### **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.

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| **Control** | **Least privilege** |
| **Issue(s)** | *A sales manager shared access to a folder containing internal-only documents during a team meeting. The folder included materials for an unreleased product, customer analytics, and draft promotional content. After the meeting, access to the folder was not revoked, though the manager warned the team to wait for approval before sharing anything externally.*  *Later, during a call with a business partner, a sales rep forgot the warning and intended to share just the promotional content. Instead, they shared a link to the full internal folder. The partner then posted that link on their company’s public social media, believing it was approved for distribution.* |
| **Review** | *Control Focus*  *Principle: Least Privilege (NIST SP 800-53:AC-6*  *Issues Identified:*   * *The entire sales team had continued access to sensitive internal materials beyond the intended timeframe.* * *A business partner gained unintended access to internal, non-public content due to improper folder permissions.* * *Access controls weren’t enforced or reviewed after the meeting ended.* |
| **Recommendation(s)** | * *Use role-based controls (RBAC) to limit who can view or share sensitive materials.* * *Set expiration dates or auto-revoke rules for shared access links.* * *Conduct regular audits of user permissions, especially following project hand-offs or meetings involving sensitive data.* |
| **Justification** | *Enforcing least privilege minimizes accidental exposure by ensuring only authorized personnel can access specific data. Automated access revocation and audit procedures would have reduced the risk of leaked internal content. These measures align with NIST SP 800-53:AC-6, which emphasizes protecting data minimizing unnecessary user access.* |

### **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.

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| **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.

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| **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.