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OCTANE WEB AND API MONITORING

Service Definition

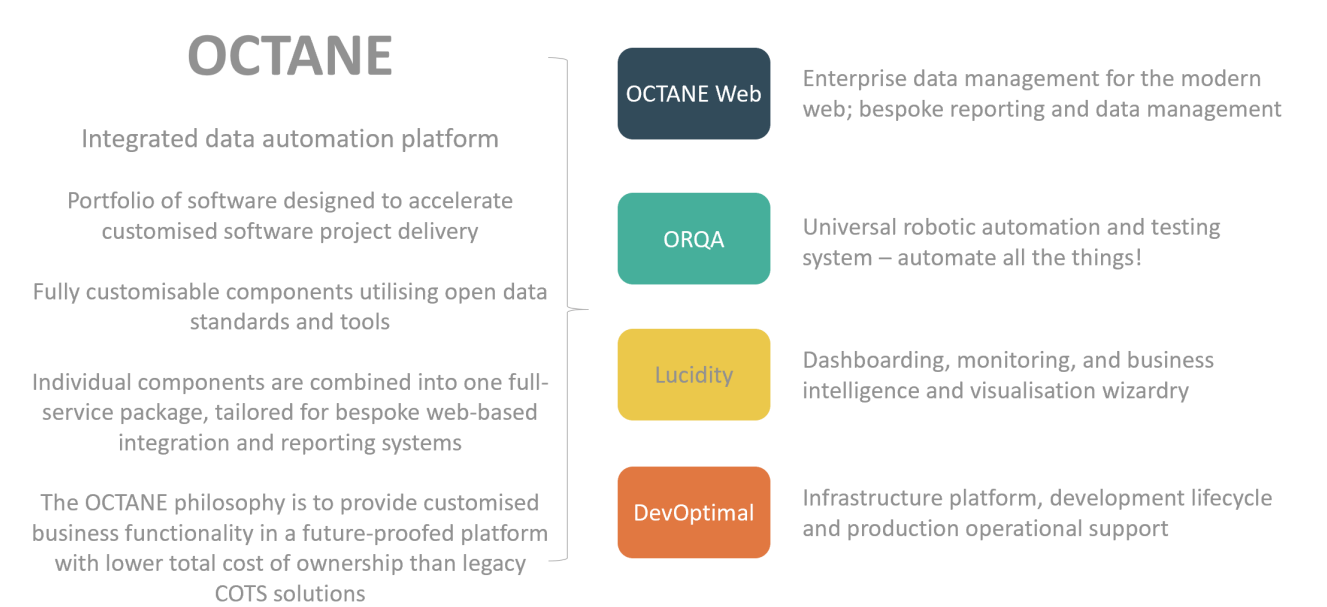
IB Boost is a specialist development consultancy whose focus is on delivering complex solutions to global organisations. Our experience has led to the development of a suite of innovative software frameworks for accelerating project delivery. Our combination of subject matter expertise and innovative 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

IB Boost’s OCTANE platform combines the rich visualisation capabilities with dashboarding and monitoring with the ORQA automation robotic agents to provide a total web and monitoring solution that scales for all sizes, including synthetic user monitoring and API integrations points in a consolidated, modern web platform.

SERVICE OVERVIEW

OCTANE is IB Boost’s software suite comprising several software components allowing organisations to monitor the health and performance of their websites and APIs to provide ‘continuous assurance’ that business processes are running as expected.



Utilising the web-based dashboard for monitoring and management, and the ORQA automation platform for development and execution of complex web, API, and application UI scenarios, IB Boost can design and implement a system to provide continuous feedback and alerts to your operations teams and management, both in production and test environments.

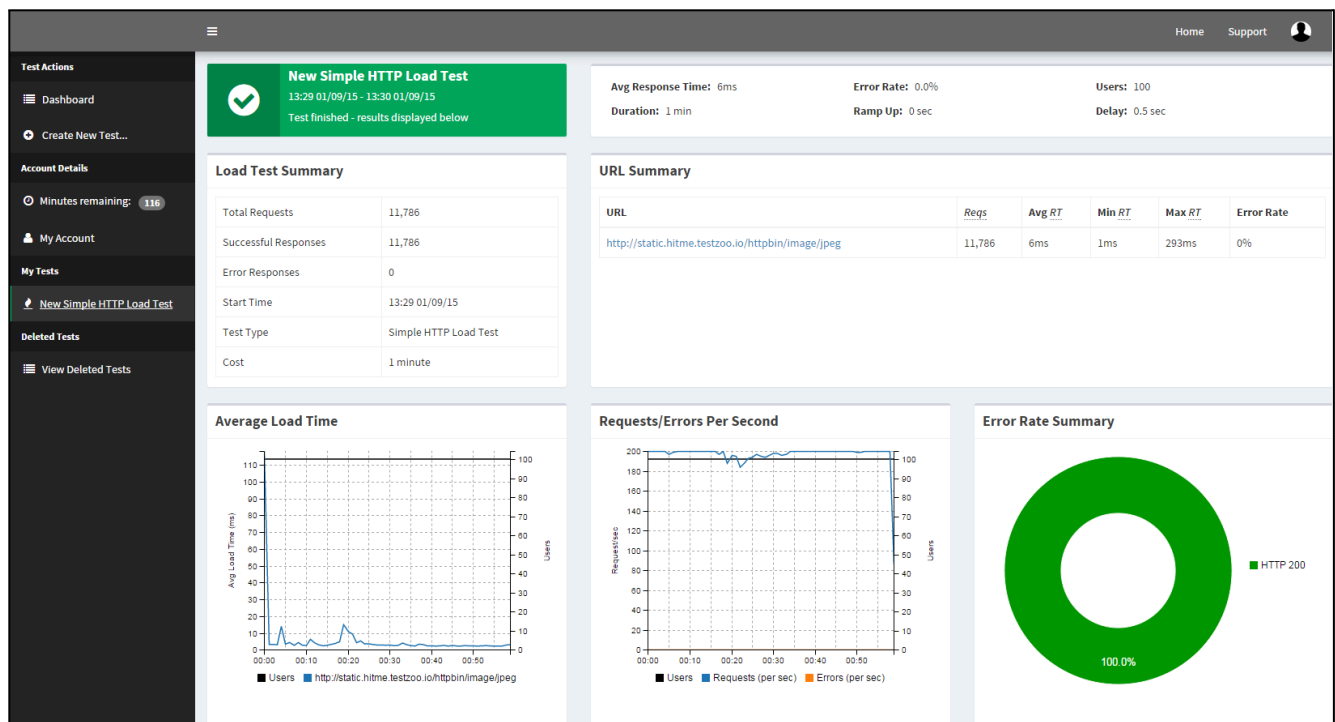


Figure 1 - Interactive dashboards can show web and API performance in real-time

User Friendly

The OCTANE platform allows even non-developers to automate user scenarios through recording of user interactions, whether on websites or desktop applications with the ORQA robotic agent. These can be uploaded to the OCTANE platform which can execute these tests distributed across nodes of any type, including the ability to test against different browser types, browser versions, screen sizes, devices, and operating systems.

Metrics and Monitoring

The rich analytics dashboard allows teams to get a consolidated view of behaviour and customise tools according to their specific environment. Metrics and monitoring that may be implemented include: checking disk space, CPU, and memory usage; response times to HTTP requests; page load times; correctness of display in different browsers, versions, devices, screen sizes and operating system; responsiveness of site under load; business transaction simulations.

Platform Flexibility

The OCTANE platform can be implemented anywhere: in private or hybrid cloud, or on any cloud IaaS vendor platforms (including Azure and AWS) and run as a Managed Service (SaaS-style) or in cooperation with client staff or partners. Our consultants can work with you to design private implementations and to determine appropriate cloud platform choices, or you may wish to utilise our public cloud instances for out-of-the-box solutions without requiring any consultancy, working on a pure licence basis.

Record and Playback

ORQA’s record and playback functions allow any user to record scenarios for websites and desktop applications and use these as metrics for complex business interactions. For example, one may record the process for signing up a new user, creating and running a customised search, and downloading the results to a PC.

Such a process can be recorded once, parameterised to change data over time if required, and uploaded to OCTANE to be run on a scheduled basis, providing a full history of real performance observed by the users of your service.

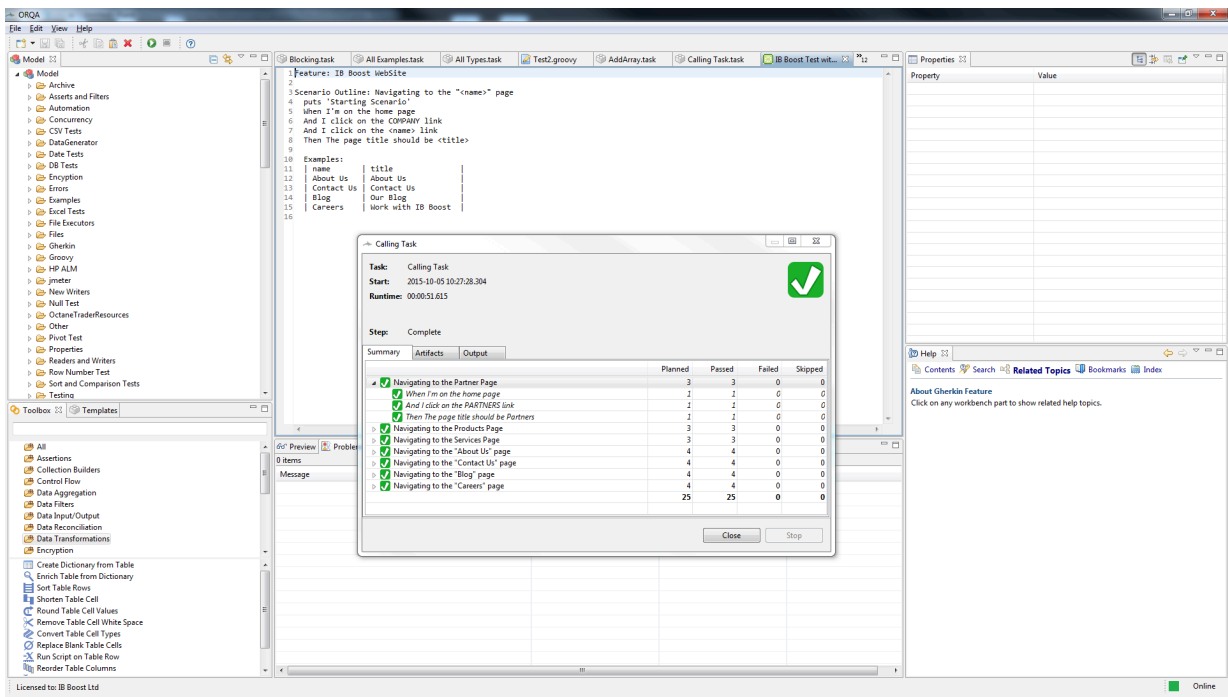


Figure 2 - Design your own process integrations and web monitoring processes

Alerts and Notifications

A powerful alerting and notification system allows all such monitoring metrics to be handled as you wish with email alerts, social media integration, web service API and dashboard graphical notifications to ensure service levels are met 24 hours a day.

Response Actions

With ORQA automation you can even record recovery or response actions to take place when certain situations are observed, which further expands the abilities of your system to recover from abnormal situations. For example, you may wish to archive certain log files should free disk space be getting low.

System Integrations

Integrations with issue and defect tracking systems are also possible with ORQA, ensuring that observations in production are always appropriately tracked in the development organisation with the relevant details.

The ORQA tool can be used to interactively run customised Gherkin / Cucumber tests locally and then upload them to the cloud for scheduled execution and rich monitoring of web applications.

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.

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|  One-click deployment automation and rollback |  Configuration management |
|  Faster development and test cycles |  Centralised log management and analysis |
|  Worry-free production deployments |  Application performance monitoring and response |
|  Abstraction from code |  Performance optimisation and stress testing |
|  Infrastructure orchestration |  Manual or repetitive tasks are almost non-existent |

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

- Monitor and manage APIs, websites, and applications in the cloud
- Modern, clean dashboard brings all your data together
- Instant, automated alerts and notifications to assist operations
- Artificial Intelligence (AI) and Machine Learning integrated with standard connectors
- Utilise different browser types, versions, devices, screen sizes for testing
- Run in cloud or private/on-premise solutions: customised or not
- Verify REST or SOAP API responses and performance
- Record common user interactions and play them back
- Easy-to-use, user-friendly system for non-technical users

BENEFITS

- Improved application availability and performance
- Reduced effort in identifying and resolving problems
- Reduced customer frustrations and service desk calls
- Improved user experience
- Benchmarks performance changes over time
- Provides additional assurance over effects of releases and events
- Centralise management of applications, customised for your needs
- Ensure third-party dependency APIs and services perform as agreed
- Measure SLA adherence and quality of services according to contract
- Better planning through observing effects of load and change