Customer Profile
This large financial services company acts as a payment processor in the retail sector, supporting a consortium of merchant banks. They offer a diverse portfolio of product offerings, to support all kinds of cash-less transactions. These services include:

- Domestic card schemes
- Mobile app that acts as a unified payment interface
- Real-time interbank payment system for sending and receiving money
- Centralized clearing service providing interbank transaction
- Online image based check clearing system
- Integrated bill payment system providing “anytime, anywhere” bill payment service to individual consumers.

Slow-downs and unavailability of any of these services needed to be avoided for the company to meet service level agreements (SLA) with member banks.

The Challenge
This company's biggest challenge was a lack of visibility into the latency and delay of individual financial transactions. Their business depended on the fast and accurate processing of financial transactions, and the ability to leverage wire-data as the best source of analysis to stay ahead of failures and/or excessive delay to avoid merchant and customer impacting issues.
NetOps struggled particularly with the best way to gain a complete view into specific transactions, as IP addresses could change when crossing load balancers or firewalls. Multi-segment analysis was very important to them as a way of creating an end-to-end view even with IP transformations mid-flow. This end-to-end view was essential for seeing when latency was creeping up, and the underlying root causes causing the delay. Even milliseconds could make a difference.

The risks of not catching failures quickly enough were high. There was a risk of lost revenue if end users were unable to complete transactions, and possibly SLA penalties and damaged business reputation if NetOps was unable to prove the root cause of transaction latency was on the merchant bank's side of the network. A bad transaction could cost the company significant fines or damaged business reputation if it wasn't analyzed properly.

Solution in Action

To address these challenges, this company turned to NETSCOUT®. The NetOps team deployed InfiniStream appliances both at the internet edge in their core datacenters and in the merchant banks' datacenters as well. This enabled them to see both sides of each transaction.

The smart data generated by these data sources is converted into smarter analytics by the nGeniusONE Service Assurance platform. Extracted from rich wire data, these analytics are displayed in several dozen customizable service dashboards, mostly focused on ERP and web-based, custom, in-house applications. Service dependency maps are also of great value, to show in real-time the client-server latency at various steps in the transaction flow.

Alerts are configured to show increases in application response time to proactively address potential issues as they arise in order to quickly address and avoid broad-scale impact. These alerts are crucial for helping the NetOps team understand thresholds and baseline trends in their traffic flows, enabling them to be more proactive in managing these important financial transactions.

Reporting is also a critical part of the NETSCOUT solution for this organization. Reports on transaction rates are shared daily with the merchant banks, as well as detailed or in-depth evidence of bad transactions. The flexibility and customization in the reporting structure is very important, allowing NetOps to give the merchant banks the info they need. These banks depend on the evidence NETSCOUT provides to understand bad transactions.

Session analysis is the last key element in this solution. In this view, NetOps is drilling down into specific transactions, to pinpoint precisely, at what step in the transaction flow packet loss is introduced or where latency may occur, and more. If a transaction is coming in from a merchant bank, it's important for the NetOps team to know what server it was hitting in their network, the path the transaction took, and the latency along the path. Seeing the multi-segment view, showing all IP transformations along the path and the latency at each step, is essential for diagnosing and resolving service issues.

Some of the errors NetOps diagnosed using the nGeniusONE platform include authorization failures, where latency occurred on the client or processor end, even reveal if a transaction is fraudulent or other failure reasons such as insufficient funds or an out of country charge.

The Results

The nGeniusONE platform has truly been revolutionary for this organization. It has enabled the NetOps team to shift from a reactive to a proactive approach, and truly understand the nature of the traffic on their network. When every transaction represents potential revenue for the business, ensuring the smooth operation of these services is important.

By accurately monitoring the transactions, NetOps can protect the company from fraudulent transactions and reduce the risk of having to pay fines for not meeting SLAs with their merchant banks.

There is now a 24x7 operations team that uses the solution daily. It's considered a lifeline service for proactively detecting problems as they emerge, centralizing their monitoring activities, improving end-user experience for the merchant banks, improving overall uptime, and reducing finger pointing by getting everyone – NetOps, merchant banks, and consumers – on the same page. The transaction analysis from the reports shared with the member banks enable them to be more effective at processing transactions, both saving money by reducing fraudulent charges, false positives, and reducing business risk by allowing the NetOps team to more effectively meet SLAs.