



IB BOOST LTD

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

OCTANE ENVIRONMENT MANAGEMENT AND REPORTING

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

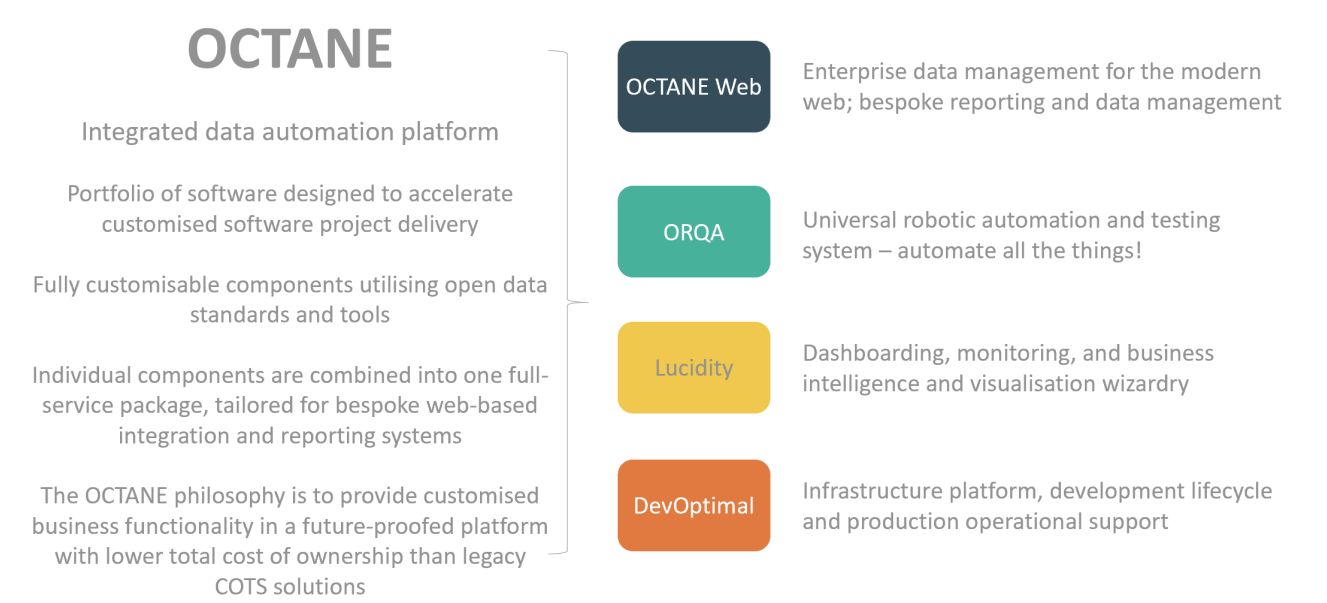
IB Boost’s OCTANE platform combines the rich visualisation capabilities for reporting and operational management with ORQA automation robots to provide a total application environment management and reporting capability. Suitable for managing complex production, test and development environments at scale in the cloud, OCTANE accelerates software and project delivery teams.

SERVICE OVERVIEW

OCTANE’s environment management modules allow organisations to monitor environmental health and performance across their application estate, giving a single portal into environment functions and the information required to provide continuous assurance for valuable services.

The OCTANE monitoring and management solution manages development, test, and production environments to ensure they are in a fit state of operational health and are built to required specifications. This is done through managing the creation, build, upgrade and support for all environments throughout the entire software development lifecycle, integrating various DevOps tools and procedures as appropriate.

The OCTANE platform can be implemented in private or hybrid cloud, or on any cloud IaaS vendor platform (e.g. Azure, AWS). We can help 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.



Issue Identification and Trends

Monitoring metrics and other integrated data can be historised and analysed over time to identify trends and allow retrospective reviews to be conducted. Users will see a high-level overview of the health of monitored environments and can also drill into the detail of individual subsystems to pinpoint issues. The software can be configured or extended with custom extensions to our automation and integration platform regardless of whether external APIs exist.

Alerts and Notifications

OCTANE's flexible alerting and notification system ensures operational attention is focussed on the most important issues. Endpoint connectors to email, APIs, messaging and chat clients, and even social media, can be included to ensure relevant stakeholders are kept up-to-date. By using powerful expressions and adapters to environment definitions, the system can also dynamically detect new environments and discover services, minimising the configuration changes required.

Metrics and Dashboards

Application metrics from environments and subsystems can be retrieved and stored, either directly or by interfaces into existing systems where appropriate, to leverage existing resources. Powerful visualisation capabilities allow highly customised, bespoke dashboards to be created based on your requirements to gather all the information points required, regardless of the source.

EXAMPLES OF METRICS AND MONITORING CAPABILITIES:

- 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 systems
- responsiveness of web sites under load
- business transaction simulation (execute your own user workflows automatically and benchmark the time for execution)
- database benchmarks and cache hit-ratios
- errors and anomalies detected in logs
- intrusion detection, traffic analysis and login statistics
- and many more...

Security and Encryption

Security of your systems is assured through the use of reverse SSH tunnels, API keys, and flexible security permissioning schemes to ensure your data always remains under control. Encryption is standard and 'deny by default' policies are used throughout the applications, whether on shared SaaS or private installations.

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.

Additional features

With ORQA automation you can even record recovery or response actions to take place when certain situations are observed, which further expands the ability 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.

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.

There is also capability for managing self-service environment requests on cloud architectures where new environments can be created on-demand according to need, eliminating unnecessary delays and costly excess capacity when tests are not being run.



Dashboards and publications – The rich analytics dashboard allows teams to customise tools according to their specific environment and get a consolidated view of behaviour. Custom, interactive dashboards can be created and shared amongst users using role-based security, and users and managers can view, analyse, and publish operational data from multiple sources in a single place.



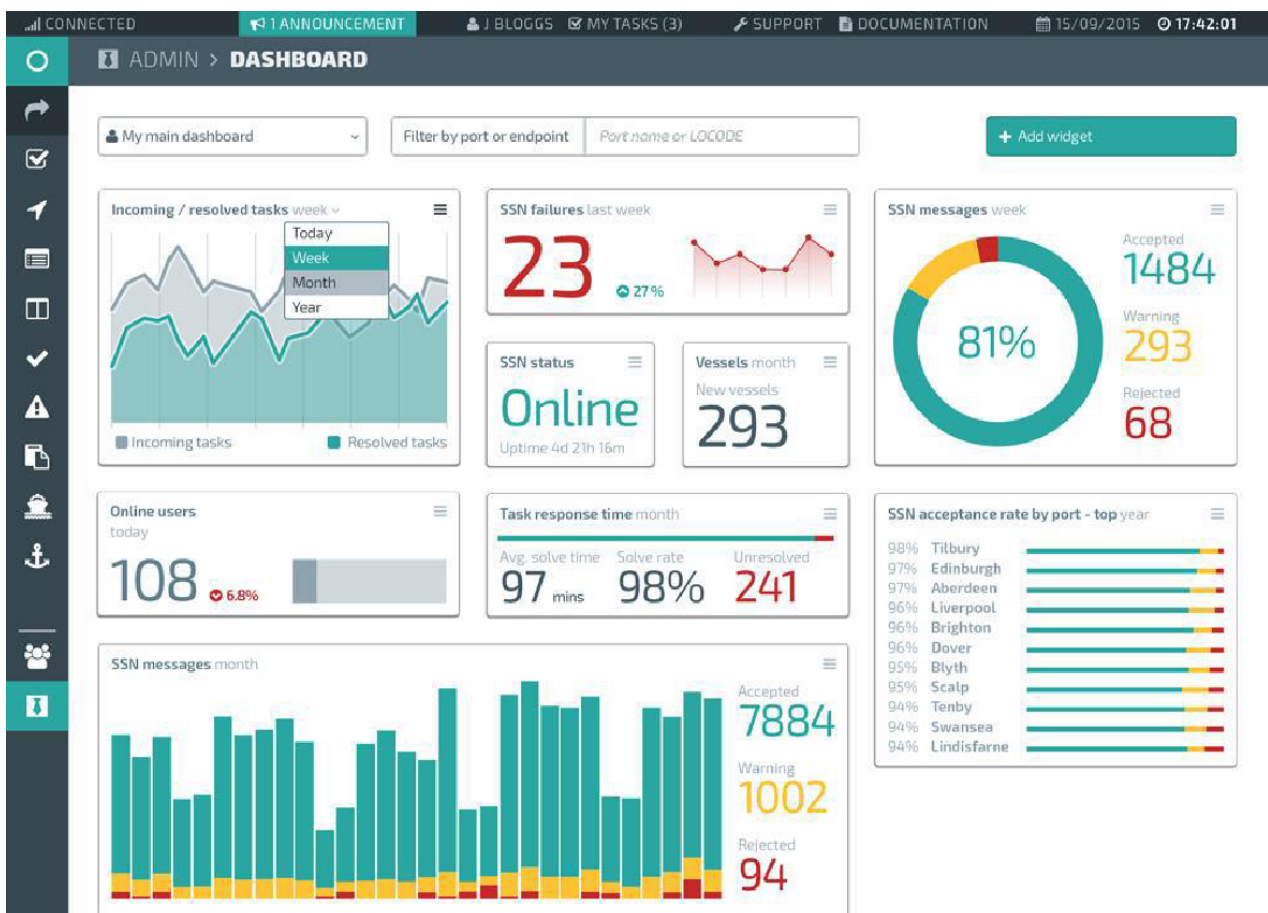
Integration – Combining the latest dashboarding technologies with data management tools like Pentaho means that Lucidity offers far more than any other single data provider. It also means that Lucidity is able to constantly update, upgrade, and stay on the cutting edge of reporting technology.



Responsive and personalisable – Whether you're viewing a dashboard on a mobile phone while on-the-go, or as a display projected onto an operations room wall, Lucidity can create a dashboard to fit the screen. At the click of a button, widgets can be re-sized to let users personalise their display to emphasise what matters to them.



Continuous feedback and reporting – Lucidity provides rapid continuous feedback and interactive reporting features. Out-of-the-box charts are available for viewing and analysing metrics, with data being stored in a time-series database. Pentaho Reporting provides a flexible yet simple-to-use reporting engine which gives users a self-service facility to create reports that adapt to data, as almost every property can be computed during report generation.



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 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.

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 user interface or APIs.

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.



One-click deployment automation and rollback



Faster development and test cycles



Worry-free production deployments



Abstraction from code



Infrastructure orchestration



Configuration management



Centralised log management and analysis



Application performance monitoring and response



Performance optimisation and stress testing



Manual or repetitive tasks are almost non-existent

FEATURES

- Monitor and manage infrastructure resources, APIs, websites and applications
- Modern, clean, customisable dashboard to bring all your data together
- Instant, automated alerts and notifications to assist operations
- Artificial Intelligence (AI) and Machine Learning integrated with standard connectors
- Safe and secure role-based access and authorisation controls
- Run in cloud or private/on-premise solutions; customised or not
- Integrate with defect and issue tracking systems for quality assurance
- Easy-to-use, user-friendly system for non-technical users
- Historical charting and graphic performance
- Self-service environment provisioning and lifecycle management

BENEFITS

- Improved application availability and performance
- Improved environment availability and test cycle duration
- Reduced effort in identifying and resolving problems
- Reduced customer frustrations and service desk calls
- Improved user experience through proactive anomaly detection
- Benchmark performance and metrics 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