

# Thales payShield HSMs help DataMesh to meet payments standards and grow their business

## About DataMesh Group

DataMesh, headquartered in Sydney, Australia is an enterprise founded in 2018 to develop a new approach to servicing the Payments and Data Analytics landscape by delivering the world's smartest commerce and data analytic products. Their proposition to the market is to develop an independent payment processing network that is dedicated to servicing the needs of major retailers and their customers.

## Business Challenge

DataMesh set out to create a fully PCI and EMV compliant, Card Present (CP) and Card Not Present (CNP) payment switching network. This network enables merchants to determine the experience they want to deliver to their customers both in store and on-line whilst still maintaining a healthy relationship with their banking partners.

DataMesh delivers this outcome to merchants with no aspiration to compete with the banks by becoming a transaction acquirer. Their goal is to resolve the technology and compliance issues that sit inside the payments landscape today whilst providing a hub for commerce and data analytics that merchants, acquirers, card schemes and 3rd parties can leverage in order to achieve their commercial outcomes.

## Technical Challenge

DataMesh has built an "Active:Active" payment switching network spanning multiple cloud providers to ensure redundancy and business continuity. To meet Australian Payments Network (AusPayNet) and PCI regulatory requirements to protect and process their customers' (merchants') payment transactions, DataMesh invested in dedicated Thales payShield 9000 Hardware Security Modules (HSM).

DataMesh hosted their payShield 9000 HSMs in dedicated racks within managed service data centres in multiple Australian cities with high speed connectivity into diverse cloud environments. Transport Layer Security (TLS) is run between the secure cloud environments to the HSMs to provide secure connectivity across an external network platform. DataMesh manages their payShield 9000 HSMs remotely via payShield Manager.

With growth in their business, DataMesh had to dramatically increase capacity of their payment switching network in order to handle larger volumes of payment transactions for their customers.

## Solution

To meet this challenge, DataMesh consulted Thales to determine the best solution for their needs.

The payShield 9000 and payShield 10000 HSMs are run in the same cluster as a mixed environment which is configured in an Active:Active multi-location production environment hosted in multiple managed data centers. To provide the required resiliency, their payment switching network is hosted and replicated across multiple cloud providers in different locations. Each HSM cluster is connected via high speed links protected with Transport Layer Security (TLS) to their payment switching network environments. All HSMs are managed remotely via payShield Manager.



DataMesh™

## Result & Benefits

Thales payShield HSMs enabled DataMesh to have an out of box solution that provided hardware secured cryptography to meet AusPayNet and PCI DSS / PCI PIN payments standards and comply with Australian Prudential Regulatory Authority's (APRA) banking regulations to be able to process payment transactions.

Secure remote management of the HSM clusters allows DataMesh to reduce the risk and cost of managing and maintaining their equipment, including the ability to upgrade performance licences remotely.

Ultimately this solution enabled DataMesh to handle significantly more payment transactions and grow their business by acquiring more customers.

## About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

### Business Need:

- Expand existing payment switching network to meet contracted uptime SLAs as more customers engage with the DataMesh business
- Meet payments standards and banking regulations
- Rapid expansion of processing volume capability (transactions per second)

### Technology Need:

- Solution to securely handle more payment transactions
- Encrypt payment data at rest and in motion
- Remote management capabilities

### Solution:

- Thales payShield Hardware Security Modules (HSM)

### Result:

- World-class encryption implementation capable of supporting business growth targets
- Full payment and regulatory compliance
- Comprehensive remote administration and management capabilities