

CYBERSECURITY: Update from the U.S. Government Accountability Office

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Agenda

- About GAO's Information Technology Team
- Risk-based Approaches to Evaluate the Effectiveness of Cybersecurity Processes and Controls
- Recent GAO Cybersecurity Reports/Products
- Emerging Issues

About the IT Team: Audit Areas

- Investment Management/Governance
- IT Human Capital
- Systems Acquisition & Development
- Enterprise Architecture
- Cost & Schedule Estimation
- Telecommunications
- Emerging Cyber Issues
- Federal Information Security
- Information Management
- Privacy
- Cyber Critical Infrastructure Protection
- Financial Systems Security



GAO's Work on Cybersecurity



Establishing a national cybersecurity strategy and effective government-wide action and oversight

- Evaluate efforts to develop and implement a national cybersecurity strategy
- Assess federal efforts to address global cyber challenges, including cyber defense and response efforts
- Examine the implementation of government-wide cybersecurity initiatives



Ensuring the effectiveness of agency programs for the protection of federal information and systems

- Report to Congress on the effectiveness of federal agency cybersecurity
- Assess the effectiveness of security programs, policies, practices, and controls
- Evaluate the cybersecurity of major systems development and acquisition
- Assess agency preparedness for, an response to, breaches of sensitive government information



Strengthening the federal role in the public-private partnership for the protection of critical infrastructure and sensitive data

- Study cybersecurity implication of emergency technologies (IoT, Artificial Intelligence)
- Evaluate federal oversight of programs supporting the nation's critical infrastructure
- Examine federal efforts to oversee safeguarding of personal and other sensitive data shared with private-sector and other non-federal entities
- Examine federal response to security incidents with national ramifications, such as cyberattacks and data breaches at critical infrastructure components

How GAO Scopes Cybersecurity and Privacy Audits

- Frameworks for selecting audit work
 - NIST Cybersecurity Framework
 - NIST 800-37: Guide for Applying the Risk Management Framework to Federal Information Systems
 - Federal Information System Controls Audit Manual (FISCAM)
- Risk-based selection
 - Review prior agency reports (FISMA, IG, Financial, etc.)
 - Review significant information security incidents
 - Review third party assessments (Agency contracted work, legislatively mandated efforts, etc.)

Recent Reports



United States Government Accountability Office
Report to Congressional Committees

February 2018

CRITICAL INFRASTRUCTURE PROTECTION

Additional Actions Are
Essential for
Assessing
Cybersecurity
Framework Adoption

GAO-18-211

Recent Reports



United States Government Accountability Office
Report to Congressional Requesters

March 2018

ELECTRONIC HEALTH INFORMATION

CMS Oversight of
Medicare Beneficiary
Data Security Needs
Improvement

GAO-18-210

Recent Reports



United States Government Accountability Office
Report to Congressional Committees

September 2017

FEDERAL INFORMATION SECURITY

Weaknesses Continue
to Indicate Need for
Effective
Implementation of
Policies and Practices

GAO-17-549

Emerging Issues

- Cybersecurity Workforce Challenges
- Public-Private Sharing of Cyber Threat Information
- Impact of Equifax Breach on Consumers and the Federal Government
- Effectiveness of Cybersecurity Risk Management Programs
- Impact of Federal Cybersecurity Requirements on States
- Cybersecurity Posture of Specific Critical Infrastructure Sectors (Electricity Grid, Oil & Gas Pipeline Subsector)



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