



## CASE STUDY

# Bank Cuts Response Time by 30% With Lossless Visibility

This large regional financial institution is committed to customer service, which has been its competitive advantage for 60 years. Executives had the foresight to strengthen the bank's online presence, resulting in roughly 10 million downloads and application updates for smartphones and tablets. Amid the bank's digital transformation, IT began struggling to maintain service quality as customers did more of their banking from smartphones, tablets, and other remote points of service.

## Challenges

### Maintaining application quality

Application quality and end-user satisfaction are central to the bank's success. The bank's systems development department is responsible for resolving issues with applications that affect service quality and end user transactions. The team noticed an increase in customer complaints involving service disruptions. Traditional performance monitoring and WAN optimization tools did not provide the insight necessary for the team to diagnose the underlying cause.



#### Organization:

A regional bank with 4,000 branches, 28,000 ATMs, and 30,000 points of service

#### Challenges:

- Improve application response time and service quality
- Identify the cause of performance issues to prevent a recurrence

#### Solutions:

- Hybrid network visibility platform built with Keysight's virtual and cloud taps and Vision series network packet brokers (NPBs)
- New application performance management solution from leading IT management vendor
- Keysight Hawkeye proactive network monitoring solution

#### Results:

- Thirty percent reduction in response time for a key application
- Twenty-five percent reduction in application-related support cases
- Additional staff time available for proactive monitoring



## Diagnosing underlying performance issues

The systems development team was struggling to diagnose the underlying cause of application disruptions and slow performance. Frequently, issues the team had closed recurred and required additional investigation. The team found it difficult to objectively determine the effectiveness of application implementations in the production network even in situations where information was available from logs and web servers.

## Ensuring monitoring systems scale with business

An initial assessment revealed that recent increases in traffic volume had overwhelmed the company's monitoring tools. As a result, the tools were taking too long to process data and were dropping packets. Support managers suspected incorrect results were contributing to the recurrence of application disruptions.

## Solution

### Enhanced network visibility

IT recognized that their increasing use of software-defined infrastructure and cloud resources was impacting their ability to see what was happening across their networks. While it was straightforward to tap traffic from the physical infrastructure, they had no comparable solution for accessing traffic on their virtual and cloud servers. Their monitoring solutions were not seeing all the relevant application traffic.

The team implemented visibility solutions from Keysight to eliminate the blind spots related to hybrid resources. They chose virtual and cloud taps and Keysight Vision One and Vision Edge NPBs to create a lossless visibility architecture that would provide their monitoring tools with packet data from across the organization.

Keysight's visibility solutions did more than eliminate blind spots. They also used packet intelligence to sort and filter network traffic based on packet details while maintaining zero packet loss. This allowed the team to isolate traffic related to a specific application or specific type of user — such as those accessing an application from their smartphones.

### Advanced APM solution and dedicated team

With greater visibility to their traffic, the team realized they needed a more consistent and rigorous approach to performance monitoring. They implemented an application performance management (APM) solution with advanced analytics so they could pinpoint problems with greater speed and accuracy.



Our challenge was to develop objective indicators to measure the quality of applications with more consistency and identify opportunities for improvement.

Information Technology  
Manager

The Keysight visibility solution provides their new APM tool with the specific packets it needs to perform advanced correlation and analysis. An easy-to-use interface lets system engineers set up automatic delivery of network packets to the APM tool.

The new APM solution offered so many more monitoring options; the bank also created a new APM center of excellence team. The APM team develops standards and processes for application performance and conducts continuous monitoring.

## Cost-effective monitoring that scales

Because traffic congestion had caused problems in the past, the team was interested in how they could keep their monitoring tools working efficiently as traffic volume grew.

Keysight Vision Series NPBs have several features that off-load compute-intensive tasks from APM tools, without dropping packets, to preserve their capacity for higher-value data processing. For example, Keysight NPBs remove all duplicate packets before delivering an aggregated data stream to monitoring tools. In addition, the NPBs also removed unnecessary monitoring data. This preprocessing significantly reduces the workload on monitoring tools so capacity upgrades can be delayed.

Engineers can also configure Keysight NPBs to balance total workload across similar monitoring tools automatically. The NPB keeps track of utilization at each device and shifts workload to avoid oversubscription.

## Results

The newly-created APM center of excellence team takes responsibility for ensuring application availability and identifying the root cause of issues. The department also defines key performance indicators to track application quality and availability over time.

Since the deployment of the new visibility and monitoring solutions, engineers report a 30 percent reduction in response time for one key application. The team also attributes a reduction of 25 percent in support cases related to application outage to better detection and root cause analysis.

With better systems in place, the APM center of excellence team can devote more time to proactive monitoring—running synthetic application traffic through their network to identify potential issues.



We can achieve a high level of accuracy when identifying the root cause of issues, significantly improving availability of our services.

IT Support Coordinator

## Summary

Before this deployment, the bank was struggling to gather the data necessary for issue identification and resolution. Legacy monitoring tools were not keeping up with traffic volume to deliver reliable data. Now, with the deployment of Keysight's intelligent visibility platform and a new APM solution, the bank can quickly identify the root cause of issues. With a new focus on data collection and monitoring across their entire hybrid environment, quality is back on track and applications are running smoothly for customers, partners, and employees.

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