Google Cloud

Types of data access management

So far, you've learned that data access management is the process of implementing features like password protection, identity and access management, and encryption to protect data and related processes. Data access management is important because it protects data from unauthorized access both internally and externally. In this reading, you'll learn more about types of data access management.

Key reasons for data access management

While data access management prevents data leaks, having a strong data access management system has a lot of benefits. Properly managed data access supports compliance, streamlines the data workload, and reduces human error.

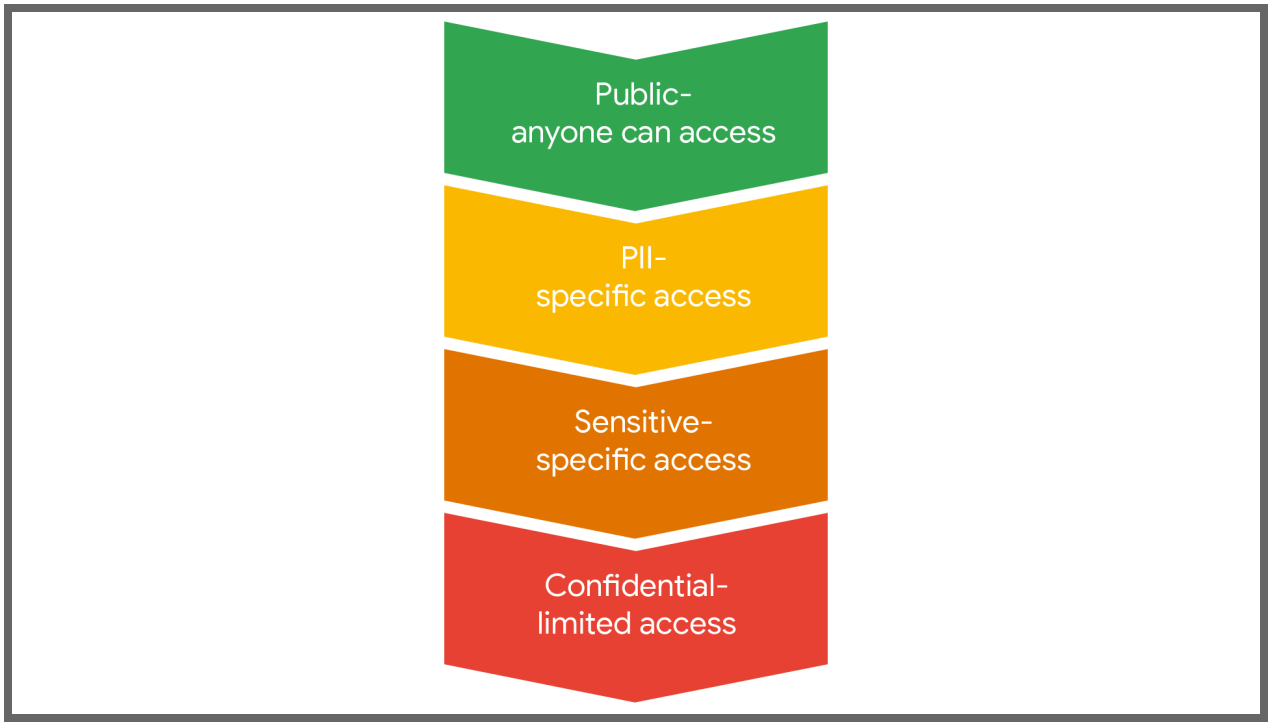
Methods of data access management

There are several models of data access management. The type of management you use will depend on your organization, and the type of data you collect. A few types of data access management include:

Data access management	Definition
Discretionary access control	The owner of the data decides who has access to the data
Mandatory access control	Users are assigned risk levels that determine the data they can access
Role-based access control	Data access is determined for each role in an organization
Attribute-based access control	Access is based on factors like location and time of access

Levels of data security

Another aspect of data security to consider when creating an access plan is the level of security each type of data requires. Keep in mind, every organization may classify data in different ways. This graphic provides an example of typical security levels an organization might have.



Key takeaways

Managing data access is a critical part of keeping confidential information private, and ensuring that staff who need access to datasets have the permissions they need. To create a comprehensive data access management plan, both data and the people who access it, need to be assigned levels of permissions. These permissions will ensure that you can preserve critical information, access the data you need, and keep the security of your users at the forefront of your analysis.

Resources for more information

To learn more about best practices in data management, check out these links:

- Google Cloud provides an overview of best practices in building a secure network: https://cloud.google.com/blog/products/identity-security/tips-on-building-a-network-security-architecture-in-google-cloud
- Google Cloud also provides more detailed IAM settings for maximize access management https://cloud.google.com/blog/products/identity-security/resource-hierarchies-make-your-iam-management-easier