### **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)** | *Employees were given access to information they needed; however, that access was not taken away when they no longer needed it. They also had the ability to share a link to the folder that anyone was able to open once they obtained it.* | | |
| **Review** | *NIST SP 800-53: AC-6 goes over the practice of least privilege. That means that everyone in a company or anyone who interacts with a company only has the bare minimum access to resources they need to do whatever it is they are looking to do. A receptionist should not have access to HR files necessarily and if they did need access for some reason this access should be granted and then revoked when it was no longer needed. Or a phone rep needs access to a customer's information but only while helping them then that access is revoked after.* | | |
| **Recommendation(s)** | *In this incident the access to the folder should have been set to automatically be revoked from the whole team after the meeting was over. Instead of just asking everyone to not touch it. Also a random person with no credentials should not have been able to even use a link even if it was provided.*  *Also training on information security and privacy should take place for the company.* | | |
| **Justification** | *Least privilege and having an automatic removal of privileges set for the sales team would have prevented human error from being able to even take place from the start. The training will help prevent and reduce human error in the place that the safeguards fail and thus providing another layer of security.* | | |

### **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.