

Aircloak Anonymized Analytics

Aircloak is building the world's first general-purpose *anonymized* statistical analytics service. Aircloak Analytics is unique in that it both provides *strong anonymity* and *high-quality analytics* regardless of the type of user data. Our service has been preliminarily assessed by TÜVIT in Germany to be “factually anonymous”. This means that individual user data is for all practical purposes completely protected from any exposure.

Aircloak enables new **use cases**:

- Organizations that have user data, and want to safely give others access to it for statistical analysis (either internally or externally).
- Organizations that wish to collect user data for statistical analysis that they normally would not be able to collect.

Aircloak can operate as a cloud service, or deployed within the organization's security perimeter.

Service Features

Aircloak's analytics service has two basic **inputs**, *user data* and *computations* over user data.

Aircloak analytics has one **output**, *anonymized aggregate answers*.

User data: Aircloak places no limitations on the type or format of user data. User data can be pushed to Aircloak as a real-time stream, or in batches.

Computations: Aircloak allows any Java code to operate on user data. The code can be used both to query user data, and to manage user data (sanitize, compress, remove, etc.). Queries can operate on real-time user data streams or on stored user data.

Answers: Answers consist of anonymized user counts. By limiting answers to counts, Aircloak can provide strong anonymization independent of the user data or the queries. User counts can be used to convey a rich variety of data visualizations—user distributions, for instance as histograms, graphs, and pie charts; 2D or 3D location (as heat maps), or scatter plots.

Aircloak Technology

Aircloak's technology is unique in that it simultaneously allows queries over raw (non-anonymized) user data, but nevertheless fully protects the anonymity of that data. By operating on raw user data, Aircloak avoids the information loss normally associated with anonymization.

This is made possible by two key Aircloak innovations:

1. Complete data protection grounded in secure trusted-platform hardware.
2. Advanced anonymization techniques based on patent-pending noise adding and filtering techniques.

The first prevents anyone, including Aircloak employees and system operators, from ever accessing user data. The second protects user information as it leaves our servers in the form of aggregate statistical answers.

Future-proofing through oversight

Aircloak submits itself to an unprecedented level of oversight. We literally hand control over our software upgrade process to trusted third-party auditors. We cannot upgrade our software until auditors provide a cryptographically signed document verifying that our software continues to satisfy our privacy policies. This is enforced by secure trusted-platform hardware. As a result, the privacy policy in force on collected data can't be weakened later.



For more information

Please visit our website at www.aircloak.com, or contact us at solutions@aircloak.com