### **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)** | The issue starts with the manager who shared a file without full oversight of what’s being shared and to whom it is being shared. There is a lack of PoLP in data handling, the sales representative got access to the sensitive data of the business and it is also being shared with the customer without full oversight of what is being shared with the customer. | | |
| **Review** | NIST stands for National Institute of Standards and Technology and AC6 addresses the main functionality of security controls i.e. Least privilege. The concept of granting only the minimal access and authorization required to complete a task or function. The goal is to minimize accidents, errors, or damage by unauthorized access to system resources. | | |
| **Recommendation(s)** | The principle of least privilege and regular audits and assessment improves the company by limiting access which eventually reduces the risk of costly incidents like data breaches. Implementing the least privilege can be beneficial to the company by limiting access to sensitive information, reducing the chances of accidental data modification, tampering, or loss, and supporting system monitoring and administration. | | |
| **Justification** | The principle of least privilege is a security control that can reduce the risk of unauthorized access to sensitive information and resources. Setting up and configuring user accounts with the right levels of access and authorization is an important step towards implementing the least privilege. Auditing user accounts and revoking unnecessary access rights is an important practice that helps maintain the confidentiality, integrity, and availability of data. | | |

### **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 the 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 the least privileged sixth, i.e. AC-6.