



The Lotaris Licensed Mobile Environment® (LME) is a technology platform that enables effective distribution and management of licensing in multiple, evolving channels.

LME protects online services and securely enforces licensing terms for these services.

## Case Study: Lotaris

### Building a Secure Mobile Payment Platform on a Globally Distributed PCI Community Cloud

#### The Challenge

Lotaris LME was originally developed and then delivered into production on a public cloud platform. This environment provided a good fit in terms of flexibility, performance, cost and agility. However, as Lotaris rapidly grew, the size, complexity and compliance needs of Lotaris' clients increased, as did the amount of end-user data being processed. Lotaris needed to find a solution that offered commercial flexibility, agility, scalability as well as the global reach, security and compliance that its enterprise clients required.

#### The Solution

Lotaris selected Datapipe as its trusted partner to implement a hybrid solution deploying dedicated machines, community and private cloud infrastructure. The solution design enabled Lotaris to maximize their investment in a second location by deploying DR infrastructure into Asia. Deploying the Hong Kong and San Jose sites as active-active nodes significantly enhances the user experience by directing clients to the nearest, or least busy available infrastructure. Future active nodes can be added seamlessly to this solution.

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***“Datapipe has enabled Lotaris to successfully implement a PCI DSS Level 1 Services Infrastructure for its brand new LME (Licensed Mobile Environment).”***

***- Christophe Lienhard, COO Lotaris***

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**Location:** Datapipe's PCI Level 1 certified, Tier III data centres in San Jose and Hong Kong, with potential expansion sites in New Jersey and London.

**PCI Security Solution:** Datapipe PCI DSS Community Cloud – VMware infrastructure. Secure management and network environment, ensuring client solutions are properly isolated. All community cloud tenants receive Datapipe's full set of PCI security services.

**Database:** Fully managed MySQL OS-based cluster(s) on dedicated physical



## Requirements:

- A PCI DSS Level 1 certified solution
- A vendor with facilities in Europe, the US and Asia
- Infrastructure that could scale quickly to 100s of servers, 28 million users and over 1,500 concurrent sessions
- The agility and control of a self-provisioned cloud
- Very strong service levels
- A vendor that could deploy rapidly and evolve with client needs
- A vendor that would be a good cultural fit and true partner
- Tier III or above secure data centre facilities
- Secure and resilient internet connectivity
- Logically secure, highly available hosting
- Monitoring and management of: Linux OS, MySQL database, hardware and virtual machines
- On-demand secure data storage and backup
- Separate, on-demand, test, staging and demonstration environments
- Geographically diverse disaster recovery

machines to maximise resilience, performance and I/O throughput.

**Storage:** High performance HP 3PAR Enterprise Fiber Attached SAN.

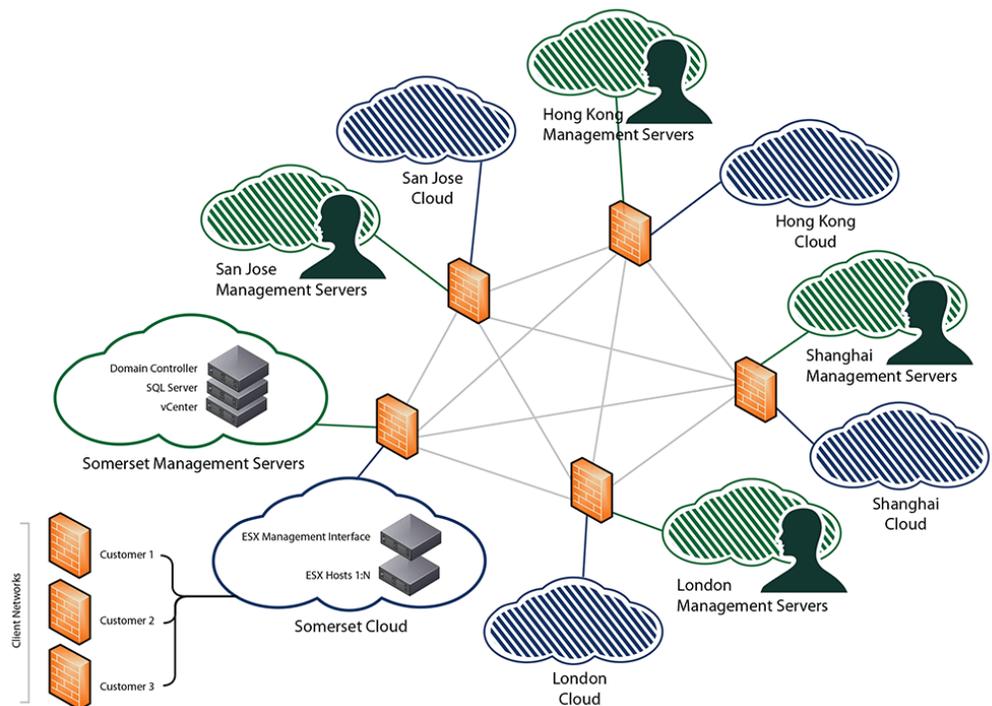
**Backup:** Encrypted backup stored to disk, daily incremental with full weekly cycle.

**Web & Application Servers:** Datapipe's Enterprise Private Cloud Stratosphere built on HP Blade Servers and VMware ESX.

**Disaster Recovery:** Production environment in San Jose, DR in Hong Kong, WAN acceleration to extend the range of data replication, DNS based fail-over, using Cisco Global Site Selector.

## Community Cloud Infrastructure

Datapipe has built a full mesh infrastructure with complete Active Director, SQL, and vCenter redundancy. Client solutions are behind dedicated Cisco hardware firewalls with 2-factor enabled VPN. All front end client trac and back end management trac are completely isolated into separate networks. This architecture also supports high availability and disaster recovery options in multiple geographic area throughout the world including NY Metro, Silicon Valley, London, Hong Kong as well as mainland China in Shanghai.





## The Cloud and PCI Compliance

The hosting of applications in the Cloud can deliver significant financial and operational benefits for organizations:

- Infrastructure and applications can acquire elasticity, enabling these resources to rapidly scale or shrink to cope with changes in demand
- Mapping the cost of deploying these resources onto their usage can reduce overall cost of ownership
- Time to deploy new applications or upgrades can be dramatically reduced
- Budget holders can be empowered to rapidly deploy compute power to realize their business aims
- Distributed hosting of applications can increase resilience and enable rapid globalization

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***“Lotaris customers benefit from world-class service delivery with geographical redundancy and guaranteed service levels. The true value we gain from Datapipe as a managed service provider is that they do not stop at the infrastructure. Datapipe manages the entire solution, leaving us to concentrate on our custom code and business development.”***

***- Christophe Lienhard, COO Lotaris***

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## Public Cloud

Public cloud models can provide all of the benefits listed above, but have not always been seen as an answer for PCI compliant solutions. The location of data being processed and stored is subject to external audit and rigorous security standards. A number of potential compliance issues have been identified when considering the processing and storage of credit card data in the public cloud:

- There may not be enough transparency around infrastructure topology to enable valid 3rd party audit
- The sharing of certain resources between compliant and non-compliant end-users may violate best practice
- The sharing of other resources (ie: memory) can create known security issues

## **About Datapipe:**

Datapipe offers a single provider solution for managing and securing mission-critical IT services. We consult with each client, enabling them to realize their potential by harnessing the power of their data, the performance of our network, and the experience of our team.

Datapipe is unique in the market for our ability to react quickly, solve problems urgently, and understand the distinct needs of our clients. Our ability to provide scope, scale and organizational agility – delivered from the world's most influential technical and financial markets – makes us the partner of choice for the enterprise.

## **Private Cloud**

Private Cloud models can address many potential compliance issues through the use of hardware and software resources dedicated to a single client. However, while offering increased security and audit transparency, private clouds can be limited in terms of both elasticity and real impact on ROI.

## **Community Cloud**

Community Clouds are purpose-designed environments for groups or communities of end-users with very similar security and compliance needs. Potentially Community Clouds offer much of the elasticity and cost benefits of the public cloud, but also the enhanced security and transparency of private cloud.

## **The Datapipe Approach**

Datapipe engineers solutions to match complex combinations of business drivers including demand-elasticity, cost-reduction and compliance. Deploying hybrid solutions that include dedicated hardware; public, private and community cloud offerings, Datapipe delivers the best possible commercial and operational fit.