

24/7 MANAGED NETWORK VISIBILITY AND MONITORING



Red Helix

At a glance

Customer: One of the UK's major mobile network operators

Solutions: Network TAPs, Network Packet Brokers (NPBs) and Log Ingestion

Services: Design and config of protocol filters, management of NPBs and monitoring probe health

Outcome: Real-time network monitoring and lucrative new revenue streams for our client

“Working with Red Helix is an absolute pleasure. Their professionalism, flexibility and technical abilities have allowed us to meet our goals. I would recommend them for any major network data access project.”

Head of Network Monitoring, Major Mobile Network Operator

Introduction

Our client needed to monitor network performance and plan future capacity needs. It also wanted to unlock new revenue streams in addition to its mobile phone business by selling trend intel available from its network data flows, like IoT device monitoring, live road traffic info, and retail site planning.

However, enabling all this required 3 technical hurdles to be overcome, so our client turned to us to help address these challenges with a combination of industry-leading network visibility solutions and a 24/7 managed service.

The 3 technical challenges and resolutions

1. Safely Acquiring Network Data

To monitor network performance and provide rich trend intel for income streams, a full copy network traffic must be acquired and sent to the monitoring tools. An easy way of doing so is to use the SPAN port on network switches to provide a copy of the traffic they see, but this is risky for two reasons:

- SPAN ports are known to drop some data packets, and without a full copy of the required traffic, monitoring tools can't properly diagnose performance issues, and the trend analysis from the network data flows for new revenue streams would be rendered erroneous.
- The other reason boils down to the introduction of risk. Network switches are critical parts of the network fabric, so asking them to perform a task in addition to their core function introduces risk - which is unnecessary when this can be achieved safely with network taps.

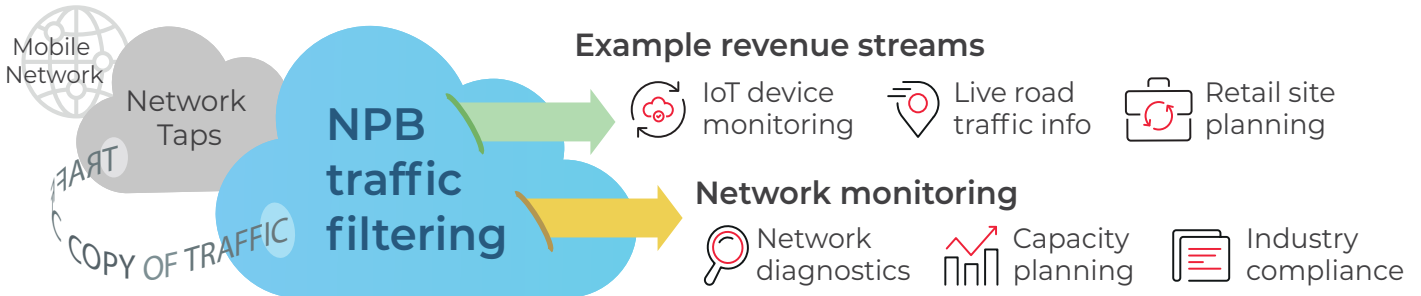
Given the nature of our client's business, introducing risk to network availability was not an option, so we provided network taps at various points in the network to safely copy traffic and send it for preparation. This provided the core ingredients for network monitoring and new revenue streams.



2. Data Preparation

With a copy of the traffic safely generated by the network taps, the data needed to be prepared for each application. This required the traffic to be recognised and spilt out into various streams and arrive in the speeds and formats compatible with the destination tools.

For this, we provisioned and manage a network visibility layer consisting of Network Packet Brokers (NPBs) with advanced features. The NPBs receive the network traffic copy, intelligently filter and separate the data, and send it to the monitoring probes and other destinations that require them.



This intelligent conditioning of network traffic also involves rate-adapting traffic from 100Gbps down to the lower speed throughput capability of the monitoring probes. This saves our client money by extending the life and value of its lower speed monitoring tools.

The Visibility Managed Service

Due to growing data volumes and the strict SLAs our client must deliver, we provide a 24/7 managed service to monitor the NPB's health, implement all config changes and upgrades, and maintain the monitoring system's design documentation. This allows our client to better focus its time on serving the needs of its own clients.

3. Managing Monitoring Probes

To deliver rich intel valuable to our client's customers, the monitoring probes, now armed with the conditioned traffic, have to reliably perform various functions to present the required intelligence.

Due to the long-standing value seen from working with us, our client then chose to extend the service to include the configuration and monitoring of the servers on which the probes were running.

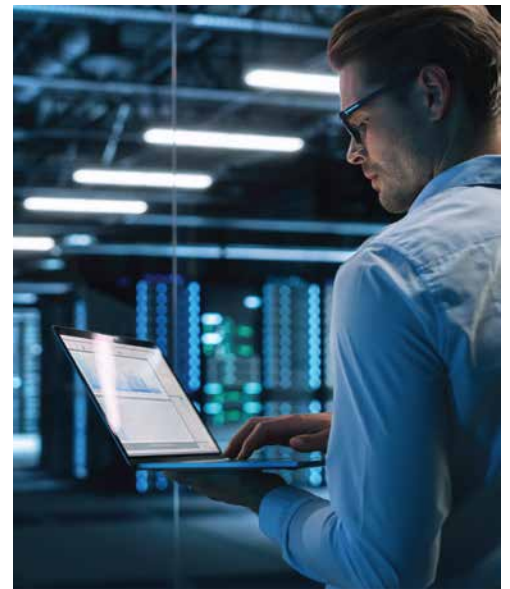
This service involves:

- The sourcing of probe servers and the installation of the operating system
- Provisioning of log ingestion to take server logs for monitoring the probe's health
- Pre-emptive maintenance and operating system updates to ensure continuous operation

The Outcome and Capability

As the cost of monthly phone contracts continues to fall, operators are seeking other income streams to remain competitive. The combination of our network taps, network packet brokers, log ingestion, and managed services provides our client with the means to generate valuable revenue streams.

Moreover, as mobile network generations have evolved over the years, our client has depended on us to enable continuous network monitoring for troubleshooting, capacity planning, and compliance with industry regulation.



Contact us



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