

Draft Nationwide Cyber Security Review Question Set

The Nationwide Cyber Security Review (NCSR) is a VOLUNTARY survey.

Paperwork Reduction Act

The public reporting burden to complete this information collection is estimated at two (2) hours or less per respondent, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and the completing and reviewing the assessment questions. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number and expiration date. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to DHS/National Protection and Programs Directorate, Michael Leking, 703-235-3030, Michael.Leking@dhs.gov, ATTN: PRA [*OMB Control Number: 1670-NEW*].

Privacy Act Statement

Authority: Title XVIII of the Homeland Security Act of 2002, 6 U.S.C. § 101 et seq., and the Implementing Recommendations of the 9/11 Commission Act of 2007 (6 U.S.C. 579(m)) authorizes the collection of this information.

Purpose: The primary purpose of this assessment is to examine relationships, interactions, and processes governing IT management and the ability to effectively manage operational risk within States and Large Urban Areas.

Routine Uses: The information collected may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using the information as necessary and authorized by the routine uses published in [DHS/AII-003](#) Department of Homeland Security General Training Records (November 25, 2008, 73 FR 228).

This report was prepared for the United States Department of Homeland Security

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| Process Area | Question | Range of potential answers for the Respondent to select. | | | | |
|--------------|--|--|---|--|---|---|
| ADM | Does your organization identify and document information about the people who are vital to the continued operation of high-value services, including those it does not directly employ? | No | People who are vital to high-value services are identified informally, but their roles or functions in support of those services are not documented | An asset management database or other repository identifies and describes the roles of internal employees who are vital to high-value services, but not contracted or other external staff | Yes, a repository identifies all vital staff and describes their roles in support of high-value services | |
| ADM | Does your organization identify and inventory the information, technology, and facility assets that directly support the continued operation of high-value services? | No | Some leased or owned assets are inventoried | All leased or owned assets are inventoried | Most or all information, technology, and facility assets are inventoried, but they are not tracked by which services they support | Yes, all information, technology, and facility assets that directly support high-value services are inventoried, including those that are not directly controlled |
| ADM | In your inventory of high-value assets (people, information, technology, and facilities), is there a standard or template that helps ensure consistency among asset descriptions? | No, or no such inventory exists | For one or two asset types only | Yes, descriptions of like or similar assets are consistent | Yes, descriptions are consistent and are communicated to those who need to know | |
| ADM | Are both owners and custodians of high-value assets identified and documented in asset descriptions in the asset inventory? | No, or no such asset descriptions exist | Owners of assets, but not custodians | Yes, both owners and custodians | | |
| ADM | If an asset supports more than one high-value service, are dependencies | No | Dependencies and potential conflicts are | Yes, dependencies and potential conflicts are | Yes, and mitigation plans are developed | |

and potential conflicts identified, and are they analyzed as to how they might affect the operational resilience of the associated services?

identified as risks but
are not further analyzed

identified and analyzed

and implemented to
reduce the effects of
conflicts or, if
possible, to reduce
or eliminate the
conflicts themselves

| | | | | | | | |
|------|--|---|---|---|--|--|--|
| ADM | Has your organization established a set of criteria for changes in assets or their associations with services that trigger required updates of the asset inventory, including updates of related resilience requirements? | No, or no inventory exists | Yes, for some assets | Yes, for all assets | Yes, for all assets, and the criteria are related to the organization's resilience requirements | | |
| ADM | Do you update asset descriptions and other relevant documents (such as protection strategies and continuity plans) whenever changes are made to high-value assets? | No | Asset descriptions for most assets are updated, but not other documents | Yes, asset descriptions and other relevant documents are updated | Yes, using a change control process that includes keeping a change history that shows the rationale for performing changes | Yes, using a change control process, and custodians are notified of changes that affect them | Yes, using a change control process, and the impact of asset changes on existing resilience requirements and activities is evaluated |
| ADM | Does your organization document the associations between assets and the high-value services they support? | No, or high-value services have not been identified | Such associations are generally known within organizational units but are not documented | Yes, for some asset types or in some organizational units | Yes, all high-value asset-service associations are identified and documented | | |
| COMP | Have guidelines and standards for satisfying compliance obligations been established and communicated? | No | They are established and communicated at the individual organizational unit or line of business level but are not coordinated across the organization | Yes, they are established and communicated as part of the enterprise-level compliance program | | | |
| COMP | Is the organization's compliance process monitored, evaluated, and improved? | No | Through self-assessment, with limited follow-through for improvement | Through self-assessment, with extensive follow-through for improvement | Through independent evaluation, with extensive follow-through for improvement | | |
| COMP | Does your organization develop, implement, and track plans to address | Areas needing remediation are not | Areas needing remediation are | Yes, remediation plans are developed, | | | |

areas in which remediation is needed to satisfy compliance obligations?

consistently identified

identified, but there is no formal process to address them

implemented, and tracked to completion

| | | | | | | |
|------|---|------------------------------------|---|--|--|-------------------------------------|
| COMP | Does your organization track progress against schedules for compliance obligations and identify obligations that may not be met? | No | Yes, for all external governmental, regulatory, and industry compliance obligations | Yes, for both external obligations and internal standards and policies where applicable | | |
| COMP | Has your organization implemented processes for data validation and integrity checking to ensure that compliance data is accurate, complete, and timely? | No | For very few compliance obligations (<10%) | For some compliance obligations (10%–50%) | For many compliance obligations (>50% but <100%) | Yes, for all compliance obligations |
| COMP | Does your organization have documented strategies for the collection of compliance data? | No | No, but there are established procedures for data collection | Yes, there are documented strategies for ensuring that all data needed to satisfy obligations is collected | Yes, and the strategies address issues related to the data collection, storage, and retrieval infrastructure | |
| COMP | Are specific compliance obligations assigned to specific owners? | No | Very few (<10%) | Some (10%–50%) | Many (>50% but <100%) | Yes (100%) |
| COMP | Are compliance obligations identified and documented? | No | There is an informal inventory of compliance obligations | There is a formal, documented inventory for at least one type of obligation (e.g., human resources directives) | Yes, formally documented for numerous types of obligations | |
| COMP | Does your organization have a compliance program to carry out the activities and practices of the compliance strategic plan? | No, or there is no compliance plan | Compliance activities are conducted at the individual organizational unit or line of business level but are not coordinated across the organization | Yes | Yes, and sponsorship and oversight of the compliance program are provided | |
| COMP | Does your organization develop a plan for managing compliance obligations | No | Plans, resources, and sponsorship are | Yes, a plan is developed at the enterprise level, | Yes, and the plan and commitments | |

as part of its strategic planning process?

developed at the organizational unit or line of business level but are not coordinated across the organization

and commitments are obtained

are revised on a cycle aligned with the organization's strategic planning process

| | | | | | | |
|------|---|---|---|---|--|--|
| COMP | Are compliance obligations analyzed and organized to facilitate satisfaction? | No | Some compliance obligations or types of obligations | Yes, most compliance obligations | Yes, and any conflicting obligations are identified and documented | |
| CTRL | Has your organization done a baseline analysis of existing controls against control objectives to identify gaps where control objectives are not adequately satisfied? | No, or control objectives are not defined | For some control objectives, if a problem is evident | For most control objectives, as part of a routine process | Yes, for all control objectives, as part of an established process at levels commensurate with their importance in sustaining operational resilience | |
| CTRL | Are control objectives defined and documented to guide the selection, implementation, and management of controls? | No | In very few organizational units (<10%) | In some organizational units (10%–50%) | In many organizational units (>50% but <100%) | Yes, in all organizational units (100%) |
| CTRL | Does your organization assess controls periodically to verify that they are continuing to meet control objectives and satisfy resilience requirements? | No | Controls are reassessed only after they are modified | Some controls are assessed periodically | All service- and asset-level controls are assessed periodically | All controls, including enterprise-level controls, are assessed periodically as part of an established process |
| CTRL | Does your organization identify and implement enterprise-level controls to protect services and assets from disruption? | No | Only the minimum needed to meet regulatory requirements | A few types of enterprise-level controls are implemented | Yes, multiple types of enterprise-level controls are implemented | |
| CTRL | Does your organization identify management directives and organizational guidelines from which to derive control objectives, such as | No, or control objectives are not defined | Control objectives are usually based on resilience requirements or compliance | Yes, but primarily or only from organizational-unit-level sources | Yes, from both enterprise-level and organizational-unit-level sources | |

strategic objectives, resilience requirements for services, and compliance obligations?

obligations only

| | | | | | | | |
|------|---|----|---|---|--|---|---|
| CTRL | Does your organization identify and implement service-level and associated asset-level controls to protect services and assets from disruption? | No | For a single asset type, or in very few organizational units (<10%) | For most asset types in some organizational units (10%–50%) | For most asset types in many organizational units (>50% but <100%) | Yes, for all asset types in all organizational units (100%) | |
| EF | Are data for measuring key resilience indicators monitored, collected, and reported to key governance stakeholders? [EF:SG4.SP2.3] | No | These activities are planned but have not been developed | These activities are in development | These activities have been partially implemented | Yes | Yes, and reporting is performed on a regular basis according to documented procedures |
| EF | Is the success of resilience promotion activities regularly measured? [EF:SG3.SP2.2] | No | For a few activities (<10%) | For some activities (10%–49%) | For many activities (50%–80%) | Yes, for most activities (>80%) | |
| EF | Is the performance of higher level managers measured with respect to their ability to promote and communicate the importance of resilience programs and activities? [EF:SG3.SP2.3] | No | For up to 30% of managers | For up to 70% of managers | Yes | | |
| EF | Are rewards and recognition programs established to support resilience acculturation? [EF:SG3.SP2.4] | No | Yes, one or two | Yes | | | |
| EF | Are policy statements established and disseminated that reflect higher level managers' commitments to managing operational resilience? [EF:SG3.SP3.1] | No | No, but those commitments are expressed through other means | Yes | | | |
| EF | Has a governance structure been developed and implemented to provide oversight for the operational resilience management system? [EF:SG4.SP1.1] | No | In development | In progress; less than 30% complete | In progress; less than 70% complete | Yes | |

EF

Have roles and responsibilities for governance over the operational resilience management system been developed and assigned? [EF:SG4.SP1.2]

No

In development

In progress; less than 30% complete

In progress; less than 70% complete

Yes

| | | | | | | |
|----|---|-----------------------------|---|--------------------------------------|--|------------------------------------|
| EF | Have the procedures, policies, standards, guidelines, and regulations that form the basis to govern the operational resilience management system been identified? [EF:SG4.SP1.3] | No | In development | In progress; less than 30% complete | In progress; less than 70% complete | Yes |
| EF | Has a governance dashboard or scorecard been established for measuring and managing the performance of the organization's operational resilience management system? [EF:SG4.SP2.2] | No | In development | In progress; less than 30% complete | In progress; less than 70% complete | Yes |
| EF | Has a plan been developed for visible promotion of a resilience-aware culture? [EF:SG3.SP2.1] | No | Yes | Yes, and it includes success metrics | | |
| EF | Do key governance stakeholders regularly review audit reports of the operational resilience management system to identify problems? [EF:SG4.SP2.4] | No | Very few key stakeholders (<10%) | Some key stakeholders (10%- 49%) | Many key stakeholders (50%-99%) | Yes (100%) |
| EF | Does a process exist for handling exceptions to acceptable behaviors (violations of resilience procedures, policies, standards, guidelines, and regulations)? [EF:SG4.SP2.5] | No | A process is planned but has not been developed | A process is in development | A process has been partially implemented | Yes |
| EF | Are key resilience indicators that do not meet established criteria identified and analyzed? [EF:SG4.SP3.1] | No, or there are no metrics | This activity is planned but has not been developed | This activity is in development | This activity has been partially implemented | Yes |
| EF | Are corrective actions developed to address performance issues when key resilience indicators do not meet established criteria? [EF:SG4.SP3.2] | No | For very few of such cases (<10%) | For some of such cases (10%–49%) | For many of such cases (50%–80%) | Yes, for most of such cases (>80%) |
| EF | Are the persons or groups that are | Corrective actions | No | Only in an ad hoc | Yes | Yes, and they have |

responsible for implementing and managing corrective actions for performance issues identified?
[EF:SG4.SP3.3

are not developed

manner

the requisite skills
and training

| | | | | | | | |
|----|--|--|--|--|--|---------------------------------|--|
| EF | Is oversight over the operational resilience management program provided? [EF:SG2.SP2.4] | There is no program | No | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes | Yes, and corrective actions are implemented when necessary |
| EF | Have key governance stakeholders for the operational resilience management system been identified? [EF:SG4.SP2.1] | No | In development | In progress; less than 30% complete | In progress; less than 70% complete | Yes | |
| EF | Is corrective action taken as necessary to achieve critical success factors? [EF:SG1.SP2.4] | No | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes | | |
| EF | Is funding for the operational resilience management program included as a regular part of the organization's strategic planning and budgeting exercise? [EF:SG3.SP1.2] | No | For a few activities (<10%) | For some activities (10%–49%) | For many activities (50%–80%) | Yes, for most activities (>80%) | |
| EF | Is an allocation of funding for the operational resilience management program approved by higher level management? [EF:SG3.SP1.3] | No | For a few activities (<10%) | For some activities (10%–49%) | For many activities (50%–80%) | Yes, for most activities (>80%) | |
| EF | Are strategic objectives (in the form of a strategic plan) used as the basis for resilience activities? [EF:SG1.SP1.2] | Strategic objectives are not developed | No | For up to 30% of resilience activities | For up to 70% of resilience activities | Yes | |
| EF | Have critical success factors been developed that reflect strategic objectives? [EF:SG1.SP2.1] | No | Not formally, but they are generally known | Yes | | | |
| EF | Are key performance indicators identified to measure accomplishment of each critical success factor? [EF:SG1.SP2.3] | No | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes | | |
| EF | Have the services that are performed to achieve the organization's mission | No | Only in an ad hoc manner, so probably | Yes | | | |

been identified? [EF:SG1.SP3.1]

not all have been
identified

| | | | | | | | |
|----|---|-------------------------|--|---|--|---|---|
| EF | Are the attributes of services (such as their inputs and outputs, associated assets, owners, and stakeholders) defined in service profiles? [EF:SG1.SP3.2] | No | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes, but only two or three attributes are described for each service | Yes | Yes, and profiles are revised as needed to keep them up-to-date |
| EF | Is affinity analysis or some other method used to compare organizational services against objective measures (such as strategic objectives and critical success factors) to identify high-value services? [EF:SG1.SP3.3] | No | No, but high-value services are identified in some other way | For selected services, but high-value services are identified from that set | Yes | | |
| EF | Is a sound business case developed to ensure that tangible, measurable, and demonstrable value is provided to the organization for its investment in resilience activities? [EF:SG3.SP1.1] | No | For a few activities (<10%) | For some activities (10%–49%) | For many activities (50%–80%) | Yes, for most activities (>80%) | |
| EF | Are commitments to perform the activities of the operational resilience management plan obtained from staff? [EF:SG2.SP1.2] | No, or there is no plan | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes | Yes, and they are confirmed on a cycle commensurate with the organization's strategic business planning process | |
| EF | Has an operational resilience management program been established for implementing the activities of the operational resilience management plan? [EF:SG2.SP2.1] | No, or there is no plan | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes | | |
| EF | Is the operational resilience management program adequately funded? [EF:SG2.SP2.2] | There is no program | No | For a few activities (<10%) | For some activities (10%–49%) | For many activities (50%–80%) | Yes, for most activities (>80%) |

EF

Are staff assigned to execute the activities of the operational resilience management program? [EF:SG2.SP2.3]

There is no program

No

For a few activities (<10%)

For some activities (10%–49%)

For many activities (50%–80%)

Yes, for most activities (>80%)

| | | | | | | |
|-----|--|-----|---|--|--|---|
| EF | Is an operational resilience management plan developed in conjunction with the development of the organization's strategic plan? [EF:SG2.SP1.1] | No | A plan is developed, but not in conjunction with the strategic plan | Yes | Yes, and it is revised on a cycle commensurate with the organization's strategic business planning process | |
| EF | Is affinity analysis or some other method performed to document the relationship between the organization's strategic objectives and critical success factors? [EF:SG1.SP2.2] | | For up to 30% of strategic objectives | For up to 70% of resilience activities | Yes | |
| EF | Are defined statements of the organization's mission, vision, values, and purpose readily available for use for resilience planning? | No | One or two of those, but not all | Yes, but they are too general to be useful in resilience planning | Yes | |
| IMC | Does your organization develop an incident response to prevent or limit the impact of incidents? | No | Only for high-impact incidents | Yes, designated people plan necessary responses | Yes, according to preplanned procedures and/or strategies | |
| IMC | Has your organization identified the most appropriate ways to communicate with relevant stakeholders with whom it must communicate regarding incidents? | No | Relevant stakeholders haven't been identified, but incident information is sent to anyone who requests it | Relevant stakeholders have been identified but not categorized, so communication with them is not tailored | Communications are tailored for some types of stakeholders, such as higher level managers | Yes, for all types of stakeholders |
| IMC | Has your organization developed and implemented an incident management communications plan? | No | No, incident management communications are ad hoc | There is no communications plan, but incident management staff are trained in incident management related communications | Yes | Yes, and the plan is regularly improved based on incident communications experience |
| IMC | Are incidents closed after relevant actions have been taken by your | Yes | Yes, and they are marked as closed in the | Yes, according to a defined closure | Yes, and incidents that are not marked | |

organization?

incident knowledgebase procedure

as closed are tracked
until they are resolved

| | | | | | | |
|-----|---|--|--|---|---|--|
| IMC | Do you perform post-incident review using root-cause analysis or other techniques to determine underlying causes of incidents? | No | For some incidents (10%–49%) | For most incidents (50%–80%) | Yes, for almost all incidents (>80%) | Yes, for almost all incidents (>80%), and results are documented both in closure reports and in the incident knowledgebase |
| IMC | Are lessons learned from incident management routinely used to improve protection, security, and/or continuity strategies? | No, or lessons-learned information is not collected | Only lessons learned from high-impact incidents | Yes | | |
| IMC | Are incidents escalated to appropriate stakeholders for input and resolution? | No | On an ad hoc basis | Yes, incident management staff know how and to whom to escalate incidents | Yes, according to predefined criteria and procedures | |
| IMC | Have staff been assigned to all roles and responsibilities detailed in the incident management plan? | No staff are assigned to incident response (there may or may not be an incident management plan) | There is no incident management plan, but some staff members are assigned responsibilities for responding to incidents | Incident management roles are assigned as needed to handle an incident | Yes, all staff roles and responsibilities are identified and assigned | |
| IMC | Is there a link (through the incident knowledgebase or some other means) between your organization's incident management process and its problem management process? | No, or there is no problem management process | There is no formal link between the processes, but some incident information is passed along to the problem management process | Yes | Yes, and problem reports are periodically reviewed to determine whether any action should be taken related to incident detection and analysis methods or incident response procedures | |
| IMC | Are incidents analyzed and any needed information collected to determine an appropriate response? | No | Only for some incidents | Yes, analysis and information collection is done for all incidents, | Yes, and extensive analysis is done for some types of | |

and results are
documented in incident
analysis reports

incidents to
determine
underlying causes

| | | | | | | |
|-----|--|----|---|---|---|---|
| IMC | Does your organization declare incidents according to established criteria or thresholds? | No | Incidents are declared in an ad hoc or inconsistent manner | Yes, authorized staff use identified criteria or thresholds to identify and declare incidents | Yes, and incident declaration criteria are updated based on experience with prior incidents | |
| IMC | Does your organization assign a disposition (or status) to events and either close them or route them to the incident management team or other appropriate entity? | No | No, but all events are routed to the incident management team | Yes, and dispositions are recorded in the incident knowledgebase | Yes, and the process includes periodic review of the incident knowledgebase to follow up on events that have not been closed or for which there is no disposition | |
| IMC | Are events triaged—that is, categorized as to type and extent, correlated to other events, and prioritized as to the order in which they should be addressed or assigned? | No | Some triage is done (prioritization or categorization) | Yes, depending on the type or potential impact of the event | Yes, through a defined procedure | Yes, through a defined procedure and using the organization's standard event categories and prioritization scheme |
| IMC | Does your organization ensure that event evidence is properly collected, handled, documented, preserved, and protected as may be required by law or other obligations? | No | For some types of events | For most types of events | Yes, for all types of events and as required by relevant rules, laws, regulations, and policies | |
| IMC | Is there an incident knowledgebase or some other mechanism that enables consistent logging of event data? | No | No, but there are informal methods for logging events | Yes, for some event data, such as date and time, description, and source | Yes, for comprehensive event data, such as event description, associated costs, and the assets, services, and organizational | |

units that are
affected by the
event

| | | | | | | |
|-----|--|----|--|---|--|--|
| IMC | Does your organization use multiple internal and external methods and sources for detecting events? | No | No, but everyone knows who to contact if an incident is suspected | Methods exist only for detecting events that affect technical infrastructure (e.g., network monitoring, application data monitoring) | Events are detected through numerous internal methods and sources (e.g., network and system monitoring, service desk issues, staff observations of malicious or suspicious activities) | Yes, events are detected through external as well as internal methods and sources (e.g., forwarded from law enforcement, vendors, or other security organizations, or viewed through various media channels) |
| IMC | Does your organization have a documented plan for performing incident management? | No | In some organizational units or lines of business | There is a documented plan, but no one formally commits to it | Yes, both a documented plan and documented commitments to the plan | |
| IMC | Has your organization established a process for reporting events? | No | Events are reported via email or phone to the service desk | Yes, there is an established process for documenting events and reporting them to the service desk, appropriate incident management staff, or other authorized entity | | |
| KIM | Are administrative, technical, and physical controls identified and implemented as needed to meet resilience requirements for information assets? | No | Some controls are implemented, but they are not aligned with resilience requirements (or there are no documented requirements) | Controls are implemented for all high-priority information assets, but they are not aligned with resilience requirements (or there are no documented requirements) | Yes, in some organizational units or for certain categories or types of information assets | Yes |
| KIM | Does your organization use an information asset sensitivity | No | Only for classified assets | Yes, for all categories, but its use is not | Yes, for all categories | |

categorization scheme that covers all categories of information assets (public, internal use only, confidential, secret, etc.)?

enforced or monitored

| | | | | | | |
|-----|---|--|--|---|---|--|
| KIM | Are resilience requirements (for confidentiality, integrity, and availability) assigned to information assets and documented in asset definitions? | No | In some organizational units or for certain categories or types of information assets | documented in asset definitions | Yes | |
| KIM | Using organizationally defined criteria, has your organization selected certain information assets for periodic risk assessment? | No risk assessments are done on information assets | An initial risk assessment is done for new assets, but no periodic assessments are done | In some organizational units | Yes | |
| KIM | As a result of periodic risk assessments of selected information assets, are risk mitigation strategies developed for risks the organization decides to mitigate, and are they validated by comparing them to existing strategies? | No periodic risk assessments of selected information assets are done | Risk mitigation strategies are not developed | Risk mitigation strategies are developed but are not validated | Yes, they are developed and validated | Yes, they are developed, validated, and implemented, and risk mitigation strategies are monitored for effectiveness after implementation |
| KIM | Does your organization have policies and procedures for encrypting information assets as appropriate or required for their asset sensitivity categorization? | No, there are no such policies and procedures | There are no documented policies or procedures, but staff members know how and when to encrypt information | There are policies or procedures for encryption, but they are not tied to asset sensitivity categorizations | Yes | |
| KIM | Do you implement access controls for information assets as needed to satisfy confidentiality- and privacy-related resilience requirements (including those imposed by laws and regulations)? | No | Access controls are implemented for certain categories or types of information assets, but selection of access controls is not based on requirements of any kind | Access controls are implemented for information assets only as needed to satisfy confidentiality- and privacy-related resilience requirements imposed by laws and regulations | Yes, access controls are implemented as needed to satisfy all confidentiality- and privacy-related resilience requirements, including those imposed by laws and regulations | Yes, and access controls are managed on an ongoing basis to ensure continued satisfaction of requirements |

| | | | | | | |
|-----|--|-----------------------|---|---|---|--|
| KIM | Are organizational guidelines followed for disposing of information assets in a manner appropriate to their resilience requirements and sensitivity categorizations and in accordance with any applicable rules, laws, and regulations? | No | There are guidelines, but they are not well documented, communicated, or implemented | Guidelines are followed for disposing of assets in accordance with applicable rules, laws, and regulations, but not for other reasons | Guidelines for proper disposal of assets for all reasons have been communicated to all staff who are responsible for the resilience of information assets, but adherence to the guidelines is not enforced or monitored | Yes, and adherence to the guidelines is enforced and monitored |
| KIM | Is the integrity of high-value information assets preserved by controlling their modification using access controls, monitoring and logging modification activity, and other means? | No | Only access controls are used | Yes, multiple types of controls are used | Yes, and audits of modification logs are performed periodically and anomalies are addressed | |
| KIM | Is the integrity of information assets preserved by using configuration control policies, procedures, and techniques to manage changes to assets? | No | Baselines are established, but changes are not always managed | Yes, baselines are established and changes are managed through configuration control | Yes, and configuration control logs are reviewed and anomalies are addressed | |
| KIM | Does your organization use controls to sustain and verify the validity and reliability of information assets as they are altered through the information processing cycle (used by a service)? | No | There are controls and procedures in some services or for certain categories or types of information assets | Yes, data validation controls are used for information assets | Yes, and monitoring and auditing are done to periodically verify that changes are valid and authorized | |
| KIM | Are high-value information assets backed up and retained so that they are available when needed? | No, no backup is done | Some backup is done, but there are no guidelines about which | Assets that support high-value services are backed up but not necessarily | Yes, high-value information assets are backed up and | Yes, and the organization's backup and storage |

information assets
should be backed up

other high-value
information assets such
as intellectual property

retained

procedures and
guidelines are
periodically tested
to ensure
continued validity
as operational
conditions change

| | | | | | | | |
|-----|---|--|---|--|---|---|--|
| KIM | Is the institutional knowledge of staff members that is vitally important to normal operations duplicated in some way (such as documentation or cross-training)? | No, because staff members who may have institutional knowledge have not been identified for this purpose | Staff members who may have institutional knowledge have been identified, but their knowledge is not duplicated | Staff members with vital institutional knowledge are encourage to document their knowledge, but there are no policies or procedures for doing so | In some organizational units or for certain kinds of institutional knowledge | Yes | Yes, and procedures for regular identification, capture, and revision of institutional knowledge have been developed and implemented |
| KIM | Has your organization prioritized its information assets by their importance in supporting the delivery of high-value services or some other criteria so that it knows which assets should be the focus of operational risk and resilience activities? | No | Not formally, but that priority is generally known | In some organizational units or for certain categories or types of information assets | Yes | Yes, and the prioritization is periodically updated and validated | |
| MON | Have plans for the involvement of relevant internal and external stakeholders in the monitoring process been developed? | No | Stakeholders are involved in the monitoring process, but there is no process for identifying relevant stakeholders and no plans are developed to describe their involvement | For some (10%-49%) operational resilience management processes and activities | For many (50%-80%) operational resilience management processes and activities | Yes, for most (>80%) operational resilience management processes and activities | |
| MON | Has your organization established distribution infrastructure, methods, and channels that make monitoring data available to stakeholders in the form and at the frequency they have requested? | No, or stakeholder requirements are not identified | For some types (10%-49%) of monitoring data | For many types (50%-80%) of monitoring data | Yes, for most types (>80%) of monitoring data | | |
| MON | Is monitoring data relevant to the operational resilience management system collected and recorded on appropriate media according to stakeholders' requirements? | No | Some monitoring data is collected and recorded, but stakeholder requirements are not | For some (10%-49%) operational resilience management processes and activities | For many (50%-80%) operational resilience management processes and | Yes, for most (>80%) operational resilience management processes and | |

| | | | | | | |
|-----|--|----|---|---|---|------------|
| MON | Have standards and parameters for collecting, handling, and storing monitoring data been developed? | No | identified For some types (10%-49%) of monitoring data | For many types (50%-80%) of monitoring data | activities Yes, for most types (>80%) of monitoring data | activities |
|-----|--|----|---|---|---|------------|

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|------|---|---|--|---|---|---|
| MON | Is infrastructure in place that is sufficient for meeting monitoring requirements and program objectives? | No, or that information is not known | Most (>80%) of the monitoring requirements specify infrastructure that is not in place | Many (50%-80%) of the monitoring requirements specify infrastructure that is not in place | Some (10%-49%) of the monitoring requirements specify infrastructure that is not in place | Very few (<10%) of the monitoring requirements specify infrastructure that is not in place |
| MON | Are monitoring requirements for each stakeholder identified and documented? | No | For some (10%-49%) operational resilience management processes and activities | For many (50%-80%) operational resilience management processes and activities | Yes, for most (>80%) operational resilience management processes and activities | Yes, for most (>80%) operational resilience management processes and activities, and the requirements are reviewed, validated, and updated on a regular basis |
| MON | Have a plan and program for identifying, recording, collecting, and distributing operational resilience monitoring information been established? | No | Some monitoring of operational resilience management processes and activities is performed, but there is no plan or program for it | Yes, a plan for a monitoring program has been developed and documented | Yes, and those responsible have committed in writing to implement and support the plan | Yes, and the plan and commitments to the plan are revised as necessary as part of an established periodic review process |
| MON | Are monitoring requirements analyzed to determine whether they can be satisfied (in terms of resources and infrastructure)? | No, or requirements are not identified | For some types (10%-49%) of operational resilience management processes and activities | For many types (50%-80%) of operational resilience management processes and activities | Yes, for most types (>80%) of operational resilience management processes and activities | |
| RISK | Are risks prioritized based on assigned risk valuations to determine the risks that most need attention? | No, or risk valuations are not determined | Risks are prioritized, but prioritization is based on some criteria other than assigned risk | Risks in some categories are prioritized based on assigned risk valuations | yes | |

valuations

| | | | | | | |
|------|--|---|--|--|--|---|
| RISK | Is a strategy for managing operational risk that aligns with the organization's overall enterprise risk management strategy established and maintained? | No | Risk management is performed, but there is no documented strategy for it | There is a strategy for managing operational risk, but it doesn't align with the organization's enterprise risk management strategy (or there is no enterprise-level strategy) | Yes | Yes, and the operational risk management strategy is aligned with the organization's strategic objectives |
| RISK | Does your organization compare risk mitigation plans to existing service continuity plans and revise or create service continuity plans as needed? | No | For few services (<10%) | For some services (10%–50%) | For many services (>50% but <80%) | Yes, for most services (>80%) or all high-value assets |
| RISK | Does your organization compare risk mitigation plans to existing strategies for protecting assets and revise or add controls in those strategies as needed? | No | For few assets (<10%) | For some assets (10%–50%) | For many assets (>50% but <80%) | Yes, for most assets (>80%) or all high-value assets |
| RISK | Does your organization periodically review identified risks to determine whether there have been changes in the risk environment that would warrant changes in their risk dispositions? | No | Some categories of risk, or in some organizational units or lines of business | Most categories of risk, or in most organizational units or lines of business | Yes | |
| RISK | Are risk mitigation plans monitored for effectiveness? | No, or there are no risk mitigation plans | For some categories of risk, or in some organizational units or lines of business | For most categories of risk, or in most organizational units or lines of business | Yes | |
| RISK | Are risk mitigation plans developed for risks that the organization decides to mitigate? | No | Plans are developed for some categories of risk that describe what will be done, when, and by whom | Plans are developed for all categories of risk that describe what will be done, when, and by whom | Plans are developed for all categories of risk that describe what will be done, when, and by whom; the cost of the plan, with a cost-benefit analysis; and | |

identification of any residual risk that will not be addressed by the plan

| | | | | | | | |
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| RISK | Is the disposition (Risk: acceptance, avoidance, transfer, monitor, research/defer, mitigation) of each identified risk documented and approved? | No | For some risks (<50%) or some categories of risk | For many risks (50%–80%) | Yes, for most risks (80%–100%) | | |
| RISK | Are identified risks evaluated and assigned qualitative or quantitative valuations using the defined risk parameters and risk measurement criteria? | No | Very few identified risks (<10%) | Some identified risks (10%–50%) | Many identified risks (>50% but <80%) | Yes, most identified risks (>80%) | |
| RISK | Do risk statements for high-value assets include information about the potential effect on the services they support if the risk is realized? | No, or there are no risk statements | For very few identified risks (<10%) | For some identified risks (10%–50%) | For many identified risks (>50% but <80%) | Yes, for most identified risks (>80%) | |
| RISK | Does your organization use various techniques and methods to identify operational risks to high-value assets? | No | No, but risks are documented when they become known | Risk identification is done for some high-value assets (10%–50%) | Risk identification is done for many high-value assets (>50% but <80%) | Yes, for most high-value assets (>80%) | |
| RISK | Are risk parameters (operational risk thresholds and impact and probability criteria) defined for each category of risk? | No, or risks are not categorized | For very few categories (<10%) or for some specific risks | For some categories (10%–50%) | For many categories (>50% but <100%) | Yes (100%) | |
| RISK | Are operational risks categorized and organized in some way that is relevant to the organization? | No | Some categorization is done | Some sources of risk are categorized and organized in a taxonomy | Yes | | |
| RISK | Does your organization categorize risks according to its defined risk categories or other forms of categorization? | No, or risk categories are not determined | Very few identified risks (<10%) | Some identified risks (10%–50%) | Many identified risks (>50% but <80%) | Yes, most identified risks (>80%) | Yes, most identified risks (>80%), and the cause-and-effect relationship between related risks is identified |

RISK

Does your organization identify and document the sources from which operational risk to its assets and services may originate?

No

A few general sources have been identified, but no analysis is conducted to identify most or all sources

In some organizational units or lines of business or for certain asset types

Yes, possible risk sources are identified and documented

| | | | | | | |
|------|--|--|---|---|---|---|
| RISK | Are criteria for measuring and evaluating the impact of realized risk defined and documented for organizational impact areas? | No, or organizational impact areas have not been defined | Some risk measurement and evaluation criteria have been developed, but organizational impact areas have not been identified | For some organizational units or lines of business | Yes | Yes, and they are applied consistently across all operational risks |
| SC | Are changes made to service continuity plans based on organizationally defined change criteria? | No | There are no documented criteria or conditions, but service continuity plans are updated in response to various events and conditions | Yes | Yes, and versions of existing plans are incremented according to the organization's versioning protocol and standards | Yes, and new versions of plans are communicated to relevant stakeholders |
| SC | Have a program, standards, and schedules for testing service continuity plans been implemented? | No | There are schedules but no test program or standards | There are schedules and either a test program or standards | Yes | |
| SC | Are service continuity test plans developed and reviewed with stakeholders before being implemented? | No | Test plans are developed and documented for some services (<50%) | Test plans are developed and documented for many services (50%-80%) | Yes, test plans are developed and documented for most or all services (>80%) and are reviewed with stakeholders | |
| SC | Are service continuity plans tested on an organizationally defined basis using necessary staff and resources, and are the results documented? | No | Some plans (10%-49%) | Many plans (50%-80%) | Yes, most plans (>80%) | Yes, and documentation of results is done in accordance with the organization's testing standards |
| SC | Are test results compared with test objectives to identify needed improvements to both service continuity plans and test plans?] | No | Needed improvements to service continuity plans are identified and documented | Yes | Yes, needed improvements to both service continuity plans and test plans are | |

identified and
documented

| | | | | | | |
|----|--|--|--|--|--|--|
| SC | Do owners of service continuity plans execute specific plans in response to specific conditions? | No | No, they execute plans only when directed to (by the incident management team, higher level managers, or others) | Yes, owners of service continuity plans know the conditions under which plans must be executed and have the authority and responsibility to execute the plans if necessary | | |
| SC | Have criteria for making changes to service continuity plans been defined? | No | No, but criteria for making changes to service continuity plans are generally known by plan owners | Yes, criteria for making changes to service continuity plans have been developed and documented | | |
| SC | Are vital records and databases identified and documented? | No | They are identified and documented within certain organizational units or lines of business but not organization-wide | Yes | Yes, including a directory of vital staff and their specific roles in high-value services | Yes, and controls are in place to ensure that vital records and databases are protected, accessible, and usable if a disruption occurs |
| SC | Are conflicts between service continuity plans (in use of resources) identified through plan review and resolved? | No | Conflicts aren't identified through plan review, but if they are identified through plan testing or execution, they are resolved | Yes, conflicts are identified, and most conflicts are reduced or eliminated | Yes, conflicts are reduced or eliminated, and plans are rewritten and revised as necessary | |
| SC | Are post-execution reviews of service continuity plans performed to identify corrective actions? | No | For some plans (10%-49%) | For many plans (50%-80%) | Yes, for most plans (>80%) | Yes, for most plans (>80%), and areas of improvement for plans are documented |
| SC | Has your organization developed and documented a plan for its service continuity process? | No, there is no service continuity process | No, no plan has been developed or documented for the | There is no plan, but some aspects of the service continuity | Yes, planning is performed | Yes, planning is performed and a program has been |

service continuity
process

process are documented

developed and
documented

| | | | | | | |
|----|--|--|--|--|---|---|
| SC | Does your organization provide training as needed to staff assigned to service continuity plans? | No | The organization doesn't identify skill gaps, but training is available | yes | Yes, and training materials and resources have been developed to conduct training on a regular and ongoing basis | |
| SC | Is there a service continuity plan repository or database, and are access controls used to ensure that service continuity plans can be accessed only by authorized individuals? | No | There is a repository for service continuity plans, but no access controls are used on it | Yes, service continuity plans are stored and access controls are used | | |
| SC | Does your organization identify service continuity plans to be developed? | No | Existing service continuity plans are maintained, but no means are used to identify new plans needed | Yes, a single means is used | Yes, multiple means are used, such as business impact analysis, risk assessment activities, and lessons learned from past disruptions | |
| SC | Are any external entities that the organization depends on to provide high-value services, such as public utilities and contractors, identified and documented? | No | There are records that identify and document such external entities, but specific dependencies of high-value services on those entities isn't documented | Yes | | |
| SC | Are the associations between the high-value services of the organization and the assets that support them (people, information, technology, and facilities) identified? | High-value services have not been identified | High-value services have been identified but not associations between them and their supporting assets | Associations have been identified between some high-value services (<50%) and their supporting assets or for certain categories of supporting assets | Associations between many high-value services (50%-80%) and their supporting assets have been identified, but certain | Yes, for most or all high-value services (>80%) and their supporting assets |

categories of
supporting assets
tend to be
overlooked

| | | | | | | | |
|----|---|---|--|---|---|--|--|
| SC | Are service continuity guidelines and standards (regarding standard content of plans, testing requirements, plan versioning, etc.) developed and communicated? | No | Basic guidelines and standards, such as requirements for plans and plan creation templates, have been developed for some aspects of the service continuity program, but they are not well communicated | Additional guidelines and standards, such as standard content of plans, testing requirements for plans, stakeholder involvement, and plan change control, have been developed and communicated for some aspects of the service continuity program | Yes, guidelines and standards have been developed and communicated for most aspects of the service continuity program | | |
| SC | Are service continuity plans objectively reviewed to ensure that they conform to the organization's standards and requirements for plan development? | No | Plans are evaluated against development standards or guidelines but not against requirements | Plans are evaluated against requirements but not against development standards or guidelines | Yes | Yes, and appropriate plan updates and remediation actions are developed if necessary | |
| SC | Are staff members assigned to execute specific service continuity plans? | No | No, but there is a list of staff that is required to execute service continuity plans | Yes | | | |
| TM | Are audits of technology asset modification logs performed periodically, and are any anomalies discovered addressed? | There are no technology asset modification logs | No | Audits are rarely performed, but any anomalies discovered are addressed | Yes | | |
| TM | Are selected technology assets placed under configuration management using organizational standards, guidelines, policies, and tools? | No | There are no organizational standards, etc., but some technology assets are placed under configuration control | In some organizational units or for certain categories or types of technology assets | Yes | Yes, and configuration control logs are reviewed periodically to identify anomalies | Yes, and the integrity of configuration item baselines is audited regularly to ensure that they are complete and correct |
| TM | Are changes to technology assets managed using organizational change | No | There are no organizational policies, | In some organizational units or for certain | Yes | Yes, including analysis of impacts | |

control policies, procedures and techniques?

etc., but change management is done for some technology assets

categories or types of technology assets

of changes proposed and required approval of changes by relevant stakeholders

| | | | | | | |
|----|---|----|--|---|--|--|
| TM | Does your organization use release management or iteration control for technology assets that are released into the production environment? | No | Only for some types of technology assets | For most types of technology assets | Yes | |
| TM | Does your organization help ensure the availability and functionality of high-value technology assets by developing plans to sustain them (such as business continuity plans)? | No | Only for a few types of high-value technology assets | Yes | Yes, and the plans refer to metrics such as availability metrics, recovery time objectives, and recovery time objectives | |
| TM | Are corrective, preventive, and other types of maintenance performed on technology assets that require it? | No | Corrective maintenance is performed when there is a maintenance issue | Yes, all types of maintenance are performed | Yes, all types of maintenance are performed, and equipment suppliers' recommended service intervals and specifications are used when available | |
| TM | Does your organization have a strategy for managing the interoperability of technology assets? | No | No, but some interoperability architecture and design principles are commonly used | Interoperability standards have been established related to architecture and design, minimizing complexity, preventing operational risk, etc. | Yes, there is a strategy for managing interoperability that is used across the enterprise | Yes, and risks that are identified through interoperability management are referred to the risk management process |
| TM | Does your organization implement access management policies and procedures for requesting and approving access privileges to technology assets? | No | For few technology assets (<10%) | For some technology assets (10%–49%) | For many technology assets (50%–80%) | Yes, for most technology assets (>80%) |
| TM | Is the effectiveness of controls monitored so as to identify any | No | For certain categories of controls or for certain | For most controls | Yes, for all controls | |

deficiencies?

categories or types of
technology assets

| | | | | | | | |
|----|---|--|---|---|--|--|---|
| TM | Is capacity management and planning done for technology assets that require it? | No | Yes, for a few technology assets (<10%) | Yes, for some technology assets (10%–49%) | Yes, for many technology assets (50%–80%) | Yes, for most technology assets (>80%) | Yes, for most technology assets (>80%), and capacity management strategies are periodically validated and updated based on operational and organizational environmental changes |
| TM | Does your organization prioritize Technology assets relative to their importance in supporting the delivery of high-value services? | No | Few technology assets (<10%) | Some technology assets (10%–49%) | Many technology assets (50%–80%) | Yes, most technology assets (>80%) | |
| TM | As a result of periodic risk assessments of selected technology assets, are risk mitigation strategies developed and implemented for risks the organization decides to mitigate? | No periodic risk assessments of technology assets are done | Risk mitigation strategies are not developed | Yes, they are developed and implemented | Yes, they are developed and implemented, and risk mitigation strategies are monitored for effectiveness after implementation | | |
| TM | Using organizationally defined criteria, does your organization periodically identify and assess risks to technology assets? | No risk assessments are done on technology assets | An initial risk assessment is done for new assets, but no periodic assessments are done | For some categories or types of technology assets | Yes | | |
| TM | Are controls over the design, construction, and acquisition of technology assets specified? | No | In very few organizational units or for one or two categories or types of technology assets | In some organizational units or for some categories or types of technology assets | Yes | | |
| TM | Are administrative, technical, and physical controls identified and | No | Some controls are implemented, but they | Controls are implemented for all | In some organizational units | Yes | |

implemented as needed to meet resilience requirements for technology assets?

are not aligned with resilience requirements (or there are no documented requirements)

high-priority technology assets, but they are not aligned with resilience requirements (or there are no documented requirements)

or for certain categories or types of technology assets

| | | | | | | |
|-----|---|----|--|--|---|---|
| TM | Are resilience requirements that have been defined assigned to technology assets? | No | In some organizational units or for certain categories or types of technology assets | Resilience requirements are assigned and are documented in some manner, but they are not documented in asset definitions | Yes | |
| TM | Are technology assets that specifically support execution of service continuity and service restoration plans identified and documented? | No | For a few service continuity plans (<10%) | For some service continuity plans (10%–49%) | For many service continuity plans (50%–80%) | Yes, for most (>80%) service continuity plans |
| TM | Have organizationally acceptable tools, techniques, and methods for controlling access to technology assets been established? | No | For few technology assets (<10%) | For some technology assets (10%–49%) | For many technology assets (50%–80%) | Yes, for most technology assets (>80%) |
| TM | Does your organization identify staff authorized to modify technology assets and ensure that their access privileges align with their current job responsibilities? | No | Such staff are identified, but they tend to just be given extensive privileges | Such staff are identified, and their privileges are scrutinized if they change jobs | Such staff are identified, and their privileges are scrutinized if there is any change at all in their job responsibilities | |
| VAR | Does your organization develop resolution strategies for vulnerabilities to which exposure must be reduced or eliminated (if they require more than a simple fix such as a patch supplied by a software vendor)? | No | No, vulnerability management staff handle resolution activities | Yes, workarounds for identified vulnerabilities are developed and implemented | Yes, and relevant stakeholders are informed of resolution activities | |
| VAR | Are vulnerabilities analyzed to determine whether they have to be reduced or eliminated, and are they prioritized for disposition? | No | No analysis is done, but certain kinds of vulnerabilities are routinely fixed through methods such as patch management | Yes | Yes, and documented prioritization guidelines are used to sort and prioritize vulnerabilities consistently | |

according to their
relevance to the
organization

| | | | | | | | |
|-----|---|----|---|--|--|--|---|
| VAR | Does your organization have a process for actively discovering vulnerabilities? | No | Vulnerability discovery is done by performing internal vulnerability assessments and by subscribing to vulnerability catalogs and vendor notification lists | Vulnerabilities are discovered as part of a periodic threat and risk assessment or audit process | Yes, there is a process for extensive vulnerability discovery, using multiple sources and tools and a vulnerability repository, and staff receive training as needed | | |
| VAR | Are reputable sources of vulnerability information, both internal and external, identified in your organization? | No | A few sources of vulnerability information have been identified and are used | Yes, multiple sources of vulnerability information have been identified and are used | Yes, multiple sources, and the source list is updated as new sources become available | | |
| VAR | Has your organization developed an operational vulnerability analysis and resolution strategy? | No | No strategy has been developed, but some vulnerability analysis and resolution activities are being performed | There is no strategy, but resources are assigned to vulnerability analysis and resolution roles and responsibilities | Yes | Yes, and the strategy is communicated to all relevant stakeholders | Yes, and stakeholders' commitment to the activities described in the strategy has been obtained |
| VAR | Is root-cause analysis performed on identified vulnerabilities using appropriate tools, techniques and methods? | No | Yes, on some vulnerabilities | Yes, on most vulnerabilities that warrant it | Yes, on most vulnerabilities that warrant it, and strategies to address root causes are developed, implemented, and monitored | | |
| VAR | Does your organization define the scope of its vulnerability analysis and resolution activities by identifying the high-value assets and related operational environments that must be | No | Yes, but for information and technology assets only | Yes, for all asset types (information, technology, and facilities) | Yes, for all asset types, and the scope of vulnerability analysis and resolution activities is documented | | |

examined for vulnerabilities?

160