# What is a data leak?

A data leak is the accidental exposure of sensitive data through a misconfiguration or human error rather than a deliberate attack: a public cloud bucket, an over-shared file, an exposed database, or secrets left in code. No attacker skill is required, and the damage is the same as a breach. The defenses are knowing where data lives, least-privilege sharing, and continuously scanning your own footprint for exposures.

## HOW IT WORKS

### 01 How data leaks happen

Almost all leaks come from configuration and human error, not clever attacks:

- Public cloud storage: a storage bucket or blob set to public instead of private.
- Over-permissive sharing: an "anyone with the link" document that gets indexed or forwarded.
- Exposed databases and dashboards left open to the internet with no authentication.
- Secrets in code: API keys and passwords committed to a public or shared repository.
- Misconfigured APIs that return more data than intended.
- Human slips: an email sent to the wrong recipient, or a lost, unencrypted device.

### 02 Why leaks are as damaging as attacks

The outcome of a leak is identical to a breach: your customers' or company's data is in someone else's hands. Regulators do not distinguish between a sophisticated attack and a public bucket; if personal data was exposed, the same notification duties and penalties can apply.

Worse, leaks are cheap for attackers to find. Automated scanners sweep the internet for open storage and databases continuously, so a bucket set public by accident on Monday can be discovered and copied by the weekend.

## HOW TO DEFEND

- Know where your sensitive data lives and keep it in as few places as possible.
- Default sharing to named people, not public links, for anything sensitive.
- Scan your cloud continuously with posture tooling that flags public buckets and open databases.
- Scan code for secrets before they are committed.
- Watch your external footprint (attack-surface monitoring) so a new exposure is caught as a finding.

## SOURCES

[1] Cyber Threats and Advisories

[2] Computer Security Resource Center Glossary

[3] Data Breach Investigations Report

**Find your exposures before an internet scanner does.**

securelayer7.net/learn/threats/data-leaks

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