IB BOOST LTD
P | +44 (0)118 230 1337
E | tenders@ibboost.com
W | www.ibboost.com

OCTANE AUTOMATED TESTING

Service Definition

IB Boost is a specialist development consultancy whose focus is on delivering complex solutions to global organisations. Our experience has led to the development of a suite of innovative software frameworks for accelerating project delivery. Our combination of subject matter expertise and innovative software solutions paired with our passionate technology consultants allows us to provide a comprehensive range of cloud solutions for almost any target application technology.

SUMMARY

OCTANE offers a fully customisable, secure testing-as-a-service platform for regression, performance and other testing, giving organisations the ability to rapidly develop, deploy and execute tests at scale. The ORQA automation robots allow users to record and design automated tests of any nature (files, APIs, UIs, web, etc.).

SERVICE OVERVIEW

IB Boost has extensive experience with automated testing, including performance and load testing, and ORQA is our next-generation tool for automated testing for enterprise-scale use cases. ORQA can be run in a distributed cluster mode to provide a centralised Testing-as-a-Service solution through our cloud server platform, OCTANE.

OCTANE for automated testing is a universal testing platform, offering a modern web user interface with real-time performance metrics and graphs available while the tests are being run. It is available as a managed service offering with optional support services based on user requirements.

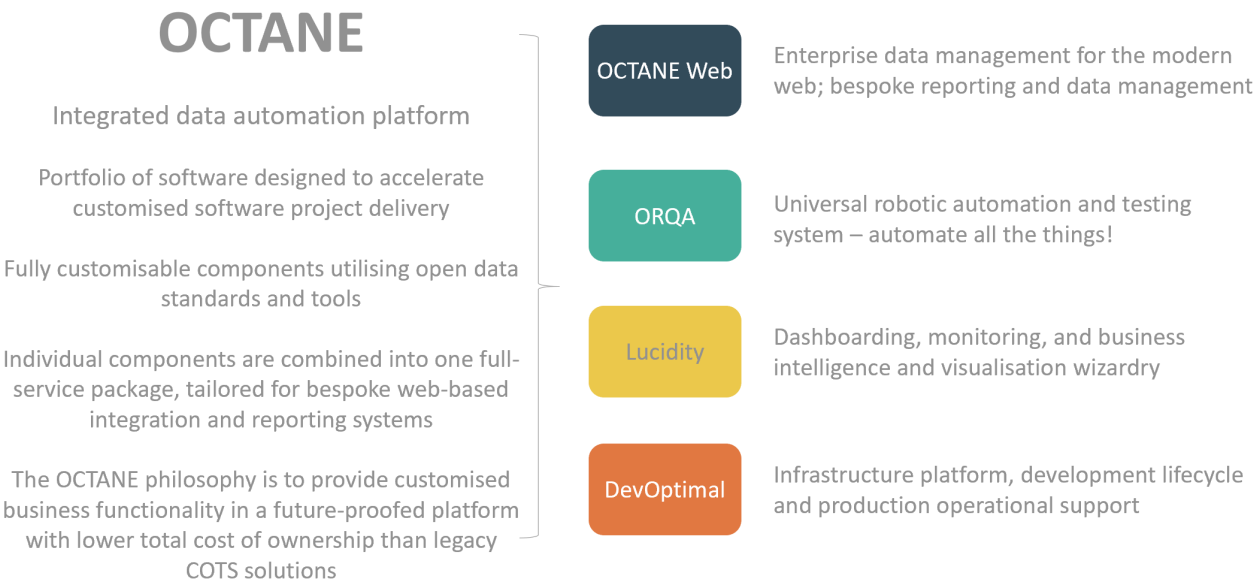
OCTANE is currently deployed as individually-distinct testing platforms that are customised for use by a given customer with a default template for quick on-boarding. This allows new instances to be brought up in the cloud and later moved into private or hybrid cloud setups if required.

Our OCTANE load testing solution is able to simulate many thousands of concurrent users executing a variety of protocols, whether HTTP, HTTPS or other protocols.

When run in the cloud, OCTANE can dynamically scale the number of nodes required to cope with volumes far in excess of 1000 concurrent users. Clients can customise the default number of nodes available to minimise wait time for tests (up to 5 minutes on private platforms to start new nodes) or to minimise costs (starting nodes on-demand only and shutting them down following a specific idle period).

ORQA is part of the IB Boost OCTANE suite of products and integrates natively with all the components to provide a full automation platform.

OCTANE has Intelligent Automation capabilities by integrating Artificial Intelligence (AI) modules, including Machine Learning (ML) with technical automation features, also known as Cognitive Automation. This allows OCTANE to provide an unrivalled set of features in deriving information of value from a centralised data hub through limitless ORQA integration points, whilst still maintaining enterprise-grade data security and customised, efficient user interfaces.



Insights and Reporting

IB Boost can help you define metrics for performance which will allow you to identify your true capacity. For example, we can define tests that can increase loads until the point where thresholds have been breached such as the following:

- All web pages must load in an average of less than 3 seconds
- 99% of web page loads on a given page must be within 5 seconds
- The average time for a given user journey is less than 1 minute

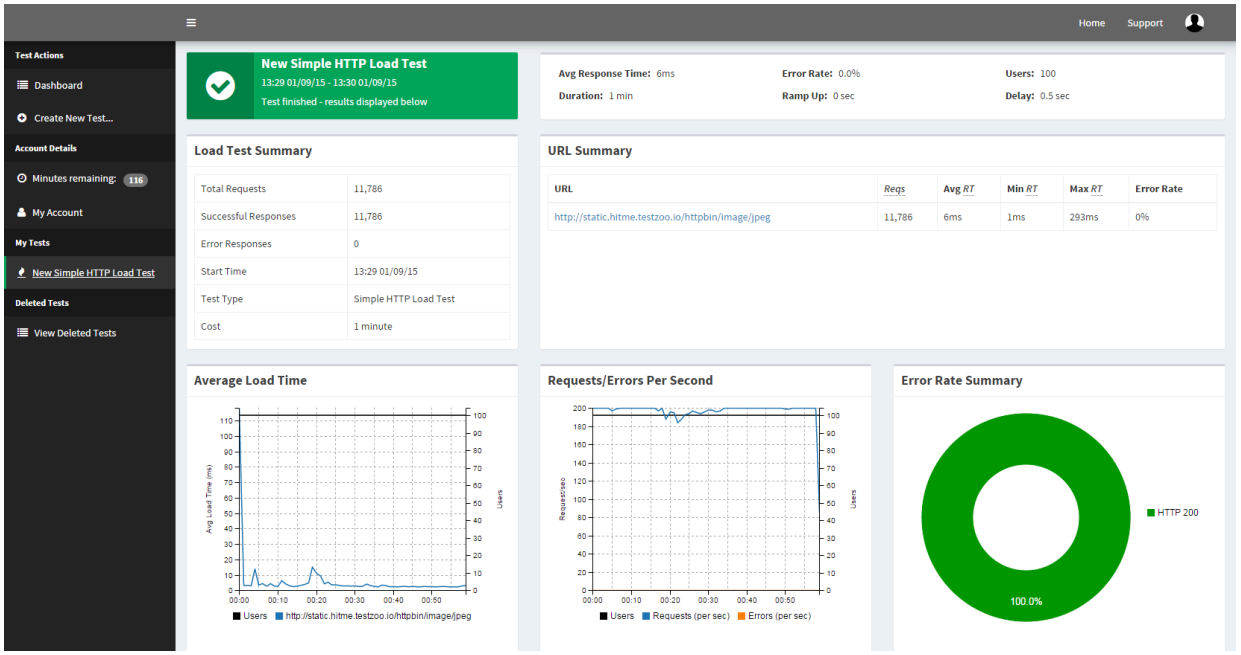
Training and Ongoing Support

OCTANE's default web template is designed to be easily usable by the layman, however operational and functional support for the platform is available for a variety of service levels, including up to a 24/7/365 level of support via service desk, email, phone and live chat for our instances.

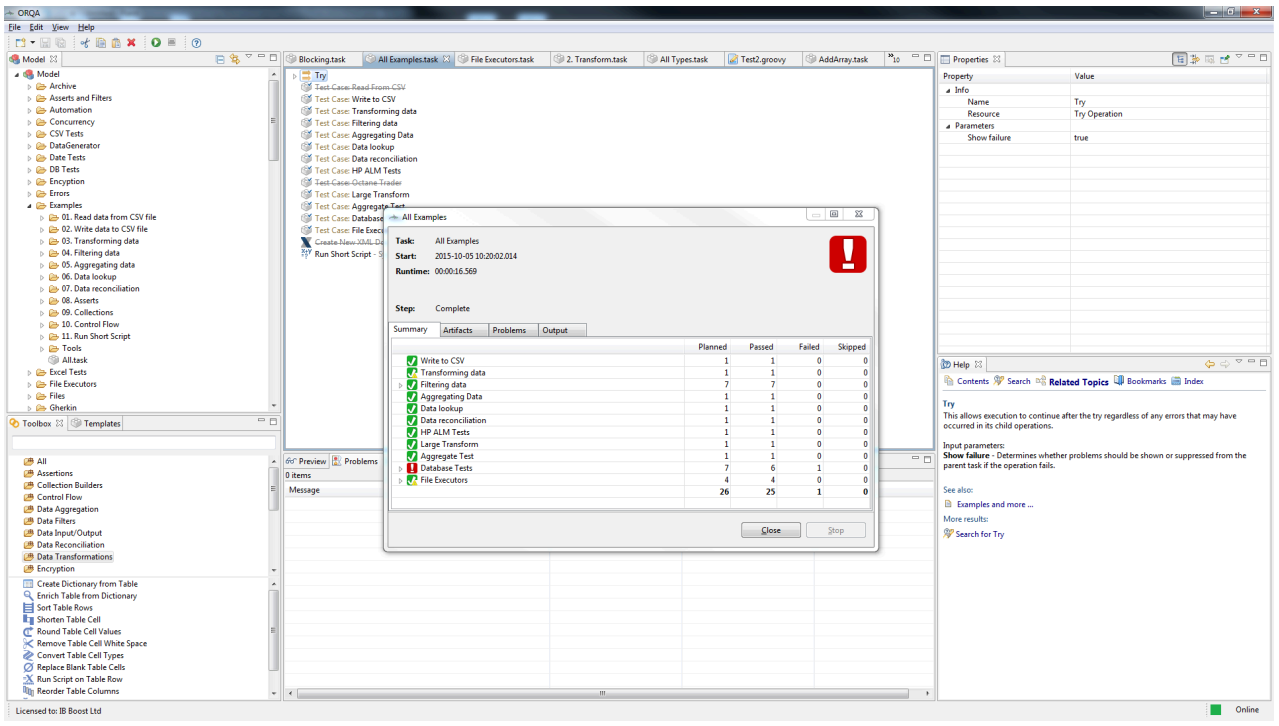
Interface

The OCTANE interface includes rich visual dashboards which store results and allow service quality checks to be undertaken on the performance characteristics of websites or other web services.

OCTANE for testing automation can be visually customised for your organisation and a managed service using an isolated, client-specific set of nodes will be operated, allowing control and security over your data and costs.



The ORQA tool can be used for testing automation and reconciliation of any nature, bringing together all of your tests into one platform, and allowing local or distributed execution in the cloud.



Compliance and Compatibility

OCTANE allows users to customise access to data of various sensitivity levels and includes a platform that permits connectivity to secure government networks with either our cloud-hosted SaaS or fully-managed hybrid / private cloud installations, regardless of whether they are run on Azure, AWS, or other platforms (subject to appropriate accreditation according to data classification level and user environment).

User Administration and Application Security

The OCTANE web application is a security solution that's been accredited for use in various public-sector projects for data up to OFFICIAL-SENSITIVE in public cloud installations. The four-tier structure follows a blueprint for segregation of data that satisfies the highest public cloud infrastructure requirements in the UK public sector today.

Intrusion detection, active monitoring, firewalls and web traffic filtering further protects the system and OCTANE offers a web interface utilising the latest web server security and encryption standards, achieving an A+ in the Qualys SSL Labs analysis.

OCTANE regularly goes through independent penetration tests in addition to our own automated security analysis.

Data Control and Security

OCTANE uses strong role-based access control (RBAC) weaved throughout the entire framework at a foundational level and uses APIs to further segregate workloads and data permissions. In addition, a strong, permission-based object model can allow clients to further extend the data models to be customised precisely for their particular needs, allowing rich reports and real-time dashboarding.

Several logical organisations can also sit within the same distribution and operate entirely independently, allowing large-scale usage and sharing amongst teams and departments. Standard security principles like 'least-access' and 'deny-by-default' are built-in.

Access to the system can include restrictions across functions (horizontal) and within certain records inside data sets (vertical), limiting the rights and ability for different areas to affect each other. In-built sharing functionality permits views and dashboards to be managed and shared amongst users and groups of users in any combination (itself governed by customisable permissions). These are all made available for customisation by the client according to specific requirements.

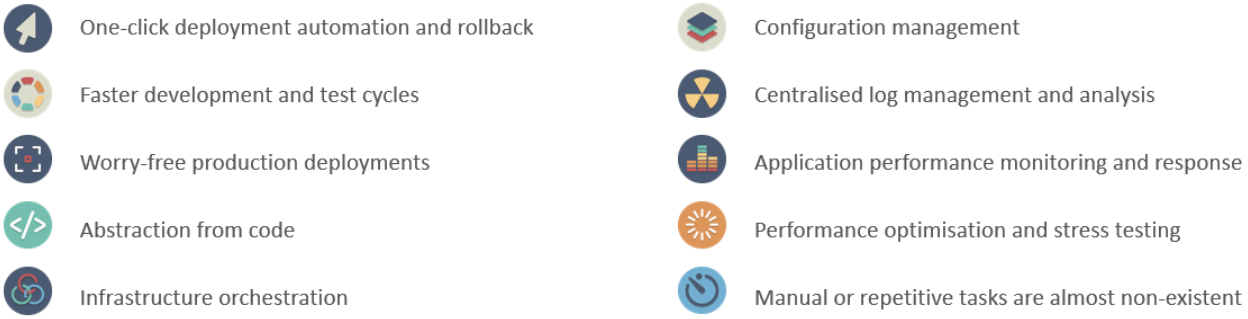
Artificial Intelligence and Machine Learning Capable

OCTANE has ready-made integration for AI models and ML frameworks irrespective of whether they are open-source/in-house or using service APIs. We can offer consultancy services to help integrate workloads into an AI-ready form and can assist technology selection choices.

OCTANE and ORQA can leverage AI models, whether locally-run or integrated via API with major vendors such as OpenAI, Anthropic, Meta and Perplexity to build AI-powered applications for any purpose using our enterprise-grade application wrapper to provide a modern, AI-capable bespoke business process system.

Modern Technical Platform

OCTANE is based upon best-of-breed open source technologies and we embrace the cutting edge. Our solutions are containerised, operating system agnostic (based on Java), automated using Ansible and use the latest industry best DevOps practices.



Auditing and the Corporate Record

All data manipulation is indelible and audited. All designated business data objects are versioned and historised and can show exactly what data has changed and what it was at any given time in the past. All changes to data through the application are audited, whether through the user interfaces or APIs.

FEATURES

- Cloud testing-as-a-service: pay for what you use
- Develop and test performance offline often without any code
- Scalable: no performance test too large
- Flexible: unlimited range of tests and environments; cloud / on-premise
- Data-driven: source data for tests dynamically and from anywhere
- Web, API, and GUI automation and recording for rapid testing
- Extendable: extensions for JMeter and native ORQA testing scripts
- Artificial Intelligence (AI) and Machine Learning integrated with standard connectors
- Advanced dashboard and analytics to performance profile your application
- Economical option for erratic workloads and volumes

BENEFITS

- Subscription to OCTANE gives ORQA automation software licence for users
- Pay for what you use: perfect for varying workloads
- No capacity constraints: scale your tests when you need to
- Test any type of application from customisable locations
- Template reports increase speed of delivery
- Test your APIs, websites, and services under expected loads
- Store your tests and results in the cloud or on-premise
- Run hybrid/private network nodes for in-house integrations and use-specific portals
- Secure platform: HMG Security Policy Framework compliant OFFICIAL-SENSITIVE and higher
- Single-platform automation for any type of app: web, desktop, API