VIAVI

Leicestershire County Council

"The principal benefit of Observer GigaStor is its ability to monitor and collect huge quantities of packets from even the busiest links. Combine this with the expert analysis features and the ability to zoom-in to the past and it's easy to find and examine packets and transactions of interest."

— **Allan Ralph | Senior Technical Specialist Infrastructure**

Central to Success

Located in the English Midlands, the Leicestershire County Council enjoys a strong national reputation for doing things differently and achieving results. In 2009, it was named Council of the Year - the first County Council to achieve such an accolade and despite the tough economic climate, it continues to deliver high-quality services to the people of Leicestershire.

Seen as a trailblazer in many areas, the Leicestershire County Council leads the way in working with troubled families. In partnership with the National Health Service, police, district councils, and others, the council has provided services for these families in need, while cutting bureaucracy and reducing costs.

Like most public services, Leicestershire County Council has faced the ongoing financial challenge of government funding reductions. As a result, the council has taken early action to find efficiency savings and new ways of working.

An Error in Action

Like most organizations, the council relies on its technology to deliver services to over 650,000 residents and 5,000 employees. However, when a random disconnect of some of their business-critical cloud applications began affecting productivity for dozens of users every day, they knew they would need to do some detective work to find the issue.

"It began as a minor irritant," says Allan Ralph, Senior Technical Specialist of Infrastructure for the council. "For over six months we tried to capture the error, but with the sniffers available to us at the time we never managed to knowingly capture the event."

Ralph and his team enlisted the help of their business-critical applications provider to try to reproduce the error, but both were unsuccessful.

"The principal problem we found with trapping this error was the amount of data being seen," says Ralph. "The only network tapping points that had low enough volumes of data were to the workstations, but due to having deployed IP telephony across the estate, even workstation network interfaces could have huge numbers of packets per day."

The error itself also contributed to the difficulties. Although a transaction would abort, it wasn't fatal. As a consequence the user could simply log back in and continue to work. Unfortunately, although it was an annoyance for most people, for one or two it became more problematic and confidence in the application functionality began to wane.

The council engaged with Viavi Channel Partner, Open Reality to understand the various options within their budget to help find and fix the issue.

Finding the Needle in a Haystack

With the average throughput of the interface the team proposed to tap, they would need to collect up to 25 gigabytes per day. They needed a device that could monitor busy trunk links, but also have the means of recording and recovering transactions.

"It became apparent that in order to capture the error we were going to have to look at monitoring a trunk link, some point on the network where all transactions relating to the application, from every device on the network that was likely to be affected. In effect this meant every PC on our network," says Ralph.

Following research and a procurement exercise the team purchased an Observer GigaStor from Open Reality with the initial installation performed by Mike Molyneux.

"Mike's advice and experience proved invaluable especially when setting up the database and interfaces," says Ralph. "Following the installation all we had to do was wait for the error to come to us."

End users were told to report to Ralph and the team when they had a failure and from which PC the failure originated. Because a network address translation had occurred to both the send and receive addresses before the tapping point (all packets had the same source and destination addresses) Ralph had to use firewall logs to establish which transactions may have been involved. If the time given was reasonably accurate he expected to be able to find the transactions in error.
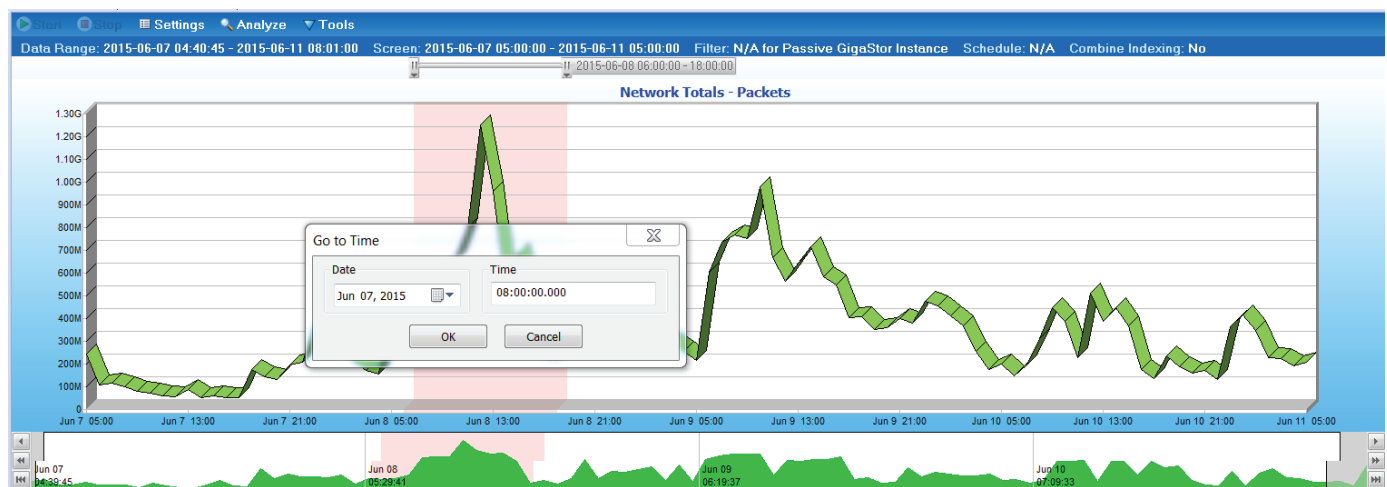
GigaStor Time Capture Window

As things transpired, by midafternoon of the second day Ralph and his team had a report of an error which was swiftly followed by two more. Giving themselves a reasonable window of plus or minus two minutes, they discovered there were around 10-15 transactions for each of the workstations for the given times. By the end of the day they had found the three failing transactions and the evidence was passed on to the vendor with the problem resolved in a matter of hours.

"It's difficult to quantify the savings of such an event," says Ralph. "There is lost time to the users, investigations, and meetings to be considered. Given the amount of time invested, it is possible for a GigaStor to pay for itself the first time it is used."

A Quick Fix and Fast Returns

Ralph and his team are confident in the value of their purchase and the continued benefits of GigaStor.

"The principal benefit of Observer GigaStor is its ability to monitor and collect huge quantities of packets from even the busiest links," says Ralph. "Combine this with the expert analysis features and the ability to zoom-in to the past and it's easy to find and examine packets and transactions of interest."

Comparing their new strategy to previous tools, the team at Leicestershire County Council can see increases to efficiency and happier end users.

"GigaStor has the power and capacity to enable monitoring of busy trunk links so that it does not impede the user, and as a consequence we are not adding insult to injury for the end user," Ralph says. "It is much easier than traditional network sniffing."

After the initial problem, Ralph and his team have leveraged the Observer Platform, GigaStor in particular, for ongoing, proactive monitoring, as well as post-event analysis.

"GigaStor was originally purchased with a view to resolving one particular problem," says Ralph. "We were mindful of the possibility that other problems of a similar nature may occur and having been 'bitten once,' we needed to be ready for the future. A number of issues have since occurred and thanks to GigaStor we are in a position to react to the problems as they happen. Before GigaStor it was like looking for a needle in a field of haystacks. With GigaStor we now have a 'metal detector.' GigaStor has completely changed the game, putting the odds back in our favor."

About the Council

The Leicestershire County Council is recognized as one of the best performing councils in the UK. The authority provides a wide range of services to over 650,000 residents every day including social care for children and the elderly, waste disposal, and roads. The council's workforce numbers 5,000 full-time equivalent posts, excluding schools.

About Open Reality

Since 1999 Open Reality has been helping organizations achieve their goals by ensuring the successful delivery of business applications, keeping their users happy and business moving. In addition to hardware and software solutions, they also offer expert consultancy and skilled support services, ensuring that customers are supported before, during and after sale.