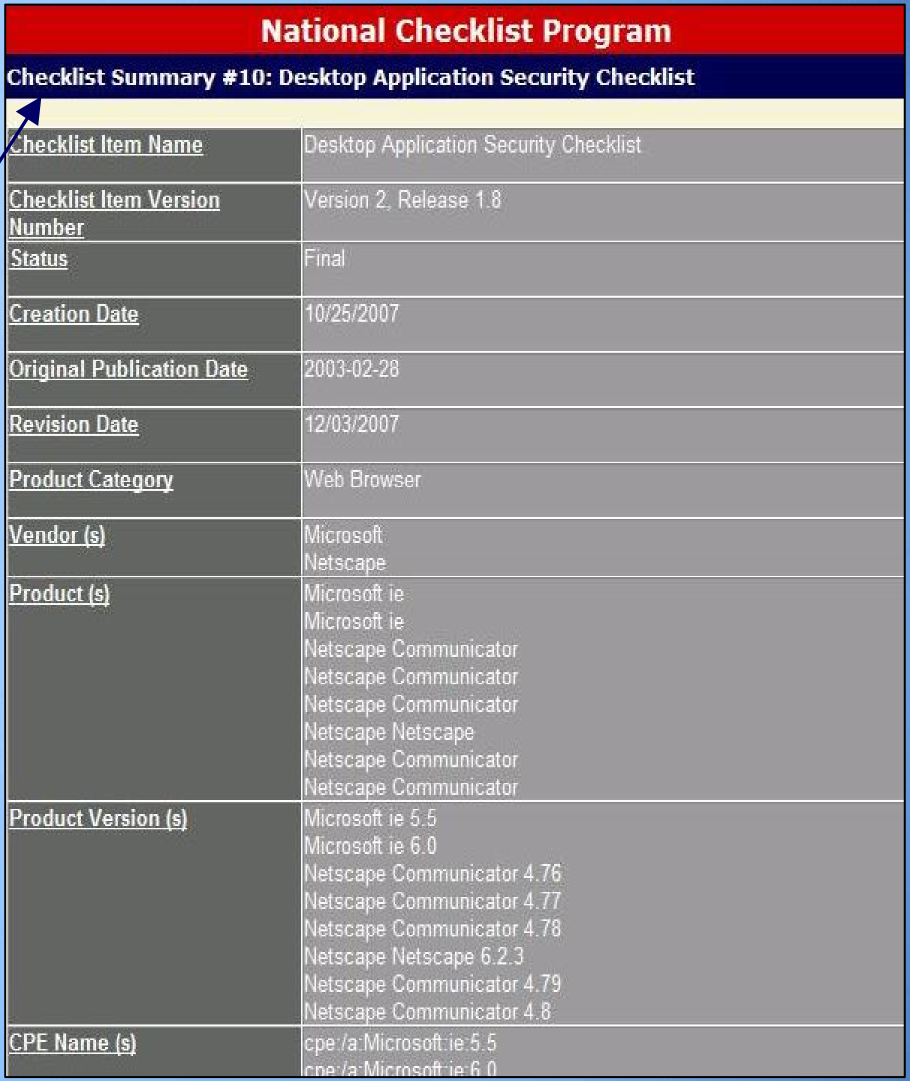
Product Category	The checklists are listed by the main product category of the IT product, e.g. firewall, IDS, operating system, web server, etc.
Vendor	The checklists are listed by the manufacturer of the IT product.
Submitting Organization	The name of the organization and authors that produce the checklist.

Recent Updates (includes updates from the last 6 months)

The symbol ✪ denotes newly added checklists

The symbol ★ denotes updated checklists.

12/03/2007	Desktop Application Security Checklist ✪ ★ Gold Standard Benchmark for Cisco IOS, Level 1 and 2 Benchmarks ✪ ★

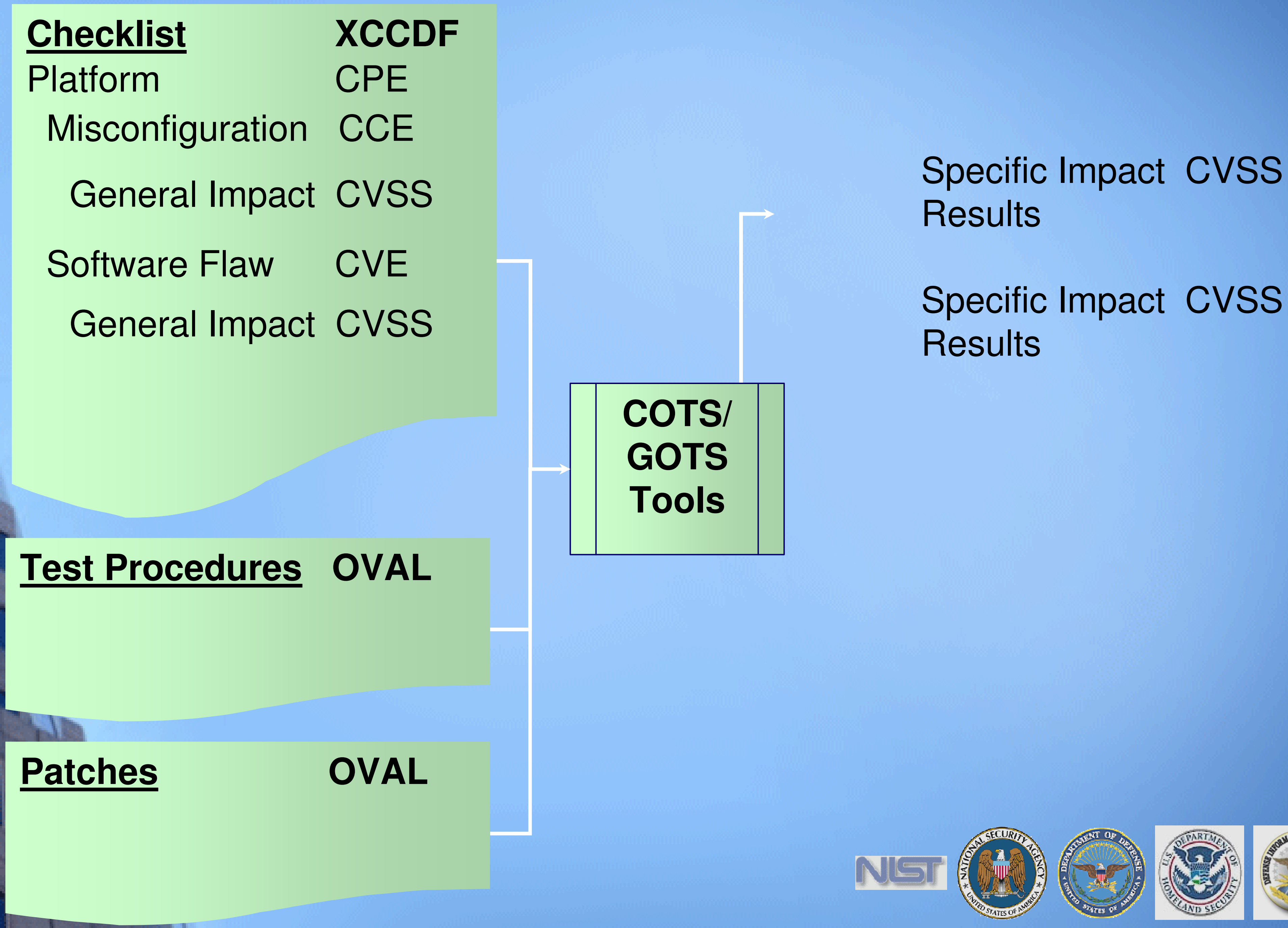


National Checklist Program

Checklist Summary #10: Desktop Application Security Checklist

Checklist Item Name	Desktop Application Security Checklist
Checklist Item Version Number	Version 2, Release 1.8
Status	Final
Creation Date	10/25/2007
Original Publication Date	2003-02-28
Revision Date	12/03/2007
Product Category	Web Browser
Vendor (s)	Microsoft Netscape
Product (s)	Microsoft ie Microsoft ie Netscape Communicator Netscape Communicator Netscape Communicator Netscape Netscape Netscape Communicator Netscape Communicator
Product Version (s)	Microsoft ie 5.5 Microsoft ie 6.0 Netscape Communicator 4.76 Netscape Communicator 4.77 Netscape Communicator 4.78 Netscape Netscape 6.2.3 Netscape Communicator 4.79 Netscape Communicator 4.8
CPE Name (s)	cpe:/a:Microsoft:ie:5.5 cpe:/a:Microsoft:ie:6.0

How SCAP Works



Checklist XCCDF
Platform CPE
Misconfiguration CCE
General Impact CVSS
Software Flaw CVE
General Impact CVSS

Test Procedures OVAL

Patches OVAL

COTS/
GOTS
Tools

Specific Impact CVSS
Results

Specific Impact CVSS
Results

Linking Configuration to Compliance

Keyed on SP800-53 Security Controls

```
<Group id="IA-5" hidden="true">
  <title>Authenticator Management</title>
    <reference>ISO/IEC 17799: 11.5.2, 11.5.3</reference>
    <reference>NIST 800-26: 15.1.6, 15.1.7, 15.1.9, 15.1.10,
      15.1.11, 15.1.12, 15.1.13, 16.1.3, 16.2.3</reference>
    <reference>GAO FISCAM: AC-3.2</reference>
    <reference>DOD 8500.2: IAKM-1, IATS-1</reference>
    <reference>DCID 6/3: 4.B.2.a(7), 4.B.3.a(11)</reference>
    <reference>HIPAA SR 164.308(a)(5)(ii)(D)
</reference>
</Group>
```

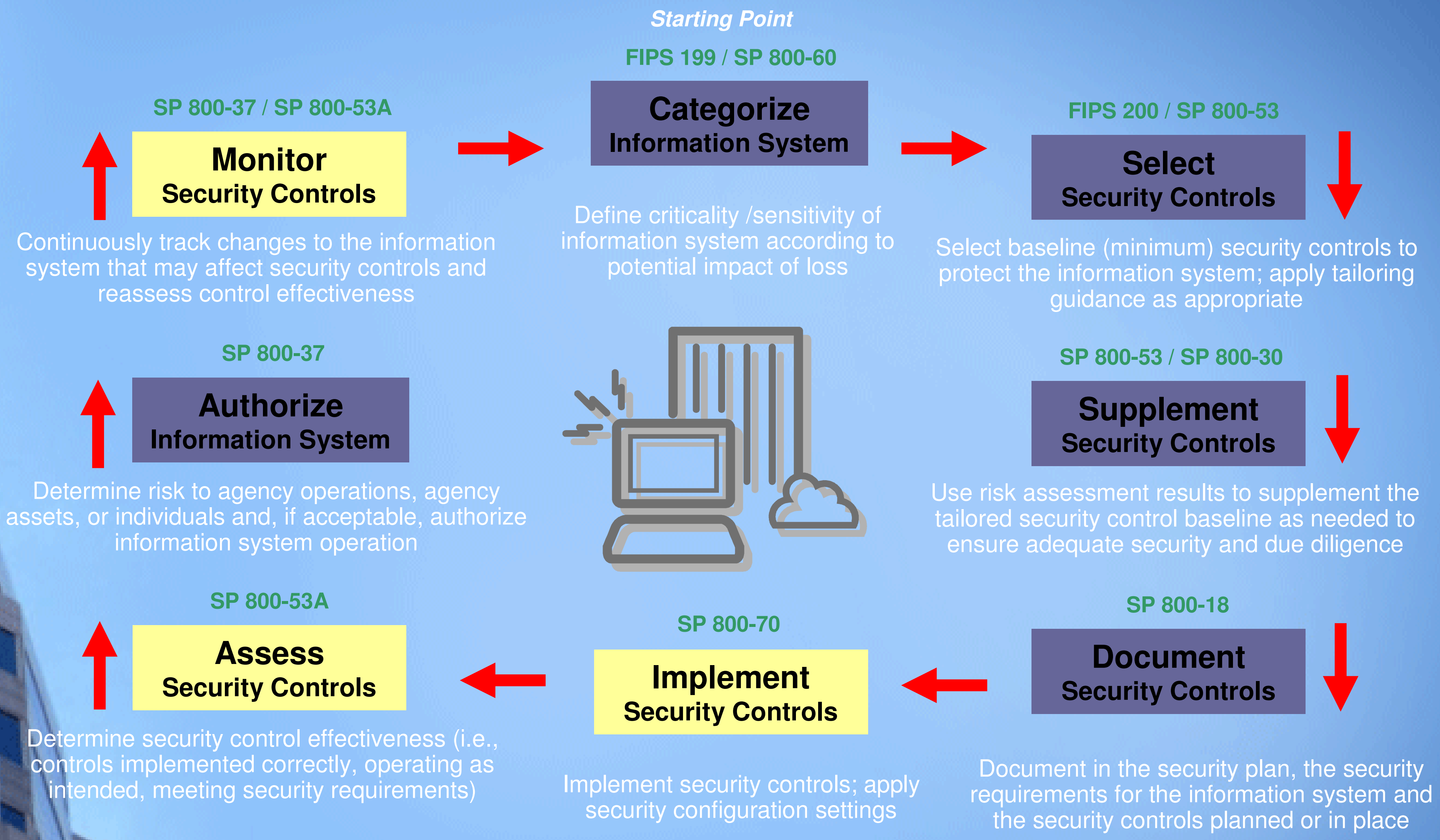
Traceability to Mandates

```
<Rule id="minimum-password-length" selected="false"
      weight="10.0">
    <reference>CCE-100</reference>
    <reference>DISA STIG Section 5.4.1.3</reference>
    <reference>DISA Gold Disk ID 7082</reference>
    <reference>PDI IAIA-12B</reference>
    <reference>800-68 Section 6.1 - Table A-1.4</reference>
    <reference>NSA Chapter 4 - Table 1 Row 4</reference>
    <requires idref="IA-5"/>
    [pointer to OVAL test procedure]
</Rule>
```

Traceability to Guidelines

Rationale for security configuration

Federal Risk Management Framework



Starting Point

FIPS 199 / SP 800-60

Categorize
Information System

Define criticality /sensitivity of information system according to potential impact of loss

FIPS 200 / SP 800-53

Select
Security Controls

Select baseline (minimum) security controls to protect the information system; apply tailoring guidance as appropriate

SP 800-53 / SP 800-30

Supplement
Security Controls

Use risk assessment results to supplement the tailored security control baseline as needed to ensure adequate security and due diligence

SP 800-18

Document
Security Controls

Document in the security plan, the security requirements for the information system and the security controls planned or in place

SP 800-70

Implement
Security Controls

Implement security controls; apply security configuration settings

SP 800-53A

Assess
Security Controls

Determine security control effectiveness (i.e., controls implemented correctly, operating as intended, meeting security requirements)

SP 800-37

Authorize
Information System

Determine risk to agency operations, agency assets, or individuals and, if acceptable, authorize information system operation

SP 800-37 / SP 800-53A

Monitor
Security Controls

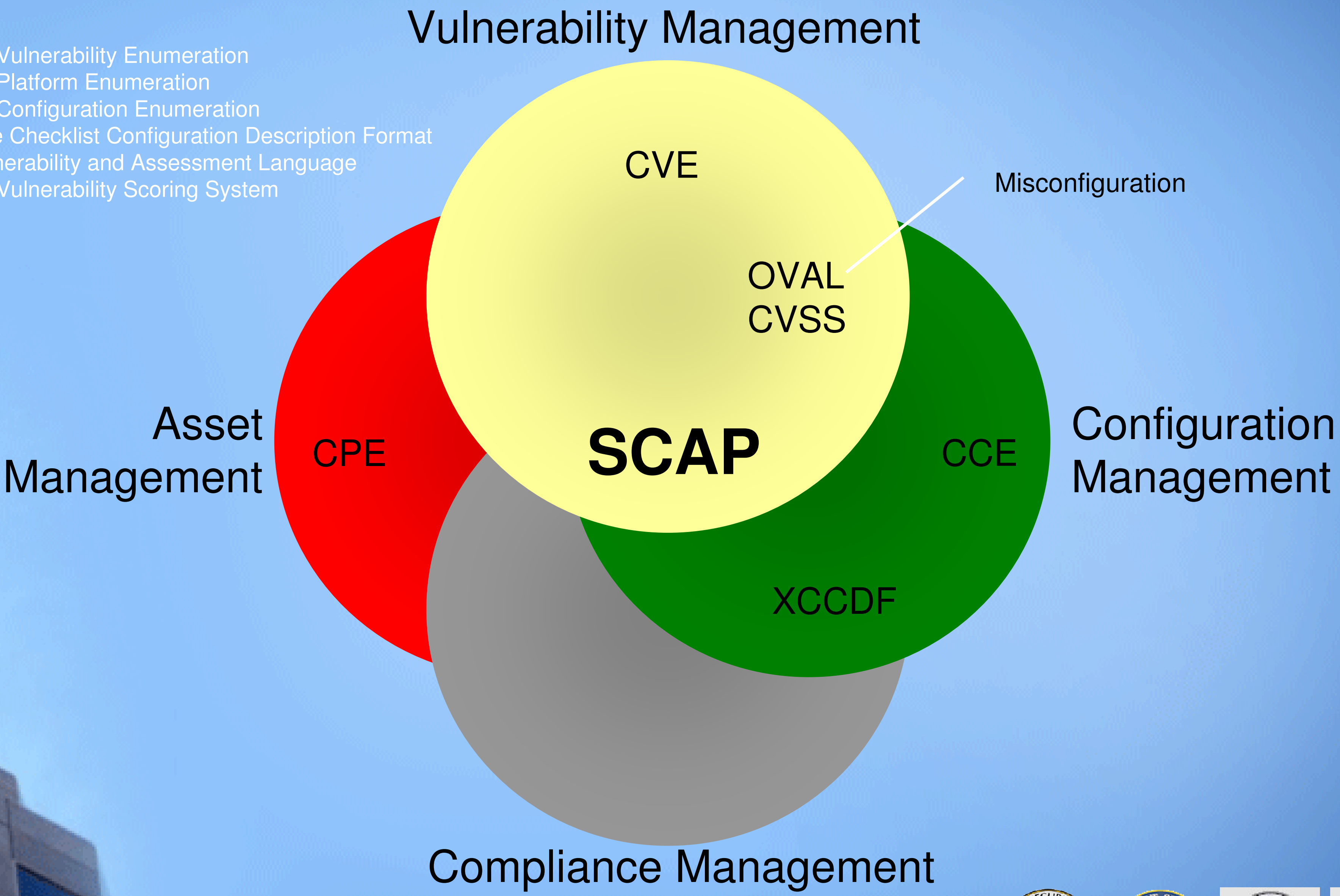
Continuously track changes to the information system that may affect security controls and reassess control effectiveness

~ 19% of FISMA Security Controls are fully automated through SCAP

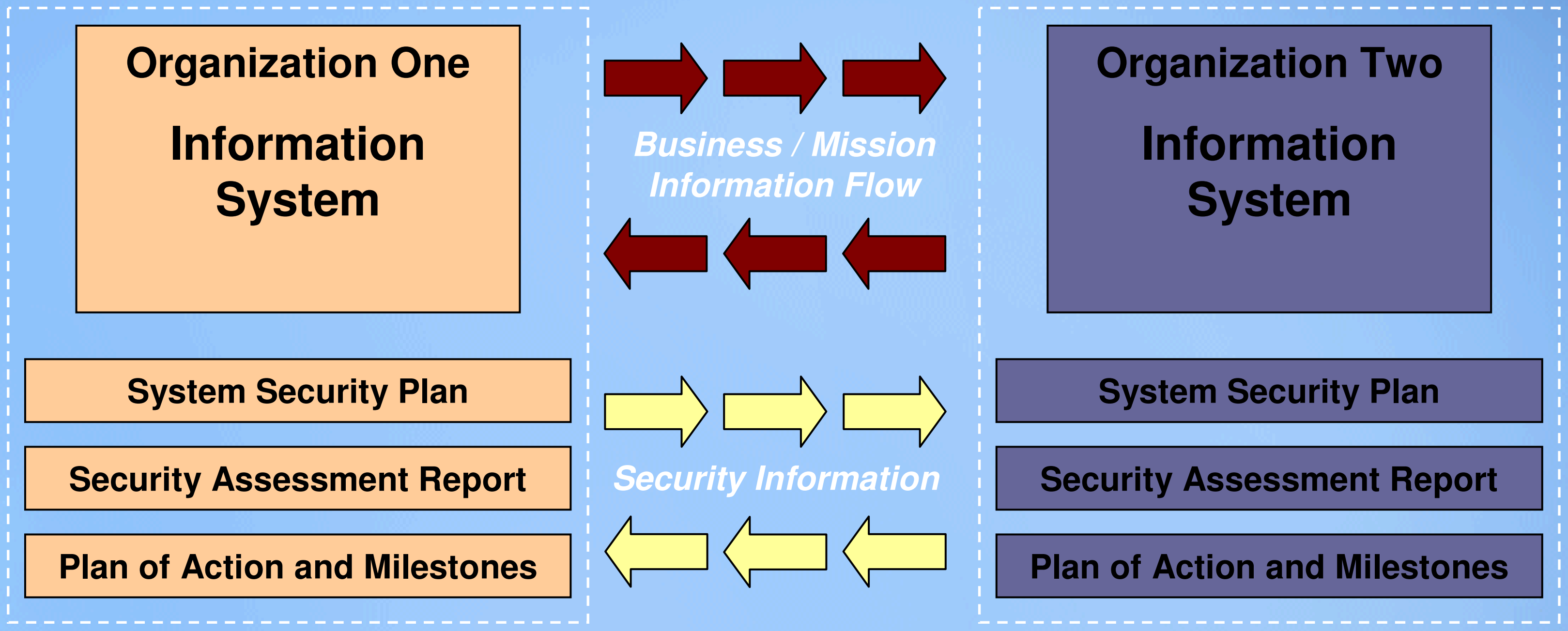
~ 24% of FISMA Security Controls are partially automated through SCAP

Integrating IT and IT Security Through SCAP

Common Vulnerability Enumeration
Common Platform Enumeration
Common Configuration Enumeration
eXtensible Checklist Configuration Description Format
Open Vulnerability and Assessment Language
Common Vulnerability Scoring System



Agility in a Digital World



Organization One

Information System

System Security Plan

Security Assessment Report

Plan of Action and Milestones

Business / Mission Information Flow

Security Information

Organization Two

Information System

System Security Plan

Security Assessment Report

Plan of Action and Milestones

Determining the risk to the first organization’s operations and assets and the acceptability of such risk

Determining the risk to the second organization’s operations and assets and the acceptability of such risk

The objective is to achieve *visibility* into prospective business/mission partners information security programs BEFORE critical/sensitive communications begin…establishing levels of security due diligence and trust.

Stakeholder and Contributor Landscape: Industry

Product Teams and Content Contributors

Starpoint Software
Since 1994

netIQ
An Attachmate® Business

BIGFIX®

XACTA®
A TELOS® COMPANY

SAINT®

BELARC

Shavlik

MITRE

eEye Digital Security®

APPLICATION SECURITY, INC.

ThreatGuard

nCircle®
Proactive Network Security

FuGEN

McAfee®

symantec.

Configuresoft

GIDEON TECHNOLOGIES

Triumfant™

the CENTER for INTERNET SECURITY

SecureVantage
TECHNOLOGIES

TENABLE
Network Security®

Ai Metrix

G2

SecureInfo®
THE INFORMATION ASSURANCE EXPERTS™

Lumension
SECURITY™

redhat.

Atlantic Systems Group, Inc.
www.asg.cc

Premier Data Services

secure elements®
audit. evaluate. comply.

QUALYS®

i-Assure
DEFENSE-IN-DEPTH SOLUTIONS

Stakeholder and Contributor Landscape: Federal Agencies

SCAP Infrastructure, Beta Tests, Use Cases, and Early Adopters

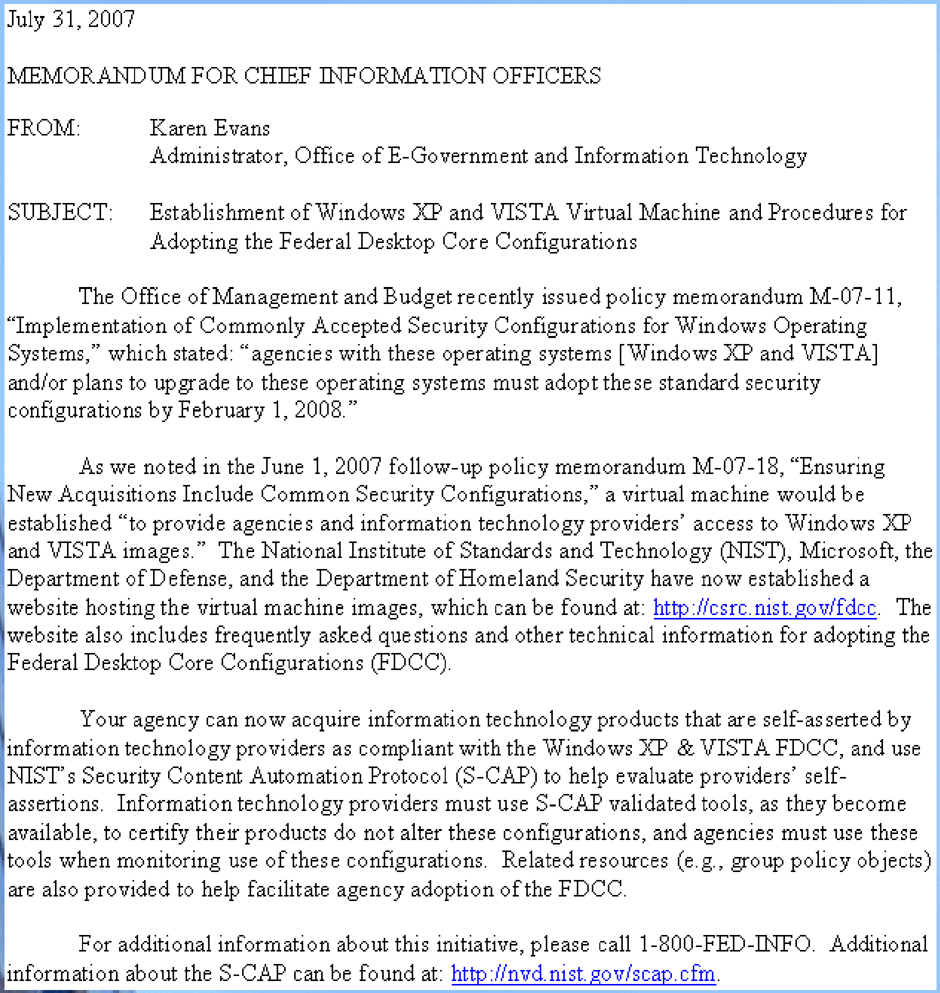
DHS	OMB
NSA	IC
OSD	DISA
DOJ	EPA
Army	NIST
DOS	

Projects and Initiatives

- While NIST led, SCAP is large multi-agency effort with an informal coordinating body and no central funding stream
  - NIST, OSD, OMB, DHS, NSA, DISA, Army, and AF
- Major dependencies on SCAP
  - World-wide Payment Card Industry (NVD)
  - OMB FDCC (SCAP and SCAP validation program)
  - DOD Computer Network Defense (SCAP, NVD)
  - DOD operational (NVD)
  - FISMA Phase II
- Situational Awareness Incident Response (SAIR) Working Group
- Long going, ongoing, operational commitment

OMB 31 July 2007 Memo to CIOs

Establishment of Windows XP and VISTA Virtual Machine and Procedures for Adopting the Federal Desktop Core Configurations



July 31, 2007

MEMORANDUM FOR CHIEF INFORMATION OFFICERS

FROM: Karen Evans
Administrator, Office of E-Government and Information Technology

SUBJECT: Establishment of Windows XP and VISTA Virtual Machine and Procedures for Adopting the Federal Desktop Core Configurations

The Office of Management and Budget recently issued policy memorandum M-07-11, "Implementation of Commonly Accepted Security Configurations for Windows Operating Systems," which stated: "agencies with these operating systems [Windows XP and VISTA] and/or plans to upgrade to these operating systems must adopt these standard security configurations by February 1, 2008."

As we noted in the June 1, 2007 follow-up policy memorandum M-07-18, "Ensuring New Acquisitions Include Common Security Configurations," a virtual machine would be established "to provide agencies and information technology providers' access to Windows XP and VISTA images." The National Institute of Standards and Technology (NIST), Microsoft, the Department of Defense, and the Department of Homeland Security have now established a website hosting the virtual machine images, which can be found at: http://csrc.nist.gov/fdcc. The website also includes frequently asked questions and other technical information for adopting the Federal Desktop Core Configurations (FDCC).

Your agency can now acquire information technology products that are self-asserted by information technology providers as compliant with the Windows XP & VISTA FDCC, and use NIST's Security Content Automation Protocol (S-CAP) to help evaluate providers' self-assertions. Information technology providers must use S-CAP validated tools, as they become available, to certify their products do not alter these configurations, and agencies must use these tools when monitoring use of these configurations. Related resources (e.g., group policy objects) are also provided to help facilitate agency adoption of the FDCC.

For additional information about this initiative, please call 1-800-FED-INFO. Additional information about the S-CAP can be found at: http://nvd.nist.gov/scap.cfm.

"As we noted in the June 1, 2007 follow-up policy memorandum M-07-18, "Ensuring New Acquisitions Include Common Security Configurations," **a virtual machine would be established "to provide agencies and information technology providers' access to Windows XP and VISTA images."** The National Institute of Standards and Technology (NIST), Microsoft, the Department of Defense, and the Department of Homeland Security have now established a website hosting the virtual machine images, which can be found at: http://csrc.nist.gov/fdcc."

"Your agency can now acquire information technology products that are self-asserted by information technology providers as compliant with the Windows XP & VISTA FDCC, and **use NIST's Security Content Automation Protocol (S-CAP) to help evaluate providers' self-assertions. Information technology providers must use S-CAP validated tools, as they become available, to certify their products do not alter these configurations, and agencies must use these tools when monitoring use of these configurations.**"

NVLAP®

National Voluntary Laboratory Accreditation Program

More Information

NIST FDCC Questions	fdcc@nist.gov
NIST FDCC Web Site	http://fdcc.nist.gov
- FDCC SCAP Checklists - FDCC Settings - Virtual Machine Images - Group Policy Objects	
National Checklist Program	http://checklists.nist.gov
National Vulnerability Database	http://nvd.nist.gov or http://scap.nist.gov
- SCAP Checklists - SCAP Capable Products - SCAP Events	
NIST SCAP Mailing Lists	Scap-update@nist.gov Scap-dev@nist.gov Scap-content@nist.gov

Contact Information

NIST Project Lead

Steve Quinn
(301) 975-6967
stephen.quinn@nist.gov

NVD Project Lead

Peter Mell
(301) 975-5572
mell@nist.gov

Senior Information Security Researchers and Technical Support

Karen Scarfone
(301) 975-8136
karen.scarfone@nist.gov

Murugiah Souppaya
(301) 975-4758
murugiah.souppaya@nist.gov

Matt Barrett
(301) 975-3390
matthew.barrett@nist.gov

Information and Feedback
Web: http://fdcc.nist.gov
Comments: fdcc@nist.gov

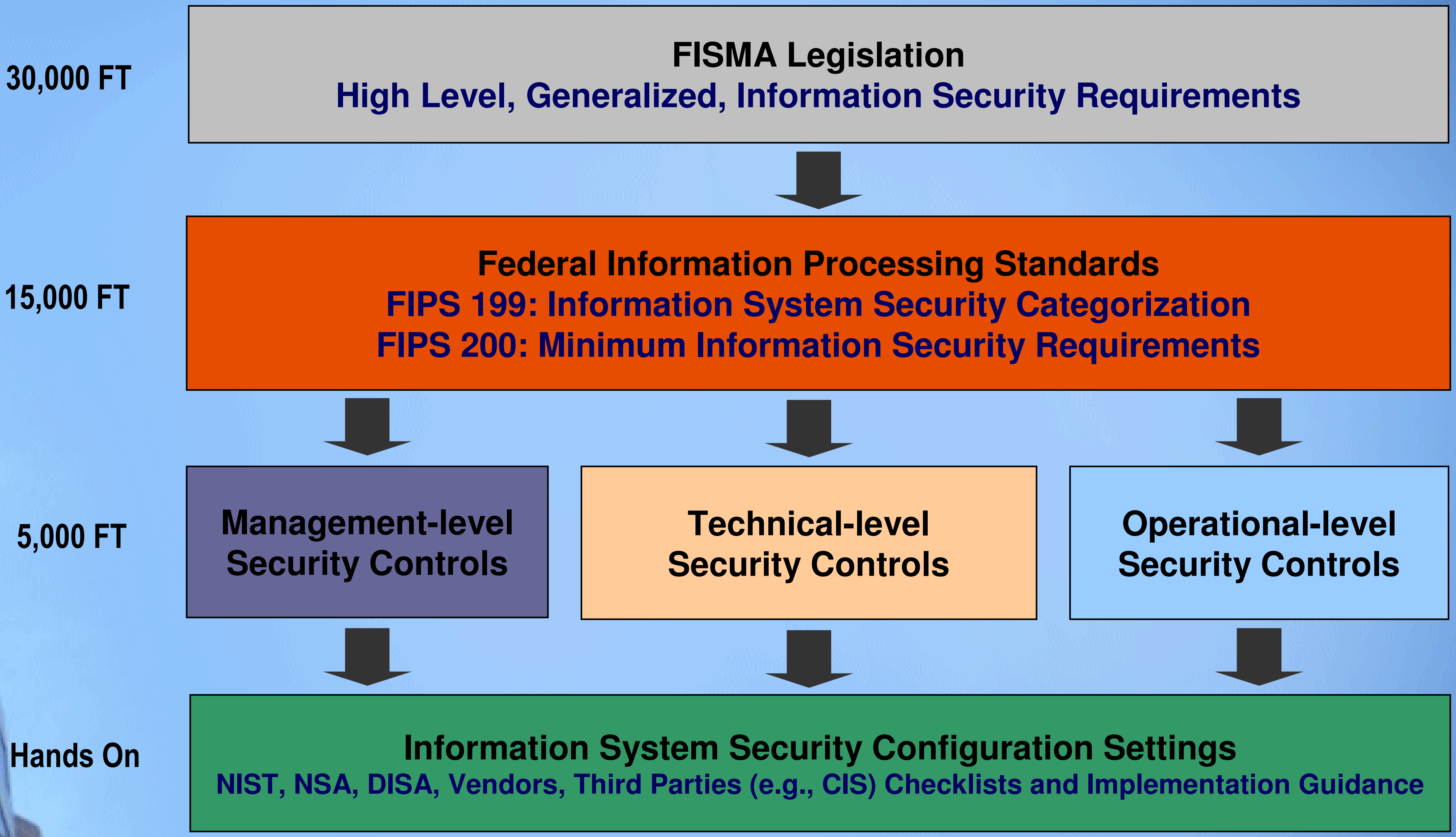
🟥 NIST FDCC Team Members

Questions

National Institute of Standards & Technology
Information Technology Laboratory
Computer Security Division

Current State of Information Security

FISMA Compliance Model



30,000 FT

FISMA Legislation
High Level, Generalized, Information Security Requirements

15,000 FT

Federal Information Processing Standards
FIPS 199: Information System Security Categorization
FIPS 200: Minimum Information Security Requirements

5,000 FT

Management-level Security Controls

Technical-level Security Controls

Operational-level Security Controls

Hands On

Information System Security Configuration Settings
NIST, NSA, DISA, Vendors, Third Parties (e.g., CIS) Checklists and Implementation Guidance

Current State Summary - Compliance

A Study in Cause and Effect

Governing Bodies

Recognize the need to improve security and mandate it in an increasing number of laws, directives, and policies

Standards Bodies

Try to keep pace with an increasing number of mandates by generating more frameworks and guidelines

Product Teams

Based on the increasing number of mandates, see the need for automation, many seek to enable it through proprietary methods

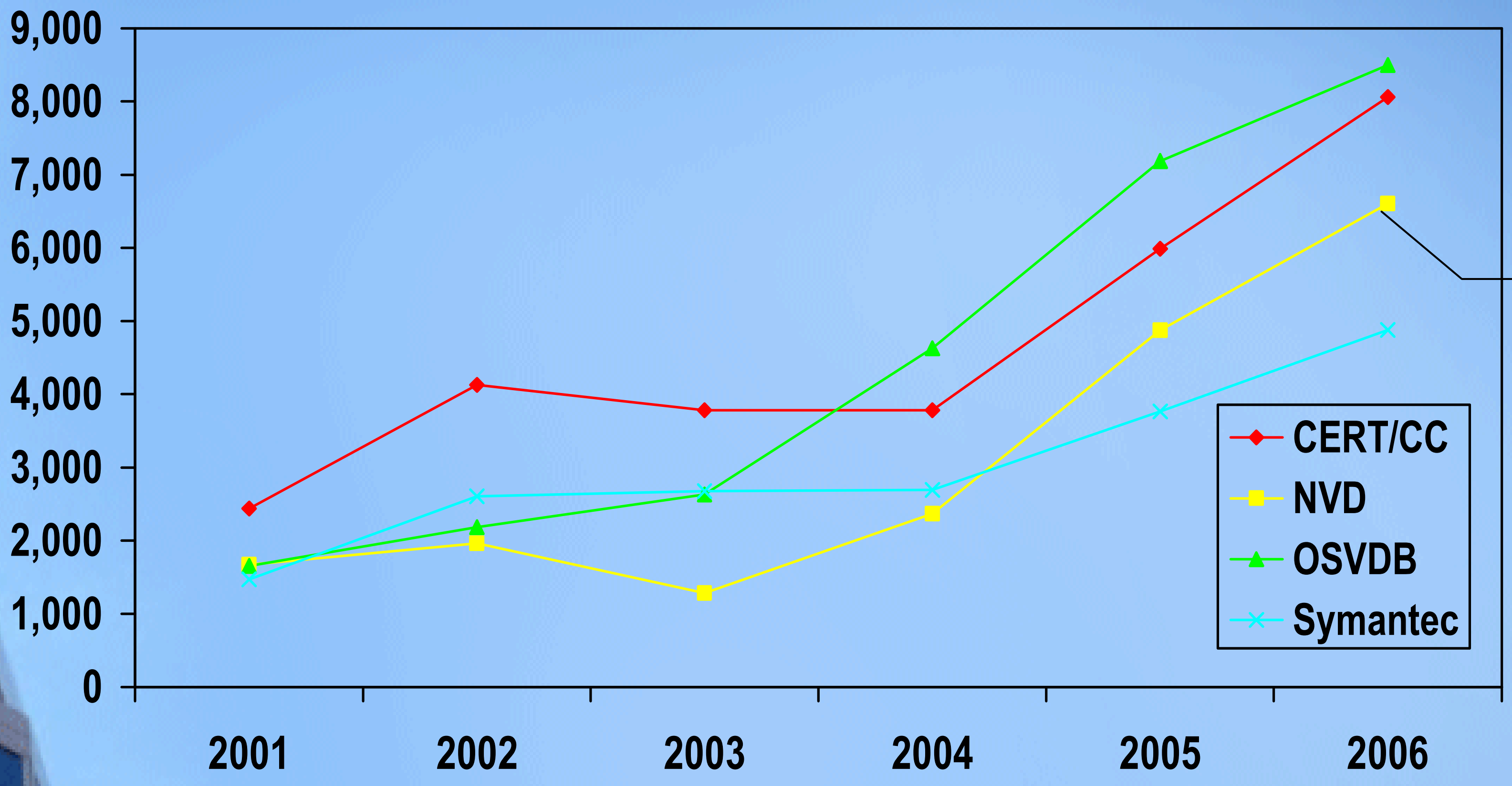
Service Providers

Based on the increasing number of mandates, see the need for automation and have responded by 1) learning a wide variety of both open and proprietary technologies and 2) implementing point solutions

Operations Teams

Lacking true automation, 1) have become overwhelmed by an increasing number of mandates, frameworks, and guidelines and 2) are spending a considerable amount of resources trying to keep pace

Current State: Vulnerability Trends



A 20-50% increase over previous years

- Decreased timeline in exploit development coupled with a decreased patch development timeline (highly variable across vendors)
- Increased prevalence of zero day exploits
- Three of the SANS Top 20 Internet Security Attack Targets 2006 were categorized as "configuration weaknesses." Many of the remaining 17 can be partially mitigated via proper configuration.

Current State: Vulnerability Management Industry

- Product functionality is becoming more hearty as vendors acknowledge connections between security operations and a wide variety of IT systems (e.g., asset management, change/configuration management)
- Some vendors understand the value of bringing together vulnerability management data across multiple vendors
- Vendors driving differentiation through:
  - enumeration,
  - evaluation,
  - content,
  - measurement, and
  - reporting

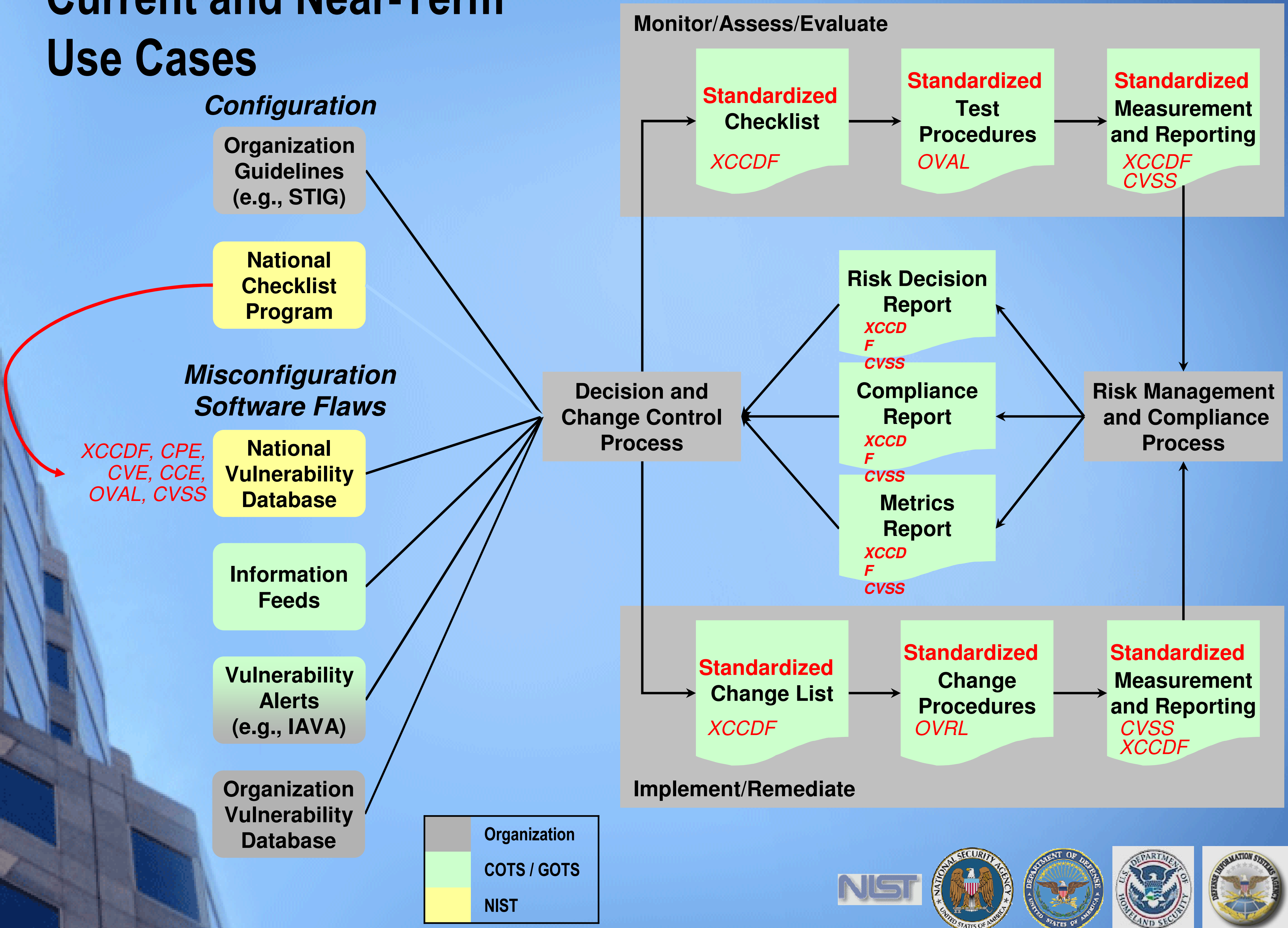
Hinders information sharing and automation

Reduces reproducibility across vendors

Drives broad differences in prioritization and remediation

Supplemental – SCAP Platform Evaluation Tutorial

Current and Near-Term Use Cases



Configuration

Organization Guidelines (e.g., STIG)

National Checklist Program

Misconfiguration Software Flaws

XCCDF, CPE,
CVE, CCE,
OVAL, CVSS

National Vulnerability Database

Information Feeds

Vulnerability Alerts (e.g., IAVA)

Organization Vulnerability Database

Decision and Change Control Process

Monitor/Assess/Evaluate

Standardized Checklist
XCCDF

Standardized Test Procedures
OVAL

Standardized Measurement and Reporting
XCCDF
CVSS

Risk Decision Report
XCCD
F
CVSS

Compliance Report
XCCD
F
CVSS

Metrics Report
XCCD
F
CVSS

Risk Management and Compliance Process

Standardized Change List
XCCDF

Standardized Change Procedures
OVRL

Standardized Measurement and Reporting
CVSS
XCCDF

Implement/Remediate

▨	Organization
🟩	COTS / GOTS
🟨	NIST

Current Problems

Conceptual Analogy (Continued)

Before

After

Error Report

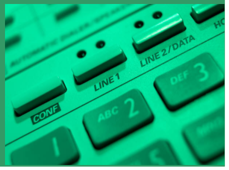
Problem
Air Pressure Loss

Impact
Car Will Not Start (9/10)

Diagnosis Accuracy:
All Sensors Reporting

Diagnosis:
Replace Gas Cap

Expected Cost:
$25.00



XML Made Simple

XCCDF - eXtensible Car Care Description Format

```
<Car>
  <Description>
    <Year> 1997 </Year>
    <Make> Ford </Make>
    <Model> Contour </Model>
  <Maintenance>
    <Check1> Gas Cap = On <>
    <Check2>Oil Level = Full <>
  </Maintenance>
 </Description>
</Car>
```

OVAL – Open Vehicle Assessment Language

```
<Checks>
  <Check1>
     <Location> Side of Car <>
     <Procedure> Turn <>
  </Check1>
  <Check2>
     <Location> Hood <>
     </Procedure> … <>
  </Check2>
</Checks>
```

Error Report

Problem:
Air Pressure Loss

Diagnosis Accuracy:
All Sensors Reporting

Diagnosis:
Replace Gas Cap

Expected Cost:
$25.00

SCAP Content Made Simple

Standardized Checklist

XCCDF - eXtensible Checklist Configuration Description Format

```
<Document ID> NIST SP 800-68
  <Date> 04/22/06 </Date>
    <Version> 1 </Version>
    <Revision> 2 </Revision>
 <Platform> Windows XP <>
    <Check1> Password >= 8 <>
    <Check2> Win XP Vuln <>
  </Maintenance>
 </Description>
</Car>
```

🟥	CPE
🟨	CCE
🟩	CVE

OVAL – Open Vulnerability Assessment Language

Standardized Test Procedures

```
<Checks>
  <Check1>
     <Registry Check> … <>
     <Value> 8 </Value>
  </Check1>
  <Check2>
     <File Version> … <>
     <Value> 1.0.12.4 </Value>
  </Check2>
</Checks>
```

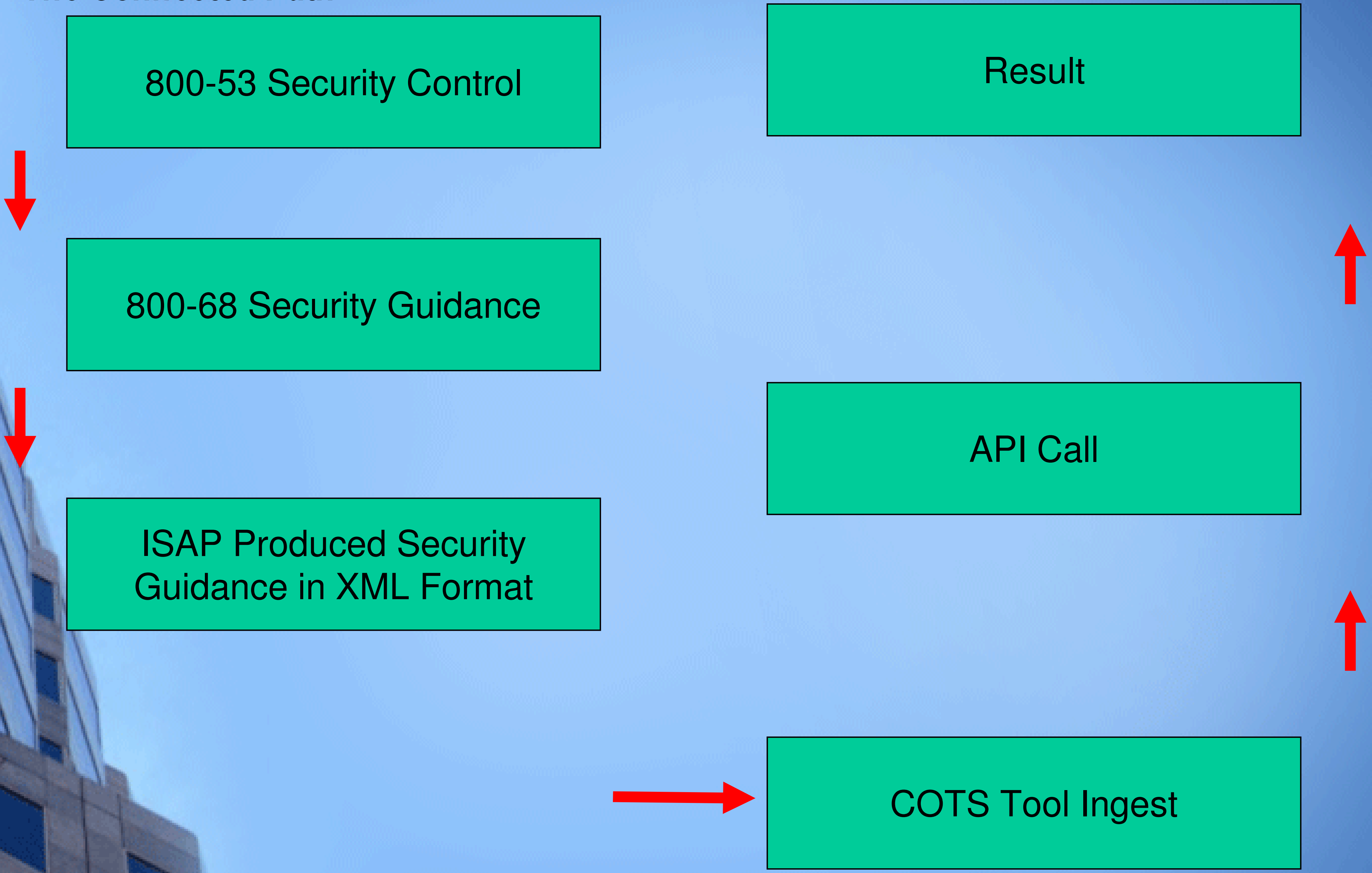
Standardized Measurement and Reporting

XCCDF security benchmark automation

CVSS

Application to Automated Compliance

The Connected Path



800-53 Security Control

800-68 Security Guidance

ISAP Produced Security Guidance in XML Format

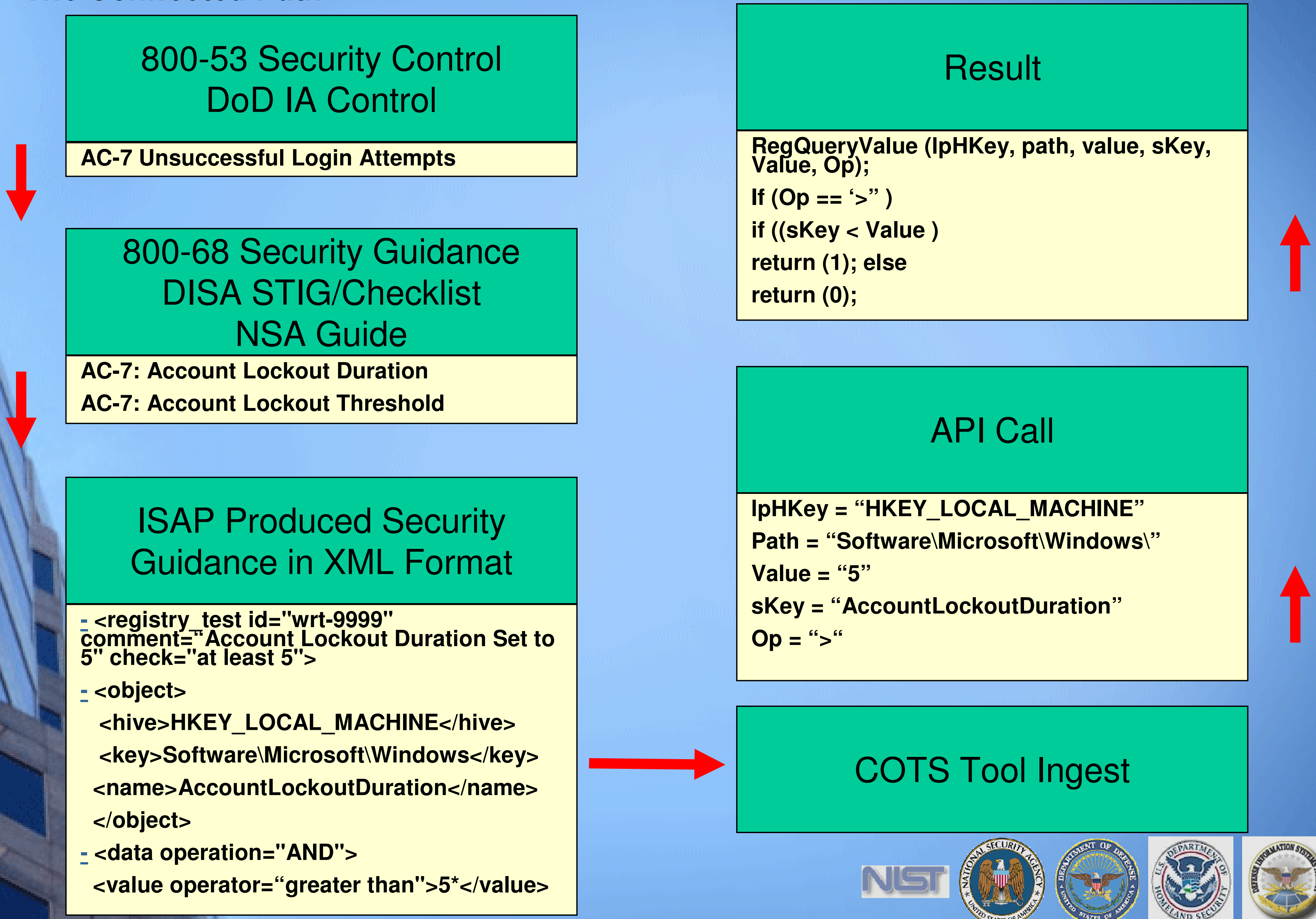
COTS Tool Ingest

API Call

Result

Application to Automated Compliance

The Connected Path



800-53 Security Control
DoD IA Control

AC-7 Unsuccessful Login Attempts

800-68 Security Guidance
DISA STIG/Checklist
NSA Guide

AC-7: Account Lockout Duration

AC-7: Account Lockout Threshold

ISAP Produced Security Guidance in XML Format

```
- <registry_test id="wrt-9999" comment="Account Lockout Duration Set to 5" check="at least 5">
- <object>
   <hive>HKEY_LOCAL_MACHINE</hive>
   <key>Software\Microsoft\Windows</key>
  <name>AccountLockoutDuration</name>
  </object>
- <data operation="AND">
  <value operator="greater than">5*</value>
```

COTS Tool Ingest

API Call

```
lpHKey = "HKEY_LOCAL_MACHINE"
Path = "Software\Microsoft\Windows\"
Value = "5"
sKey = "AccountLockoutDuration"
Op = ">"
```

Result

```
RegQueryValue (lpHKey, path, value, sKey, Value, Op);
If (Op == '>" )
if ((sKey < Value )
return (1); else
return (0);
```

Supplemental – SCAP Value Reference

SCAP Value

Feature	Benefit
Standardizes ***how*** computers communicate vulnerability information – the protocol	▪Enables interoperability for products and services of various manufacture
Standardizes ***what*** vulnerability information computers communicate – the content	▪Enables repeatability across products and services of various manufacture ▪Reduces content-based variance in operational decisions and actions
Based on open standards	▪Harnesses the collective brain power of the masses for creation and evolution ▪Adapts to a wide array of use cases
Uses configuration and asset management standards	▪Mobilizes asset inventory and configuration information for use in vulnerability and compliance management
Applicable to many different Risk Management Frameworks – Assess, Monitor, Implement	▪Reduces time, effort, and expense of risk management process
Detailed traceability to multiple security mandates and guidelines	▪Automates portions of compliance demonstration and reporting ▪Reduces chance of misinterpretation between Inspector General/auditors and operations teams
Keyed on NIST SP 800-53 security controls	▪Automates portions of FISMA compliance demonstration and reporting

Supplemental – FAQ for NIST FISMA Documents

Fundamental FISMA Questions

What are the NIST Technical Security Controls?

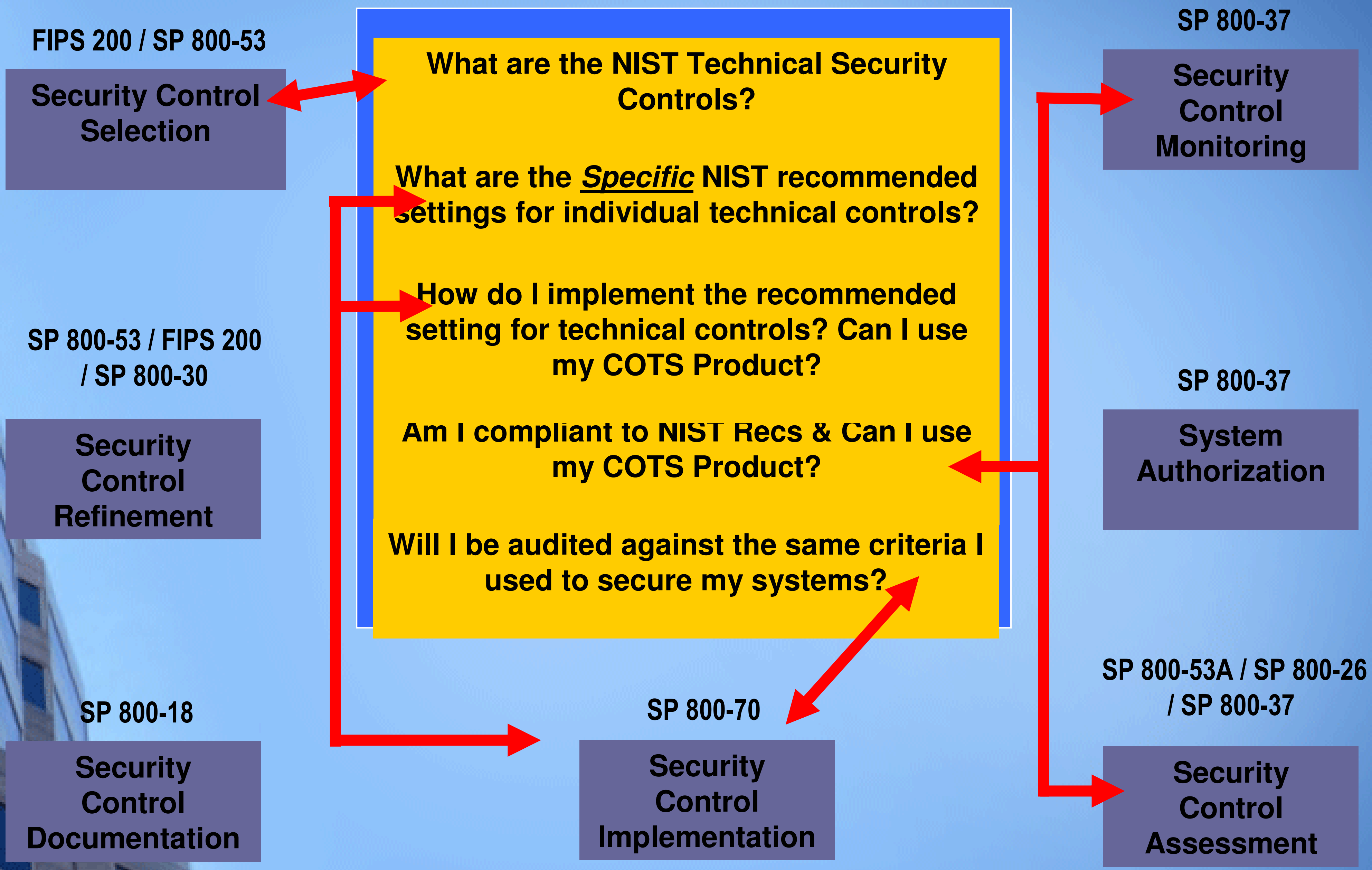
What are the ***Specific*** NIST recommended settings for individual technical controls?

How do I implement the recommended setting for technical controls? Can I use my COTS Product?

Am I compliant to NIST Recs & Can I use my COTS Product?

Will I be audited against the same criteria I used to secure my systems?

Fundamental FISMA Documents



What are the NIST Technical Security Controls?

What are the ***Specific*** NIST recommended settings for individual technical controls?

How do I implement the recommended setting for technical controls? Can I use my COTS Product?

Am I compliant to NIST Recs & Can I use my COTS Product?

Will I be audited against the same criteria I used to secure my systems?

FIPS 200 / SP 800-53

Security Control Selection

SP 800-53 / FIPS 200 / SP 800-30

Security Control Refinement

SP 800-18

Security Control Documentation

SP 800-70

Security Control Implementation

SP 800-37

Security Control Monitoring

SP 800-37

System Authorization

SP 800-53A / SP 800-26 / SP 800-37

Security Control Assessment