### **Data leak worksheet**

**Incident summary:** A sales manager shared access to a folder of internal-only documents with their team during a meeting. The folder contained files associated with a new product that has not been publicly announced. It also included customer analytics and promotional materials. After the meeting, the manager did not revoke access to the internal folder, but warned the team to wait for approval before sharing the promotional materials with others.

During a video call with a business partner, a member of the sales team forgot the warning from their manager. The sales representative intended to share a link to the promotional materials so that the business partner could circulate the materials to their customers. However, the sales representative accidentally shared a link to the internal folder instead. Later, the business partner posted the link on their company's social media page assuming that it was the promotional materials.

| **Control** | **Least privilege** | | |
| --- | --- | --- | --- |
| **Issue(s)** | *What factors contributed to the information leak?*  *The sales manager should have revoked access to the documents immediately after the meeting. This would have prevented further unauthorized sharing. The member of the sales team should not have shared anything that they did not directly have access to, whether or not they were temporarily given access. Lastly, the business partner should not have shared anything to the public social media page without getting it approved beforehand. All of these factors led to the information leak.* | | |
| **Review** | *What does NIST SP 800-53: AC-6 address?*  *It addresses who should and should not have access to certain categories of documents.* | | |
| **Recommendation(s)** | *How might the principle of least privilege be improved at the company?*  *Not allowing employees to share files or documents with people who do not normally access said files or documents prior to receiving approval.* | | |
| **Justification** | *How might these improvements address the issues?*  *If documents were only allowed to be shared with approval BEFORE sharing them, only authorized users would be accessing documents, thus eliminating the risk of data leaks.* | | |

### **Security plan snapshot**

The NIST Cybersecurity Framework (CSF) uses a hierarchical, tree-like structure to organize information. From left to right, it describes a broad security function, then becomes more specific as it branches out to a category, subcategory, and individual security controls.

| **Function** | **Category** | **Subcategory** | **Reference(s)** |
| --- | --- | --- | --- |
| **Protect** | PR.DS: *Data security* | PR.DS-5: *Protections against data leaks.* | NIST SP 800-53: AC-6 |

In this example, the implemented controls that are used by the manufacturer to protect against data leaks are defined in NIST SP 800-53—a set of guidelines for securing the privacy of information systems.

**Note:** References are commonly hyperlinked to the guidelines or regulations they relate to. This makes it easy to learn more about how a particular control should be implemented. It's common to find multiple links to different sources in the references columns.

### **NIST SP 800-53: AC-6**

NIST developed SP 800-53 to provide businesses with a customizable information privacy plan. It's a comprehensive resource that describes a wide range of control categories. Each control provides a few key pieces of information:

* **Control:** A definition of the security control.
* **Discussion:** A description of how the control should be implemented.
* **Control enhancements:** A list of suggestions to improve the effectiveness of the control.

| **AC-6** | **Least Privilege** |
| --- | --- |
| Control:  Only the minimal access and authorization required to complete a task or function should be provided to users. |
| Discussion:  Processes, user accounts, and roles should be enforced as necessary to achieve least privilege. The intention is to prevent a user from operating at privilege levels higher than what is necessary to accomplish business objectives. |
| Control enhancements:   * Restrict access to sensitive resources based on user role. * Automatically revoke access to information after a period of time. * Keep activity logs of provisioned user accounts. * Regularly audit user privileges. |

**Note:** In the category of access controls, SP 800-53 lists least privilege sixth, i.e. AC-6.