§ 2224. Defense Information Assurance Program

(a) Defense Information Assurance Program.— The Secretary of Defense shall carry out a program, to be known as the “Defense Information Assurance Program”, to protect and defend Department of Defense information, information systems, and information networks that are critical to the Department and the armed forces during day-to-day operations and operations in times of crisis.

(b) Objectives of the Program.— The objectives of the program shall be to provide continuously for the availability, integrity, authentication, confidentiality, nonrepudiation, and rapid restitution of information and information systems that are essential elements of the Defense Information Infrastructure.

(c) Program Strategy.— In carrying out the program, the Secretary shall develop a program strategy that encompasses those actions necessary to assure the readiness, reliability, continuity, and integrity of Defense information systems, networks, and infrastructure, including through compliance with subchapter II of chapter 35 of title 44, including through compliance with subchapter III of chapter 35 of title 44. The program strategy shall include the following:

(1) A vulnerability and threat assessment of elements of the defense and supporting nondefense information infrastructures that are essential to the operations of the Department and the armed forces.

(2) Development of essential information assurances technologies and programs.

(3) Organization of the Department, the armed forces, and supporting activities to defend against information warfare.

(4) Joint activities of the Department with other departments and agencies of the Government, State and local agencies, and elements of the national information infrastructure.

(5) The conduct of exercises, war games, simulations, experiments, and other activities designed to prepare the Department to respond to information warfare threats.

(6) Development of proposed legislation that the Secretary considers necessary for implementing the program or for otherwise responding to the information warfare threat.

(d) Coordination.— In carrying out the program, the Secretary shall coordinate, as appropriate, with the head of any relevant Federal agency and with representatives of those national critical information infrastructure systems that are essential to the operations of the Department and the armed forces on information assurance measures necessary to the protection of these systems.


(f) Information Assurance Test Bed.— The Secretary shall develop an information assurance test bed within the Department of Defense to provide—

(1) an integrated organization structure to plan and facilitate the conduct of simulations, war games, exercises, experiments, and other activities to prepare and inform the Department regarding information warfare threats; and

(2) organization and planning means for the conduct by the Department of the integrated or joint exercises and experiments with elements of the national information systems infrastructure and other non-Department of Defense organizations that are responsible for the oversight and management of critical information systems and infrastructures on which the Department, the armed forces, and supporting activities depend for the conduct of daily operations and operations during crisis.
Amendments


Subsec. (b)(2). Pub. L. 107–347, § 301(c)(1)(B)(ii), struck out par. (2) which read as follows: “The program shall at a minimum meet the requirements of sections 3534 and 3535 of title 44.”

Pub. L. 107–296, § 1001(c)(1)(B)(ii), which directed the striking out of “(2) the program shall at a minimum meet the requirements of section 3534 and 3535 of title 44, United States Code.” could not be executed. See above par.


Effective Date of 2002 Amendment

Amendment by Pub. L. 107–296 effective 60 days after Nov. 25, 2002, see section 4 of Pub. L. 107–296, set out as an Effective Date note under section 101 of Title 6, Domestic Security.

Effective Date of 2000 Amendment


Insider Threat Detection


“(a) Program Required.—The Secretary of Defense shall establish a program for information sharing protection and insider threat mitigation for the information systems of the Department of Defense to detect unauthorized access to, use of, or transmission of classified or controlled unclassified information.

“(b) Elements.—The program established under subsection (a) shall include the following:

“(1) Technology solutions for deployment within the Department of Defense that allow for centralized monitoring and detection of unauthorized activities, including—

“(A) monitoring the use of external ports and read and write capability controls;

“(B) disabling the removable media ports of computers physically or electronically;

“(C) electronic auditing and reporting of unusual and unauthorized user activities;

“(D) using data-loss prevention and data-rights management technology to prevent the unauthorized export of information from a network or to render such information unusable in the event of the unauthorized export of such information;

“(E) a roles-based access certification system;

“(F) cross-domain guards for transfers of information between different networks; and

...
“(G) patch management for software and security updates.

“(2) Policies and procedures to support such program, including special consideration for policies and procedures related to international and interagency partners and activities in support of ongoing operations in areas of hostilities.

“(3) A governance structure and process that integrates information security and sharing technologies with the policies and procedures referred to in paragraph (2). Such structure and process shall include—

“(A) coordination with the existing security clearance and suitability review process;

“(B) coordination of existing anomaly detection techniques, including those used in counterintelligence investigation or personnel screening activities; and

“(C) updating and expediting of the classification review and marking process.

“(4) A continuing analysis of—

“(A) gaps in security measures under the program; and

“(B) technology, policies, and processes needed to increase the capability of the program beyond the initially established full operating capability to address such gaps.

“(5) A baseline analysis framework that includes measures of performance and effectiveness.

“(6) A plan for how to ensure related security measures are put in place for other departments or agencies with access to Department of Defense networks.

“(7) A plan for enforcement to ensure that the program is being applied and implemented on a uniform and consistent basis.

“(c) Operating Capability.—The Secretary shall ensure the program established under subsection (a)—

“(1) achieves initial operating capability not later than October 1, 2012; and

“(2) achieves full operating capability not later than October 1, 2013.

“(d) Report.—Not later than 90 days after the date of the enactment of this Act [Dec. 31, 2011], the Secretary shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] a report that includes—

“(1) the implementation plan for the program established under subsection (a);

“(2) the resources required to implement the program;

“(3) specific efforts to ensure that implementation does not negatively impact activities in support of ongoing operations in areas of hostilities;

“(4) a definition of the capabilities that will be achieved at initial operating capability and full operating capability, respectively; and

“(5) a description of any other issues related to such implementation that the Secretary considers appropriate.

“(e) Briefing Requirement.—The Secretary shall provide briefings to the Committees on Armed Services of the House of Representatives and the Senate as follows:

“(1) Not later than 90 days after the date of the enactment of this Act [Dec. 31, 2011], a briefing describing the governance structure referred to in subsection (b)(3).

“(2) Not later than 120 days after the date of the enactment of this Act, a briefing detailing the inventory and status of technology solutions deployment referred to in subsection (b)(1), including an identification of the total number of host platforms planned for such deployment, the current number of host platforms that provide appropriate security, and the funding and timeline for remaining deployment.

“(3) Not later than 180 days after the date of the enactment of this Act, a briefing detailing the policies and procedures referred to in subsection (b)(2), including an assessment of the effectiveness of such policies and procedures and an assessment of the potential impact of such policies and procedures on information sharing within the Department of Defense and with interagency and international partners.

“(f) Budget Submission.—On the date on which the President submits to Congress the budget under section 1105 of title 31, United States Code, for each of fiscal years 2014 through 2019, the Secretary of Defense shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] an identification of the resources requested in such budget to carry out the program established under subsection (a).”
Strategy To Acquire Capabilities To Detect Previously Unknown Cyber Attacks

“(a) In General.—The Secretary of Defense shall develop and implement a plan to augment the cybersecurity strategy of the Department of Defense through the acquisition of advanced capabilities to discover and isolate penetrations and attacks that were previously unknown and for which signatures have not been developed for incorporation into computer intrusion detection and prevention systems and anti-virus software systems.

“(b) Capabilities.—

“(1) Nature of capabilities.—The capabilities to be acquired under the plan required by subsection (a) shall—

“(A) be adequate to enable well-trained analysts to discover the sophisticated attacks conducted by nation-state adversaries that are categorized as ‘advanced persistent threats’;

“(B) be appropriate for—

“(i) endpoints or hosts;

“(ii) network-level gateways operated by the Defense Information Systems Agency where the Department of Defense network connects to the public Internet; and

“(iii) global networks owned and operated by private sector Tier 1 Internet Service Providers;

“(C) at the endpoints or hosts, add new discovery capabilities to the Host-Based Security System of the Department, including capabilities such as—

“(i) automatic blocking of unauthorized software programs and accepting approved and vetted programs;

“(ii) constant monitoring of all key computer attributes, settings, and operations (such as registry keys, operations running in memory, security settings, memory tables, event logs, and files); and

“(iii) automatic baselining and remediation of altered computer settings and files;

“(D) at the network-level gateways and internal network peering points, include the sustainment and enhancement of a system that is based on full-packet capture, session reconstruction, extended storage, and advanced analytic tools, by—

“(i) increasing the number and skill level of the analysts assigned to query stored data, whether by contracting for security services, hiring and training Government personnel, or both; and

“(ii) increasing the capacity of the system to handle the rates for data flow through the gateways and the storage requirements specified by the United States Cyber Command; and

“(E) include the behavior-based threat detection capabilities of Tier 1 Internet Service Providers and other companies that operate on the global Internet.

“(2) Source of capabilities.—The capabilities to be acquired shall, to the maximum extent practicable, be acquired from commercial sources. In making decisions on the procurement of such capabilities from among competing commercial and Government providers, the Secretary shall take into consideration the needs of other departments and agencies of the Federal Government, State and local governments, and critical infrastructure owned and operated by the private sector for unclassified, affordable, and sustainable commercial solutions.

“(c) Integration and Management of Discovery Capabilities.—The plan required by subsection (a) shall include mechanisms for improving the standardization, organization, and management of the security information and event management systems that are widely deployed across the Department of Defense to improve the ability of United States Cyber Command to understand and control the status and condition of Department networks, including mechanisms to ensure that the security information and event management systems of the Department receive and correlate data collected and analyses conducted at the host or endpoint, at the network gateways, and by Internet Service Providers in order to discover new attacks reliably and rapidly.

“(d) Provision for Capability Demonstrations.—The plan required by subsection (a) shall provide for the conduct of demonstrations, pilot projects, and other tests on cyber test ranges and operational networks in order to determine and verify that the capabilities to be acquired pursuant to the plan are effective, practical, and affordable.

“(e) Report.—Not later than April 1, 2012, the Secretary shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] a report on the plan required by subsection (a). The report shall set forth the plan and include a comprehensive description of the actions being undertaken by the Department to implement the plan.”

Strategy on Computer Software Assurance
“(a) Strategy Required.—The Secretary of Defense shall develop and implement, by not later than October 1, 2011, a strategy for assuring the security of software and software-based applications for all covered systems.

“(b) Covered Systems.—For purposes of this section, a covered system is any critical information system or weapon system of the Department of Defense, including the following:

“(1) A major system, as that term is defined in section 2302 (5) of title 10, United States Code.

“(2) A national security system, as that term is defined in section 3542 (b)(2) of title 44, United States Code.

“(3) Any Department of Defense information system categorized as Mission Assurance Category I.

“(4) Any Department of Defense information system categorized as Mission Assurance Category II in accordance with Department of Defense Directive 8500.01E.

“(c) Elements.—The strategy required by subsection (a) shall include the following:

“(1) Policy and regulations on the following:

“(A) Software assurance generally.

“(B) Contract requirements for software assurance for covered systems in development and production.

“(C) Inclusion of software assurance in milestone reviews and milestone approvals.

“(D) Rigorous test and evaluation of software assurance in development, acceptance, and operational tests.

“(E) Certification and accreditation requirements for software assurance for new systems and for updates for legacy systems, including mechanisms to monitor and enforce reciprocity of certification and accreditation processes among the military departments and Defense Agencies.

“(F) Remediation in legacy systems of critical software assurance deficiencies that are defined as critical in accordance with the Application Security Technical Implementation Guide of the Defense Information Systems Agency.

“(2) Allocation of adequate facilities and other resources for test and evaluation and certification and accreditation of software to meet applicable requirements for research and development, systems acquisition, and operations.

“(3) Mechanisms for protection against compromise of information systems through the supply chain or cyber attack by acquiring and improving automated tools for—

“(A) assuring the security of software and software applications during software development;

“(B) detecting vulnerabilities during testing of software; and

“(C) detecting intrusions during real-time monitoring of software applications.

“(4) Mechanisms providing the Department of Defense with the capabilities—

“(A) to monitor systems and applications in order to detect and defeat attempts to penetrate or disable such systems and applications; and

“(B) to ensure that such monitoring capabilities are integrated into the Department of Defense system of cyber defense-in-depth capabilities.

“(5) An update to Committee for National Security Systems Instruction No. 4009, entitled ‘National Information Assurance Glossary’, to include a standard definition for software security assurance.

“(6) Either—

“(A) mechanisms to ensure that vulnerable Mission Assurance Category III information systems, if penetrated, cannot be used as a foundation for penetration of protected covered systems, and means for assessing the effectiveness of such mechanisms; or

“(B) plans to address critical vulnerabilities in Mission Assurance Category III information systems to prevent their use for intrusions of Mission Assurance Category I systems and Mission Assurance Category II systems.

“(7) A funding mechanism for remediation of critical software assurance vulnerabilities in legacy systems.

“(d) Report.—Not later than October 1, 2011, the Secretary of Defense shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] a report on the strategy required by subsection (a). The report shall include the following:

“(1) A description of the current status of the strategy required by subsection (a) and of the implementation of the strategy, including a description of the role of the strategy in the risk management by the Department regarding the supply chain and in operational planning for cyber security.
“(2) A description of the risks, if any, that the Department will accept in the strategy due to limitations on funds or other applicable constraints.”

**Institute for Defense Computer Security and Information Protection**


“(a) Establishment.—The Secretary of Defense shall establish an Institute for Defense Computer Security and Information Protection.

“(b) Mission.—The Secretary shall require the institute—

“(1) to conduct research and technology development that is relevant to foreseeable computer and network security requirements and information assurance requirements of the Department of Defense with a principal focus on areas not being carried out by other organizations in the private or public sector; and

“(2) to facilitate the exchange of information regarding cyberthreats, technology, tools, and other relevant issues.

“(c) Contractor Operation.—The Secretary shall enter into a contract with a not-for-profit entity, or a consortium of not-for-profit entities, to organize and operate the institute. The Secretary shall use competitive procedures for the selection of the contractor to the extent determined necessary by the Secretary.

“(d) Funding.—Of the amount authorized to be appropriated by section 301 (5) [114 Stat. 1654A–52], $5,000,000 shall be available for the Institute for Defense Computer Security and Information Protection.

“(e) Report.—Not later than April 1, 2001, the Secretary shall submit to the congressional defense committees [Committees on Armed Services and Appropriations of the Senate and the House of Representatives] the Secretary’s plan for implementing this section.”