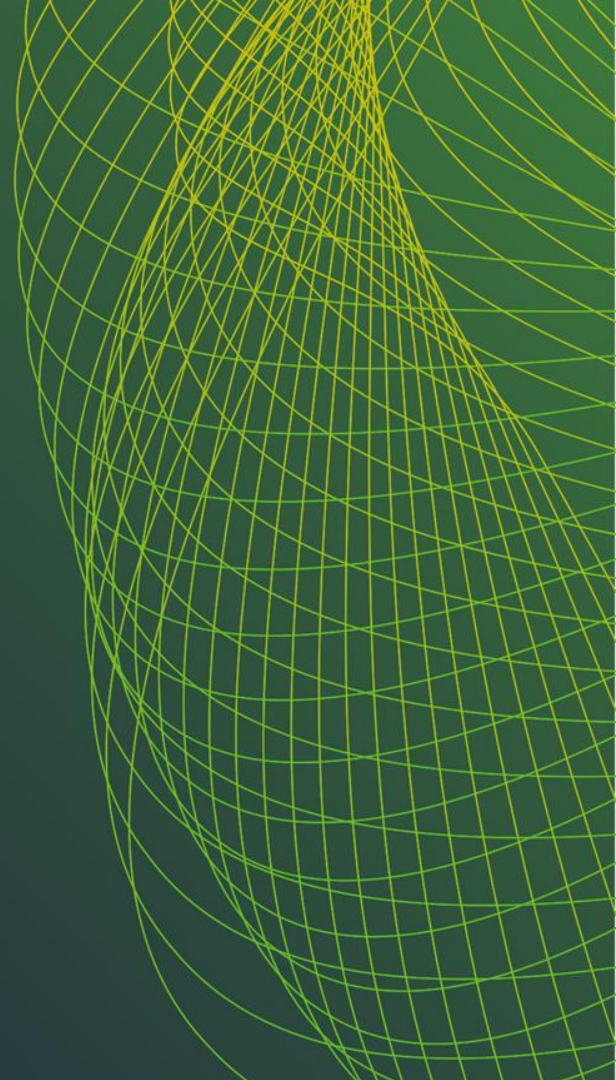




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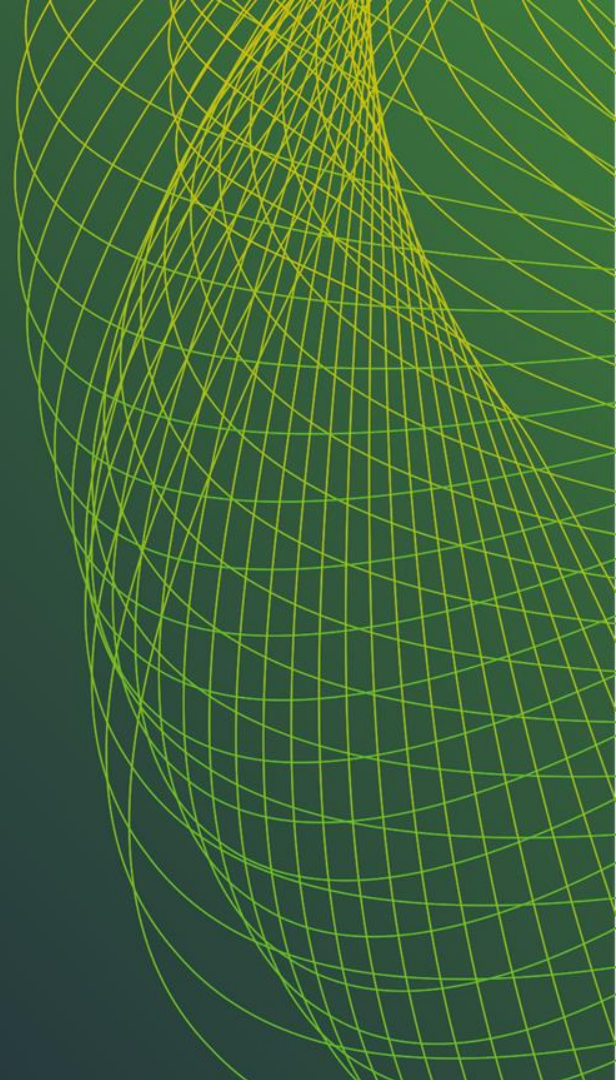
Global Payments' journey to modernize its issuer processing infrastructure with AWS

Paul Daffin

Chief Product Officer, Global Payments/TSYS, Issuer Solutions

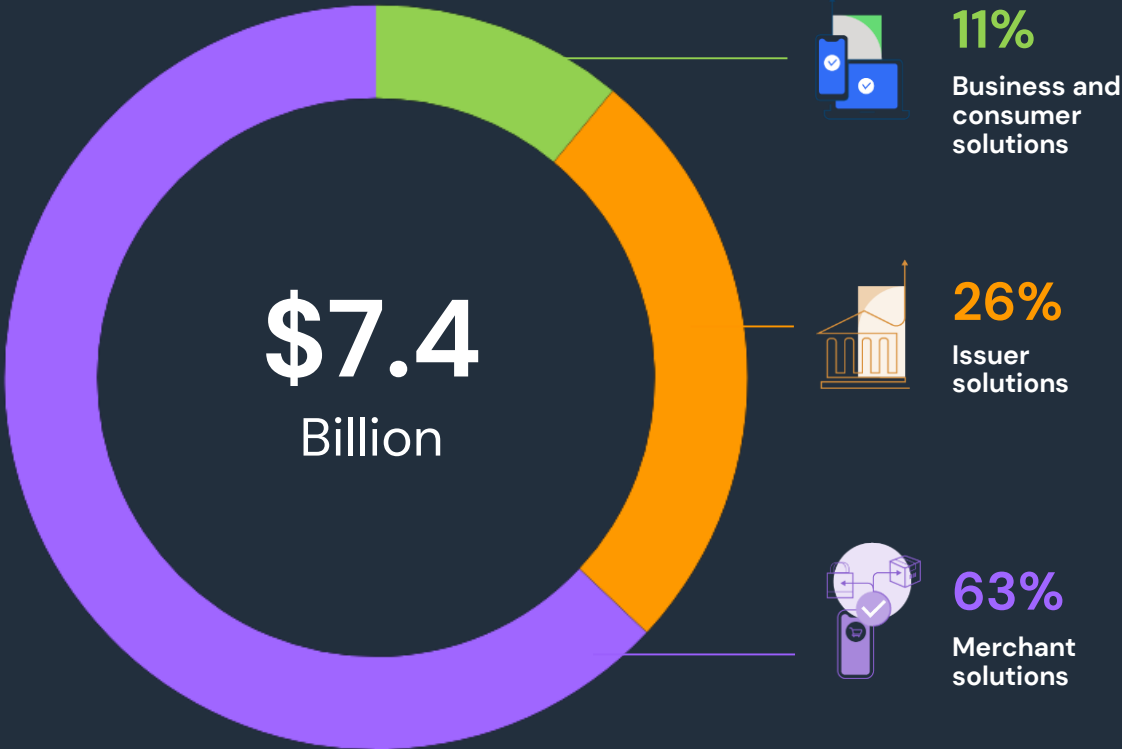
Scott Carter

Chief Technology Officer, Global Payments/TSYS, Issuer Solutions



Global Payments

A connected
**commerce
ecosystem**



Embracing the New Paradigm of Cloud Migration



Accelerate change while adapting to evolving consumer behavior



Innovation at scale through collaboration with payment networks and fintech leaders



Machine learning deployment enhancing experience, safety and security



Embracing migration to cloud infrastructure for security, resiliency, customer experience, and security



Unlocking the power of payments capabilities with Microservices and API-centric technologies

Issuer Solutions Transformation

Cloud-native Platform and Services with Full Customer Control



Digital Experiences

- Enabling Issuers to deliver a connected consumer experience

TSYS as a Service

- SaaS delivery model that provides agility and control

Cloud-native Payments

- Offering global Issuers robust functionality and scale

Unlimited geographic reach

- Bringing industry leading functionality to Issuers around the world

Innovate at Scale

- Accelerating the scope and scale of payments innovation

Global Payments Joins Forces with AWS to Deliver the Future of Payments



“We are excited to enter into this collaboration with AWS, which enables us to offer our solutions to institutions regardless of size, location or processing preference.

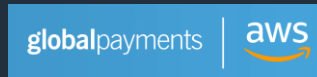
The new platform’s cloud-based architecture will give clients the ability to use the services they need with greater speed-to-market, flexibility and best-in-class experiences for our customers and their cardholders.”

~Jeff Sloan, Global Payments CEO



“Global Payments is a leader in the payments technology industry, and working together, we will provide solutions to organizations—from traditional financial institutions to emerging payment players — to simplify commerce, so they can focus on innovation and growth.”

~Andy Jassy, AWS CEO



**Global Payments
is an AWS Partner**

Strategic Themes for Issuer Solutions Modernization

- ✓ Real-time Payments
- ✓ Cloud-native Authorizations
- ✓ AI/ML Decisioning

Payments Innovation

AI & Machine Learning

- ✓ Payments Model Library
- ✓ On-demand Analytics
- ✓ Customer Experience Personalization

Digital Transformation

- ✓ Open APIs & PaaS Microservices
- ✓ Personalized Customer Controls
- ✓ Immediate Notification & Control
- ✓ Omnichannel Customer Experience

Delivering Portfolio Insights in Under Six Months



The Need: The FI desperately needed more on-demand insights into customer behaviors in order to adapt to changing behaviors and preferences. The need spanned multiple countries and payment solutions.



The Challenge: Getting an insights platform in the hands of its business units as rapidly as possible was the key driver. Of nearly equal importance was the ability to launch and refine iteratively, all while preserving the security and privacy of its customers' data.



The Result: As a result of our domain expertise and AWS's native cloud services, we were able to deliver a tailored solution for the FI's needs in **less than 6 months** into a brand new market, with the ability to rapidly extend to new markets in just weeks.

Legacy to Cloud Migration: Technology Approach

Key Considerations



Data security & compliance

Scale of processing data & applications

Seamless migration of data & applications to cloud



Technology Approach

Synchronize data from on-premise data stores to cloud

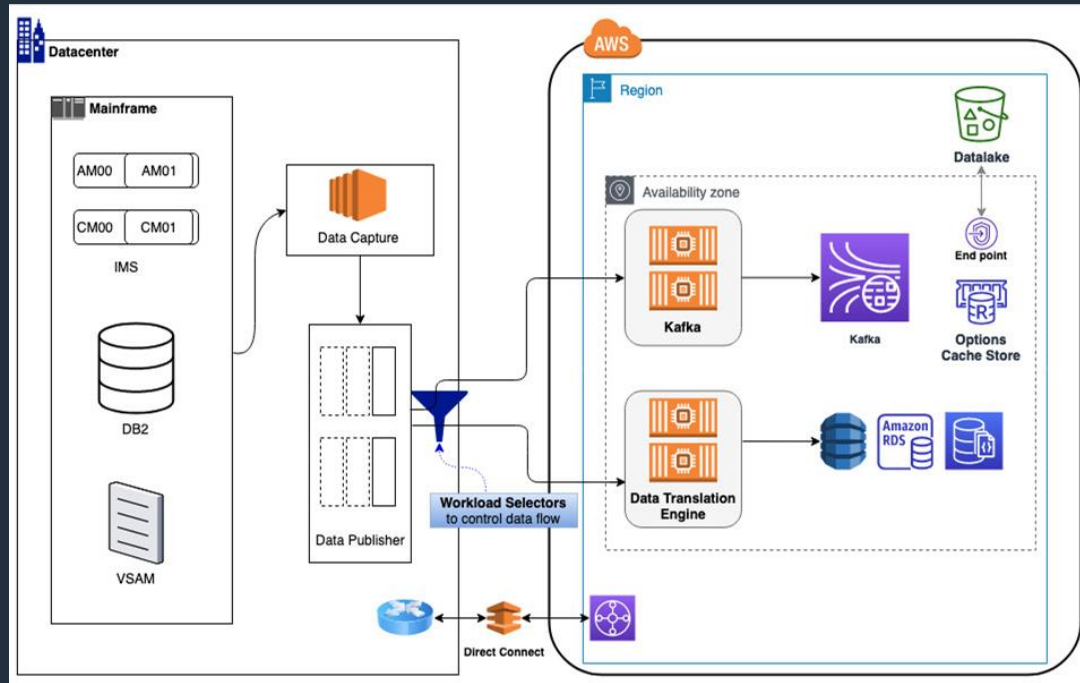
Configure clients and data hosted in the cloud environment

Simplify data access through migration

Selectively migrate applications based on cloud readiness

Decompose data on the cloud environment to enable new uses & cloud capabilities

Data Synchronization

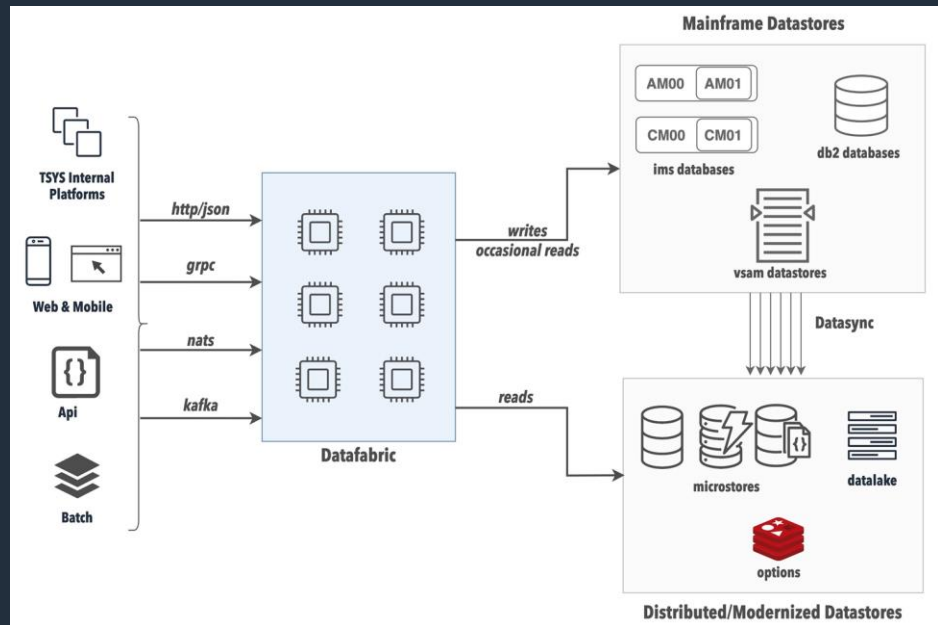


Real-time capture and transfer of Data to AWS Cloud

- ✓ Asynchronous capture of events from source databases.
- ✓ Multiple engines to scale data transfer and translation.
- ✓ Supports relational, non-relational target datastores.
- ✓ “Workload selectors” allow filtering and enablement of specific client and product data workloads. Rule extensions allow for granular control of data flow to cloud.

Selective Application Migration

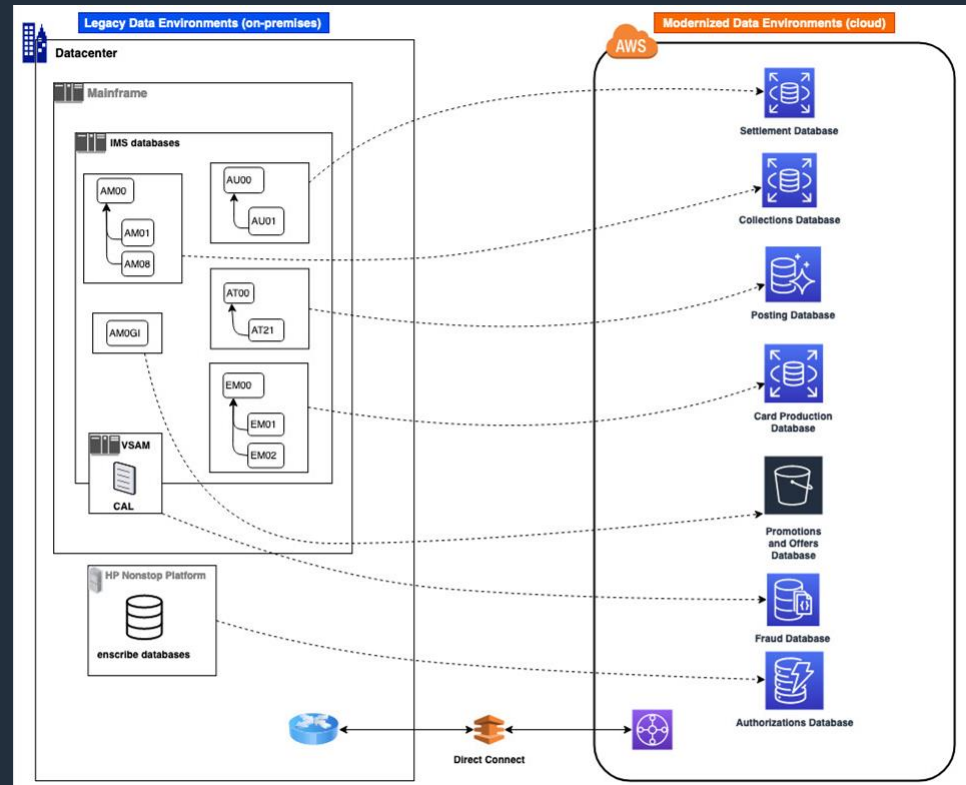
- ✓ An **Enterprise Data Fabric** is a critical component for migration to newly modernized applications
- ✓ Scaled migration techniques such as **Canary Migration** are enabled through the “EDF” to manage risk of migration errors
- ✓ Reduces disruption to clients who are at various stages of migration.




Decomposition of Legacy Data Stores

Unlocking the value of data in the AWS Cloud

- ✓ Reorganization and modularization of 40 year old data and technology.
- ✓ New stores based on “fit for purpose” technology - DynamoDB, DocumentDB, ElasticCache, RDS.
- ✓ Independence of data enables decoupling of products and services.
- ✓ Clients can have “on demand” consumption of our payments capabilities.



How Global Payments and AWS Share Responsibility for Security

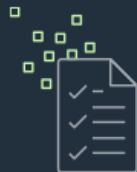
 Responsibility for security <u>in</u> the cloud	Customer Data (Card and Transactional level)		
	Platform, Applications, Identity & Access Management		
	Operating System, Network & Firewall Configuration		
	Client-side Data Encryption & Data Integrity/Authentication	Server-side Encryption (File system and/or Data)	Network Traffic Protection (Encryption/integrity/identity)

 Responsibility for security <u>of</u> the cloud	Hardware / Global AWS Infrastructure			
	Regions	Availability Zones	Edge Locations	
	Software			
	Compute	Storage	Database	Networking

- ✓ Dynamic Compliance
- ✓ PCI/DSS Compliance
- ✓ Connectivity to end points with Payments Schemes

Why Modernization?

By Harnessing the Cloud, Issuers can Provide Consumers the Frictionless, Digital Experience They Expect



Digitalization

Accelerate the pace of digital transformation to deliver exceptional, connected customer experiences



Agility

Meet rapidly changing customer demand to keep pace with the rate of innovation and competition



Open Banking

Open platforms and services to meet the demands of regulators and customers for portability, transparency, and innovation



Resiliency

Resiliency that only cloud can deliver to meet the “always-on” demands of customers and regulators



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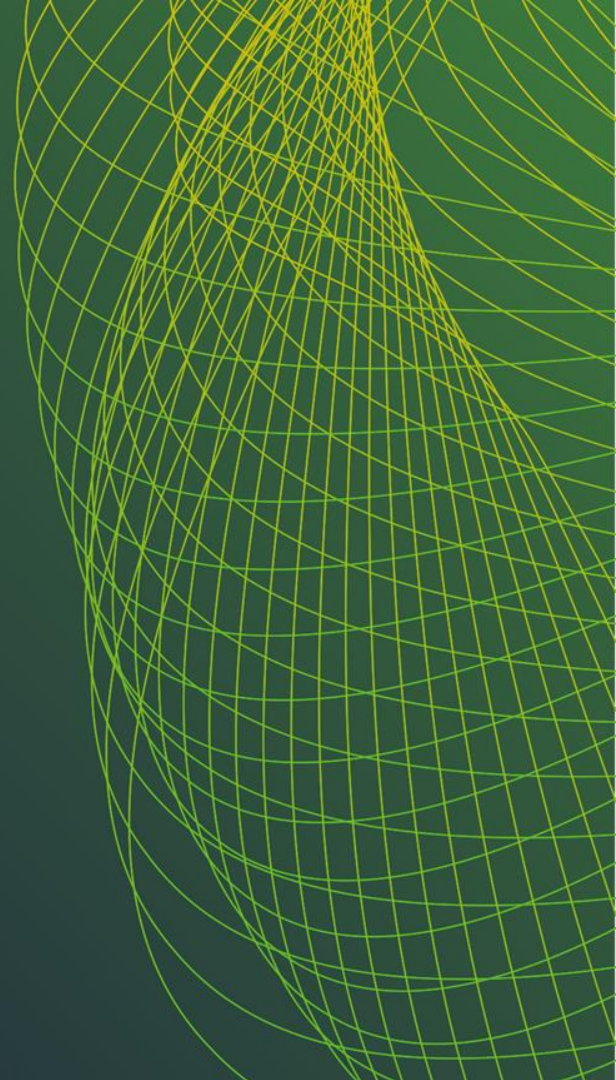
Thank you!

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