By partnering with Capgemini, the business delivers a highly secure and scalable data encryption and protection solution that accelerates its migration to the Google Cloud Platform.

As Cloud technology has swept across every industry and offered an alternative to on-premises infrastructure, businesses now have access to more robust security as well as reliable compliance measures. This means that with the right solution in place, a company vastly reduces its exposure to risks related to cybersecurity or regulatory requirements. However, new solutions, no matter how beneficial, require new processes to support them.

When an established payment technology and software solutions provider wanted to implement the Google Cloud Platform, it wanted to ensure that its transition took place as quickly as possible while enabling extensive scalability for the future. To ensure that these objectives were fulfilled, the company wanted an automated process for file movement that would guarantee encryption. Doing so required a great deal of technical expertise that called for engagement with an implementation partner.

Because of this requirement, the business engaged Capgemini to deliver a data encryption and protection project that would ensure a smooth and simple migration without sacrificing security.

Tokenization paves the way to the cloud

After a review of the organization’s existing infrastructure, project objectives, and expectations, the partners settled on the implementation of a fit-for-purpose solution that consisted of a generic framework that would deliver expanded functionality while enabling future improvisation with reusable components for future migration projects. By minimizing the level of customization, the business and Capgemini avoided adding excessive complexity that might have led to additional challenges while ensuring exceptional delivery of the functionalities needed for easy future reusability.

**Client:** An established payment technology and software solutions provider  
**Region:** North America  
**Industry:** Financial Services  
**Client Challenge:**  
A payment technology and software solutions provider wanted to initiate a migration to the Google Cloud Platform but needed to ensure that the process was quick, compliant, and produced a scalable result.

**Solution:**  
The company worked with Capgemini to deliver a data encryption and protection project that ensured speed and security while delivering a standard platform that could support all future ambitions.

**Benefits:**  
- Reduced licensing and capital expenses  
- Enhanced infrastructure scalability  
- Fulfillment of all security and compliance requirements  
- Enabled near real-time data processing
Throughout this project, Capgemini established separate virtual private clouds (VPCs) for Ingestion, Processing, and Outgoing connections. This cloud-based infrastructure met all Authorization to Operate (ATO) requirements while delivering an end-to-end automated process that managed payment card industry (PCI) data and empowered the company to transfer files in an encrypted format.

As a result, the company gained the ability to process multiple files at the same time without worrying about creating a bottleneck due to volume. Various file types could all be supported using a generic framework while the solution also delivered efficient cache systems that saved tokens. This solution also enabled searches to take place using a native cloud service and future horizontal scalability. By using hashing within cache storage, the partners have encrypted the PAN and met security requirements while eliminating the need for manual node management through the implementation of automated processes.

Cloud platform enables a scalable future

Through this project, Capgemini enabled the business to achieve substantial licensing cost reductions as its reliance on physical, on-premises infrastructure fell dramatically. In addition, capital expenses related to hardware, data center space, and maintenance have been dramatically lowered. In place of the pre-existing infrastructure and systems, the company now uses a “pay-as-you-go” model of cloud computing that allows the business to adjust its expenses to meet demand.

With a more dynamic set of processes and the capacity for scalability, the organization has prepared itself for the future while maintaining high-quality security assurances that held up to extensive scrutiny. Moving forward, the company will continue to reduce its dependency on physical infrastructure as part of its continuing transition to the cloud following the model this project established.