



Scapa[®] Test and Performance Platform

Scapa TPP testing in complex, real-world, Thin Client environments brings many business benefits; ensuring user experience, predicting system capacity etc. This case study describes CSC's use of Scapa TPP to improve system performance for their customer, Anglia Water.

This case study describes the real life experiences of using Scapa TPP in a complex Thin Client environment by Computer Sciences Corporation (CSC), a global leader in providing technology enabled business solutions and services, for their customer, Anglia Water Group (AWG), a worldwide water and environmental services provider.

Why Scapa TPP

Scapa TPP, the professionals' testing, capacity planning and monitoring tool of choice.

Scapa TPP is the only test tool with the power, flexibility and feature list required for proper and accurate performance, capacity and scalability testing of Application and Desktop Virtualization or Thin Client solutions from Microsoft®, Citrix® and others. With a highly scalable engine technology, tests can be scaled to hundreds of thousands of users, using any automated GUI scripting tool of choice – such as WinTask, AutoIT, .Net™ etc.

Why Scapa TPP was selected

CSC hosts the Anglia Water system from a central server farm in Cambridge, UK. The system comprises 102 Citrix servers and approximately 12 key applications that were originally run on "silos" of grouped servers, supporting 6 locations across the UK.

AWG had been making regular complaints about the performance of the system, especially from one location and had requested that CSC took steps to identify if there was a real performance issue, and if a problem was highlighted, to identify the root cause and resolve the issue. AGW also required that CSC prove that any resolution was credible and viable and that regular performance reports would be provided on an ongoing basis.

At that time, CSC had no means of achieving any of these requests. However, with the very real threat of financial penalties or ultimately, loss of the business, CSC knew it had to find a solution. The contract with AWG was due for renegotiation in 2 years time and CSC was seriously concerned that it may lose a multi-million pound contract.

The Solution

Scapa Technologies was introduced to the CSC/AWG Account team through contacts at the CSC Server Based Computing Centre of Excellence (COE). After demonstrating Scapa TPP for Thin Client, the COE team were sufficiently interested to offer Scapa Technologies a contract to deliver a Proof Of Concept. Scapa Technologies put a consultant on site for one week, installed Scapa TPP for Thin Client, produced tests scripts for Microsoft® Outlook® and one legacy application and ran a 24-hour monitoring test from the head office and the "problem" location.

The Result

The Proof Of Concept was hugely successful and proved that:

- AWG could halve the number of servers being used to support the Outlook users without affecting performance in any way.
- the legacy application was not capable of supporting more than two concurrent users on a single Citrix server. The application was installed on all servers in the farm instead of being restricted to a silo of 14 servers, thereby curing the performance problems.

With Scapa TPP risks are minimized, profits maximized.



- the problem location had a genuine performance issue and consistently ran 10-20% slower than any other location on the WAN.

Following the success of this Proof Of Concept, CSC purchased two Scapa TPP licenses; the first to be used as a load testing solution which they could transfer between different accounts for the purpose of trouble shooting, the second to be used as a permanent monitoring solution on the AWG system.

Business Benefits To CSC

As a result of purchasing and installing Scapa TPP, CSC has generated significant commercial benefits in a number of areas, including:

- CSC can now scale and size new Thin Client based systems before they go live, providing accurate hardware requirements and specifications and, consequently, accurate budgetary requirements.
- CSC has a means of measuring system performance before the systems go live and, as a result, can determine Service Level Agreement (SLA) criteria with customers with the confidence that these criteria can be achieved.
- Once the systems are live, CSC has the means to constantly measure system performance, trigger alerts to warn of possible problems arising, produce regular performance reports for submission to their customers, provide performance trend analysis to be used to help customers plan for future system changes and upgrades, and test new releases of software before going live.

The end result is that CSC are now able to provide a more comprehensive and reliable service to their customer, the number and frequency of support calls and complaints have decreased and the team has a much greater depth of understanding of their customers' systems which makes renegotiation of contracts simpler and the likelihood of a successful renegotiation greater.

CSC is now planning to introduce Scapa TPP as a standard testing and monitoring solution across all accounts and discussions are already in progress with regard to a number of new customers.

Top Ten Technical Advantages

There are many key differentiators with the Scapa TPP solution – the Top Ten are listed below:

- 1.** Performance and scalability characteristics are taken from the end user experience, in addition to the server side experience. Server side metrics and end user experience metrics are correlated within Scapa TPP to expose the performance and scalability of your system.
- 2.** The ability to define your a workload model to suit any particular workflow and application mix.
- 3.** Ability to run live interactive tests (user load can be increased and decreased during tests runs) with real time results in addition to predefined, scheduled 'canned' tests.
- 4.** Concurrent login capability with the Citrix, Microsoft and other clients.
- 5.** Ability to login to Citrix (and RDS/other) sessions via the Web broker
- 6.** Distributable Engine technology establishes the client sessions and handles the control, messaging and synchronisation logic from multiple locations simultaneously.
- 7.** Highly scalable architecture with insignificant CPU requirements from the Scapa Engine load injector component.
- 8.** Small results storage space requirements – full access to all results via SQL to the embedded relational database.
- 9.** Highly scalable and optimized, multithreaded Engine technology built with C enables Scapa to be virtually CPU insignificant, on the client and server side, enabling tests to scale to hundreds of thousands of users.
- 10.** Extensible architecture: Scapa TPP has a generic, load generating, multithreading architecture, built on a mix of Java and C, enabling the tool to be highly dynamic in responding to changes in the underlying architectures of the systems under test.

Scapa Technologies (www.scapatech.com)

Scapa TPP is a best-of-breed performance testing tool for Virtual Desktop, Remote Desktop, Citrix® and BMC Software® Remedy® AR System®, with support for additional technologies (such as HTTP(s) protocols).

All of the functionality is available in a single product and can be applied in combination, allowing Scapa TPP to:

- Benchmark
- Prove the value of WAN Optimization
- Highlight bottlenecks
- Reveal the performance and scalability characteristics from the end user perspective.
- Function in virtual architectures of any complexity.
- Facilitate migration projects between physical or virtual architectures in any combination and of any complexity.

Scapa Test and Performance Platform has a unique level of integration with Remedy AR Server and ITSM™ architectures at the C API, Java API and the http layer, and via multiple other touchpoints.