Scapa
Technologies

# About Scapa

Scapa Technologies Limited is a privately-held, venture-backed, independent software vendor and performance testing services company, founded in 1998 and based in Edinburgh, UK.

The company develops Scapa Test and Performance Platform, an innovative and powerful benchmarking, performance testing, diagnosis and monitoring software product applicable across a wide range of commercial software technologies at multiple points in the software lifecycle, such as:

- **BMC® Remedy® product set including ITSM® suite**
- **Citrix® XenApp™**
- **Citrix XenDesktop®**
- **VMware® View™**
- **Mendix™ Application Platform**
- **Web Applications**

Scapa Technologies operates in more than 20 countries worldwide, working extensively with our implementation partners across a wide variety of business verticals .

CERNER All Together

*"For our needs, Scapa is the best tool around."*
*"We use Scapa to perform many types of technology comparison tests....[to] provide valuable performance and scalability information to many areas of the company as well as to our clients"*
Chuck Hunt, Sr. Team Lead, Abilities Lab

IRONSHORE

*" I cannot speak highly enough about Scapa's work and the Scapa technology."*
Joe Perez, Head of Global Infrastructure Services

# Professional Services

## Consulting Services

Our highly skilled consultants work worldwide, either on-site or remotely to deliver a variety of performance testing activities across a wide-range of applications and environments, from off the shelf to custom applications.

Scapa consultants specialize in performance testing of Remedy-based solutions, such as the ITSM suite of applications, systems based on the Mendix application platform, web applications and desktop virtualization deployments (e.g. Citrix XenApp/XenDesktop, VMware View and Microsoft Terminal Server).

**Our services include:**

- **End-to-end Testing**
- **Scalability Profiling**
- **Bottleneck Identification**
- **Benchmarking**
- **Capacity Planning**
- **Performance Comparison**
- **Migration**
- **Server Consolidation**
- **Service Availability**
- **Diagnostic Testing**
- **Desktop Virtualization**
- **Proof-of-concept**

## Health Check-up

You may be concerned that your systems will not accommodate future demands. With their wide-ranging experience in projects spanning many verticals and an even greater variety of IT systems, our consultants can conduct thorough reviews of your current and future capacity requirements. By running a variety of tests to quantify the performance, scalability and capacity of your systems, they will be able to identify the available headroom, thereby minimizing potential performance risks.

## Training Services

For businesses that want to be self-sufficient with respect to performance testing, our training course is adapted and personalized to your specific IT system. We help you run tests on your system with your applications to get you up and running fast - typically within five days.

## Pre-Flight Assurance Testing

Although Scapa promotes continuous and on-going testing throughout the application lifecycle, for many businesses testing can be a last minute activity. Our expert consultants regularly deliver pre-flight tests in 1 to 3 weeks, identifying problem areas quickly and providing businesses with the peace of mind that performance, stability and capacity-related issues are resolved prior to rollout.

## Fire Fight Services

Picture the scenario; your system reliability, performance, scalability or capacity is not what it should be on the production system or, even worse, has failed, causing untold damage to your business. Despite best efforts internally, the root cause remains elusive. Scapa consultants have substantial experience of such issues and have helped some of the biggest companies in the world to identify underlying system issues when all internal resources have been exhausted.

# With Scapa TPP risks are minimized, profits maximized.

## Scapa Expedite Methodology

Until recently, however, Performance Testing has been viewed as a complex and expensive process, in many cases completely divorced from the rest of IT implementation and management. Scapa Expedite has been developed with hundreds of customers and Service Providers over many years, to re-engage Performance Testing with the rest of the IT function, and to offer significantly higher benefits at lower cost.

Scapa Expedite is a proven methodology for Performance Testing to resolve issues of Capacity, Continuity and Service Level at an appropriate point in the application lifecycle, at an appropriate cost. It minimizes the risk that the capacity of a system may not be adequate for the business operational requirements. In addition, it can test the stability and continuity of the system when operating at the required level of capacity.

Scapa Expedite defines a sequence of standard Test Activities, which are applied singly or in combination at various standard points in a project, and each of which has specific objectives. It also identifies a scope and scale for each Test Activity which is appropriate to its objective and practicable at the point in the project where it is applied to most benefit. The objective is to map out the space of business requirements that the system is capable of delivering and, in the case where these are judged inadequate, to take steps in a timely and cost-effective manner to remedy the problem.

### Planning

Scapa Expedite defines 8 types of Test Activity which cover a broad range of requirements. Test Activities are aligned with the overall project timelines.

Factors to be considered during planning include:

- **Known architectural and application risk factors**
- **Business priorities and risks**
- **Timing of project review points**
- **Scoping of tests to allow them to deliver maximum relevant information at project review points**

Not all of the Test Activities need be applied in every project. In general we would recommend, for even the smallest changes to a system, Test Activities should be performed at least twice, once at the beginning, and once at the end of the implementation. In small-scale projects where hardware and software architecture and sizing are well-understood, or can easily be taken from best-practice guidelines, it may be tempting to work with a single test (known as an Operational Acceptance Capacity Check) to confirm that the system has the necessary Capacity, but this is a high-risk strategy because the information comes too late to allow changes to be made.

### Test Activities

The eight Test Activities in Scapa Expedite are:

### Scapa Expedite Test Activities

- **Baseline Service Performance Test**
- **Sizing**
- **Mid-Implementation Capacity Check**
- **Production Calibration Test**
- **Capacity-Related Stability Check**
- **Session Stability Test**
- **Operational Acceptance Capacity Check**
- **Operational Acceptance Continuity Check**

Each Test Activity contains one or more actual Tests which, following the BCS ISEB terminology, are either · Performance Tests at fixed workloads which are anticipated to be within the capacity of the system or Stress Tests which seek to drive the system beyond its capacity.

## Examples

Scapa TPP has benefited customers across a broad range of Remedy ITSM Suite and Custom Remedy Implementations.

A US Telco proved out a scalable database, operating system and hardware architecture for Remedy 6 to 7 migration and ongoing scaling to tens of thousands of users.

A European Telco successfully rolled out a customised ITSM v6 to nearly 2000 users, with repeated scalability and performance testing at quarterly update cycles as features are added.

A European financial services organization proved out the connectivity capacity between the AR System client in its branch network and its AR system server.

### Custom Remedy Application using Web Mid-Tier: HTTP

"Scapa TPP is a great, flexible tool for performing load and stress tests in complex system environments. We have used it for Remedy AR Systems' C API, Remedy BackChannel using HTTP, Windows GUI clients through Citrix and VMware environments, as well as some proprietary Java API testing. The tool helps us to troubleshoot performance issues as well as show the scalability of environments.

In one case, a customer was experiencing serious performance issues with a specific application. After doing lots of investigations the old-fashioned way; looking at log files, Oracle® statement tuning, measuring CPU, etc., the root cause of the problems turned out to be hard to find. Mansystems decided to rebuild the customer's system in a lab environment and started experimenting with Scapa test scripts running against the application. We were aware that there was an issue with one function of the application and that it was taking up to 30 seconds to respond, but although there was a lot of focus on this issue, the Scapa tests were demonstrating that the problem was more fundamental. In fact, it turned out to be a serialization issue. When this specific function was used, all, I repeat 'all', the users suffered from delays because the system was not handling their responses.

At this stage Mansystems engaged Scapa Professional Services to verify the results and perform the same test on both the lab and customer environment. The Scapa consultant collected additional information regarding the application's processes. He noted that only a single thread used CPU resources, yet the running process was multi-threaded and, using Windows Memory Dumps, he was able to identify that a multi-threaded compartment was communicating with single-threaded compartment, which meant that the whole application was forced to work single-threaded. This information was supplied to Mansystems who, in turn, informed the vendor. In this way we were able to highlight a significant quality issue that the application vendor could not ignore.

Once the Scapa consultant identified the issue; the application vendor did their job and fixed it within a day. The problem was traced to an upgrade of the compiler, specifically an alteration was made to their makefiles and what was a multithreaded application in previous versions, became a single threaded application in the new release. The makefiles were fixed and the application recompiled. The performance increase was instant, overall end user experience became consistent and the capacity of the system increased by a factor of 5.9".

MANSYSTEMS

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