



# Vaultree and Google BigQuery:

## Revolutionizing Cloud Data Security and Analysis

### Executive Summary

In the evolving digital landscape, the integration of Vaultree's Data-In-Use Encryption with Google BigQuery represents a groundbreaking advancement in cloud data security and analytics. This partnership addresses the critical need for enhanced data protection within cloud-based data warehouses, enabling organisations to analyse vast amounts of data securely and efficiently.

### The Challenge of Cloud Security

The rapid adoption of cloud computing has introduced significant security challenges, including the increasing sophistication of cyberattacks and the stringent requirements of data privacy laws. These concerns have contributed to cloud hesitancy, primarily due to the risks associated with processing unencrypted data in the cloud. The evolving cloud security landscape requires organisations to stay ahead of threats and ensure compliance with regulations, making the need for advanced data protection solutions like Vaultree's integration with BigQuery more critical than ever.

# Vaultree and BigQuery: A Pioneering Partnership

Together, Vaultree and Google BigQuery offer the world's first fully encrypted cloud data warehouse, providing the following to GCP customers:

## Encrypted Data Protection

The integration of Vaultree's Data-In-Use Encryption with Google BigQuery marks a significant advancement in cloud computing security. It empowers customers to process and analyse encrypted data directly within BigQuery. This ensures that sensitive information, such as patient health records or financial transactions, remains encrypted and secure throughout its lifecycle, addressing key cloud hesitancy concerns.

## Unlocking New Analytical Capabilities

This partnership opens up new possibilities for leveraging BigQuery's analytics on encrypted datasets. Customers can now confidently utilise BigQuery's powerful analytics tools on sensitive data without compromising security. The capability to analyse encrypted data directly allows organisations to derive meaningful insights while ensuring data privacy and security.

## Ensuring Regulatory Compliance

The integration significantly reduces the complexities associated with adhering to stringent data protection laws like GDPR, DORA and HIPAA. BigQuery customers can maintain compliance effortlessly, minimising the risk of data breaches and avoiding potential penalties. The ability to perform computations on encrypted data simplifies meeting regulatory requirements, offering peace of mind to organisations.

## Competitive Edge In Data-Driven Decision-Making

By enabling secure and efficient analysis of encrypted data, Vaultree's solution provides BigQuery customers with a competitive advantage in the realm of data-driven decision-making. Organisations can unlock new insights without exposing sensitive information, propelling them ahead in secure cloud computing and analytics.

## Vaultree Encrypted Data Sharing (VEDS)

Through Vaultree's integration with BigQuery, customers can utilise Vaultree's latest product offering - Vaultree Encrypted Data Sharing (VEDS). This innovative multi-key encryption service enables secure, encrypted data sharing across entities. VEDS leverages Vaultree's technology to allow organisations to use their encryption keys and Key Management Systems (KMS) to merge datasets into unified a unified database securely. This solution enables detailed data analysis between organisations without compromising the security of individual data points or raw data, offering a streamlined solution for protected data collaboration.

## Key Use Cases

The integration facilitates various impactful use cases across sectors:

- **Healthcare:** Secure analysis of encrypted patient data enhances treatment outcomes.
- **Financial Services:** Improved fraud detection capabilities without compromising customer data.
- **Research and Development:** Facilitates secure collaborative research projects, protecting intellectual property and participant privacy.

## Vaultree and BigQuery: Securing the Future of the Cloud

The partnership between Vaultree and Google BigQuery revolutionises cloud computing by providing a secure, efficient solution for data analysis. This collaboration not only mitigates cloud security concerns but also enables organisations to unlock the full potential of their data, paving the way for innovation and growth in the digital age.

**Discover how Vaultree's integration with BigQuery can enhance your organisation's data security and analytical capabilities by contacting us today.**

## Contact Information

For further information, troubleshooting and signposting through Vaultree, please contact:

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