



# Introducing Encrypt360 - Hedvig's native, in-software encryption of data-in-use, in-flight and at rest

*Encrypt360, a new feature implemented in the Hedvig Distributed Storage Platform v3.0, will make enterprises rethink how they view encryption. With no additional license fees, hardware requirements or visible impact on application performance, it delivers a robust encryption capability that improves data security [end-to-end](#).*



## How Encrypt360 works

- **What:** We've added an intelligent AES XTS encryption engine into the Hedvig Storage Proxy, allowing us to encrypt data before I/O even leaves the application host. Encrypt360 safeguards data in-use (at the client-side cache), in-flight (over the network), and at rest (stored to drives on Hedvig cluster nodes) and lets you efficiently manage keys in your favorite Key Management Server (KMS).
- **Where:** Encrypt360 sits on the Hedvig Storage Proxy, which in turn, sits inside the application host in its role as the protocol converting layer. This allows Hedvig to do cool things before I/O even hits the physical network, like latency and location awareness, local caching, local deduplication and encryption.
- **How:** Encrypt360, which is cache aware, encrypts, writes and decrypts reads as they are processed through the Storage Proxy. It also deduplicates I/O before processing encryption. Cached data is always encrypted so even removal of a proxy SSD won't be a data breach.

## Benefits for enterprises

- **Who:** Enterprises investing in cloud, enterprises considering a move to IP based storage and enterprises that adhere to governance regulations on data and storage.
  - ◁ Full end-to-end encryption capabilities from the host all the way down to the final storage resting space – and back again.
  - ◁ Set as a per virtual disk (vDisk) policy, which minimizes system impact and reduces hardware costs.
  - ◁ Customers won't sacrifice deduplication efficiency with encryption. Hedvig leverages encryption/decryption acceleration libraries to minimize the performance overhead.
  - ◁ Advanced audit logging for compliance and access controls for secure multi-tenancy.
  - ◁ Reduces hacking and ransomware risks.

### ABOUT HEDVIG

Download our technical whitepaper for an in-depth look the Hedvig Distributed Storage Platform architecture.



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