

NIST IR 8477-Based Set Theory Relationship Mapping (STRM)

Reference Document : Secure Controls Framework (SCF) version 2025.3
STRM Guidance: <https://securecontrolsframework.com/set-theory-relationship-mapping-strm/>

Focal Document:

Focal Document URL:
Published STRM URL:

FTC's Standards for Safeguarding Consumer Information (GLBA)
<https://www.ecfr.gov/current/title-16/chapter-II/subchapter-C/part-314>
<https://securecontrolsframework.com/content/strm/scf-strm-us-fed-giba-cfr-314.pdf>

FDE #	FDE Name	Focal Document Element (FDE) Description	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
314.2	Definitions	(see definitions section for details)	Functional	intersects with	Standardized Terminology	SEA-02.1	Mechanisms exist to standardize technology and process terminology to reduce confusion amongst groups and departments.	5	
314.3	Standards for safeguarding customer information.	This is merely a section title without content.	Functional	no relationship	N/A	N/A	N/A	N/A	No requirements to map to.
314.3(a)	Information security program	You shall develop, implement, and maintain a comprehensive information security program that is written in one or more readily accessible parts and contains administrative, technical, and physical safeguards that are appropriate to your size and complexity, the nature and scope of your activities, and the sensitivity of any customer information at issue. The information security program shall include the elements set forth in § 314.4 and shall be reasonably designed to achieve the objectives of this part, as set forth in paragraph (b) of this section.	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.3(b)	Objectives	The objectives of section 501(b) of the Act, and of this part, are to:	Functional	no relationship	N/A	N/A	N/A	N/A	No requirements to map to.
314.3(b)(1)	none	Insure the security and confidentiality of customer information;	Functional	intersects with	Define Control Objectives	GOV-09	Mechanisms exist to establish control objectives as the basis for the selection, implementation and management of the organization's internal control system.	5	
314.3(b)(1)	none	Insure the security and confidentiality of customer information;	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.3(b)(2)	none	Protect against any anticipated threats or hazards to the security or integrity of such information; and	Functional	intersects with	Define Control Objectives	GOV-09	Mechanisms exist to establish control objectives as the basis for the selection, implementation and management of the organization's internal control system.	5	
314.3(b)(2)	none	Protect against any anticipated threats or hazards to the security or integrity of such information; and	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.3(b)(3)	none	Protect against unauthorized access to or use of such information that could result in substantial harm or inconvenience to any customer	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.3(b)(3)	none	Protect against unauthorized access to or use of such information that could result in substantial harm or inconvenience to any customer	Functional	intersects with	Define Control Objectives	GOV-09	Mechanisms exist to establish control objectives as the basis for the selection, implementation and management of the organization's internal control system.	5	
314.4	Elements	In order to develop, implement, and maintain your information security program, you shall:	Functional	no relationship	N/A	N/A	N/A	N/A	No requirements to map to.
314.4(a)	none	Designate a qualified individual responsible for overseeing and implementing your information security program and enforcing your information security program (for purposes of this part, "Qualified individual"). The Qualified Individual may be employed by you, an affiliate, or a service provider. To the extent the requirement in this paragraph (a) is met using a service provider or an affiliate, you shall:	Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity and data protection program.	5	
314.4(a)	none	Designate a qualified individual responsible for overseeing and implementing your information security program and enforcing your information security program (for purposes of this part, "Qualified individual"). The Qualified Individual may be employed by you, an affiliate, or a service provider. To the extent the requirement in this paragraph (a) is met using a service provider or an affiliate, you shall:	Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity and data protection requirements with third-parties, reflecting the organization's needs to protect its Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(a)	none	Designate a qualified individual responsible for overseeing and implementing your information security program and enforcing your information security program (for purposes of this part, "Qualified individual"). The Qualified Individual may be employed by you, an affiliate, or a service provider. To the extent the requirement in this paragraph (a) is met using a service provider or an affiliate, you shall:	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.4(a)	none	Designate a qualified individual responsible for overseeing and implementing your information security program and enforcing your information security program (for purposes of this part, "Qualified individual"). The Qualified Individual may be employed by you, an affiliate, or a service provider. To the extent the requirement in this paragraph (a) is met using a service provider or an affiliate, you shall:	Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
314.4(a)(1)	none	Retain responsibility for compliance with this part;	Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
314.4(a)(1)	none	Retain responsibility for compliance with this part;	Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity and data protection program.	5	
314.4(a)(1)	none	Retain responsibility for compliance with this part;	Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity and data protection requirements with third-parties, reflecting the organization's needs to protect its Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(a)(2)	none	Designate a senior member of your personnel responsible for direction and oversight of the Qualified Individual; and	Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity and data protection program.	5	
314.4(a)(2)	none	Designate a senior member of your personnel responsible for direction and oversight of the Qualified Individual; and	Functional	intersects with	Steering Committee & Program Oversight	GOV-01.1	Mechanisms exist to coordinate cybersecurity, data protection and business alignment through a steering committee or advisory board, comprised of key cybersecurity, data privacy and business executives, which meets formally and on a regular basis.	5	
314.4(a)(2)	none	Designate a senior member of your personnel responsible for direction and oversight of the Qualified Individual; and	Functional	intersects with	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	5	
314.4(a)(2)	none	Designate a senior member of your personnel responsible for direction and oversight of the Qualified Individual; and	Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity and data protection requirements with third-parties, reflecting the organization's needs to protect its Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(a)(3)	none	Require the service provider or affiliate to maintain an information security program that protects you in accordance with the requirements of this part.	Functional	intersects with	Assigned Cybersecurity & Data Protection Responsibilities	GOV-04	Mechanisms exist to assign one or more qualified individuals with the mission and resources to centrally-manage, coordinate, develop, implement and maintain an enterprise-wide cybersecurity and data protection program.	5	
314.4(a)(3)	none	Require the service provider or affiliate to maintain an information security program that protects you in accordance with the requirements of this part.	Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
314.4(a)(3)	none	Require the service provider or affiliate to maintain an information security program that protects you in accordance with the requirements of this part.	Functional	intersects with	Third-Party Contract Requirements	TPM-05	Mechanisms exist to require contractual requirements for cybersecurity and data protection requirements with third-parties, reflecting the organization's needs to protect its Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(b)	none	Base your information security program on a risk assessment that identifies reasonably foreseeable internal and external risks to the security, confidentiality, and integrity of customer information that could result in the unauthorized disclosure, misuse, alteration, destruction, or other compromise of such information, and assesses the sufficiency of any safeguards in place to control these risks.	Functional	intersects with	Risk Assessment	RSK-04	Mechanisms exist to conduct recurring assessments of risk that includes the likelihood and magnitude of harm, from unauthorized access, use, disclosure, disruption, modification or destruction of the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(b)	none	Base your information security program on a risk assessment that identifies reasonably foreseeable internal and external risks to the security, confidentiality, and integrity of customer information that could result in the unauthorized disclosure, misuse, alteration, destruction, or other compromise of such information, and assesses the sufficiency of any safeguards in place to control these risks.	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.4(b)	none	Base your information security program on a risk assessment that identifies reasonably foreseeable internal and external risks to the security, confidentiality, and integrity of customer information that could result in the unauthorized disclosure, misuse, alteration, destruction, or other compromise of such information, and assesses the sufficiency of any safeguards in place to control these risks.	Functional	subset of	Risk Management Program	RSK-01	Mechanisms exist to facilitate the implementation of strategic, operational and tactical risk management controls.	10	
314.4(b)	none	Base your information security program on a risk assessment that identifies reasonably foreseeable internal and external risks to the security, confidentiality, and integrity of customer information that could result in the unauthorized disclosure, misuse, alteration, destruction, or other compromise of such information, and assesses the sufficiency of any safeguards in place to control these risks.	Functional	intersects with	Periodic Review & Update of Cybersecurity & Data Protection Program	GOV-03	Mechanisms exist to review the cybersecurity and data protection program, including policies, standards and procedures, at planned intervals or if significant changes occur to ensure their continuing suitability, adequacy and effectiveness.	5	

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314.4(b)(1)	none	The risk assessment shall be written and shall include:	Functional	intersects with	Risk Assessment	RSK-04	Mechanisms exist to conduct recurring assessments of risk that includes the likelihood and magnitude of harm, from unauthorized access, use, disclosure, disruption, modification or destruction of the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(b)(1)(i)	none	Criteria for the evaluation and categorization of identified security risks or threats you face;	Functional	intersects with	Risk Assessment	RSK-04	Mechanisms exist to conduct recurring assessments of risk that includes the likelihood and magnitude of harm, from unauthorized access, use, disclosure, disruption, modification or destruction of the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(b)(1)(ii)	none	Criteria for the assessment of the confidentiality, integrity, and availability of your information systems and customer information, including the adequacy of the existing controls in the context of the identified risks or threats you face; and	Functional	intersects with	Risk Assessment	RSK-04	Mechanisms exist to conduct recurring assessments of risk that includes the likelihood and magnitude of harm, from unauthorized access, use, disclosure, disruption, modification or destruction of the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(b)(1)(iii)	none	Requirements describing how identified risks will be mitigated or accepted based on the risk assessment and how the information security program will address the risks.	Functional	intersects with	Risk Assessment	RSK-04	Mechanisms exist to conduct recurring assessments of risk that includes the likelihood and magnitude of harm, from unauthorized access, use, disclosure, disruption, modification or destruction of the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(b)(2)	none	You shall periodically perform additional risk assessments that reexamine the reasonably foreseeable internal and external risks to the security, confidentiality, and integrity of customer information that could result in the unauthorized disclosure, misuse, alteration, destruction, or other compromise of such information, and reassess the sufficiency of any safeguards in place to control these risks.	Functional	intersects with	Risk Assessment Update	RSK-07	Mechanisms exist to routinely update risk assessments and react accordingly upon identifying new security vulnerabilities, including using outside sources for security vulnerability information.	5	
314.4(c)	none	Design and implement safeguards to control the risks you identify through risk assessment, including by:	Functional	intersects with	Centralized Management of Cybersecurity & Data Protection Controls	SEA-01.1	Mechanisms exist to centrally-manage the organization-wide management and implementation of cybersecurity and data protection controls and related processes.	5	
314.4(c)	none	Design and implement safeguards to control the risks you identify through risk assessment, including by:	Functional	subset of	Secure Engineering Principles	SEA-01	Mechanisms exist to facilitate the implementation of industry-recognized cybersecurity and data protection practices in the specification, design, development, implementation and modification of Technology Assets, Applications and/or Services (TAAS).	10	
314.4(c)	none	Design and implement safeguards to control the risks you identify through risk assessment, including by:	Functional	subset of	Statutory, Regulatory & Contractual Compliance	CPL-01	Mechanisms exist to facilitate the identification and implementation of relevant statutory, regulatory and contractual controls.	10	
314.4(c)	none	Design and implement safeguards to control the risks you identify through risk assessment, including by:	Functional	subset of	Cybersecurity & Data Protection Governance Program	GOV-01	Mechanisms exist to facilitate the implementation of cybersecurity and data protection governance controls.	10	
314.4(c)	none	Design and implement safeguards to control the risks you identify through risk assessment, including by:	Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity and data protection policies, standards and procedures.	5	
314.4(c)(1)	none	Implementing and periodically reviewing access controls, including technical and, as appropriate, physical controls to:	Functional	subset of	Identity & Access Management (IAM)	IAC-01	Mechanisms exist to facilitate the implementation of identification and access management controls.	10	
314.4(c)(1)(i)	none	Authenticate and permit access only to authorized users to protect against the unauthorized acquisition of customer information; and	Functional	subset of	Identity & Access Management (IAM)	IAC-01	Mechanisms exist to facilitate the implementation of identification and access management controls.	10	
314.4(c)(1)(i)	none	Authenticate and permit access only to authorized users to protect against the unauthorized acquisition of customer information; and	Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
314.4(c)(1)(i)	none	Authenticate and permit access only to authorized users to protect against the unauthorized acquisition of customer information; and	Functional	intersects with	Access Enforcement	IAC-20	Mechanisms exist to enforce Logical Access Control (LAC) permissions that conform to the principle of "least privilege."	5	
314.4(c)(1)(i)	none	Authenticate and permit access only to authorized users to protect against the unauthorized acquisition of customer information; and	Functional	intersects with	Least Privilege	IAC-21	Mechanisms exist to utilize the concept of least privilege, allowing only authorized access to processes necessary to accomplish assigned tasks in accordance with organizational business functions.	5	
314.4(c)(1)(ii)	none	Limit authorized users' access only to customer information that they need to perform their duties and functions, or, in the case of customers, to access their own information;	Functional	subset of	Identity & Access Management (IAM)	IAC-01	Mechanisms exist to facilitate the implementation of identification and access management controls.	10	
314.4(c)(1)(ii)	none	Limit authorized users' access only to customer information that they need to perform their duties and functions, or, in the case of customers, to access their own information;	Functional	intersects with	Role-Based Access Control (RBAC)	IAC-08	Mechanisms exist to enforce Role-Based Access Control (RBAC) for Technology Assets, Applications, Services and/or Data (TAASD) to restrict access to individuals assigned specific roles with legitimate business needs.	5	
314.4(c)(2)	none	Identify and manage the data, personnel, devices, systems, and facilities that enable you to achieve business purposes in accordance with their relative importance to business objectives and your risk strategy;	Functional	intersects with	Risk Register	RSK-04.1	Mechanisms exist to maintain a risk register that facilitates monitoring and reporting of risks.	5	
314.4(c)(2)	none	Identify and manage the data, personnel, devices, systems, and facilities that enable you to achieve business purposes in accordance with their relative importance to business objectives and your risk strategy;	Functional	intersects with	Risk Identification	RSK-03	Mechanisms exist to identify and document risks, both internal and external.	5	
314.4(c)(2)	none	Identify and manage the data, personnel, devices, systems, and facilities that enable you to achieve business purposes in accordance with their relative importance to business objectives and your risk strategy;	Functional	intersects with	Risk Remediation	RSK-06	Mechanisms exist to remediate risks to an acceptable level.	5	
314.4(c)(2)	none	Identify and manage the data, personnel, devices, systems, and facilities that enable you to achieve business purposes in accordance with their relative importance to business objectives and your risk strategy;	Functional	intersects with	Compensating Countermeasures	RSK-06.2	Mechanisms exist to identify and implement compensating countermeasures to reduce risk and exposure to threats.	5	
314.4(c)(2)	none	Identify and manage the data, personnel, devices, systems, and facilities that enable you to achieve business purposes in accordance with their relative importance to business objectives and your risk strategy;	Functional	intersects with	Risk Ranking	RSK-05	Mechanisms exist to identify and assign a risk ranking to newly discovered security vulnerabilities that is based on industry-recognized practices.	5	
314.4(c)(2)	none	Identify and manage the data, personnel, devices, systems, and facilities that enable you to achieve business purposes in accordance with their relative importance to business objectives and your risk strategy;	Functional	intersects with	Risk Response	RSK-06.1	Mechanisms exist to respond to findings from cybersecurity and data protection assessments, incidents and audits to ensure proper remediation has been performed.	5	
314.4(c)(3)	none	Protect by encryption all customer information held or transmitted by you both in transit over external networks and at rest. To the extent you determine that encryption of customer information, either in transit over external networks or at rest, is infeasible, you may instead secure such customer information using effective alternative compensating controls reviewed and approved by your Qualified Individual;	Functional	subset of	Use of Cryptographic Controls	CRY-01	Mechanisms exist to facilitate the implementation of cryptographic protections controls using known public standards and trusted cryptographic technologies.	10	
314.4(c)(4)	none	Adopt secure development practices for in-house developed applications utilized by you for transmitting, accessing, or storing customer information and procedures for evaluating, assessing, or testing the security of externally developed applications you utilize to transmit, access, or store customer information;	Functional	intersects with	Secure Software Development Practices (SSDP)	TDA-06	Mechanisms exist to develop applications based on Secure Software Development Practices (SSDP).	5	
314.4(c)(4)	none	Adopt secure development practices for in-house developed applications utilized by you for transmitting, accessing, or storing customer information and procedures for evaluating, assessing, or testing the security of externally developed applications you utilize to transmit, access, or store customer information;	Functional	subset of	Technology Development & Acquisition	TDA-01	Mechanisms exist to facilitate the implementation of tailored development and acquisition strategies, contract tools and procurement methods to meet unique business needs.	10	
314.4(c)(5)	none	Implement multi-factor authentication for any individual accessing any information system, unless your Qualified Individual has approved in writing the use of reasonably equivalent or more secure access controls;	Functional	intersects with	Multi-Factor Authentication (MFA)	IAC-06	Automated mechanisms exist to enforce Multi-Factor Authentication (MFA) for: (1) Remote network access; (2) Third-party Technology Assets, Applications and/or Services (TAAS); and/ or (3) Non-console access to critical TAAS that store, transmit and/or process sensitive/regulatory data.	5	
314.4(c)(6)	none	This is merely a section title without content.	Functional	no relationship	N/A	N/A	N/A	N/A	No requirements to map to.
314.4(c)(6)(i)	none	Develop, implement, and maintain procedures for the secure disposal of customer information in any format no later than two years after the last date the information is used in connection with the provision of a product or service to the customer to which it relates, unless such information is necessary for business operations or for other legitimate business purposes, is otherwise required to be retained by law or regulation, or where targeted disposal is not reasonably feasible due to the manner in which the information is maintained; and	Functional	intersects with	Information Disposal	DCH-21	Mechanisms exist to securely dispose of, destroy or erase information.	5	
314.4(c)(6)(ii)	none	Develop, implement, and maintain procedures for the secure disposal of customer information in any format no later than two years after the last date the information is used in connection with the provision of a product or service to the customer to which it relates, unless such information is necessary for business operations or for other legitimate business purposes, is otherwise required to be retained by law or regulation, or where targeted disposal is not reasonably feasible due to the manner in which the information is maintained; and	Functional	intersects with	Personal Data (PD) Retention & Disposal	PRI-05	Mechanisms exist to: (1) Retain Personal Data (PD), including metadata, for an organization-defined time period to fulfill the purpose(s) identified in the notice or as required by law; (2) Dispose of, destroys, erases, and/or anonymizes the PD, regardless of the method of storage; and (3) Use organization-defined techniques or methods to ensure secure deletion or destruction of PD (including originals, copies and archived records).	5	

FDE #	FDE Name	Focal Document Element (FDE) Description	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
314.4(c)(6)(i)	none	Develop, implement, and maintain procedures for the secure disposal of customer information in any format no later than two years after the last date the information is used in connection with the provision of a product or service to the customer to which it relates, unless such information is necessary for business operations or for other legitimate business purposes, is otherwise required to be retained by law or regulation, or where targeted disposal is not reasonably feasible due to the manner in which the information is maintained; and	Functional	intersects with	Physical Media Disposal	DCH-08	Mechanisms exist to securely dispose of media when it is no longer required, using formal procedures.	5	
314.4(c)(6)(ii)	none	Develop, implement, and maintain procedures for the secure disposal of customer information in any format no later than two years after the last date the information is used in connection with the provision of a product or service to the customer to which it relates, unless such information is necessary for business operations or for other legitimate business purposes, is otherwise required to be retained by law or regulation, or where targeted disposal is not reasonably feasible due to the manner in which the information is maintained; and	Functional	intersects with	Secure Disposal, Destruction or Re-Use of Equipment	AST-09	Mechanisms exist to securely dispose of, destroy or repurpose system components using organization-defined techniques and methods to prevent information being recovered from these components.	5	
314.4(c)(6)(iii)	none	Periodically review your data retention policy to minimize the unnecessary retention of data;	Functional	intersects with	Media & Data Retention	DCH-18	Mechanisms exist to retain media and data in accordance with applicable statutory, regulatory and contractual obligations.	5	
314.4(c)(6)(iii)	none	Periodically review your data retention policy to minimize the unnecessary retention of data;	Functional	subset of	Data Protection	DCH-01	Mechanisms exist to facilitate the implementation of data protection controls.	10	
314.4(c)(7)	none	Adopt procedures for change management; and	Functional	intersects with	Standardized Operating Procedures (SOP)	OPS-01.1	Mechanisms exist to identify and document Standardized Operating Procedures (SOP), or similar documentation, to enable the proper execution of day-to-day / assigned tasks.	5	
314.4(c)(7)	none	Adopt procedures for change management; and	Functional	subset of	Operations Security	OPS-01	Mechanisms exist to facilitate the implementation of operational security controls.	10	
314.4(c)(7)	none	Adopt procedures for change management; and	Functional	subset of	Change Management Program	CHG-01	Mechanisms exist to facilitate the implementation of a change management program.	10	
314.4(c)(7)	none	Adopt procedures for change management; and	Functional	intersects with	Configuration Change Control	CHG-02	Mechanisms exist to govern the technical configuration change control processes.	5	
314.4(c)(8)	none	Implement policies, procedures, and controls designed to monitor and log the activity of authorized users and detect unauthorized access or use of, or tampering with, customer information by such users.	Functional	intersects with	Standardized Operating Procedures (SOP)	OPS-01.1	Mechanisms exist to identify and document Standardized Operating Procedures (SOP), or similar documentation, to enable the proper execution of day-to-day / assigned tasks.	5	
314.4(c)(8)	none	Implement policies, procedures, and controls designed to monitor and log the activity of authorized users and detect unauthorized access or use of, or tampering with, customer information by such users.	Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity and data protection policies, standards and procedures.	5	
314.4(d)	none	This is merely a section title without content.	Functional	no relationship	N/A	N/A	N/A	N/A	No requirements to map to.
314.4(d)(1)	none	Regularly test or otherwise monitor the effectiveness of the safeguards' key controls, systems, and procedures, including those to detect actual and attempted attacks on, or intrusions into, information systems.	Functional	intersects with	Cybersecurity & Data Protection Assessments	CPL-03	Mechanisms exist to regularly review processes and documented procedures to ensure conformity with the organization's cybersecurity and data protection policies, standards and other applicable requirements.	5	
314.4(d)(1)	none	Regularly test or otherwise monitor the effectiveness of the safeguards' key controls, systems, and procedures, including those to detect actual and attempted attacks on, or intrusions into, information systems.	Functional	intersects with	Cybersecurity & Data Protection Controls Oversight	CPL-02	Mechanisms exist to provide a cybersecurity and data protection controls oversight function that reports to the organization's executive leadership.	5	
314.4(d)(2)	none	For information systems, the monitoring and testing shall include continuous monitoring or periodic penetration testing and vulnerability assessments. Absent effective continuous monitoring or other systems to detect, on an ongoing basis, changes in information systems that may create vulnerabilities, you shall conduct:	Functional	intersects with	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	5	
314.4(d)(2)	none	For information systems, the monitoring and testing shall include continuous monitoring or periodic penetration testing and vulnerability assessments. Absent effective continuous monitoring or other systems to detect, on an ongoing basis, changes in information systems that may create vulnerabilities, you shall conduct:	Functional	subset of	Vulnerability & Patch Management Program (VPMP)	VPM-01	Mechanisms exist to facilitate the implementation and monitoring of vulnerability management controls.	10	
314.4(d)(2)	none	For information systems, the monitoring and testing shall include continuous monitoring or periodic penetration testing and vulnerability assessments. Absent effective continuous monitoring or other systems to detect, on an ongoing basis, changes in information systems that may create vulnerabilities, you shall conduct:	Functional	intersects with	Penetration Testing	VPM-07	Mechanisms exist to conduct penetration testing on Technology Assets, Applications and/or Services (TAAS).	5	
314.4(d)(2)(i)	none	Annual penetration testing of your information systems determined each given year based on relevant identified risks in accordance with the risk assessment; and	Functional	intersects with	Penetration Testing	VPM-07	Mechanisms exist to conduct penetration testing on Technology Assets, Applications and/or Services (TAAS).	5	
314.4(d)(2)(ii)	none	Vulnerability assessments, including any systemic scans or reviews of information systems reasonably designed to identify publicly known security vulnerabilities in your information systems based on the risk assessment, at least every six months; and whenever there are material changes to your operations or business arrangements; and whenever there are circumstances you know or have reason to know may have a material impact on your information security program.	Functional	intersects with	Vulnerability Scanning	VPM-06	Mechanisms exist to detect vulnerabilities and configuration errors by routine vulnerability scanning of systems and applications.	5	
314.4(e)	none	Implement policies and procedures to ensure that personnel are able to enact your information security program by:	Functional	intersects with	Publishing Cybersecurity & Data Protection Documentation	GOV-02	Mechanisms exist to establish, maintain and disseminate cybersecurity and data protection policies, standards and procedures.	5	
314.4(e)	none	Implement policies and procedures to ensure that personnel are able to enact your information security program by:	Functional	intersects with	Standardized Operating Procedures (SOP)	OPS-01.1	Mechanisms exist to identify and document Standardized Operating Procedures (SOP), or similar documentation, to enable the proper execution of day-to-day / assigned tasks.	5	
314.4(e)(1)	none	Providing your personnel with security awareness training that is updated as necessary to reflect risks identified by the risk assessment;	Functional	intersects with	Sensitive / Regulated Data Storage, Handling & Processing	SAT-03.3	Mechanisms exist to ensure that every user accessing a system processing, storing or transmitting sensitive / regulated data is formally trained in data handling requirements.	5	
314.4(e)(1)	none	Providing your personnel with security awareness training that is updated as necessary to reflect risks identified by the risk assessment;	Functional	intersects with	Role-Based Cybersecurity & Data Protection Training	SAT-03	Mechanisms exist to provide role-based cybersecurity and data protection-related training: (1) Before authorizing access to the system or performing assigned duties; (2) When required by system changes; and (3) Annually thereafter.	5	
314.4(e)(1)	none	Providing your personnel with security awareness training that is updated as necessary to reflect risks identified by the risk assessment;	Functional	intersects with	Cybersecurity & Data Protection Awareness Training	SAT-02	Mechanisms exist to provide all employees and contractors appropriate awareness education and training that is relevant for their job function.	5	
314.4(e)(1)	none	Providing your personnel with security awareness training that is updated as necessary to reflect risks identified by the risk assessment;	Functional	intersects with	Cyber Threat Environment	SAT-03.6	Mechanisms exist to provide role-based cybersecurity and data protection awareness training that is current and relevant to the cyber threats that users might encounter in day-to-day business operations.	5	
314.4(e)(1)	none	Providing your personnel with security awareness training that is updated as necessary to reflect risks identified by the risk assessment;	Functional	subset of	Cybersecurity & Data Protection-Minded Workforce	SAT-01	Mechanisms exist to facilitate the implementation of security workforce development and awareness controls.	10	
314.4(e)(2)	none	Utilizing qualified information security personnel employed by you or an affiliate or service provider sufficient to manage your information security risks and to perform or oversee the information security program.	Functional	intersects with	Roles With Special Protection Measures	HRS-04.1	Mechanisms exist to ensure that individuals accessing a system that stores, transmits or processes information requiring special protection satisfy organization-defined personnel screening criteria.	5	
314.4(e)(2)	none	Utilizing qualified information security personnel employed by you or an affiliate or service provider sufficient to manage your information security risks and to perform or oversee the information security program.	Functional	intersects with	Competency Requirements for Security-Related Positions	HRS-03.2	Mechanisms exist to ensure that all security-related positions are staffed by qualified individuals who have the necessary skill set.	5	
314.4(e)(2)	none	Utilizing qualified information security personnel employed by you or an affiliate or service provider sufficient to manage your information security risks and to perform or oversee the information security program.	Functional	subset of	Human Resources Security Management	HRS-01	Mechanisms exist to facilitate the implementation of personnel security controls.	10	
314.4(e)(3)	none	Providing information security personnel with security updates and training sufficient to address relevant security risks; and	Functional	intersects with	Privileged Users	SAT-03.5	Mechanisms exist to provide specific training for privileged users to ensure privileged users understand their unique roles and responsibilities	5	
314.4(e)(4)	none	Verifying that key information security personnel take steps to maintain current knowledge of changing information security threats and countermeasures.	Functional	intersects with	Continuing Professional Education (CPE) - Cybersecurity & Data Protection Personnel	SAT-03.7	Mechanisms exist to ensure cybersecurity and data protection personnel receive Continuing Professional Education (CPE) training to maintain currency and proficiency with industry-recognized secure practices that are pertinent to their assigned roles and responsibilities.	5	
314.4(f)	none	Oversee service providers, by:	Functional	subset of	Third-Party Management	TPM-01	Mechanisms exist to facilitate the implementation of third-party management controls.	10	
314.4(f)(1)	none	Taking reasonable steps to select and retain service providers that are capable of maintaining appropriate safeguards for the customer information at issue;	Functional	intersects with	Limit Potential Harm	TPM-03.2	Mechanisms exist to utilize security safeguards to limit harm from potential adversaries who identify and target the organization's supply chain.	5	
314.4(f)(1)	none	Taking reasonable steps to select and retain service providers that are capable of maintaining appropriate safeguards for the customer information at issue;	Functional	intersects with	Third-Party Criticality Assessments	TPM-02	Mechanisms exist to identify, prioritize and assess suppliers and partners of critical Technology Assets, Applications and/or Services (TAAS) using a supply chain risk assessment process relative to their importance in supporting the delivery of high-value services.	5	

FDE #	FDE Name	Focal Document Element (FDE) Description	STRM Rationale	STRM Relationship	SCF Control	SCF #	Secure Controls Framework (SCF) Control Description	Strength of Relationship (optional)	Notes (optional)
314.4(f)(1)	none	Taking reasonable steps to select and retain service providers that are capable of maintaining appropriate safeguards for the customer information at issue;	Functional	intersects with	Supply Chain Risk Management (SCRM)	TPM-03	Mechanisms exist to: (1) Evaluate security risks and threats associated with Technology Assets, Applications and/or Services (TAAS) supply chains; and (2) Take appropriate remediation actions to minimize the organization's exposure to those risks and threats, as necessary.	5	
314.4(f)(1)	none	Taking reasonable steps to select and retain service providers that are capable of maintaining appropriate safeguards for the customer information at issue;	Functional	intersects with	Third-Party Risk Assessments & Approvals	TPM-04.1	Mechanisms exist to conduct a risk assessment prior to the acquisition or outsourcing of technology-related Technology Assets, Applications and/or Services (TAAS).	5	
314.4(f)(1)	none	Taking reasonable steps to select and retain service providers that are capable of maintaining appropriate safeguards for the customer information at issue;	Functional	intersects with	Third-Party Processing, Storage and Service Locations	TPM-04.4	Mechanisms exist to restrict the location of information processing/storage based on business requirements.	5	
314.4(f)(1)	none	Taking reasonable steps to select and retain service providers that are capable of maintaining appropriate safeguards for the customer information at issue;	Functional	intersects with	Third-Party Services	TPM-04	Mechanisms exist to mitigate the risks associated with third-party access to the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(f)(2)	none	Requiring your service providers by contract to implement and maintain such safeguards; and	Functional	intersects with	Third-Party Services	TPM-04	Mechanisms exist to mitigate the risks associated with third-party access to the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(f)(3)	none	Periodically assessing your service providers based on the risk they present and the continued adequacy of their safeguards.	Functional	intersects with	Third-Party Risk Assessments & Approvals	TPM-04.1	Mechanisms exist to conduct a risk assessment prior to the acquisition or outsourcing of technology-related Technology Assets, Applications and/or Services (TAAS).	5	
314.4(f)(3)	none	Periodically assessing your service providers based on the risk they present and the continued adequacy of their safeguards.	Functional	intersects with	Third-Party Services	TPM-04	Mechanisms exist to mitigate the risks associated with third-party access to the organization's Technology Assets, Applications, Services and/or Data (TAASD).	5	
314.4(f)(3)	none	Periodically assessing your service providers based on the risk they present and the continued adequacy of their safeguards.	Functional	intersects with	Review of Third-Party Services	TPM-08	Mechanisms exist to monitor, regularly review and assess External Service Providers (ESPs) for compliance with established contractual requirements for cybersecurity and data protection controls.	5	
314.4(g)	none	Evaluate and adjust your information security program in light of the results of the testing and monitoring required by paragraph (d) of this section; any material changes to your operations or business arrangements; the results of risk assessments performed under paragraph (b)(2) of this section; or any other circumstances that you know or have reason to know may have a material impact on your information security program.	Functional	intersects with	Periodic Review & Update of Cybersecurity & Data Protection Program	GOV-03	Mechanisms exist to review the cybersecurity and data protection program, including policies, standards and procedures, at planned intervals or if significant changes occur to ensure their continuing suitability, adequacy and effectiveness.	5	
314.4(h)	none	Establish a written incident response plan designed to promptly respond to, and recover from, any security event materially affecting the confidentiality, integrity, or availability of customer information in your control. Such incident response plan shall address the following areas:	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)	none	Establish a written incident response plan designed to promptly respond to, and recover from, any security event materially affecting the confidentiality, integrity, or availability of customer information in your control. Such incident response plan shall address the following areas:	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)	none	Establish a written incident response plan designed to promptly respond to, and recover from, any security event materially affecting the confidentiality, integrity, or availability of customer information in your control. Such incident response plan shall address the following areas:	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(1)	none	The goals of the incident response plan;	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(1)	none	The goals of the incident response plan;	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(1)	none	The goals of the incident response plan;	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(2)	none	The internal processes for responding to a security event;	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(2)	none	The internal processes for responding to a security event;	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(2)	none	The internal processes for responding to a security event;	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(3)	none	The definition of clear roles, responsibilities, and levels of decision-making authority;	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(3)	none	The definition of clear roles, responsibilities, and levels of decision-making authority;	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(3)	none	The definition of clear roles, responsibilities, and levels of decision-making authority;	Functional	intersects with	Integrated Security Incident Response Team (ISIRT)	IRO-07	Mechanisms exist to establish an integrated team of cybersecurity, IT and business function representatives that are capable of addressing cybersecurity and data protection incident response operations.	5	
314.4(h)(3)	none	The definition of clear roles, responsibilities, and levels of decision-making authority;	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(4)	none	External and internal communications and information sharing;	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(4)	none	External and internal communications and information sharing;	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(4)	none	External and internal communications and information sharing;	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(4)	none	External and internal communications and information sharing;	Functional	intersects with	Incident Stakeholder Reporting	IRO-10	Mechanisms exist to timely-report incidents to applicable: (1) Internal stakeholders; (2) Affected clients & third-parties; and (3) Regulatory authorities.	5	
314.4(h)(5)	none	Identification of requirements for the remediation of any identified weaknesses in information systems and associated controls;	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(5)	none	Identification of requirements for the remediation of any identified weaknesses in information systems and associated controls;	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(5)	none	Identification of requirements for the remediation of any identified weaknesses in information systems and associated controls;	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(6)	none	Documentation and reporting regarding security events and related incident response activities; and	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(6)	none	Documentation and reporting regarding security events and related incident response activities; and	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(6)	none	Documentation and reporting regarding security events and related incident response activities; and	Functional	intersects with	Situational Awareness For Incidents	IRO-09	Mechanisms exist to document, monitor and report the status of cybersecurity and data protection incidents to internal stakeholders all the way through the resolution of the incident.	5	

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314.4(h)(6)	none	Documentation and reporting regarding security events and related incident response activities; and	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(7)	none	The evaluation and revision as necessary of the incident response plan following a security event.	Functional	subset of	Incident Response Operations	IRO-01	Mechanisms exist to implement and govern processes and documentation to facilitate an organization-wide response capability for cybersecurity and data protection-related incidents.	10	
314.4(h)(7)	none	The evaluation and revision as necessary of the incident response plan following a security event.	Functional	intersects with	Incident Response Plan (IRP)	IRO-04	Mechanisms exist to maintain and make available a current and viable Incident Response Plan (IRP) to all stakeholders.	5	
314.4(h)(7)	none	The evaluation and revision as necessary of the incident response plan following a security event.	Functional	intersects with	Incident Handling	IRO-02	Mechanisms exist to cover: (1) Preparation; (2) Automated event detection or manual incident report intake; (3) Analysis; (4) Containment; (5) Eradication; and (6) Recovery.	5	
314.4(h)(7)	none	The evaluation and revision as necessary of the incident response plan following a security event.	Functional	intersects with	Root Cause Analysis (RCA) & Lessons Learned	IRO-13	Mechanisms exist to incorporate lessons learned from analyzing and resolving cybersecurity and data protection incidents to reduce the likelihood or impact of future incidents.	5	
314.4(h)(7)	none	The evaluation and revision as necessary of the incident response plan following a security event.	Functional	intersects with	IRP Update	IRO-04.2	Mechanisms exist to regularly review and modify incident response practices to incorporate lessons learned, business process changes and industry developments, as necessary.	5	
314.4(i)	none	Require your Qualified Individual to report in writing, regularly and at least annually, to your board of directors or equivalent governing body. If no such board of directors or equivalent governing body exists, such report shall be timely presented to a senior officer responsible for your information security program. The report shall include the following information:	Functional	intersects with	Status Reporting To Governing Body	GOV-01.2	Mechanisms exist to provide governance oversight reporting and recommendations to those entrusted to make executive decisions about matters considered material to the organization's cybersecurity and data protection program.	5	
314.4(i)(1)	none	The overall status of the information security program and your compliance with this part; and	Functional	intersects with	Status Reporting To Governing Body	GOV-01.2	Mechanisms exist to provide governance oversight reporting and recommendations to those entrusted to make executive decisions about matters considered material to the organization's cybersecurity and data protection program.	5	
314.4(i)(2)	none	Material matters related to the information security program, addressing issues such as risk assessment, risk management and control decisions, service provider arrangements, results of testing, security events or violations and management's responses thereto, and recommendations for changes in the information security program.	Functional	intersects with	Status Reporting To Governing Body	GOV-01.2	Mechanisms exist to provide governance oversight reporting and recommendations to those entrusted to make executive decisions about matters considered material to the organization's cybersecurity and data protection program.	5	