| **assessment case** | | |
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| ASSESSMENT – Base Control, Part 1 of 1 | | |
| Assessment Information from Special Publication 800-53A Rev. 1 (June 2010) | | |
| **SC-30** | VIRTUALIZATION TECHNIQUES | |
| **SC-30.1**  **SC-30.1.1** | **ASSESSMENT OBJECTIVE:**  *Determine if the organization employs virtualization techniques to present information system components as other types of components, or components with differing configurations.*  **POTENTIAL ASSESSMENT METHODS AND OBJECTS:**  **Examine**: [*select from:* System and communications protection policy; information system design documentation; information system configuration settings and associated documentation; information system architecture; list of virtualization techniques to be employed for organizational information systems; other relevant documents or records].  **Interview**: [*select from:* Organizational personnel with responsibilities for implementing approved virtualization techniques for information systems]. | |
| **Additional Assessment Case Information** | | |
|  | | **POTENTIAL ASSESSMENT SEQUENCING:**  precursor controls: None  concurrent controls: CM-6  successor controls: None |
| **Action Step** | | **Potential Assessor Evidence Gathering Actions**  **\*\*See “**[**Assessment Case Overview**](http://csrc.nist.gov/groups/SMA/fisma/assessment-cases-overview.html)**” for selecting, tailoring and executing action steps\*\*** |
|  | | *\*\*Assessment Case Assessor Note:* More convincing evidence (i.e., greater assurance) of correct implementation and operating as intended can be obtained through the assessment case actions by:   1. **Replacing bracketed values in action gathering statements to apply greater rigor in the assessment** (e.g, . replacing [“*reviewing*”] with “*studying*” or “*analyzing*”; replacing [“*observing*”] with “*inspecting*” or “*analyzing*”; replacing [“*basic*”] with “*focused*” or “*comprehensive*”); 2. **Replacing bracketed values in action gathering statements to apply greater sample coverage in the assessment** (e.g, . replacing [“*basic”*] sample with “*focused*” or “*sufficiently large”* sample); 3. **Defining additional action steps to the list of action steps suggested herein that exercise additional test methods** (i.e., Examine, Interview or Test) on additional assessment objects. |
| **SC-30.1.1.1** | | **Examine** security plan, information system design documentation, or other relevant documents; [*reviewing*] for the virtualization techniques and their configuration settings to be employed to present information system components as other types of components, or components with differing configurations. |
| **SC-30.1.1.2** | | **Examine** documentation describing the current configuration settings for an agreed-upon [*basic*]sample of the virtualization techniques identified in SC-30.1.1.1; [*reviewing*] for evidence that these techniques/mechanisms are configured as identified in SC-30.1.1.1 to present information system components as other types of components, or components with differing configurations. |
| **SC-30.1.1.3** | | **Test** an agreed-upon [*basic*]sample of the virtualization techniques and their configuration settings identified in SC-30.1.1.1; conducting [*basic*] testing for evidence that these techniques/mechanisms are operating as intended to present information system components as other types of components, or components with differing configurations. |
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| **ASSESSMENT – Control Enhancement 1** | | |
| **Assessment Information from Special Publication 800-53A Rev. 1 (June 2010)** | | |
| **SC-30(1)** | | VIRTUALIZATION TECHNIQUES |
| **SC-30(1).1**  **SC-30(1).1.1**  **SC-30(1).1.2** | | **ASSESSMENT OBJECTIVE:**  *Determine if:*   1. *the organization defines the frequency of changes to operating systems and applications through the use of virtualization techniques; and* 2. *the organization employs virtualization techniques to support the deployment of a diversity of operating systems and applications that are changed in accordance with organization-defined frequency.*   **POTENTIAL ASSESSMENT METHODS AND OBJECTS:**  **Examine**: [*select from:* System and communications protection policy; configuration management policy and procedures; information system design documentation; information system configuration settings and associated documentation; information system architecture; other relevant documents or records].  **Interview**: [*select from:* Organizational personnel with responsibilities for implementing approved virtualization techniques for information systems]. |
| **Additional Assessment Case Information** | | |
|  | | **POTENTIAL ASSESSMENT SEQUENCING:**  precursor controls: CM-9  concurrent controls: CM-6  successor controls: None |
| **Action Step** | | **Potential Assessor Evidence Gathering Actions** |
| **SC-30(1).1.1.1** | | **Examine** system and communications protection policy, configuration management policy, configuration management plan, security plan, or other relevant documents; [*reviewing*] for the frequency of changes to operating systems and applications through the use of virtualization techniques. |
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| **SC-30(1).1.2.1** | | **Examine** security plan, information system design documentation, or other relevant documents; [*reviewing*] for the virtualization techniques and their configuration settings to be employed to support the deployment of a diversity of operating systems and applications that are changed in accordance with the frequency identified in SC-30(1).1.1.1. |
| **SC-30(1).1.2.2** | | **Examine** documentation describing the current configuration settings for an agreed-upon [*basic*]sample of the virtualization techniques identified in SC-30(1).1.2.1; [*reviewing*] for evidence that these techniques/mechanisms are configured as identified in SC-30(1).1.2.1 to support the deployment of a diversity of operating systems and applications that are changed in accordance with the frequency identified in SC-30(1).1.1.1. |
| **SC-30(1).1.2.3** | | **Test** an agreed-upon [*basic*]sample of the virtualization techniques and their configuration settings identified in SC-30(1).1.2.1; conducting [*basic*] testing for evidence that these techniques/mechanisms are operating as intended to support the deployment of a diversity of operating systems and applications that are changed in accordance with the frequency identified in SC-30(1).1.1.1 |
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| **ASSESSMENT – Control Enhancement 2** | |
| **Assessment Information from Special Publication 800-53A Rev. 1 (June 2010)** | |
| **SC-30(2)** | VIRTUALIZATION TECHNIQUES |
| **SC-30(2).1**  **SC-30(2).1.1** | **ASSESSMENT OBJECTIVE:**  *Determine if the organization employs randomness in the implementation of the virtualization techniques.*  **POTENTIAL ASSESSMENT METHODS AND OBJECTS:**  **Examine**: [*select from:* System and communications protection policy; information system design documentation; information system configuration settings and associated documentation; information system architecture; other relevant documents or records].  **Interview**: [*select from:* Organizational personnel with responsibilities for implementing approved virtualization techniques for information systems]. |
| **Additional Assessment Case Information** | |
|  | **POTENTIAL ASSESSMENT SEQUENCING:**  precursor controls: None  concurrent controls: CM-6  successor controls: None |
| **Action Step** | **Potential Assessor Evidence Gathering Actions** |
| **SC-30(2).1.1.1** | **Examine** security plan, information system design documentation, or other relevant documents; [*reviewing*] for the automated mechanisms and their configuration settings to be employed to implement randomness in the virtualization techniques. |
| **SC-30(2).1.1.2** | **Examine** documentation describing the current configuration settings for an agreed-upon [*basic*]sample of the automated mechanisms identified in SC-30(2).1.1.1; [*reviewing*] for evidence that these mechanisms are configured as identified in SC-30(2).1.1.1 to implement randomness in the virtualization techniques. |
| **SC-30(2).1.1.3** | **Test** an agreed-upon [*basic*]sample of the automated mechanisms and their configuration settings identified in SC-30(2).1.1.1; conducting [*basic*] testing for evidence that these mechanisms are operating as intended to implement randomness in the virtualization techniques. |