Case study: Coop ramps up application performance

Industry pain points

In today's virtual environment, IT services are becoming infinitely more complex, each service involving a multitude of subservices. This complicates the task of troubleshooting network issues and puts heavy pressure on IT operations.

Network and application performance monitoring (NPM/APM) tools offer focused capabilities to diagnose issues in real time. But due to climbing data volumes and network speeds, these tools struggle to provide the complete picture, making it exceedingly difficult to pinpoint issues and provide timely repair. Meanwhile, the drive to reduce total cost of ownership presents IT teams with the predicament of delivering an increasingly capable network on a static or reduced budget.

Client challenge

Coop, a leading European retail enterprise, is one of the trillions of companies facing this challenge. To avoid costly downtime and operational interruptions, Coop's IT teams need to quickly troubleshoot and resolve any network issues. But acquiring the needed event visibility involves real-time processing of enormous quantities of data from various departments; an unviable task which severely exhausts resources and puts pressure on Coop's APM solution, Riverbed SteelCentral AppResponse.

Our solution

To help Coop tackle this challenge, system integrator Interview Network was tasked to develop a high-performance capture solution. The main objective was to offload AppResponse by recording all the data and allowing the tool to focus on prioritized events only.

Interview Network selected Napatech's Pandion Recorder powered by FPGA SmartNICs to collect and store the raw network packets.

Challenge

To avoid costly downtime, Coop's IT teams needed the ability to quickly troubleshoot any network issues. But with the massive surge of data from across the enterprise, their monitoring tool, Riverbed AppResponse, was struggling to keep up.

Solution

System integrator Interview Network created an add-on solution based on Napatech's Pandion Recorder. The solution offloaded AppResponse by capturing all the data and making the full trace file swiftly accessible on demand.

Benefits

- Reduced MTTR
- Limited downtime
- Enhanced performance
- Cost-efficient add-on to Riverbed AppResponse

Pandion was integrated with AppResponse via Interview Network's reporting tool, SLIC. This enabled quick on-demand retrieval of the full network history whenever needed. So if an event was flagged by AppResponse, SLIC's packet module, iPAC, would immediately pull the full trace file from Pandion, including incident time, IP address and protocol, and forward the complete report to IT operations for in-depth investigation.
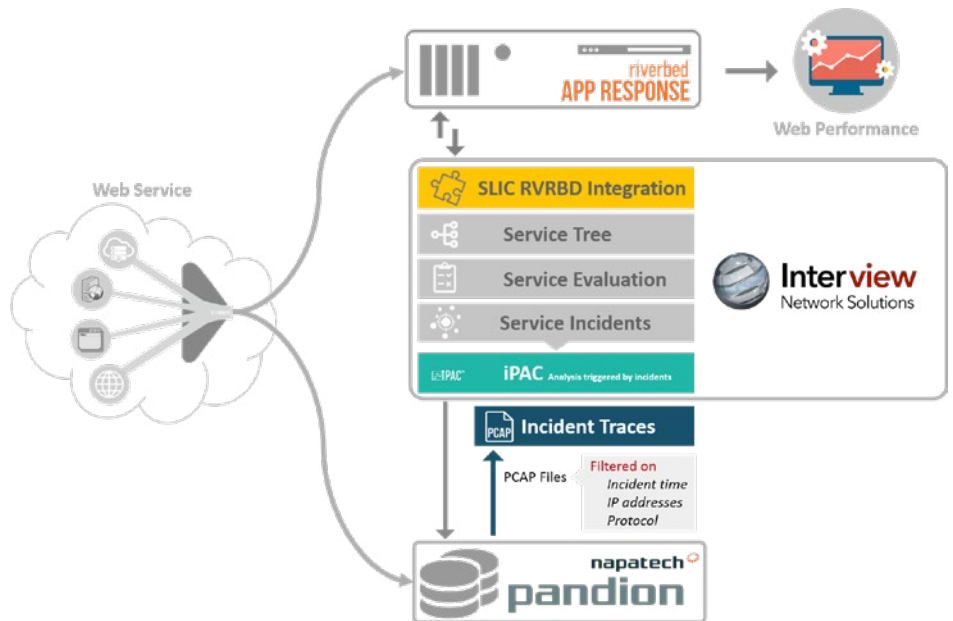
Benefits

By thus complementing Coop's existing AppResponse tool, the solution offered a cost-efficient way of zooming in on the problem area and describing its full scope. This added invaluable insights, enabling:

- informed root cause analysis
- improved mean time to resolve (MTTR)
- limited downtime and operational interruptions
- enhanced overall network and application performance

"Napatech was our natural choice. They are widely acknowledged for their reconfigurable computing solutions – and have a great reputation for lossless, high performance capture."

Andreas Diedrich
CEO at Interview Network Solutions

Solution integration

- Interview Network's SLIC tool imports data from Riverbed AppResponse
- Creates service chart
- Identifies incidents on the service tree
- Pulls complete trace files from Pandion Recorder - filtered for exactly those incidents including:
  - Incident time
  - Host IP
  - Protocol
- SLIC's analysis feature detects any issues in the trace files