



MONITORING VISIBILITY CASE STUDY

Enabling comprehensive network performance intelligence for a major Financial Institution

At a glance

Customer: One of the UK's major retail and commercial banking institutions.

Solutions: Network TAPs, Network Packet Brokers and SSL Decryption devices.

Services: Design, provision and support of a passive Monitoring Visibility layer.

Outcome: Isolation of issues affecting performance of Internet banking transactions.

"You delivered the hardware in record time, supported 12 overnight implementations and stepped in to train, resolve issues and advise more times than I can remember."

Project Lead, Major UK Bank

The requirement

To keep up with its fast-changing monitoring requirements and consistently deliver a rich Quality of Experience (QoE) to its Internet banking users, our customer decided to upgrade its Application Performance Monitoring capability across its many data centres. This would allow the bank to monitor backend transaction times to identify performance-degrading problems, such as connection issues, servers going offline and slow transactions.

The technical challenge

A leading-edge Network or Application Performance Monitoring solution is of little use unless it can see all the data required for painting an accurate picture of what is being monitored. Moreover, adding such probes to in-line traffic links is risky, because if the monitoring device fails, the live link could go down as well.



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Best practice suggests making a copy of the network traffic and sending it passively (out-of-band) to a Performance Monitoring layer. Using network switch SPAN ports to create a copy of network traffic can be a high-risk activity because it involves the switch - an in-line device - performing an extra task on top of its critical and primary objective of processing live traffic. This was simply not an option for a platform critical to the UK's economy.

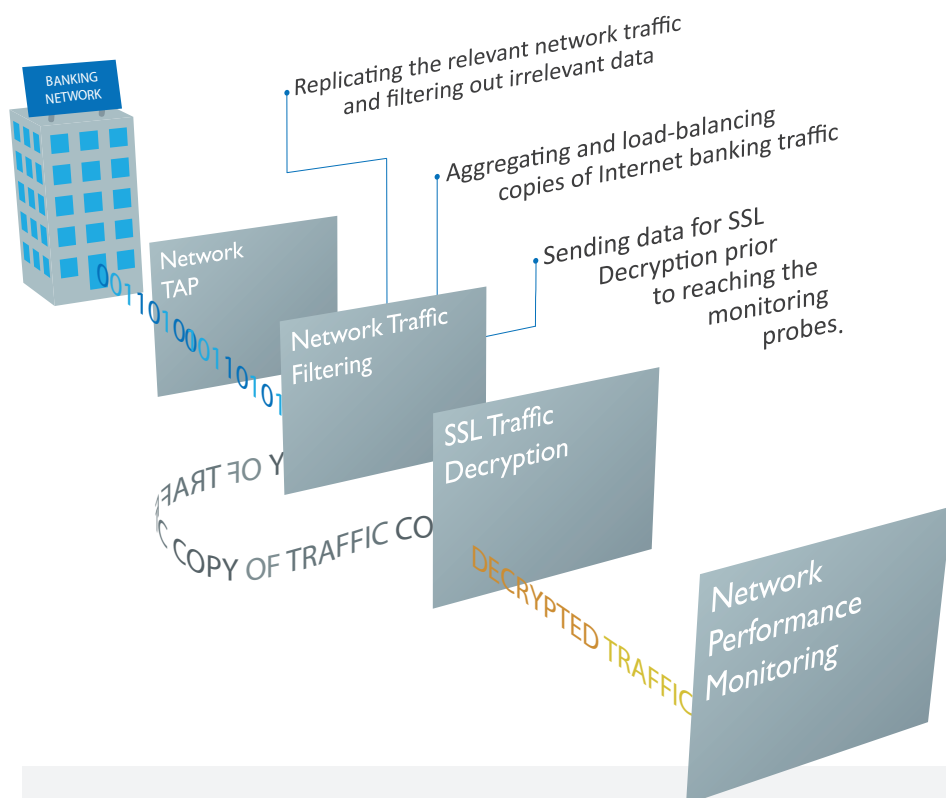
Moreover, for security reasons, application traffic needs to be encrypted. This poses a challenge for Performance Monitoring probes because they can't see inside SSL encrypted traffic, and if they can't see what's inside, they can't monitor performance.

The solution & outcome

Given the vast number & complexity of network links across multiple data centres, as well as the sheer volume of wireline traffic to be monitored, the bank chose Red Helix to design & build a comprehensive, scalable Monitoring Visibility layer to copy and feed just the right data to the Performance Monitoring probes.

To receive a true copy of the network traffic without causing any potential risk to network availability, we audited the bank's data centres and identified the optimal locations for adding passive fail-safe TAPs.

A Network TAP can lead to great things... With a lossless copy of network traffic provided by the TAPs, we provisioned and installed Network Packet Brokers with advanced features to receive the traffic and perform intelligent tasks, including:



The stand-alone passive fail-safe TAPs were fitted behind network equipment to tap in-line traffic, thereby using no extra rack space and very limited power.

We also provisioned and installed the SSL Decryption devices so they could unlock the encrypted traffic - enabling the Performance Monitoring devices to understand it.

Now that the Performance Monitoring probes have just what they need - and nothing else - they are able to perform sophisticated analysis of the specific traffic of interest, and proactively isolate and remediate performance-degrading issues.

Furthermore, whilst the customer needed to copy and process 4Tbps of Internet banking traffic, the solution we provided is capable of processing up to 6Tbps - allowing critical Performance Monitoring activities to scale in line with future growth.

About Red Helix

We provide services and solutions to improve security and performance for critical, large-scale and latency-sensitive networks.

Our integrated security solutions and network/application performance monitoring systems are coupled with our superior network visibility capabilities to provide cost-effective, comprehensive & resilient network coverage.



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