Unit #1b

MIS5214

Planning and Policy

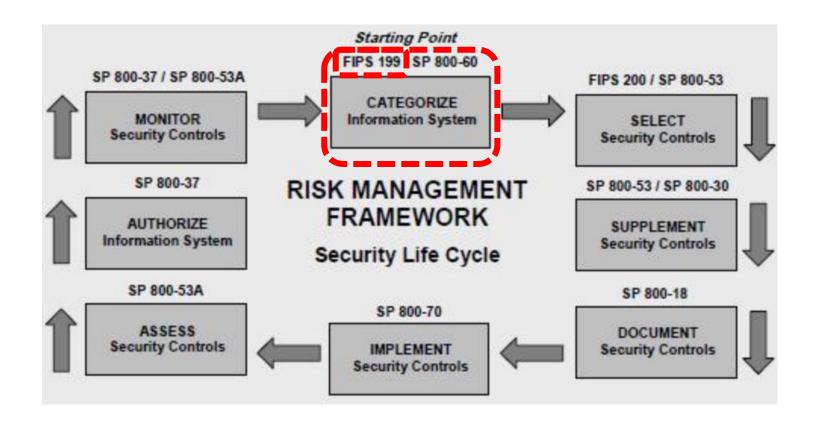
Agenda

- Teams
- Risk Management Framework and IS Security Categorization
- Mapping Information Types to Security Categorizations
- Exercise: How to assess and information security policy?
- Exercise Determine Information and Information System Types and provisional security categorization
- Security Control Baselines review
 - Minimum Security Controls and Security Control Baselines
 - Security Control Families
- Planning Controls

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Risk Management Framework

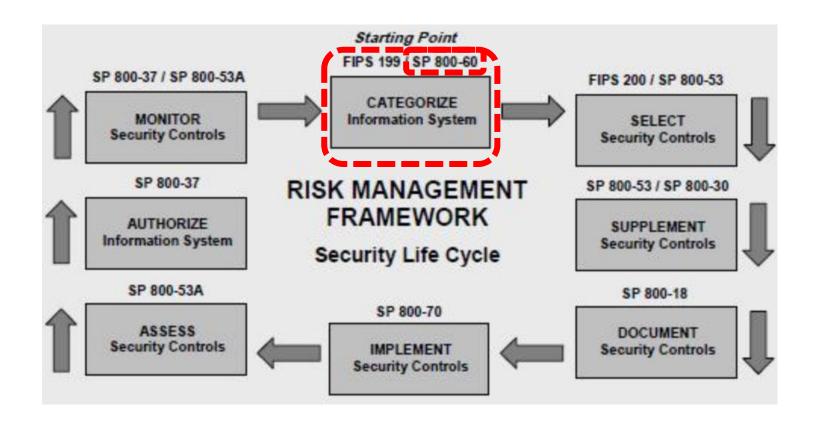


Risk Assessment based on security objectives and impact ratings for information and information system

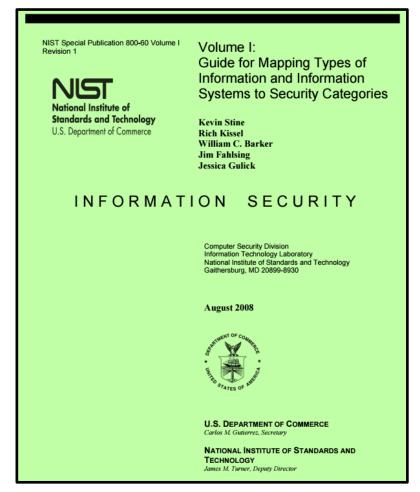
FIPS PUB 199 FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATION Standards for Security Categorization of **Federal Information and Information Systems** Computer Security Division Information Technology Laboratory National Institute of Standards and Technology Gaithersburg, MD 20899-8900 February 2004 U.S. DEPARTMENT OF COMMERCE Donald L. Evans, Secretary TECHNOLOGY ADMINISTRATION Phillip J. Bond, Under Secretary for Technology NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY Arden L. Bement, Jr., Director

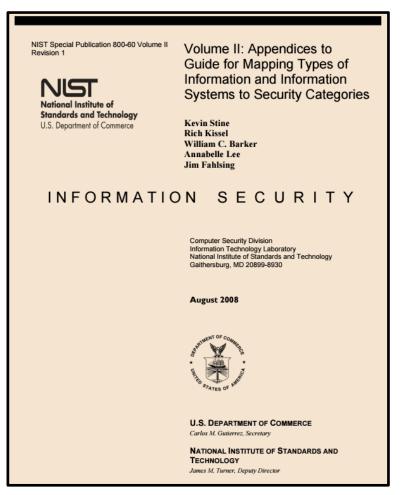
		POTENTIAL IMPACT	
Security Objective	LOW	MODERATE	HIGH
Confidentiality Preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information. [44 U.S.C., SEC. 3542]	The unauthorized disclosure of information could be expected to have a limited adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized disclosure of information could be expected to have a serious adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized disclosure of information could be expected to have a severe or catastrophic adverse effect on organizational operations, organizational assets, or individuals.
Integrity Guarding against improper information modification or destruction, and includes ensuring information non-repudiation and authenticity. [44 U.S.C., SEC. 3542]	The unauthorized modification or destruction of information could be expected to have a limited adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized modification or destruction of information could be expected to have a serious adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized modification or destruction of information could be expected to have a severe or catastrophic adverse effect on organizational operations, organizational assets, or individuals.
Availability Ensuring timely and reliable access to and use of information. [44 U.S.C., SEC. 3542]	The disruption of access to or use of information or an information system could be expected to have a limited adverse effect on organizational operations, organizational assets, or individuals.	The disruption of access to or use of information or an information system could be expected to have a serious adverse effect on organizational operations, organizational assets, or individuals.	The disruption of access to or use of information or an information system could be expected to have a severe or catastrophic adverse effect on organizational operations, organizational assets, or individuals.

Risk Management Framework



Mapping IS Types to Security Categories





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NIST Special Publication 800-60 Volume I Revision 1



Volume I: Guide for Mapping Types of Information and Information Systems to Security Categories

Kevin Stine Rich Kissel William C. Barker Jim Fahlsing Jessica Gulick

INFORMATION SECURITY

Computer Security Division Information Technology Laboratory National Institute of Standards and Technology Gaithersburg, MD 20899-8930

August 2008



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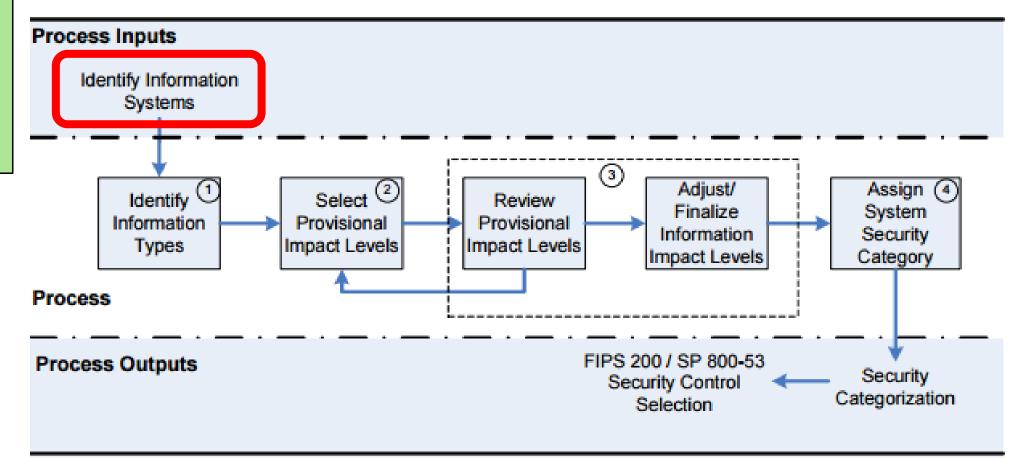
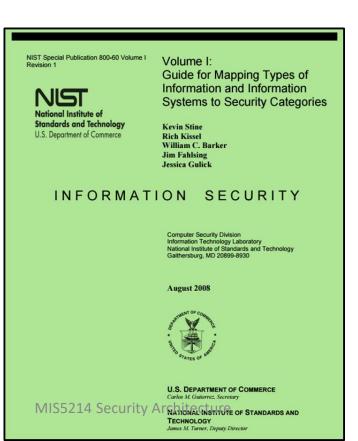


Figure 2: SP 800-60 Security Categorization Process Execution

2 Broad types of Information and Information Systems

1. Mission-based Information & Information Systems

2. Management and Support Information & Information Systems

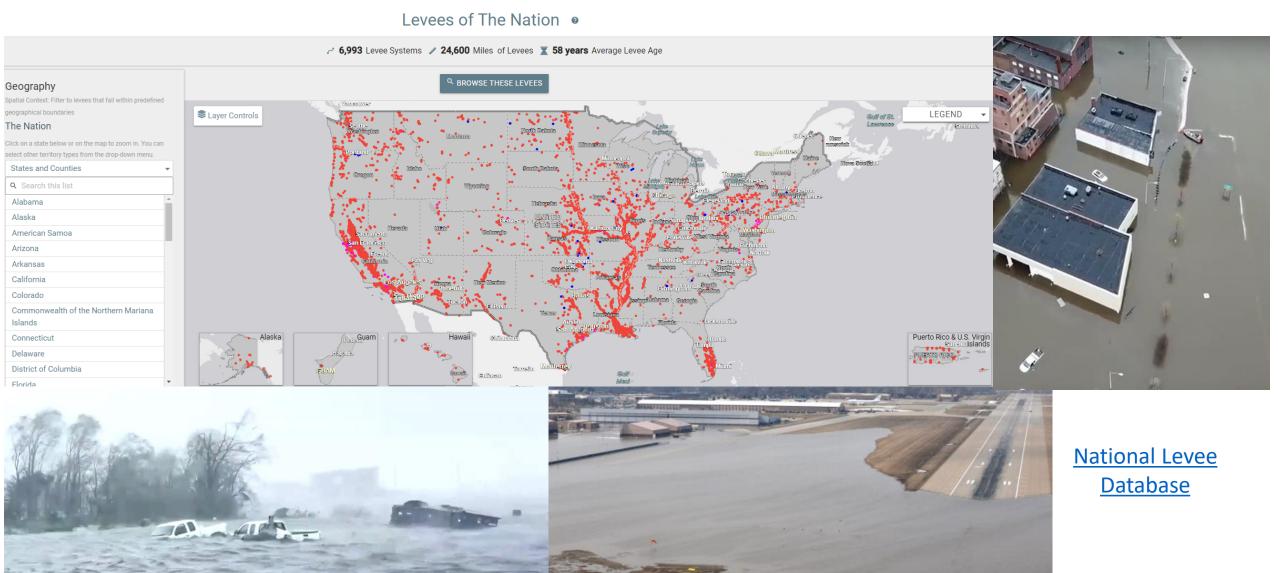


Mission-based Information and Information Systems

- 1. Defense and National Security
- 2. Homeland Security
- 3. Intelligence Operations
- 4. Disaster Management
- 5. International Affairs and Commerce
- 6. Natural Resources
- 7. Energy
- 8. Environmental Management
- 9. Economic Development
- 10. Community and Social Services
- 11. Transportation
- 12. Education
- 13. Workforce Management

- 14. Health
- 15. Income Security
- 16. Law Enforcement
- 17. Litigation and Judicial Activities
- 18. Federal Correctional Activities
- 19. General Sciences and Innovation
- 20. Knowledge Creation and Management
- 21. Regulatory Compliance and Enforcement
- 22. Public Goods Creation and Management
- 23. Federal Financial Assistance
- 24. Credit and Insurance
- 25. Transfers to State/Local Governments
- 26. Direct Services for Citizens

Disaster Management Information System Example





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2 Broad Types of Information and Information Systems

1. Mission-based Information & Information Systems

- 2. Management and Support Information & Information Systems
 - i. Services Delivery Support Functions
 - ii. Government Resource Management Functions

Services Delivery Support Functions and Information Types

- 1. Controls and Oversight
- 2. Regulatory Development
- 3. Planning and Budgeting
- 4. Internal Risk Management and Mitigation
- 5. Revenue Collection
- 6. Public Affairs
- 7. Legislative Relations
- 8. General Government

Example Management & Support Information & Information Systems

C.2.1 Controls and Oversight	C.2.4 Internal Risk Management &	C.2.8 General Government
Corrective Action (Policy/Regulation)	Mitigation	Central Fiscal Operations
Program Evaluation	Contingency Planning	Legislative Functions
Program Monitoring	Continuity of Operations	Executive Functions
C.2.2 Regulatory Development	Service Recovery	Central Property Management
Policy & Guidance Development	C.2.5 Revenue Collection	Central Personnel Management
Public Comment Tracking	Debt Collection	Taxation Management
Regulatory Creation	User Fee Collection	Central Records & Statistics
Rule Publication	Federal Asset Sales	Management
C.2.3 Planning & Budgeting	C.2.6 Public Affairs	Income Information
Budget Formulation	Customer Services	Personal Identity and Authentication
Capital Planning	Official Information Dissemination	Entitlement Event Information
Enterprise Architecture	Product Outreach	Representative Payee Information
Strategic Planning	Public Relations	General Information
Budget Execution	C.2.7 Legislative Relations	
Workforce Planning	Legislation Tracking	
Management Improvement	Legislation Testimony	
Budgeting & Performance Integration	Proposal Development	
Tax & Fiscal Policy	Congressional Liaison Operations	

Example Resource Management Functions & Information Types

- 1. Administrative Management
- 2. Financial Management
- 3. Human Resources Management
- 4. Supply Chain Management
- 5. Information and Technology Management

Example Management and Support Information and Information Systems

C.3.1 Administrative Management	C.3.3 Human Resource Management	C.3.5 Information & Technology
Facilities, Fleet, and Equipment	HR Strategy	Management
Management	Staff Acquisition	System Development
Help Desk Services	Organization & Position Mgmt	Lifecycle/Change Management
Security Management	Compensation Management	System Maintenance
Travel	Benefits Management	IT Infrastructure Maintenance
Workplace Policy Development &	Employee Performance Mgmt	Information Security
Management	Employee Relations	Record Retention
C.3.2 Financial Management	Labor Relations	Information Management
Accounting	Separation Management	System and Network Monitoring
Funds Control	Human Resources Development	Information Sharing
Payments	C.3.4 Supply Chain Management	
Collections and Receivables	Goods Acquisition	
Asset and Liability Management	Inventory Control	
Reporting and Information	Logistics Management	
Cost Accounting/ Performance	Services Acquisition	
Measurement	•	

1. Identify Information Types

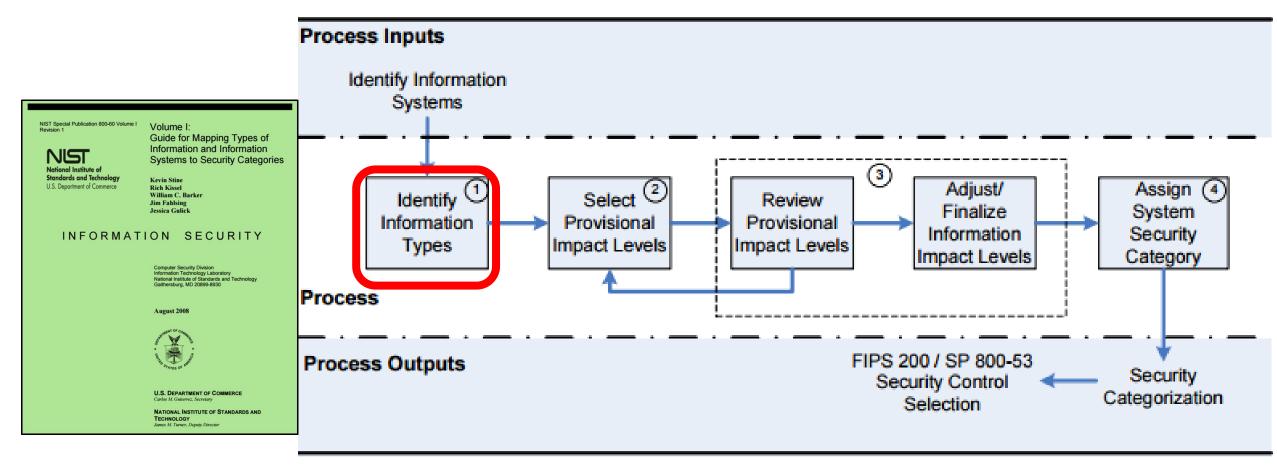


Figure 2: SP 800-60 Security Categorization Process Execution

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Disaster Management Information Types

Table 4: Mission-Based Information

Mission Areas and Information

D.1 Defense & National Security

Strategic National & Theater Defense Operational Defense

Tactical Defense

D.2 Homeland Security

Border and Transportation Security Key Asset and Critical Infrastructure Protection

Catastrophic Defense

Executive Functions of the Executive Office of the President (EOP)

D.3 Intelligence Operations

Intelligence Planning

Intelligence Collection

Intelligence Analysis & Production Intelligence Dissemination

Intelligence Processing

D.4 Disaster Management

Disaster Monitoring and Prediction Disaster Preparedness and Planning Disaster Repair and Restoration Emergency Response

D.S International Atlants &

Commerce

Foreign Affairs International Development and Humanitarian Aid Global Trade

D.6 Natural Resources

Water Resource Management Conservation, Marine and Land Management

Recreational Resource Management and Tourism

All rich for all and services ture Worker Safety

D.7 En

Energy Supply
Energy Conservation a
Energy Resource Man
Energy Production

D.8 Environmenta

Environmental Monito Forecasting

Environmental Remed Pollution Prevention a

D.9 Economic D

Business and Industry Intellectual Property P Financial Sector Overs

Industry Sector Income Stabilization

D.10 Community & Social Services

Homeownership Promotion

Community and Regional Development

Social Services

Postal Services

D.11 Transportation

Ground Transportation

Water Transportation

Air Transportation

Space Operations

D.12 Education

Elementary, Secondary, and Vocational Education

Higher Education

Cultural and Historic Preservation

Cultural and Historic Exhibition

D.13 Workforce Management

Training and Employment Labor Rights Management

D.4 Disaster Management

Disaster Monitoring and Prediction Disaster Preparedness and Planning Disaster Repair and Restoration Emergency Response

Mode of Delivery]

D.24 Credit and Insurance

Direct Loans

Loan Guarantees

General Insurance

D.25 Transfers to State/ Local

Governments

Formula Grants

Project/Competitive Grants

Earmarked Grants

State Loans

D.26 Direct Services for Citizens

Military Operations Civilian Operations

D.16 Law Enforcement

Criminal Apprehension

Criminal Investigation and Surveillance

Citizen Protection

Leadership Protection

Property Protection

Substance Control

Crime Prevention

Trade Law Enforcement

D.17 Litigation & Judicial Activities

Judicial Hearings

Legal Defense

Legal Investigation Legal Prosecution and Litigation

Resolution Facilitation

D.18 Federal Correctional Activities

Criminal Incarceration

Criminal Rehabilitation
D.19 General Sciences & Innovation

Scientific and Technological Research and Innovation

Space Exploration and Innovation

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NIST Special Publication 800-60 Volume II Revision 1

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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

James M. Turner, Deputy Director

2. Select Provisional Impact Levels for the identified information system

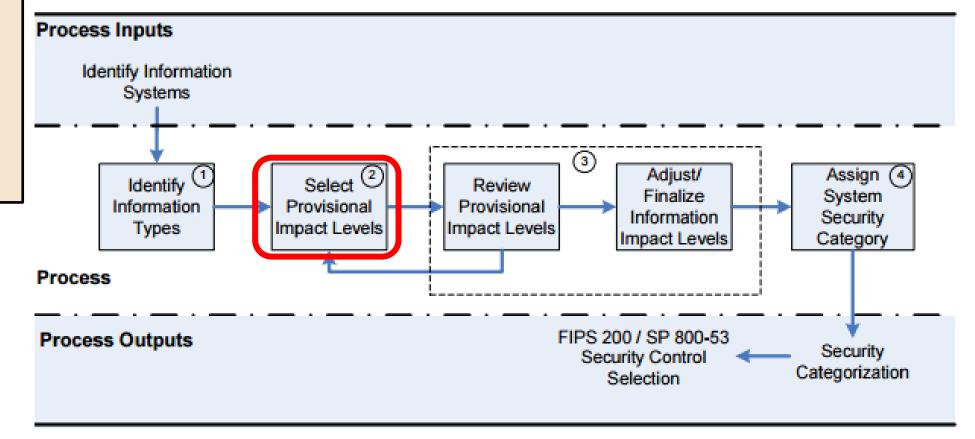


Figure 2: SP 800-60 Security Categorization Process Execution

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Disaster Management Information Types

APPENDIX D: IMPACT DETERMINATION FOR MISSION-BASED INFORMATION AND INFORMATION SYSTEMS	102
D.1 Defense and National Security	107
D.2 Homeland Security	108
D.2.1 Border and Transportation Security Information Type	
D.2.2 Key Asset and Critical Infrastructure Protection Information Type	110
D.2.3 Catastrophic Defense Information Type	111
D.2.4 Executive Functions of the Executive Office of the President (EOP) Information	
Туре	112
D.3 Intelligence Operations	113
D.4 Disaster Management	115
D.4.1 Disaster Monitoring and Prediction Information Type	
D.4.2 Disaster Preparedness and Planning Information Type	117
D.4.3 Disaster Repair and Restoration Information Type	
D.4.4 Emergency Response Information Type	119

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Disaster Management Information Impact

D.4 Disaster Management

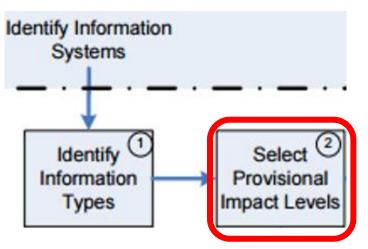
Disaster management involves the activities required to prepare for, mitigate, respond to, and repair the effects of all physical and humanitarian disasters whether natural or man-made. Compromise of much information associated with any of the missions within the disaster management mission area may seriously impact the security of a broad range of critical infrastructures and key national assets.

Can you use...

• <u>NIST SP 800-60 V.2 R1</u> to determine the Impact Levels for the Disaster Information Types ?

Disaster Management Information Systems				
				Summary Impact
Information Types	Confidentiality	Integrity	Availability	Level
Disaster Monitoring and Prediction	?	?	?	
Disaster Preparedness and Planning	,	?	?	
Disaster Repair and Restoration	?	?	Ş	
Emergency Response Information Type	,	?	?	

Disaster Management Information Types



D.4.1 Disaster Monitoring and Prediction Information Type

Disaster monitoring and prediction involves the actions taken to predict when and where a disaster may take place and communicate that information to affected parties. [Some disaster management information occurs in humanitarian aid systems under the International Affairs and Commerce line of business (e.g., State Department disaster preparedness and planning).] The recommended provisional categorization of the disaster monitoring and protection information type follows:

Security Category = {(confidentiality, Low), (integrity, High), (availability, High)}

D.4.2 Disaster Preparedness and Planning Information Type

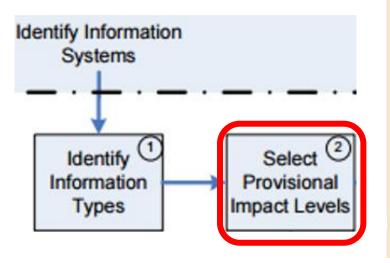
Disaster preparedness and planning involves the development of response programs to be used in case of a disaster. This involves the development of emergency management programs and activities as well as staffing and equipping regional response centers. The recommended provisional categorization of the disaster preparedness and planning information type follows:

Security Category = {(confidentiality, Low), (integrity, Low), (availability, Low)}

D.4.3 Disaster Repair and Restoration Information Type

Disaster repair and restoration involves the cleanup and restoration activities that take place after a disaster. This involves the cleanup and rebuilding of any homes, buildings, roads, environmental resources, or infrastructure that may be damaged due to a disaster. The recommended provisional categorization of the disaster repair and restoration information type follows:

Disaster Management Information Types



D.4.4 Emergency Response Information Type

Emergency Response involves the immediate actions taken to respond to a disaster (e.g., wildfire management). These actions include providing mobile telecommunications, operational support, power generation, search and rescue, and medical life saving actions. Impacts to emergency response information and the information systems that process and store emergency response information could result in negative impacts on cross-jurisdictional coordination within the critical emergency services infrastructure and the general effectiveness of organizations tasked with emergency response missions. The recommended provisional categorization of the emergency response information type follows:

Security Category = {(confidentiality, Low), (integrity, High), (availability, High)}

Question

• Can you determine Summary Impact Levels for Disaster Information Types?

Disaster Management Information Systems					
				Summary Impact	
Information Types	Confidentiality	Integrity	Availability	Level	
Disaster Monitoring and Prediction	Low	High	High	5	
Disaster Preparedness and Planning	Low	Low	Low	?	
Disaster Repair and Restoration	Low	Low	Low	?	
Emergency Response Information Type	Low	High	High	?	

Answer...

• Summary Impact Levels for the Disaster Information Types

Disaster Management Information Systems				
				Summary Impact
Information Types	Confidentiality	Integrity	Availability	Level
Disaster Monitoring and Prediction	Low	High	High	High
Disaster Preparedness and Planning	Low	Low	Low	Low
Disaster Repair and Restoration	Low	Low	Low	Low
Emergency Response Information Type	Low	High	High	High

Question -

• Can you determine Overall Impact Levels for Disaster Information Types?

Disaster Management Information Systems					
				Summary Impact	
Information Types	Confidentiality	Integrity	Availability	Level	
Disaster Monitoring and Prediction	Low	High	High	High	
Disaster Preparedness and Planning	Low	Low	Low	Low	
Disaster Repair and Restoration	Low	Low	Low	Low	
Emergency Response Information Type	Low	High	High	High	
Information System Impact Ratings:	?	?	?		

Answer

• Overall Impact Levels for the Disaster Information Types

Disaster Management Information Systems					
				Summary Impact	
Information Types	Confidentiality	Integrity	Availability	Level	
Disaster Monitoring and Prediction	Low	High	High	High	
Disaster Preparedness and Planning	Low	Low	Low	Low	
Disaster Repair and Restoration	Low	Low	Low	Low	
Emergency Response Information Type	Low	High	High	High	
Information System Impact Ratings:	Low	High	High		

Question

• Can you determine overall Impact Level of a system of Disaster Information Systems?

Disaster Manage	ment Infor	mation	Systems	Summary Impact
Information Types	Confidentiality	Integrity	Availability	Level
Disaster Monitoring and Prediction	Low	High	High	High
Disaster Preparedness and Planning	Low	Low	Low	Low
Disaster Repair and Restoration	Low	Low	Low	Low
Emergency Response Information Type	Low	High	High	High
Information System Impact Ratings:	Low	High	High	?

Answer

• Overall Impact Level of Disaster Information Systems

Disaster Management Information Systems					
Information Tunes	Confidentiality	Intogritu	Availability	Summary Impact	
Information Types Disaster Monitoring and Prediction	Confidentiality Low	Integrity High	Availability High	Level High	
Disaster Preparedness and Planning	Low	Low	Low	Low	
Disaster Repair and Restoration	Low	Low	Low	Low	
Emergency Response Information Type	Low	High	High	High	
Information System Impact Ratings:	Low	High	High	High	
Information System Impact Ratings:	Low	High	High	High	

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James M. Turner, Deputy Director

3. Adjust Information Impact Level

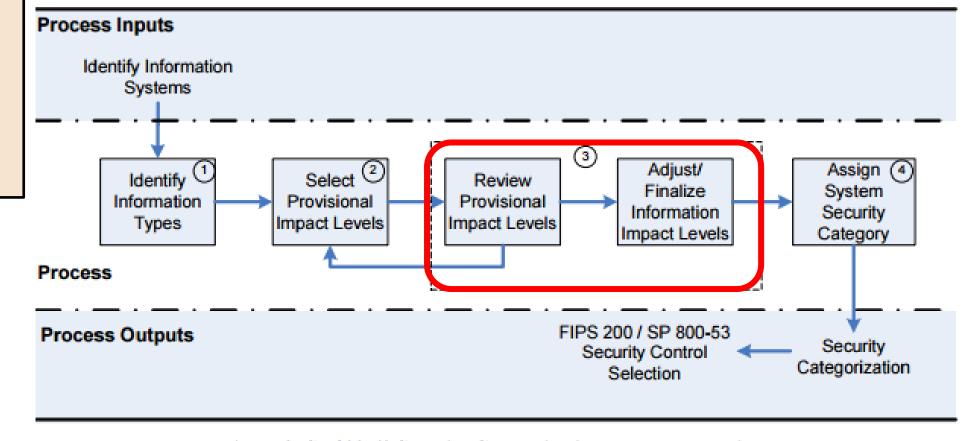


Figure 2: SP 800-60 Security Categorization Process Execution

To adjust preliminary impact levels...

Use NIST SP 800 60 V2R1

- ...looking at the "Special Factors" affecting CIA impact levels for each Disaster Management information type
- How might we adjust the impact levels?

Disaster Management Information Systems						
Information Types	Confidentiality	Integrity	Availability	Summary Impact Level		
Disaster Monitoring and Prediction	Low	High	High	High		
Disaster Preparedness and Planning	Low	Low	Low	Low		
Disaster Repair and Restoration	Low	Low	Low	Low		
Emergency Response Information Type	Low	High	High	High		
Information System Impact Ratings:	Low	High	High	High		

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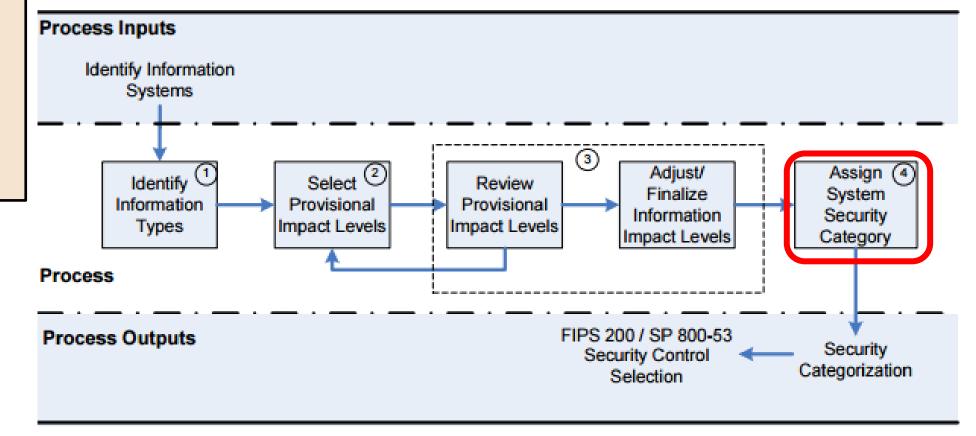
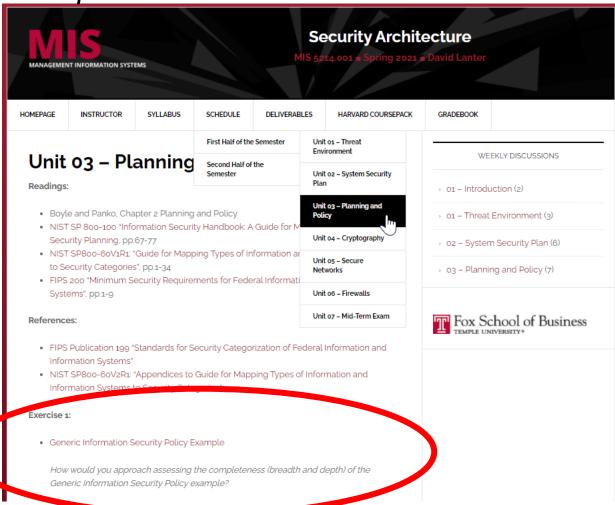


Figure 2: SP 800-60 Security Categorization Process Execution

Exercise: How would you approach assessing the completeness (breadth & depth) of the <u>Generic Information Security Policy</u>

example?



Information Security Policy

Purpose

The purpose of this Policy is to establish the requirements and management expectations for protecting the organization's Confidential information systems and assets.

Applies to:

All computer and network systems, software, and paper files owned by and/or administered by the Organization, (Computer and network systems include, but are not limited to, the following items owned or leased by the Organization, part used by the Organization personnel for information access: servers, storage systems, personal or laptop computers, network equipment, telecommunications systems and mobile devices. Software includes operating systems, databases, and applications, whether developed by then Organization or purchased from software vendors, or shareware/freeware in use within production systems), all Organization employees worldwide, except where compliance with this policy would violate any law or regulation in the country where the subject is located, and components listed above that are managed or administered by third parties for the organization. Third parties include consultants, contractors, temporary workers, service providers, or business partners who access company system resources.

Definitions:

Please refer to Information Security Policies or Standards Definition, Organization Definitions Policy for applicable definitions.

Policy:

- I. Security Program Management:
 - A. Information Security Program
 - a. This Information Security Policy outlines the responsibilities and expectations for security of information assets and information owned, held or licensed by the Organization. The controls described in this Policy are collectively known as the Organization's Information Security Program, which is designed to reflect the Company's business objectives, prevent the unauthorized use of or access to our information and information systems, and maintain the confidentiality, integrity, availability and resilience of information.
 - b. The Policy is guided by business and regulatory requirements specific to our business, and industry standards for information security and privacy. Specific business projects may require compliance with specific standards or directives pertinent to special categories, sensitive or classified information. A list of applicable laws, directives, and standards is maintained by the Policy owner.
 - c. The Information Security Policy describes the general controls and requirements for all areas of the Program, but references and links to other documents provide a greater level of detail. These documents, and the Enterprise Policy Manual, are part of the terms and conditions of employment with Organization and are acknowledged at the time of initial employment and annually thereafter. External parties, including contractors, consultants, or temporary personnel working for the Organization, must be provided with this Policy, and

Teams in Breakout Rooms

How would you approach assessing the completeness (breadth & depth) of the Generic Information Security Policy example, assuming it is the only such policy

the firm has?

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Information Security Control Families of NIST SP 800-53/800-53A grouped within 3 classes of NIST SP 800-18 provide a good framework for assessing completeness of Information Security Policies and controls

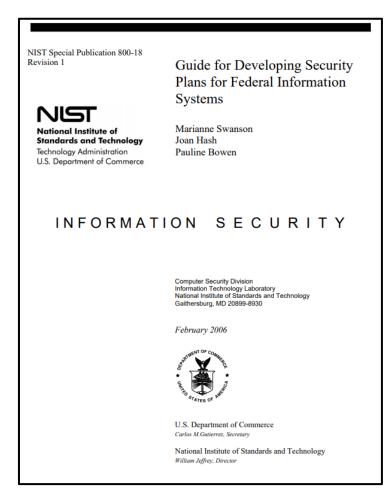
**STSP 800-53/800 - 53A grouped within 3 classes of NIST SP 800-53A grouped with

NIST Special Publication 800-53A **Revision 5 Assessing Security and Privacy Controls** in Information Systems and **Organizations** JOINT TASK FORCE This publication is available free of charge from January 2022 U.S. Department of Commerce Gina M. Raimondo, Secretary National Institute of Standards and Technology James K. Olthoff, Performing the Non-Exclusive Functions and Duties of the Under Secretary of Commerce for Standards and Technology & Director, National Institute of Standards and Technology

Table of Contents

CHAPTER ONE INTRODUCTION	1
1.1 PURPOSE AND APPLICABILITY	
1.2 TARGET AUDIENCE	
1.3 RELATED PUBLICATIONS AND ASSESSMENT PROCESSES	
1.4 ORGANIZATION OF THIS PUBLICATION	
CHAPTER TWO THE FUNDAMENTALS	
2.1 ASSESSMENTS WITHIN THE SYSTEM DEVELOPMENT LIFE CYCLE	6
2.2 CONTROL STRUCTURE AND ORGANIZATION	
2.3 BUILDING AN EFFECTIVE ASSURANCE CASE	
2.4 ASSESSMENT PROCEDURES: ASSESSMENT OBJECTS, METHODS AND OBJECTIVES	
CHAPTER THREE THE PROCESS	
3.1 PREPARE FOR SECURITY AND PRIVACY CONTROL ASSESSMENTS	
3.2 DEVELOP SECURITY AND PRIVACY ASSESSMENT PLANS	
3.3 CONDUCT SECURITY AND PRIVACY CONTROL ASSESSMENTS	
3.4 ANALYZE ASSESSMENT REPORT RESULTS	
3.5 ASSESS SECURITY AND PRIVACY CAPABILITIES	
CHAPTER FOUR SECURITY AND PRIVACY ASSESSMENT PROCEDURES	
4.1 ACCESS CONTROL	
4.2 AWARENESS AND TRAINING	
4.3 AUDIT AND ACCOUNTABILITY	
4.5 CONFIGURATION MANAGEMENT	
4.5 CONTINGENCY PLANNING.	
4.5 CONTINGENCY PLANNING	
4.8 INCIDENT RESPONSE	
4.9 MAINTENANCE	
4.10 MEDIA PROTECTION	
4.11 PHYSICAL AND ENVIRONMENTAL PROTECTION	
4.12 PLANNING	
4.13 PROGRAM MANAGEMENT	
4.14 PERSONNEL SECURITY	
4.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY	412
4.16 RISK ASSESSMENT	426
4.17 SYSTEM AND SERVICES ACQUISITION	441
4.18 SYSTEM AND COMMUNICATIONS PROTECTION	522
4.19 SYSTEM AND INFORMATION INTEGRITY	599
4.20 SUPPLY CHAIN RISK MANAGEMENT	665
REFERENCES	684
APPENDIX A GLOSSARY	689
APPENDIX B ACRONYMS	705
APPENDIX C ASSESSMENT METHOD DESCRIPTIONS	707
APPENDIX D PENETRATION TESTING	715
APPENDIX E ASSESSMENT REPORTS	
APPENDIX F ONGOING ASSESSMENT AND AUTOMATION	721

Information Security Control Families of NIST SP 800-53/800-53A grouped within 3 classes of NIST SP 800-18 provide a good framework for assessing completeness of Information Security Policies and controls



CLASS	FAMILY	IDENTIFIER
Management	Risk Assessment	RA
Management	Planning	PL
Management	System and Services Acquisition	SA
Management	Certification, Accreditation, and Security Assessments	CA
Operational	Personnel Security	PS
Operational	Physical and Environmental Protection	PE
Operational	Contingency Planning	CP
Operational	Configuration Management	CM
Operational	Maintenance	MA
Operational	System and Information Integrity	SI
Operational	Media Protection	MP
Operational	Incident Response	IR
Operational	Awareness and Training	AT
Technical	Identification and Authentication	IA
Technical	Access Control	AC
Technical	Audit and Accountability	AU
Technical	System and Communications Protection	SC

Table 2: Security Control Class, Family, and Identifier

Information Security Control Families of NIST SP 800-53/800-53A grouped within 3 Control Classes of NIST SP 800-18 provide a framework for assessing completeness of Information Security Policies and controls

Control	Control Family	Implemented	Partial	Dlanned	Alternate	NA	System	Empty	FedRamp	Completeness?
Class	Control Family	implemented	Partial	Planneu	Aitemate	IVA	System	Empty	reunamp	
Management	Risk Assessment	2	5	1	2	1	11		10	
Management	Planning	1	2	1	(1		4	2	6	
Management	System & Service Acquisition						0	22	22	
Management	Security Assessments & Authorization				1		1	14	15	
Technical	Identification & Authentication	9	3	8		9	29		27	
Technical	Access Control	4	3	28	1	13	49		43	
Technical	Audit & Accountability	1	3	13		4	21		19	
Technical	System & Communication Protection	17	8	9	1	5	40		32	
Operational	Personnel Security	6	1			2	9		9	
Operational	Physical & Environmental Protection				Total Control	19	19	1	20	
Operational	Contingency Planning	1	2	24	II.		27		24	
Operational	Configuration Management	8	6	11		5	30	1	26	
Operational	Maintenance						0	11	11	
Operational	System & Information Integrity		5	16		8	33		28	
Operational	Media Protection	2				3	5	7	10	
Operational	Incident Response						0	18	18	
Operational	Awareness & Training			5	1		5		5	
	Total:	55	38	116	5	69	283	76	325	

Exercise

Using NIST SP 800-60, find a preliminary categorization for the following information system and adjust the categorization based on your analysis – present justifications for both preliminary and adjusted categorizations

Purpose: The system has two overarching purposes:

- 1. For clients it is a system intended to help understand sewage and storm water collection and treatment systems (i.e. pipe networks, pump stations, and treatment plants) and their capacities, overflow characteristics and controls
- 2. For the firm the system is intended to provide revenue through pay by clients for direct use of the service(s) of the system

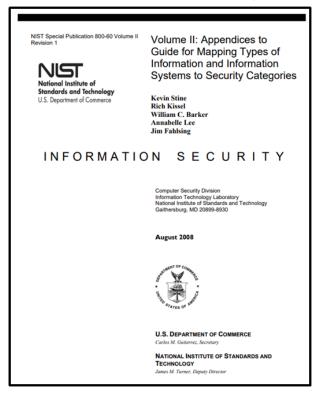
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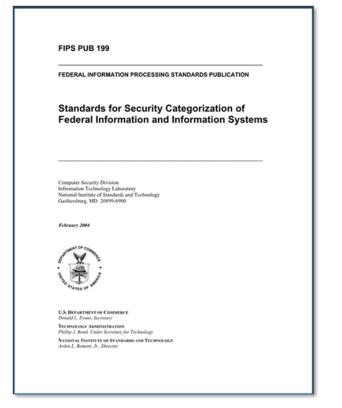
1. Municipal and regional water and sewer utilities and governmental organizations and the contractors that support them will use the system to help plan capital improvement, operations, and maintenance of sewer systems (i.e. treatment plants and sewage collection networks)

Below is a preliminary categorization for the information system based on NIST SP 800-60 Vol

Business Area	Information Type ID	Information Type	Confidentiality	Integrity	Availability	Information Type Categorization		System Categorization
Environmental Management	D.8.3	Pollution Prevention and Control	Low	Low	Low	Low		
Public Goods Creation & Management	D.22.3	Public Resources, Facility and Infrastructure Management	Low	Low	Low	Low	Low	
		Tenant Data	Low	Low	Low	Low		
Information & Technology Management	C.3.5.5	Information Security	Low	Moderate	Low	Moderate		Moderate
Information & Technology Management	C.3.5.6	Record Retention	Low	Low	Low	Low	Moderate	Woderate
Information & Technology Management	C.3.5.7	Information Management	Low	Moderate	Low	Moderate	Moderate	
Information & Technology Management	C.3.5.8	System and Network Monitoring	Moderate	Moderate	Low	Moderate		
		System Data	Moderate	Moderate	Low	Moderate		

NIST Special Publication 800-60 Volume I Volume I: Guide for Mapping Types of Information and Information Systems to Security Categories National Institute of Standards and Technology Kevin Stine U.S. Department of Commerce Rich Kissel William C. Barker Jim Fahlsing Jessica Gulick INFORMATION SECURITY Computer Security Division Information Technology Laboratory National Institute of Standards and Technology Gaithersburg, MD 20899-8930 August 2008 U.S. DEPARTMENT OF COMMERCE NATIONAL INSTITUTE OF STANDARDS AND

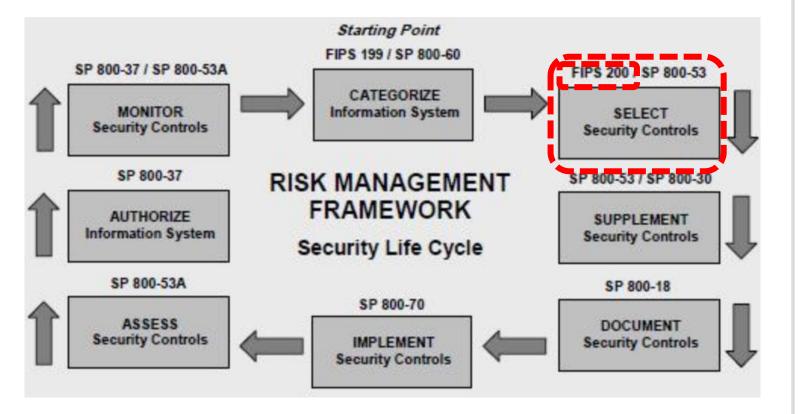




Agenda

- ✓ Risk Management Framework and IS Security Categorization
- ✓ Mapping Information Types to Security Categorizations
- √ Team Exercise Determine Information and Information System Types and provisional security categorization
- Security Control Baselines review
 - Minimum Security Controls and Security Control Baselines
 - Security Control Families
- Risk Assessment Controls
- Team Exercise Find and assess risk assessment policy

Risk Management Framework



FIPS PUB 200

FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATION

Minimum Security Requirements for Federal Information and Information Systems

Computer Security Division Information Technology Laboratory National Institute of Standards and Technology Gaithersburg, MD 20899-8930

March 2006



U.S. DEPARTMENT OF COMMERCE Carlos M. Gutierrez, Secretary

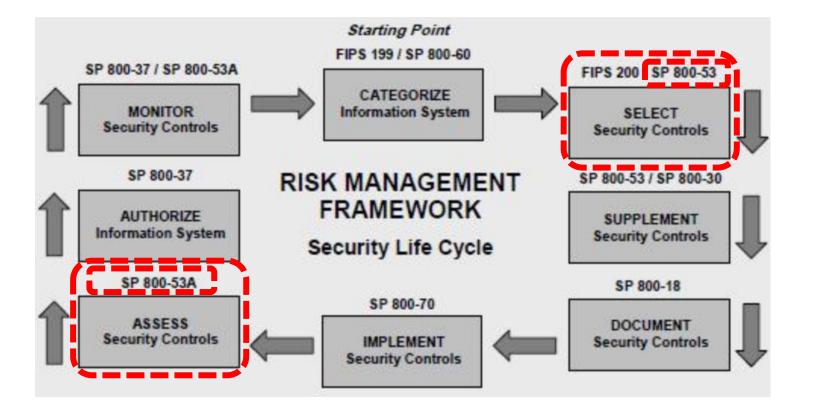
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY William Jeffrey, Director

Minimum Security Control Requirements

- Access Control (AC)
- 2. Awareness and Training (AT)
- 3. Audit and Accountability (AU)
- 4. Certification, Accreditation, and Security Assessment (CA)
- 5. Configuration Management (CM)
- 6. Contingency Planning
- 7. Identification and Authentication
- 8. Incident Response (IR)
- 9. Maintenance (MA)

- 10. Media Protection (MP)
- 11. Physical and Environmental Protection *PE)
- 12. Planning (PL)
- 13. Personal Security (PS)
- 14. Risk Assessment (RA)
- 15. System and Services Acquisition(SA)
- 16. System and Communications Protection (SC)
- 17. System and Information Integrity (SI)

Risk Management Framework



Security and Privacy Controls for Information Systems and Organizations

NIST Special Publication 800-53A

Revision 5

JOINT TASK FORCE

Assessing Security and Privacy Controls in Information Systems and Organizations

ailable free of charge from: /10.6028/NIST.SP.800-53r5

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September 2020

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This publication is available free of charge from: https://doi.org/10.6028/NIST.SP.800-53Ar5

January 2022

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bur L. Ross, Jr., Secretary

U.S. Department of Commerce Gina M. Raimondo, Secretary

National Institute of Standards and Technology

James K. Olthoff, Performing the Non-Exclusive Functions and Duties of the Under Secretary of Commerce for Standards and Technology & Director, National Institute of Standards and Technology

NIST Special Publication 800-53B

Control Baselines for Information Systems and Organizations

JOINT TASK FORCE

This publication is available free of charge from: https://doi.org/10.6028/NIST.SP.800-538

October 2020

INCLUDES UPDATES AS OF 12-10-2020; SEE PAGE XI



U.S. Department of Commerce Wilbur L. Ross, Jr., Secretary

National Institute of Standards and Technology Walter Copan, NIST Director and Under Secretary of Commerce for Standards and Technology

Table of Contents

1.1 PURPOSE AND APPLICABILITY 1.2 TARGET AUDIENCE 1.3 ORGANIZATIONAL RESPONSIBILITIES. 1.4 RELATIONSHIP TO OTHER PUBLICATIONS. 1.5 REVISIONS AND EXTENSIONS 1.6 PUBLICATION ORGANIZATION. CHAPTER TWO THE FUNDAMENTALS. 2.1 CONTROL BASELINES 2.2 SELECTING CONTROL BASELINES. 2.3 CONTROL BASELINE ASSUMPTIONS. 2.4 TAILORING CONTROL BASELINES 2.5 CAPABILITIES. 1.1 ACCESS CONTROL BASELINES 2.5 CAPABILITIES. 1.3 A ACCESS CONTROL FAMILY 3.1 ACCESS CONTROL FAMILY 3.2 AWARENESS AND TRAINING FAMILY 3.3 AUDIT AND ACCOUNTABILITY FAMILY 3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY 3.5 CONFIGURATION MANAGEMENT FAMILY 3.6 CONTINGENCY PLANNING FAMILY 3.7 IDENTIFICATION AND AUTHENTICATION FAMILY 3.8 INCIDENT RESPONSE FAMILY 3.9 MAINTENANCE FAMILY 3.10 MEDIA PROTECTION FAMILY 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY 3.12 PLANNING FAMILY 3.13 PROGRAM MANAGEMENT FAMILY 3.14 PERSONNEL SECURITY FAMILY 3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY 3.16 RISK ASSESSMENT FAMILY 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY 4.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 3.19 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 4.19 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 5.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY 5.320 SUPPLY CHAIN RISK MANAGEMENT FAMILY 5.5	CHAP	TER ONE INTRODUCTION	. 1
1.3 ORGANIZATIONAL RESPONSIBILITIES. 1.4 RELATIONSHIP TO OTHER PUBLICATIONS. 1.5 REVISIONS AND EXTENSIONS. 1.6 PUBLICATION ORGANIZATION. CHAPTER TWO THE FUNDAMENTALS. 2.1 CONTROL BASELINES. 2.2 SELECTING CONTROL BASELINES. 2.3 CONTROL BASELINE ASSUMPTIONS. 2.4 TAILORING CONTROL BASELINES. 2.5 CAPABILITIES. CHAPTER THREE THE CONTROL BASELINES. 1.1 ACCESS CONTROL FAMILY. 3.1 ACCESS CONTROL FAMILY. 3.2 AWARENESS AND TRAINING FAMILY. 2.3.3 AUDIT AND ACCOUNTABILITY FAMILY. 2.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY. 2.5 CONFIGURATION MANAGEMENT FAMILY. 2.6 CONTINGENCY PLANNING FAMILY. 2.7 IDENTIFICATION AND AUTHENTICATION FAMILY. 2.8 INCIDENT RESPONSE FAMILY. 3.10 MEDIA PROTECTION FAMILY. 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY. 3.12 PLANNING FAMILY. 3.13 PROGRAM MANAGEMENT FAMILY. 3.14 PERSONNEL SECURITY FAMILY. 3.15 PERSONALLY IDENTIFICABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY. 3.16 RISK ASSESSMENT FAMILY. 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY. 4.3.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY. 3.19 SYSTEM AND OMMUNICATIONS PROTECTION FAMILY. 4.3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY. 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.5	1.1	PURPOSE AND APPLICABILITY	. 1
1.4 RELATIONSHIP TO OTHER PUBLICATIONS. 1.5 REVISIONS AND EXTENSIONS. 1.6 PUBLICATION ORGANIZATION. CHAPTER TWO THE FUNDAMENTALS. 2.1 CONTROL BASELINES. 2.2 SELECTING CONTROL BASELINES. 2.3 CONTROL BASELINE ASSUMPTIONS. 2.4 TAILORING CONTROL BASELINES. 2.5 CAPABILITIES. CHAPTER THREE THE CONTROL BASELINES. 3.1 ACCESS CONTROL FAMILY. 3.2 AWARENESS AND TRAINING FAMILY. 3.3 AUDIT AND ACCOUNTABILITY FAMILY. 2.3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY. 2.3.5 CONFIGURATION MANAGEMENT FAMILY. 3.6 CONTINGENCY PLANNING FAMILY. 3.7 IDENTIFICATION AND AUTHENTICATION FAMILY. 3.8 INCIDENT RESPONSE FAMILY. 3.9 MAINTENANCE FAMILY. 3.10 MEDIA PROTECTION FAMILY. 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY. 3.12 PLANNING FAMILY. 3.13 PROGRAM MANAGEMENT FAMILY. 3.14 PERSONNEL SECURITY FAMILY. 3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY. 3.16 RISK ASSESSMENT FAMILY. 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY. 4.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY. 3.19 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY. 4.19 SYSTEM AND INFORMATION INTEGRITY FAMILY. 5.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.30 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.50 SUPPLY CHAIN RI			
1.5 REVISIONS AND EXTENSIONS 1.6 PUBLICATION ORGANIZATION CHAPTER TWO THE FUNDAMENTALS 2.1 CONTROL BASELINES 2.2 SELECTING CONTROL BASELINES 2.3 CONTROL BASELINE ASSUMPTIONS 2.4 TAILORING CONTROL BASELINES 2.5 CAPABILITIES 1. CHAPTER THREE THE CONTROL BASELINES 3.1 ACCESS CONTROL FAMILY 3.2 AWARENESS AND TRAINING FAMILY 2.3.3 AUDIT AND ACCOUNTABILITY FAMILY 2.3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY 2.5 CONFIGURATION MANAGEMENT FAMILY 3.6 CONTINGENCY PLANNING FAMILY 3.7 IDENTIFICATION AND AUTHENTICATION FAMILY 3.8 INCIDENT RESPONSE FAMILY 3.9 MAINTENANCE FAMILY 3.10 MEDIA PROTECTION FAMILY 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY 3.12 PLANNING FAMILY 3.13 PROGRAM MANAGEMENT FAMILY 3.14 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY 3.15 PERSONALLY IDENTIFIBABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY 3.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 4.3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY 4.3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY 5.5			
1.6 PUBLICATION ORGANIZATION CHAPTER TWO THE FUNDAMENTALS			
CHAPTER TWO THE FUNDAMENTALS 2.1 CONTROL BASELINES 2.2 SELECTING CONTROL BASELINES 2.3 CONTROL BASELINE ASSUMPTIONS. 2.4 TAILORING CONTROL BASELINES 2.5 CAPABILITIES. CHAPTER THREE THE CONTROL BASELINES 3.1 ACCESS CONTROL FAMILY. 3.2 AWARENESS AND TRAINING FAMILY 3.3 AUDIT AND ACCOUNTABILITY FAMILY 3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY 3.5 CONFIGURATION MANAGEMENT FAMILY 3.6 CONTINGENCY PLANNING FAMILY 3.7 IDENTIFICATION AND AUTHENTICATION FAMILY 3.8 INCIDENT RESPONSE FAMILY 3.9 MAINTENANCE FAMILY 3.10 MEDIA PROTECTION FAMILY 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY 3.12 PLANNING FAMILY 3.13 PROGRAM MANAGEMENT FAMILY 3.14 PERSONNEL SECURITY FAMILY 3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY 3.16 RISK ASSESSMENT FAMILY 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY 4.3.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 4.3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY			
2.1 CONTROL BASELINES 2.2 SELECTING CONTROL BASELINES. 2.3 CONTROL BASELINE ASSUMPTIONS. 2.4 TAILORING CONTROL BASELINES. 2.5 CAPABILITIES. 2.6 CHAPTER THREE THE CONTROL BASELINES. 3.1 ACCESS CONTROL FAMILY. 3.2 AWARENESS AND TRAINING FAMILY. 3.3 AUDIT AND ACCOUNTABILITY FAMILY. 3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY. 2.5 CONFIGURATION MANAGEMENT FAMILY. 2.6 CONTINGENCY PLANNING FAMILY. 2.7 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY. 3.8 INCIDENT RESPONSE FAMILY. 3.9 MAINTENANCE FAMILY. 3.10 MEDIA PROTECTION FAMILY. 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY. 3.12 PLANNING FAMILY. 3.13 PROGRAM MANAGEMENT FAMILY. 3.14 PERSONNEL SECURITY FAMILY. 3.15 PERSONALLY IDENTIFICABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY. 3.16 RISK ASSESSMENT FAMILY. 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY. 3.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY. 3.19 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY. 3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY. 5.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.320 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.50			
2.2 SELECTING CONTROL BASELINES 2.3 CONTROL BASELINE ASSUMPTIONS. 2.4 TAILORING CONTROL BASELINES 2.5 CAPABILITIES. 1. CHAPTER THREE THE CONTROL BASELINES. 3.1 ACCESS CONTROL FAMILY. 3.2 AWARENESS AND TRAINING FAMILY. 2.3.3 AUDIT AND ACCOUNTABILITY FAMILY. 2.3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY. 2.3.5 CONFIGURATION MANAGEMENT FAMILY. 2.3.6 CONTINGENCY PLANNING FAMILY. 2.3.7 IDENTIFICATION AND AUTHENTICATION FAMILY. 2.3.8 INCIDENT RESPONSE FAMILY. 3.9 MAINTENANCE FAMILY. 3.10 MEDIA PROTECTION FAMILY. 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY. 3.12 PLANNING FAMILY. 3.13 PROGRAM MANAGEMENT FAMILY. 3.14 PERSONNEL SECURITY FAMILY. 3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY. 4.16 RISK ASSESSMENT FAMILY. 4.17 SYSTEM AND SERVICES ACQUISITION FAMILY. 4.18 SYSTEM AND DOMMUNICATIONS PROTECTION FAMILY. 4.19 SYSTEM AND INFORMATION INTEGRITY FAMILY. 5.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY. 5.5			
2.3 CONTROL BASELINE ASSUMPTIONS			
2.4 TAILORING CONTROL BASELINES 2.5 CAPABILITIES			
2.5 CAPABILITIES			
CHAPTER THREE THE CONTROL BASELINES			
3.1 ACCESS CONTROL FAMILY			
3.2 AWARENESS AND TRAINING FAMILY			
3.3 AUDIT AND ACCOUNTABILITY FAMILY	3.1	ACCESS CONTROL FAMILY	16
3.4 ASSESSMENT, AUTHORIZATION, AND MONITORING FAMILY			
3.5 CONFIGURATION MANAGEMENT FAMILY			
3.6 CONTINGENCY PLANNING FAMILY			
3.7 IDENTIFICATION AND AUTHENTICATION FAMILY 3.8 INCIDENT RESPONSE FAMILY 3.9 MAINTENANCE FAMILY 3.10 MEDIA PROTECTION FAMILY 3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY 3.12 PLANNING FAMILY 3.13 PROGRAM MANAGEMENT FAMILY 3.14 PERSONNEL SECURITY FAMILY 3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY 3.16 RISK ASSESSMENT FAMILY 3.17 SYSTEM AND SERVICES ACQUISITION FAMILY 4.3.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY 3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY 5.3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY 5.50			
3.8 INCIDENT RESPONSE FAMILY	3.6	CONTINGENCY PLANNING FAMILY	26
3.9 MAINTENANCE FAMILY			
3.10 MEDIA PROTECTION FAMILY			
3.11 PHYSICAL AND ENVIRONMENTAL PROTECTION FAMILY 3.12 PLANNING FAMILY 3.13 PROGRAM MANAGEMENT FAMILY 3.14 PERSONNEL SECURITY FAMILY 3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY 4.16 RISK ASSESSMENT FAMILY 4.17 SYSTEM AND SERVICES ACQUISITION FAMILY 4.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY 4.19 SYSTEM AND INFORMATION INTEGRITY FAMILY 5.19 SYSTEM AND INFORMATION INTEGRITY FAMILY 5.19 SUPPLY CHAIN RISK MANAGEMENT FAMILY 5.10 SUPPLY CHAIN RISK MANA			
3.12 PLANNING FAMILY			
3.13 PROGRAM MANAGEMENT FAMILY			
3.14 PERSONNEL SECURITY FAMILY			
3.15 PERSONALLY IDENTIFIABLE INFORMATION PROCESSING AND TRANSPARENCY FAMILY			
3.16 RISK ASSESSMENT FAMILY			
3.17 SYSTEM AND SERVICES ACQUISITION FAMILY			
3.18 SYSTEM AND COMMUNICATIONS PROTECTION FAMILY			
3.19 SYSTEM AND INFORMATION INTEGRITY FAMILY			
3.20 SUPPLY CHAIN RISK MANAGEMENT FAMILY			
DEEEDENCES		RENCES	
APPENDIX A GLOSSARY			
APPENDIX B ACRONYMS			
APPENDIX C OVERLAYS	APPEN	NDIX C OVERLAYS	67

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What kind of control is Planning?

NIST Special Publication 800-18 Revision 1

National Institute of Standards and Technology Technology Administration U.S. Department of Commerce Guide for Developing Security Plans for Federal Information Systems

Marianne Swanson Joan Hash Pauline Bowen

INFORMATION SECURITY

Computer Security Division Information Technology Laboratory National Institute of Standards and Technology Gaithersburg, MD 20899-8930

February 2006



U.S. Department of Commerce Carlos M.Gutierrez, Secretary

National Institute of Standards and Technology William Jeffrey, Director

CLASS	FAMILY	IDENTIFIER
Management	Risk Assessment	RA
Management	Planning	PL
Management	System and Services Acquisition	SA
Management	Certification, Accreditation, and Security Assessments	CA
Operational	Personnel Security	PS
Operational	Physical and Environmental Protection	PE
Operational	Contingency Planning	CP
Operational	Configuration Management	CM
Operational	Maintenance	MA
Operational	System and Information Integrity	SI
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Technical	Access Control	AC
Technical	Audit and Accountability	AU
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NIST Special Publication 800-53B

Control Baselines for Information Systems and Organizations

JOINT TASK FORCE

This publication is available free of charge from: https://doi.org/10.6028/NIST.SP.800-538

October 2020

INCLUDES UPDATES AS OF 12-10-2020; SEE PAGE XI



U.S. Department of Commerce Wilbur L. Ross, Jr., Secretary

National Institute of Standards and Technology Walter Copan, NIST Director and Under Secretary of Commerce for Standards and Technology

TABLE 3-12: PLANNING FAMILY

CONTROL NUMBER	CONTROL NAME	PRIVACY CONTROL BASELINE	SECURITY CONTROL BASELINES			
	_		LOW	MOD	HIGH	
PL-1	Policy and Procedures	х	х	х	x	
PL-2	System Security and Privacy Plans	х	x	x	x	
PL-2(1)	CONCEPT OF OPERATIONS	W: Inc	prporated i	porated into PL-7.		
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Inc	orporated i	porated into PL-8.		
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Inc	orporated i	rporated into PL-2.		
PL-3	System Security Plan Update	W: Inc	orporated i	porated into PL-2.		
PL-4	Rules of Behavior	х	х	x x x		
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	х	х	x	x	
PL-5	Privacy Impact Assessment	W: Inc	prporated i	nto RA-8.		
PL-6	Security-Related Activity Planning	W: Inc	orporated i	nto PL-2.		
PL-7	Concept of Operations					
PL-8	Security and Privacy Architectures	х		х	x	
PL-8(1)	DEFENSE IN DEPTH					
PL-8(2)	SUPPLIER DIVERSITY					
PL-9	Central Management	х				
PL-10	Baseline Selection		х	x	x	
PL-11	Baseline Tailoring		х	х	х	

POLICY AND PROCE	EDURES
ASSESSMENT OBJE Determine if:	CTIVE:
PL-01_ODP[01]	personnel or roles to whom the planning policy is to be disseminated is/are defined;
PL-01_ODP[02]	personnel or roles to whom the planning procedures are to be disseminated is/ are defined;
PL-01_ODP[03]	one or more of the following PARAMETER VALUES is/are selected: {organization-level; mission/business process-level; system-level};
PL-01_ODP[04]	an official to manage the planning policy and procedures is defined;
PL-01_ODP[05]	the frequency with which the current planning policy is reviewed and updated is defined;
PL-01_ODP[06]	events that would require the current planning policy to be reviewed and updated are defined;
PL-01_ODP[07]	the frequency with which the current planning procedures are reviewed and updated is defined;
PL-01_ODP[08]	events that would require procedures to be reviewed and updated are defined;
PL-01a.[01]	a planning policy is developed and documented.
PL-01a.[02]	the planning policy is disseminated to <pl-01_odp[01] or="" personnel="" roles="">;</pl-01_odp[01]>
PL-01a.[03]	planning procedures to facilitate the implementation of the planning policy and associated planning controls are developed and documented;
PL-01a.[04]	the planning procedures are disseminated to <pl-01_odp[02] or="" personnel="" roles="">;</pl-01_odp[02]>
PL-01a.01(a)[01]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses purpose;</pl-01_odp[03]>
PL-01a.01(a)[02]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses scope;</pl-01_odp[03]>
PL-01a.01(a)[03]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses roles;</pl-01_odp[03]>
PL-01a.01(a)[04]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses responsibilities;</pl-01_odp[03]>
PL-01a.01(a)[05]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses management commitment;</pl-01_odp[03]>
PL-01a.01(a)[06]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses coordination among organizational entities;</pl-01_odp[03]>
PL-01a.01(a)[07]	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy addresses compliance;</pl-01_odp[03]>
PL-01a.01(b)	the <pl-01_odp[03] parameter="" selected="" value(s)=""> planning policy is consistent with applicable laws, Executive Orders, directives, regulations, policies, standards, and guidelines;</pl-01_odp[03]>

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in Information Systems and
Organizations
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JOINT TASK FORCE
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U.S. Department of Commerc Gina M. Raimondo, Secreta
National Institute of Standards and Technolog es K. Olthoff, Performing the Non-Exclusive Functions and Duties of the Under Secretary of Commer for Standards and Technology & Director, National Institute of Standards and Technolog

CONTROL	CONTROL NAME	PRIVACY CONTROL BASELINE	SECURITY CONTROL BASELINES					
nomben.	CONTROL ENHANCEMENT NAME	PRIVACY	LOW	MOD	HIGH			
PL-1	Policy and Procedures	×	х	×	х			
PL-2	System Security and Privacy Plans	x	x	x	x			
PL-2(1)	CONCEPT OF OPERATIONS	W: Incr	orporated i	into PL-7.				
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.						
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incr	W: Incorporated into PL-2.					
PL-3	System Security Plan Update	W: Incorporated into PL-2.						
PL-4	Rules of Behavior	x	x x x x					
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	x	x	x	х			
PL-5	Privacy Impact Assessment	W: Incr	orporated i	into RA-8.				
PL-6	Security-Related Activity Planning	W: Incr	orporated i	into PL-2.				
PL-7	Concept of Operations							
PL-8	Security and Privacy Architectures	x		×	x			
PL-8(1)	DEFENSE IN DEPTH							
PL-8(2)	SUPPLIER DIVERSITY							
PL-9	Central Management	x						
PL-10	Baseline Selection		x	×	x			
PL-11	Baseline Tailoring		х	x	x			

PL-01	POLICY AND PROCE	POLICY AND PROCEDURES						
	PL-01b.	the <pl-01_odp[04] official=""> is designated to manage the development, documentation, and dissemination of the planning policy and procedures;</pl-01_odp[04]>						
	PL-01c.01[01]	the current planning policy is reviewed and updated <pl-01_odp[05] frequency="">;</pl-01_odp[05]>						
	PL-01c.01[02]	the current planning policy is reviewed and updated following <pl-01_odp[06] events="">;</pl-01_odp[06]>						
	PL-01c.02[01]	the current planning procedures are reviewed and updated <pl-01_odp[07] frequency="">;</pl-01_odp[07]>						
	PL-01c.02[02]	the current planning procedures are reviewed and updated following <pl-01_odp[08] events="">.</pl-01_odp[08]>						
	POTENTIAL ASSESS	MENT METHODS AND OBJECTS:						
	PL-01-Examine	[SELECT FROM: Planning policy and procedures; system security plan; privacy plan; other relevant documents or records]						
	PL-01-Interview	[SELECT FROM: Organizational personnel with planning responsibilities; organizational personnel with information security and privacy responsibilities].						

SYSTEM SECURITY	AND PRIVACY PLANS
ASSESSMENT OBJE Determine if:	CTIVE:
PL-02_ODP[01]	individuals or groups with whom security and privacy-related activities affecting the system that require planning and coordination is/are assigned;
PL-02_ODP[02]	personnel or roles to recieve distributed copies of the system security and privacy plans is/are assigned;
PL-02_ODP[03]	frequency to review system security and privacy plans is defined;
PL-02a.01[01]	a security plan for the system is developed that is consistent with the organization's enterprise architecture;
PL-02a.01[02]	a privacy plan for the system is developed that is consistent with the organization's enterprise architecture;
PL-02a.02[01]	a security plan for the system is developed that explicitly defines the constituent system components;
PL-02a.02[02]	a privacy plan for the system is developed that explicitly defines the constituent system components;
PL-02a.03[01]	a security plan for the system is developed that describes the operational context of the system in terms of mission and business processes;
PL-02a.03[02]	a privacy plan for the system is developed that describes the operational context of the system in terms of mission and business processes;
PL-02a.04[01]	a security plan for the system is developed that identifies the individuals that fulfill system roles and responsibilities;
PL-02a.04[02]	a privacy plan for the system is developed that identifies the individuals that fulfill system roles and responsibilities;

CONTROL NUMBER	CONTROL NAME	PRIVACY CONTROL BASELINE	SECURITY CONTROL BASELINES				
	CONTROL ENHANCEMENT NAME	PRIVACY	LOW	MOD	HIGH		
PL-1	Policy and Procedures	x	х	×	х		
PL-2	System Security and Privacy Plans	x	x	х	x		
PL-2(1)	CONCEPT OF OPERATIONS	W: Incorporated into PL-7.					
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.					
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incorporated into PL-2.					
PL-3	System Security Plan Update	stem Security Plan Update W: Incorporated					
PL-4	Rules of Behavior	x	x	x	х		
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	x	x	х	х		
PL-5	Privacy Impact Assessment	W: Inco	orporated i	nto RA-8.			
PL-6	Security-Related Activity Planning	W: Inco	orporated i	nto PL-2.			
PL-7	Concept of Operations						
PL-8	Security and Privacy Architectures	x		x	x		
PL-8(1)	DEFENSE IN DEPTH						
PL-8(2)	SUPPLIER DIVERSITY						
PL-9	Central Management	х					
PL-10	Baseline Selection		x	x	х		
PL-11	Baseline Tailoring		x	х	×		

PL-02a.05[01]	a security plan for the system is developed that identifies the information types processed, stored, and transmitted by the system;
PL-02a.05[02]	a privacy plan for the system is developed that identifies the information types processed, stored, and transmitted by the system;
PL-02a.06[01]	a security plan for the system is developed that provides the security categorization of the system, including supporting rationale; $ \\$
PL-02a.06[02]	a privacy plan for the system is developed that provides the security categorization of the system, including supporting rationale;
PL-02a.07[01]	a security plan for the system is developed that describes any specific threats to the system that are of concern to the organization; $ \\$
PL-02a.07[02]	a privacy plan for the system is developed that describes any specific threats to the system that are of concern to the organization; $ \\$
PL-02a.08[01]	a security plan for the system is developed that provides the results of a privacy risk assessment for systems processing personally identifiable information;
PL-02a.08[02]	a privacy plan for the system is developed that provides the results of a privacy risk assessment for systems processing personally identifiable information;
PL-02a.09[01]	a security plan for the system is developed that describes the operational environment for the system and any dependencies on or connections to other systems or system components;
PL-02a.09[02]	a privacy plan for the system is developed that describes the operational environment for the system and any dependencies on or connections to other systems or system components;
PL-02a.10[01]	a security plan for the system is developed that provides an overview of the security requirements for the system;
PL-02a.10[02]	a privacy plan for the system is developed that provides an overview of the privacy requirements for the system; $ \\$
PL-02a.11[01]	a security plan for the system is developed that identifies any relevant control baselines or overlays, if applicable;
PL-02a.11[02]	a privacy plan for the system is developed that identifies any relevant control baselines or overlays, if applicable;
PL-02a.12[01]	a security plan for the system is developed that describes the controls in place or planned for meeting the security requirements, including rationale for any tailoring decisions;
PL-02a.12[02]	a privacy plan for the system is developed that describes the controls in place or planned for meeting the privacy requirements, including rationale for any tailoring decisions;
PL-02a.13[01]	a security plan for the system is developed that includes risk determinations for security architecture and design decisions;
PL-02a.13[02]	a privacy plan for the system is developed that includes risk determinations for privacy architecture and design decisions;
PL-02a.14[01]	a security plan for the system is developed that includes security-related activities affecting the system that require planning and coordination with < PL-02_ODP[01] individuals or groups>;

CVCTERA CECLIDITY	AND PRIVACY PLANS
SYSTEM SECURITY /	AND PRIVACY PLANS
PL-02a.14[02]	a privacy plan for the system is developed that includes privacy-related activities affecting the system that require planning and coordination with < PL-02_ODP[03 individuals or groups>;
PL-02a.15[01]	a security plan for the system is developed that is reviewed and approved by the authorizing official or designated representative prior to plan implementation;
PL-02s.15[02]	a privacy plan for the system is developed that is reviewed and approved by the authorizing official or designated representative prior to plan implementation.
PL-02b.[01]	copies of the plans are distributed to <pl-02_odp[02] or="" personnel="" roles="">;</pl-02_odp[02]>
PL-02b.[02]	subsequent changes to the plans are communicated to <pl-02_odp[02] or="" personn="" roles="">;</pl-02_odp[02]>
PL-02c.	plans are reviewed <pl-02_odp[03] frequency="">;</pl-02_odp[03]>
PL-02d.[01]	plans are updated to address changes to the system and environment of operations;
PL-02d.[02]	plans are updated to address problems identified during the plan implementatio
PL-02d.[03]	plans are updated to address problems identified during control assessments;
PL-02e.[01]	plans are protected from unauthorized disclosure;
PL-02e.[02]	plans are protected from unauthorized modification.
POTENTIAL ASSESS	MENT METHODS AND OBJECTS:
PL-02-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing system security and privacy plan development and implementation; procedures addressing security and privacy plan reviews and updates; enterprise architectur documentation; system security plan; privacy plan; records of system security and privacy plan reviews and updates; security and privacy architecture and design documentation; risk assessments; risk assessment results; control assessment documentation; other relevant documents or records].
PL-02-Interview	[SELECT FROM: Organizational personnel with system security and privacy plann and plan implementation responsibilities; system developers; organizational personnel with information security and privacy responsibilities].
PL-02-Test	[SELECT FROM: Organizational processes for system security and privacy plan development, review, update, and approval; mechanisms supporting the system security and privacy plan].

PL-02

RULES OF BEHAV	RULES OF BEHAVIOR					
ASSESSMENT OBJECTIVE: Determine if:						
PL-04_ODP[01]	frequency for reviewing and updating the rules of behavior is defined;					
PL-04_ODP[02]	one or more of the following PARAMETER VALUES is/are selected: { <pl-04_odp[03] frequency="">; when the rules are revised or updated};</pl-04_odp[03]>					
PL-04_ODP[03]	frequency for individuals to read and re-acknowledge the rules of behavior is defined (if selected);					
PL-04a.[01]	rules that describe responsibilities and expected behavior for information and system usage, security, and privacy are established for individuals requiring access to the system;					
PL-04a.[02]	rules that describe responsibilities and expected behavior for information and system usage, security, and privacy are provided to individuals requiring access to the system;					
PL-04b.	before authorizing access to information and the system, a documented acknowledgement from such individuals indicating that they have read, understand, and agree to abide by the rules of behavior is received;					
PL-04c.	rules of behavior are reviewed and updated <pl-04_odp[01] frequency="">;</pl-04_odp[01]>					
PL-04d.	individuals who have acknowledged a previous version of the rules of behavior are required to read and reacknowledge < PL-04_ODP[02] SELECTED PARAMETER VALUE(S)> .					
POTENTIAL ASSE	SSMENT METHODS AND OBJECTS:					
PL-04-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing rules of behavior for system users; rules of behavior; signed acknowledgements; records for rules of behavior reviews and updates; other relevant documents or records].					
PL-04-Interview	[SELECT FROM: Organizational personnel with responsibility for establishing, reviewing, and updating rules of behavior; organizational personnel with responsibility for literacy training and awareness and role-based training; organizational personnel who are authorized users of the system and have signed and resigned rules of behavior; organizational personnel with information security and privacy responsibilities].					
PL-04-Test	[SELECT FROM: Organizational processes for establishing, reviewing, disseminating, and updating rules of behavior; mechanisms supporting and/or implementing the establishment, review, dissemination, and update of rules of behavior].					

	RULES OF BEHAVIOR SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS					
	ASSESSMENT OBJECTIVE: Determine if:					
P	L-04(01)(a)	the rules of behavior include restrictions on the use of social media, social networking sites, and external sites/applications;				
P	L-04(01)(b)	the rules of behavior include restrictions on posting organizational information on public websites;				
P	L-04(01)(c)	the rules of behavior include restrictions on the use of organization-provided identifiers (e.g., email addresses) and authentication secrets (e.g., passwords) for creating accounts on external sites/applications.				
P	POTENTIAL ASSESSMENT METHODS AND OBJECTS:					
P	L-04(01)-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing rules of behavior for system users; rules of behavior; training policy; other relevant documents or records].				
P	L-04(01)-Interview	[SELECT FROM: Organizational personnel with responsibility for establishing, reviewing, and updating rules of behavior; organizational personnel with responsibility for literacy training and awareness and role-based training; organizational personnel who are authorized users of the system and have signed rules of behavior; organizational personnel with information security and privacy responsibilities].				
P	L-04(01)-Test	[SELECT FROM: Organizational processes for establishing rules of behavior; mechanisms supporting and/or implementing the establishment of rules of behavior].				

CONTROL NUMBER	CONTROL NAME		SECURITY CONTROL BASELINES			
	CONTROL ENHANCEMENT NAME	PRIVACY CONTROL BASELINE	LOW	MOD	HIGH	
PL-1	Policy and Procedures		x	x	x	
PL-2	System Security and Privacy Plans	x	x x x x			
PL-2(1)	CONCEPT OF OPERATIONS	W: Inco	W: Incorporated into PL-7.			
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.				
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incorporated into PL-2.				
PL-3	System Security Plan Update	W: Incorporated into PL-2.				
PL-4	Rules of Behavior	x x x x		x		
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	х	x x x x			
PL-5	Privacy Impact Assessment	W: Incorporated into RA-8.				
	Secr Rela Activ Nanz	W roors 'sto P'				

RULES OF BEHAV	RULES OF BEHAVIOR					
ASSESSMENT OBJECTIVE: Determine if:						
PL-04_ODP[01]	frequency for reviewing and updating the rules of behavior is defined;					
PL-04_ODP[02]	one or more of the following PARAMETER VALUES is/are selected: { <pl-04_odp[03] frequency="">; when the rules are revised or updated};</pl-04_odp[03]>					
PL-04_ODP[03]	frequency for individuals to read and re-acknowledge the rules of behavior is defined (if selected);					
PL-04a.[01]	rules that describe responsibilities and expected behavior for information and system usage, security, and privacy are established for individuals requiring access to the system;					
PL-04a.[02]	rules that describe responsibilities and expected behavior for information and system usage, security, and privacy are provided to individuals requiring access to the system;					
PL-04b.	before authorizing access to information and the system, a documented acknowledgement from such individuals indicating that they have read, understand, and agree to abide by the rules of behavior is received;					
PL-04c.	rules of behavior are reviewed and updated <pl-04_odp[01] frequency="">;</pl-04_odp[01]>					
PL-04d.	individuals who have acknowledged a previous version of the rules of behavior are required to read and reacknowledge < PL-04_ODP[02] SELECTED PARAMETER VALUE(S)> .					
POTENTIAL ASSE	SSMENT METHODS AND OBJECTS:					
PL-04-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing rules of behavior for system users; rules of behavior; signed acknowledgements; records for rules of behavior reviews and updates; other relevant documents or records].					
PL-04-Interview	[SELECT FROM: Organizational personnel with responsibility for establishing, reviewing, and updating rules of behavior; organizational personnel with responsibility for literacy training and awareness and role-based training; organizational personnel who are authorized users of the system and have signed and resigned rules of behavior; organizational personnel with information security and privacy responsibilities].					
PL-04-Test	[SELECT FROM: Organizational processes for establishing, reviewing, disseminating, and updating rules of behavior; mechanisms supporting and/or implementing the establishment, review, dissemination, and update of rules of behavior].					

	RULES OF BEHAVIOR SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS					
	ASSESSMENT OBJECTIVE: Determine if:					
P	L-04(01)(a)	the rules of behavior include restrictions on the use of social media, social networking sites, and external sites/applications;				
P	L-04(01)(b)	the rules of behavior include restrictions on posting organizational information on public websites;				
P	L-04(01)(c)	the rules of behavior include restrictions on the use of organization-provided identifiers (e.g., email addresses) and authentication secrets (e.g., passwords) for creating accounts on external sites/applications.				
P	POTENTIAL ASSESSMENT METHODS AND OBJECTS:					
P	L-04(01)-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing rules of behavior for system users; rules of behavior; training policy; other relevant documents or records].				
P	L-04(01)-Interview	[SELECT FROM: Organizational personnel with responsibility for establishing, reviewing, and updating rules of behavior; organizational personnel with responsibility for literacy training and awareness and role-based training; organizational personnel who are authorized users of the system and have signed rules of behavior; organizational personnel with information security and privacy responsibilities].				
P	L-04(01)-Test	[SELECT FROM: Organizational processes for establishing rules of behavior; mechanisms supporting and/or implementing the establishment of rules of behavior].				

CONTROL NUMBER	CONTROL NAME		SECURITY CONTROL BASELINES			
	CONTROL ENHANCEMENT NAME	PRIVACY CONTROL BASELINE	LOW	MOD	HIGH	
PL-1	Policy and Procedures		x	x	x	
PL-2	System Security and Privacy Plans	x	x x x x			
PL-2(1)	CONCEPT OF OPERATIONS	W: Inco	W: Incorporated into PL-7.			
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.				
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incorporated into PL-2.				
PL-3	System Security Plan Update	W: Incorporated into PL-2.				
PL-4	Rules of Behavior	x x x x		x		
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	х	x x x x			
PL-5	Privacy Impact Assessment	W: Incorporated into RA-8.				
	Secr Rela Activ Nanz	W roors 'sto P'				

SECURITY AND PR	SECURITY AND PRIVACY ARCHITECTURES					
ASSESSMENT OBJUDE Determine if:	ASSESSMENT OBJECTIVE: Determine if:					
PL-08_ODP	frequency for review and update to reflect changes in the enterprise architecture;					
PL-08a.01	a security architecture for the system describes the requirements and approach to be taken for protecting the confidentiality, integrity, and availability of organizational information;					
PL-08a.02	a privacy architecture describes the requirements and approach to be taken for processing personally identifiable information to minimize privacy risk to individuals;					
PL-08a.03[01]	a security architecture for the system describes how the architecture is integrated into and supports the enterprise architecture;					
PL-08a.03[02]	a privacy architecture for the system describes how the architecture is integrated into and supports the enterprise architecture;					
PL-08a.04[01]	a security architecture for the system describes any assumptions about and dependencies on external systems and services;					
PL-08a.04[02]	a privacy architecture for the system describes any assumptions about and dependencies on external systems and services;					
PL-08b.	changes in the enterprise architecture are reviewed and updated <pl-08_odp frequency=""> to reflect changes in the enterprise architecture;</pl-08_odp>					
PL-08c.[01]	planned architecture changes are reflected in the security plan;					
PL-08c.[02]	planned architecture changes are reflected in the privacy plan;					
PL-08c.[03]	planned architecture changes are reflected in the Concept of Operations (CONOPS);					
PL-08c.[04]	planned architecture changes are reflected in criticality analysis;					
PL-08c.[05]	planned architecture changes are reflected in organizational procedures;					
PL-08c.[06]	planned architecture changes are reflected in procurements and acquisitions.					

CONTROL	CONTROL NAME	PRIVACY CONTROL BASELINE	SECURITY CONTROL BASELINES			
NOMBEL	CONTROL ENHANCEMENT NAME	PRIVACY	LOW	MOD	HIGH	
PL-1	Policy and Procedures	x	x	х	х	
PL-2	System Security and Privacy Plans	x	x	x	x	
PL-2(1)	CONCEPT OF OPERATIONS	W: Inco	orporated in	nto PL-7.		
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Inco	W: Incorporated into PL-8.			
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Inco	W: Incorporated into PL-2.			
PL-3	System Security Plan Update	W: Inco	orporated in	nto PL-2.		
PL-4	Rules of Behavior	x	x x x		x	
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	x	x x x		х	
PL-5	Privacy Impact Assessment	W: Incorporated Into RA-8.				
PL-6	Security-Related Activity Planning	W: Incorporated into PL-2.				
PL-7	Concept of Operations					
PL-8	Security and Privacy Architectures	×		×	х	
PL-8(1)	DEFENSE IN DEPTH					
PL-8(2)	SUPPLIER DIVERSITY					
PL-9	Central Management	x				
PL-10	Baseline Selection	election x x		x	x	
PL-11	Baseline Tailoring	x x ;			х	

PL-08	SECURITY AND PRIVACY ARCHITECTURES					
	POTENTIAL ASSESSMENT METHODS AND OBJECTS:					
	PL-08-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing information security and privacy architecture development; procedures addressing information security and privacy architecture reviews and updates; enterprise architecture documentation; information security and privacy architecture documentation; system security plan; privacy plan; security and privacy CONOPS for the system; records of information security and privacy architecture reviews and updates; other relevant documents or records].				
	PL-08-Interview	[SELECT FROM: Organizational personnel with security and privacy planning and plan implementation responsibilities; organizational personnel with information security and privacy architecture development responsibilities; organizational personnel with information security and privacy responsibilities].				
	PL-08-Test	[SELECT FROM: Organizational processes for developing, reviewing, and updating the information security and privacy architecture; mechanisms supporting and/or implementing the development, review, and update of the information security and privacy architecture].				

PL-08(01)	SECURITY AND PRIVACY ARCHITECTURES DEFENSE IN DEPTH					
	ASSESSMENT OBJE Determine if:	CTIVE:				
	PL-08(01)_ODP[01]	controls to be allocated are defined;				
	PL-08(01)_ODP[02]	locations and architectural layers are defined;				
	PL-08(01)(a)[01]	the security architecture for the system is designed using a defense-in-depth approach that allocates <pl-08(01)_odp[01] controls=""> to <pl-08(01)_odp[02] and="" architectural="" layers="" locations="">;</pl-08(01)_odp[02]></pl-08(01)_odp[01]>				
	PL-08(01)(a)[02]	the privacy architecture for the system is designed using a defense-in-depth approach that allocates <pl-08(01)_odp[01] controls=""> to <pl-08(01)_odp[02] and="" architectural="" layers="" locations="">;</pl-08(01)_odp[02]></pl-08(01)_odp[01]>				
	PL-08(01)(b)[01]	the security architecture for the system is designed using a defense-in-depth approach that ensures the allocated controls operate in a coordinated and mutually reinforcing manner;				
	PL-08(01)(b)[02]	the privacy architecture for the system is designed using a defense-in-depth approach that ensures the allocated controls operate in a coordinated and mutually reinforcing manner.				
	POTENTIAL ASSESSMENT METHODS AND OBJECTS:					
	PL-08-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing information security and privacy architecture development; enterprise architecture documentation; information security and privacy architecture documentation; system security plan; privacy plan; security and privacy CONOPS for the system; other relevant documents or records].				
	PL-08-Interview	[SELECT FROM: Organizational personnel with security and privacy planning and plan implementation responsibilities; organizational personnel with information security and privacy architecture development responsibilities; organizational personnel with information security and privacy responsibilities].				
	PL-08-Test	[SELECT FROM: Organizational processes for designing the information security and privacy architecture; mechanisms supporting and/or implementing the design of the information security and privacy architecture].				

CONTROL	CONTROL NAME	PRIVACY CONTROL BASELINE	SECURITY CONTROL BASELINES					
Nomber	CONTROL ENHANCEMENT NAME		LOW	MOD	HIGH			
PL-1	Policy and Procedures	x	x	x	х			
PL-2	System Security and Privacy Plans	x	x	x	x			
PL-2(1)	CONCEPT OF OPERATIONS	W: Inco	W: Incorporated into PL-7.					
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.						
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incorporated into PL-2.						
PL-3	System Security Plan Update	W: Inco	W: Incorporated into PL-2.					
PL-4	Rules of Behavior	x	x	x	x			
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	x	х	x	х			
PL-5	Privacy Impact Assessment	W: Inco	W: Incorporated into RA-8.					
PL-6	Security-Related Activity Planning	Walner	orporated i	nto PL-2.				
PL-7	Concept of Operations							
PL-8	Security and Privacy Architectures	x		х	х			
PL-8(1)	DEFENSE IN DEPTH							
PL-8(2)	SUPPLIER DIVERSITY							
PL-9	Central Management	х						
PL-10	Baseline Selection		x	х	x			
PL-11	Baseline Tailoring		x	×	×			

PL-10	BASELINE SELECT	ION
	ASSESSMENT OB. Determine if:	JECTIVE:
	PL-10	a control baseline for the system is selected.
	POTENTIAL ASSES	SSMENT METHODS AND OBJECTS:
	PL-10-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing system security and privacy plan development and implementation; procedures addressing system security and privacy plan reviews and updates; system design documentation; system architecture and configuration documentation; system categorization decision; information types stored, transmitted, and processed by the system; system element/component information; stakeholder needs analysis; list of security and privacy requirements allocated to the system, system elements, and environment of operation; list of contractual requirements allocated to external providers of the system or system element; business impact analysis or criticality analysis; risk assessments; risk management strategy; organizational security and privacy policy; federal or organization-approved or mandated baselines or overlays; system security plan; privacy plan; other relevant documents or records].
	PL-10-Interview	[SELECT FROM: Organizational personnel with security and privacy planning and plan implementation responsibilities; organizational personnel with information security and privacy responsibilities; organizational personnel with responsibility for organizational risk management activities].

Business Area	Information Type ID	Information Type	Confidentiality	Integrity	Availability	Information Type Categorization	TOTAL MENT OF A STATE OF THE STATE OF	System Categorization
Environmental Management	D.8.3	Pollution Prevention and Control	Low	Low	Low	Low		
Public Goods Creation & Management	D.22.3	Public Resources, Facility and Infrastructure Management	Low	Low	Low	Low	Low	
		Tenant Data	Low	Low	Low	Low		
Information & Technology Management	C.3.5.5	Information Security	Low	Moderate	Low	Moderate		Moderate
Information & Technology Management	C.3.5.6	Record Retention	Low	Low	Low	Low	Moderate	Woderate
Information & Technology Management	C.3.5.7	Information Management	Low	Moderate	Low	Moderate	Woderate	
Information & Technology Management	C.3.5.8	System and Network Monitoring	Moderate	Moderate	Low	Moderate		
211 80	/	System Data	Moderate	Moderate	Low	Moderate		

CONTROL NUMBER	CONTROL NAME	PRIVACY CONTROL BASELINE	SECUL DE SOL					
	CONTROL ENHANCEMENT NAME	PRIVACY	LOW	MOD	HIGH			
PL-1	Policy and Procedures	x	x	×	x			
PL-2	System Security and Privacy Plans	x	x	x	x			
PL-2(1)	CONCEPT OF OPERATIONS	W: Incorporated into PL-7.						
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.						
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incorporated into PL-2.						
PL-3	System Security Plan Update	W: Incorporated into PL-2.						
PL-4	Rules of Behavior	х	x	x	х			
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	x	x	x	x			
PL-5	Privacy Impact Assessment	W: Inco	W: Incorporated into RA-8.					
PL-6	Security-Related Activity Planning	W: Incorporated into Pt-2.						
PL-7	Concept of Operations							
PL-8	Security and Privacy Architectures	×		×	x			
PL-8(1)	DEFENSE IN DEPTH							
PL-8(2)	SUPPLIER DIVERSITY							
PL-9	Central Management	x						
PL-10	Baseline Selection		x	x	х			
PL-11	Baseline Tailoring		×	×	×			

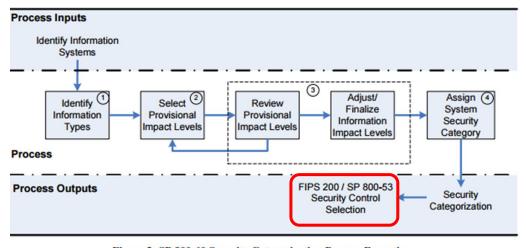


Figure 2: SP 800-60 Security Categorization Process Execution

PL-11	BASELINE TAILORIN	IG				
	ASSESSMENT OBJE	CTIVE:				
	PL-11	the selected control baseline is tailored by applying specified tailoring actions.				
	POTENTIAL ASSESSMENT METHODS AND OBJECTS:					
	PL-11-Examine	[SELECT FROM: Security and privacy planning policy; procedures addressing system security and privacy plan development and implementation; system design documentation; system categorization decision; information types stored, transmitted, and processed by the system; system element/component information; stakeholder needs analysis; list of security and privacy requirements allocated to the system, system elements, and environment of operation; list of contractual requirements allocated to external providers of the system or system element; business impact analysis or criticality analysis; risk assessments; risk management strategy; organizational security and privacy policy; federal or organization-approved or mandated baselines or overlays; baseline tailoring rationale; system security plan; privacy plan; records of system security and privacy plan reviews and updates; other relevant documents or records].				
	PL-11-Interview	[SELECT FROM: Organizational personnel with security and privacy planning and plan implementation responsibilities; organizational personnel with information security and privacy responsibilities].				

CONTROL NUMBER	CONTROL NAME	PRIVACY CONTROL BASELINE	SECURITY CONTROL BASELINES					
	CONTROL ENHANCEMENT NAME	PRIVACY	LOW	MOD	HIGH			
PL-1	Policy and Procedures	×	x	×	x			
PL-2	System Security and Privacy Plans	x	x	×	x			
PL-2(1)	CONCEPT OF OPERATIONS	W: Inco	W: Incorporated into PL-7.					
PL-2(2)	FUNCTIONAL ARCHITECTURE	W: Incorporated into PL-8.						
PL-2(3)	PLAN AND COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES	W: Incorporated into PL-2.						
PL-3	System Security Plan Update	W: Incorporated into PL-2.						
PL-4	Rules of Behavior	х	x	x	х			
PL-4(1)	SOCIAL MEDIA AND EXTERNAL SITE/APPLICATION USAGE RESTRICTIONS	x	x	x	х			
PL-5	Privacy Impact Assessment	W: Inco	W: Incorporated into RA-8.					
PL-6	Security-Related Activity Planning	W:Inco	orporated i	nto PL-2.				
PL-7	Concept of Operations							
PL-8	Security and Privacy Architectures	×		×	x			
PL-8(1)	DEFENSE IN DEPTH							
PL-8(2)	SUPPLIER DIVERSITY							
PL-9	Central Management	x						
PL-10	Baseline Selection		x	×	х			
PL-11	Baseline Tailoring		×	x	х			

Agenda

- ✓ Teams
- ✓ NIST Risk Management Framework and FIPS 199
- ✓ Use of NIST SP 800-60 Volume 1 and Volume 2
- ✓ Exercise: How to assess and information security policy?
- ✓ Exercise Determine Information and Information System Types and provisional security categorization
- ✓ Security Control Baselines review
 - ✓ FIPS 200 and NIST 800-53 Security Control Baselines
 - ✓ Security Control Families
- ✓ Planning Controls