baffle

BAFFLE ADVANCED ENCRYPTION

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The easiest, fastest, and most flexible way to analyze regulated data while meeting compliance

Baffle Data Protection provides the foundation for data centric protection. It is a data security platform that enables enterprises to cryptographically protect regulated data in the cloud while maintaining control of the data with their own encryption keys.

Baffle's Advanced Encryption extends the platform by utilizing privacy enhanced technologies. With Advanced Encryption, anyone who needs to do analytics/AI/ML can perform the computational and analytical operations they need without admin access to regulated data.

Key Benefits

- **Easy:** No application changes required to protect data cryptographically everywhere it is used
- **Flexible:** Does not require specialized hardware or infrastructure to scale up or down
- **Secure:** Reduce the number of people with cleartext access to sensitive data
- **Cost Efficient:** Lower costs by using a software based approach
- **Performant:** There is no perceived impact on analytics or data science performance

Key Capabilities

High-Performance Architecture
Baffle has been designed for performance and scalability, so applications continue to meet SLAs, without the need for specialized hardware

No-Code Implementation
Baffle is easily deployed and configured, without any modifications to applications and changes in data protection policies don't impact application

Role-Based Access Control
Baffle's policy based controls specify which authorized users can access specific fields and columns, wherever the data goes adn the policies are auditable to meet changing regulatory needs

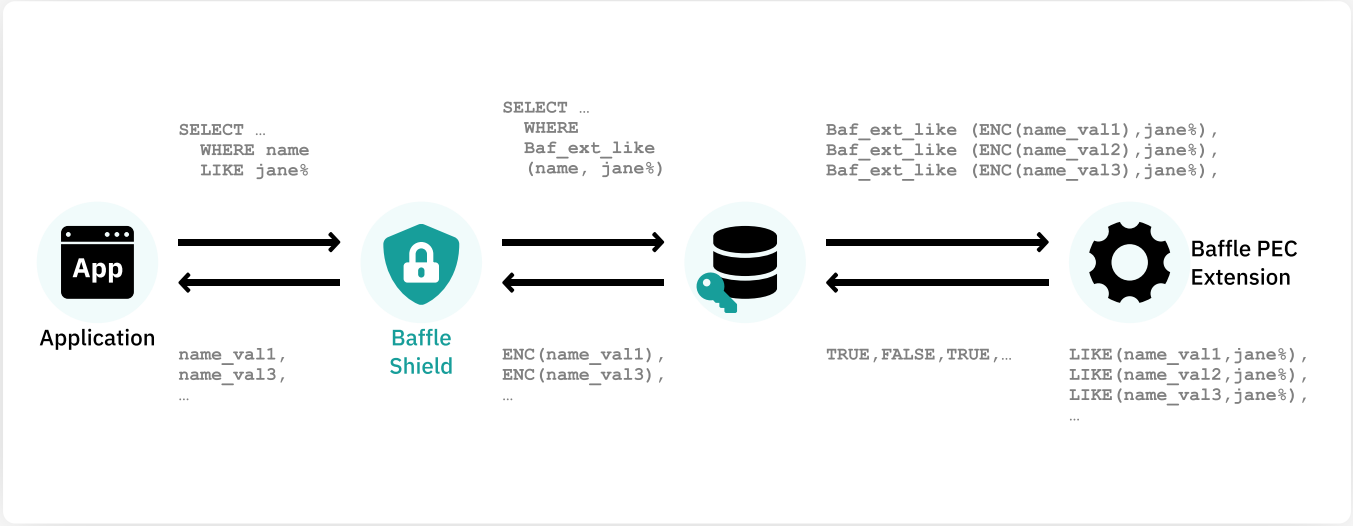
Cryptographically-enforced Protection
Baffle's BYOK/KYOK handles all aspects of key management from creation, use, rotation and retirement of keys while BYOK/KYOK ensures companies control their own keys, which gives them full control over their data

How It Works

Baffle Data Protection provides advanced encryption technology that makes Privacy Enhancing Computation (PEC) simple for databases through the use of two complementary components: a database SQL proxy known as a Baffle Shield and a database plugin or extension known as the Baffle PEC Extension.

Baffle Shield intercepts and transforms SQL commands issued to the database, where sensitive data is encrypted so that PII or any other data governed by regulations remain private. If operations are required on the data, Baffle Shield sends the query to the Baffle PEC extension for processing. After performing the operation, the Baffle PEC extension sends the results back to Baffle Shield to return the results to the application issuing the query.

Just as Baffle Shield is able to transform SQL commands to relieve the application of the burden of performing encryption in its code, Baffle Shield can also take care of transforming the SQL to invoke the PEC functions implemented by the Baffle PEC extension. Advanced Encryption eliminates any need for applications to change code in order to get PEC functionality.



info@baffle.io
https://baffle.io
3979 Freedom Circle, Suite 970
Santa Clara, CA 95054