

# VORMETRIC LIVE DATA TRANSFORMATION

## Zero-Downtime Encryption Migration

### THE CHALLENGE: DEPLOYING ENCRYPTION IN HIGH AVAILABILITY ENVIRONMENTS

As organizations contend with escalating threats and compliance mandates, the use of encryption is becoming a foundational requirement for securing data at rest. However, when very large data sets are involved, initial encryption deployments can pose a number of challenges in some environments by impacting data availability or requiring unacceptable maintenance windows. For example, encrypting very large databases or millions of files can span hours and even days, which can be a non-starter for applications that can't afford lengthy maintenance windows.

Compounding matters is that, even after initial deployments have been successfully completed, maintaining data security compliance often requires routine encryption key rotation. When large data sets have been encrypted, significant processing time and lengthy maintenance windows may be required to support the rekeying of data. These realities have often forced security and IT teams to make tough tradeoffs, fundamentally having to choose between security and availability.

### THE SOLUTION: VORMETRIC LIVE DATA TRANSFORMATION

For over a decade, customers have relied on Vormetric Transparent Encryption because it eliminates many of the challenges associated with implementing encryption in an enterprise. Vormetric Transparent Encryption secures structured databases and unstructured files, offering capabilities for data-at-rest encryption, privileged user access control, and the collection of security intelligence logs.

Vormetric Transparent Encryption operates with minimal disruption, effort, and cost. With this solution's transparent approach, security organizations can implement encryption without changing application, networking, or storage architectures. Vormetric Live Data Transformation builds on these advantages, offering patented capabilities that deliver breakthroughs in resiliency and efficiency. Vormetric Live Data Transformation delivers these key capabilities:

- **Zero-downtime deployments.** Vormetric Live Data Transformation enables administrators to migrate data from clear text to encrypted, without downtime or any disruption to users, applications, or workflows.
- **Online key rotation.** To address compliance requirements and best practices, organizations can do key rotation, without having to duplicate data or take associated applications off line.

The result is that no maintenance windows are required for deploying initial encryption or for ongoing re-keying efforts, no matter how many files are involved or how large databases are. Consequently, Vormetric Live

### KEY FEATURES

- Resiliency, enabling automated recovery from system failures, without risking data corruption or requiring the re-encryption of the data set.
- Key versioning, which ensures backups and archives can be easily recovered and automatically re-encrypted with the current key.
- CPU resource management and scheduling.



### KEY BENEFITS

- Expand encryption implementations, without introducing maintenance windows.
- Minimize the impact of encryption on the user experience.
- Take advantage of automation to efficiently re-key data and to recover archived data using prior keys.



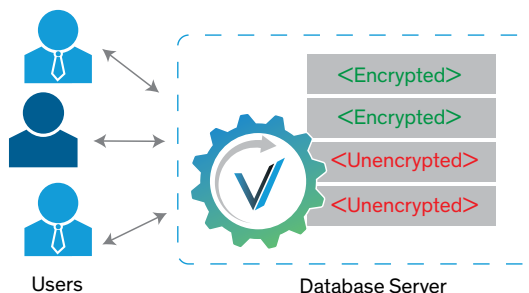
Data Transformation offers significant improvements in security and data availability, while reducing the operational costs typically associated with encryption.

## WHAT YOU WILL SEE IN THE DEMO

Vormetric Transparent Encryption agents are installed on Windows and Linux servers that store or access the data that needs to be secured and controlled. To enable live data encryption and re-keying, an administrator simply works within the Vormetric Data Security Manager console and applies a Vormetric Live Data Transformation license to the appropriate Vormetric Transparent Encryption agents. Vormetric Live Data Transformation licenses can be enabled at any time and once these licenses are enabled, customers can secure their mission-critical data, without any disruption or maintenance windows.

The solution offers several key features that assure the solution is transparent to users and applications independent of the size and scale of the deployment.

- **CPU resource management.** Encrypting large data sets can require significant CPU resources for an extended period of time. This solution offers powerful CPU management policies that enable administrators to intelligently balance between the time it takes to do encryption and the impact on server resources and users. For example, policies can be set, so that, during business hours, transformation processes can only consume up to 10% of system CPU, while these processes can utilize up to 70% of CPU during nights and weekends, when there are lower user demands on these resources. In addition, the encryption and re-keying process can be manually paused and resumed as desired.
- **Versioned backups and archives.** Through its versioning capabilities, Vormetric Live Data Transformation makes it straightforward for users to ensure backups and archives can be efficiently recovered and immediately used. After recovering the data, the archived encryption keys, which are securely stored in the Vormetric Data Security Manager, are automatically applied. In addition, the solution can automatically re-encrypt backups and archives with the current cryptographic keys, while the data is in use.
- **Resiliency.** Even in the event of storage failures, system issues, or network downtime, interrupted encryption processes will seamlessly recover, without having to have the entire process restarted. Even more importantly, the solution ensures that data is never corrupted, no matter how, when, or where a failure occurs.



*A database protected with Vormetric Transparent Encryption agents upgraded with Live Data Transformation enables initial encryption and regular rekeying intervals with no impact to the user experience and zero-downtime.*

## LEARN MORE ABOUT THIS INNOVATION

- US patent #9203619
- Contact [info@vormetric.com](mailto:info@vormetric.com) to set a demo appointment

## ABOUT VORMETRIC

Vormetric's comprehensive high-performance data security platform helps companies move confidently and quickly. Our seamless and scalable platform is the most effective way to protect data wherever it resides—any file, database and application in any server environment. Advanced transparent encryption, powerful access controls and centralized key management let organizations encrypt everything efficiently, with minimal disruption. Regardless of content, database or application—whether physical, virtual or in the cloud—Vormetric Data Security enables confidence, speed and trust by encrypting the data that builds business. Please visit: [www.vormetric.com](http://www.vormetric.com) and find us on Twitter @Vormetric.

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